

Weekly Weather & Crop Bulletin

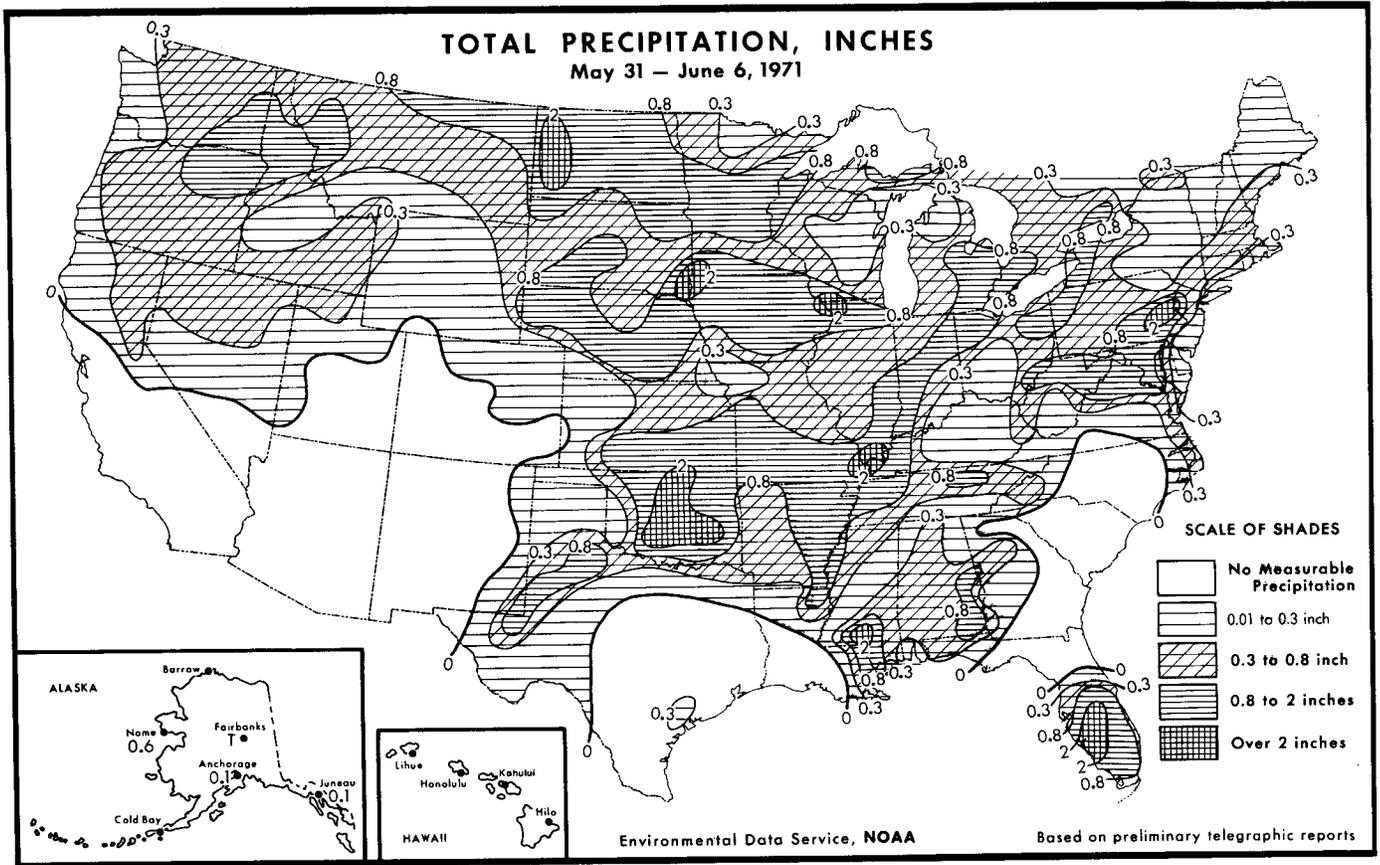
U. S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Environmental Data Service

U. S. DEPARTMENT OF AGRICULTURE
Statistical Reporting Service

Volume 58, No. 23

Edited by Lucius W. Dye

June 7, 1971 Washington, D. C.

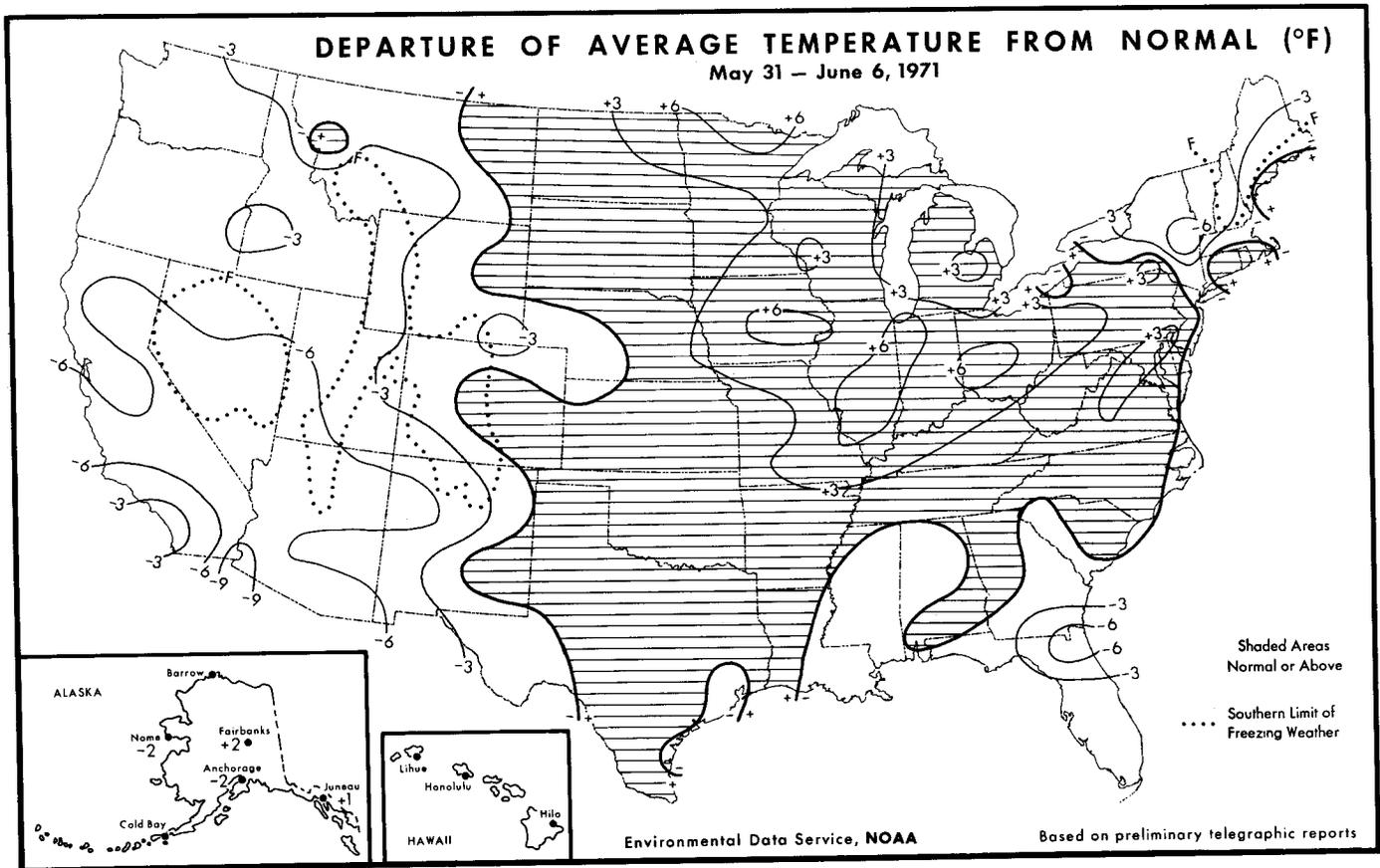


NATIONAL WEATHER SUMMARY

HIGHLIGHTS: Temperatures averaged cooler than normal over the West and warmer than normal over most eastern areas. Thundershowers soaked parts of the Great Plains.

PRECIPITATION: Scattered thundershowers dampened much of the northwest quarter of the Nation early in the week. Heavier showers soaked the central Great Plains. Tornadoes and severe thunderstorms occurred in the warm moist air that covered the central Great Plains and the Mississippi River Valley. Hail ranging from 1 inch in diameter to

as large as baseballs pelted some localities. Numerous tornadoes struck mid-America. The weekend brought a continuation of severe weather in the central Great Plains. A thunderstorm at Hasting, Nebr., was accompanied by hail as large as golf balls and wind gusts reaching 81 m.p.h. A number of tornadoes struck the northern and central Great Plains late Friday. Large hail and heavy thundershowers fell in northern Illinois Sunday afternoon, and heavy rains in Pennsylvania and West Virginia sent a number of small streams to near bankfull.



TEMPERATURE: The Far West remained relatively cool most of last week with maximums mostly in the 50's and 60's in the Northwest to the 80's in the Southwestern deserts. Minimum temperatures dropped to the low 30's on 1 or 2 mornings early in the week in parts of Nevada and the high Rockies. Flagstaff, Ariz., registered 27° Wednesday morning. Southern Texas remained hot throughout the week. Maximums along the lower Rio Grande averaged near 100°. Cotulla, Tex., registered 104° Wednesday afternoon. A high pressure area over the Southeast caused a southerly flow of moist tropical air to cover most of the eastern half of the Nation. Maximums reached the upper 80's or higher from the

Dakotas to the Gulf of Mexico Thursday afternoon. Grand Forks, N. Dak., Des Moines, Iowa, and Bowling Green, Ky., were among the stations which recorded 90° Thursday afternoon. High humidity added to the discomfort caused by the high temperatures.

The weekend weather was hot and humid over the eastern half of the Nation. The mercury at Waterloo and Burlington, both in Iowa, climbed to 94° Sunday afternoon when Columbus, Ohio, registered 93°. A cold front brought subfreezing temperatures to points in New England Sunday morning, 28° at Houlton, Maine.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Warm temperatures spurred corn and cotton growth in the East. * Soybean planting made good headway. * Pastures made good growth. * Dryland growers in Texas and Oklahoma resume planting.

SMALL GRAINS: Heavy rain and scattered hail caused some damage to the winter wheat crop on the central and northern Great Plains. Wet fields delayed small grain harvesting in Oklahoma, but combining should reach full scale activity this week. Statewide the crop is 8 percent in. Combining is also progressing ahead of last year in Texas with 14 percent of the wheat and 39 percent of the oats in the bin. Barley combining and some test cuttings of wheat started in southern Kansas. Barley growers were busy combining from central California into New Mexico. Combining made favorable progress throughout the South. Louisiana wheat and oats growers are nearing the halfway mark, while oats producers in other States have nearly 1/4 of their acreage cut. Combining was just getting underway in Kentucky, Tennessee and North Carolina.

Winter wheat and spring planted grains are growing and developing well in the Northern region of the Nation. Moisture is sufficient, but warmer temperatures would be welcome in the Northwest to spur growth. Spring seeding is nearly complete, but late week rains interrupted final sowing.

CORN: The first real hot week of the year stimulated corn growth in the Corn Belt. Plant growth was rapid as temperatures averaged 3 to 7 degrees above normal during the period. Moisture is adequate for optimum growth. Cultivating and spraying were major chores on many corn farms as weeds are also off to a fast start. Planting is completed except for some late fields in Nebraska, Indiana, Ohio and North Dakota.

In the South Central and Atlantic States, planting is nearly over for this year. Warmer temperatures aided growth throughout these areas. Tasseling started in early Alabama fields, with plants in early emerged Kentucky fields 8 inches high.

SOYBEANS: In the North Central States soybean planting made good headway. Over 90 percent of the crop is planted in Illinois and Iowa, the Nation's 2 leading soybean producing States. Over 80% of the Corn Belt acreage is seeded, well ahead of last spring's pace. Nebraska growers have fewer acres seeded this spring than normal, as wet fields have curtailed seeding.

Soybean planting moved ahead rapidly in the South. Dry soils slowed emergence in Georgia. However, rain enabled Oklahoma and Texas growers to move ahead rapidly with seeding.

COTTON: The warmest week of the year spurred cotton progress throughout the South. Plants made good growth as daytime temperatures were warm, but cool nights kept the crop from making optimum growth. Despite the warm weather, some poor cotton conditions still exist in Arkansas, Mississippi and South Carolina. Some fields in South Carolina were abandoned.

After last week's rain, planting of cotton in Texas made rapid headway. The crop is now 3/4 planted. Irrigated acreage in South Texas made good progress. California cotton in the San Joaquin Valley was hurt by rain. Squaring has started in the Desert areas.

OTHER CROPS: Warm temperatures aided haying operations in the Southeast. Many farmers in the North Central States cut their first fields, but rains slowed curing. Some hay was lost in Oregon due to poor drying weather. Setting burley tobacco acreage was active in North Carolina and Kentucky. Setting in Kentucky is 11 days late, with plants uneven in size. A plant shortage is becoming a problem to Tennessee growers. Maryland tobacco growers are also behind in setting this year's acreage. Late week rains halted potato planting in North Dakota. Aroostook County Maine growers have 85 percent of their acreage in. Cool weather has retarded growth on Long Island, New York.

Muddy fields restricted Virginia peanut planting. Favorable conditions aided growth in other Southern States. California rice growth is slow with some replanting occurring. The crop made normal progress in Arkansas.

Fruits and Nuts: Peach harvesting increased in Georgia and other southern and western States. Picking was just beginning on early North Carolina varieties. Florida citrus trees continue in good to excellent condition after drought breaking rains the last few weeks.

Bing cherry picking is at peak volume in California with cherry picking getting ready to start in Oregon. Good pollination weather occurred for the cherry crop on Wisconsin's Door Peninsula. The Washington apple drop appears to be heavy with the set only average in Michigan.

Vegetables: Vegetable planting in northern producing areas continued during the week. Cabbage, sweet corn, cucumbers, and snap beans were being planted on many farms. Development of most vegetable crops continues behind normal due to the cold spring weather. Strawberry picking continued its movement northward, with local supplies available in most areas. Picking should reach as far North as Long Island New York this week.

Sweet corn and watermelons lead the vegetable shipments from Florida, with most other commodities starting to tail off for the season. Supplies are becoming more abundant from southern Alabama, with cabbage also being cut as far North as Virginia's Eastern Shore.

PASTURES AND LIVESTOCK: Pastures improved and continue to provide lush grazing in all parts of the Nation; however, ranges are poor in the drought stranded Southwest and in parts of southern Florida. Warm temperatures and rain gave pastures from the Great Plains eastward a big lift. South Dakota livestock are grazing on the best pastures they have had in years. Pastures are also growing rapidly in the West, with prospects for summer grazing good to excellent. Movement of herds to higher elevation summer ranges will be very active this week.

Thundershowers in Texas and Oklahoma the past few weeks have brought some relief to the dry pastures in these States. Grazing conditions should improve. Ranges remain poor in New Mexico and Arizona with livestock marketing above the seasonal average.

Steve Pscodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., June 6, 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 . . .	75	- 2	.4	-.5	New Orleans . . .	77	- 1	1.3	+ .3	OKLA.Okla. City . .	77	+ 3	3.0	+1.8
Mobile . . .	80	0	.1	-1.2	Shreveport . . .	80	+ 2	.1	-.8	Tulsa . . .	76	+ 2	1.7	+ .6
Montgomery . . .	77	0	.5	-.2	MAINE.Caribou . . .	52	- 4	.2	-.7	OREG.Astoria . . .	52	- 4	.1	-.8
ALASKA.Anchorage . .	49	- 2	.1	-.1	Portland . . .	59	0	.6	-.1	Burns . . .	51	- 5	.3	+ .1
Barrow . . .	---	---	---	---	MD.Baltimore . . .	72	+ 3	1.9	+1.1	Medford . . .	57	- 4	.6	+ .3
Fairbanks . . .	58	+ 2	T	-.3	MASS.Boston . . .	64	- 2	.6	-.1	Pendleton . . .	58	- 4	1.5	+1.2
Juneau . . .	51	+ 1	.1	-.6	Nantucket . . .	59	---	T	---	Portland . . .	57	- 3	.2	-.2
Nome . . .	41	- 2	.6	+ .4	MICH.Alpena . . .	57	0	.7	0	Salem . . .	55	- 3	.4	0
ARIZ.Flagstaff . . .	47	- 8	0	0	Detroit . . .	67	+ 1	1.1	+ .4	PA.Allentown . . .	67	+ 1	2.3	+1.4
Phoenix . . .	75	- 5	0	0	Flint . . .	65	+ 3	1.2	+ .4	Erie . . .	62	- 1	.6	-.1
Tucson . . .	72	- 8	0	0	Grand Rapids . .	66	+ 2	.6	-.2	Harrisburg . . .	69	+ 1	1.2	+ .4
Winslow . . .	63	- 7	0	0	Houghton Lake . .	61	+ 2	.7	-.6	Philadelphia . . .	71	+ 3	.3	-.6
Yuma . . .	74	- 9	0	0	Lansing . . .	66	+ 2	.2	-.2	Pittsburgh . . .	70	+ 5	.6	-.3
ARK.Fort Smith . . .	76	+ 1	.4	-.7	Marquette . . .	59	+ 3	1.5	+ .8	Scranton . . .	66	0	.2	-.7
Little Rock . . .	75	0	.9	0	Muskegon . . .	63	0	.5	-.1	R.I.Providence . . .	64	+ 1	.1	-.7
CALIF.Bakersfield . .	68	- 6	0	0	S.Ste.Marie . . .	56	+ 1	.7	-.1	S.C.Charleston . . .	77	0	0	-1.1
Eureka . . .	---	---	---	---	MINN.Duluth . . .	60	+ 4	1.2	+ .4	Columbia . . .	78	+ 1	T	-.7
Fresno . . .	66	- 6	0	0	Internatl Falls . .	64	+ 7	.2	-.5	Greenville . . .	75	- 1	0	-.7
Los Angeles . . .	64	- 2	0	0	Minneapolis . . .	67	+ 3	.8	-.1	S.DAK.Aberdeen . .	65	+ 2	1.2	+ .5
Red Bluff . . .	65	- 7	.3	+ .2	Rochester . . .	68	+ 4	.7	-.3	Huron . . .	65	+ 2	.7	0
San Diego . . .	62	- 3	T	0	St. Cloud . . .	64	+ 2	1.7	+ .7	Rapid City . . .	61	0	.5	-.3
San Francisco . . .	55	- 6	T	0	MISS.Jackson . . .	76	- 1	.3	-.6	Sioux Falls . . .	65	+ 1	2.4	+1.5
Stockton . . .	65	- 5	0	0	Meridian . . .	76	- 1	.4	-.4	TENN.Chattanooga .	76	0	.1	-.7
COLO.Denver . . .	63	+ 1	T	0	MO.Columbia . . .	74	+ 3	.2	-.9	Knoxville . . .	74	+ 1	.4	-.3
Grand Junction . . .	66	- 1	0	-.1	Kansas City . . .	75	+ 2	1.5	+ .4	Memphis . . .	77	+ 2	.7	-.2
Pueblo . . .	68	+ 1	0	0	St. Louis . . .	76	+ 6	.4	-.6	Nashville . . .	74	0	.4	-.4
CONN.Bridgeport . . .	65	0	.2	-.6	Springfield . . .	74	+ 3	1.1	-.1	TEX.Abilene . . .	82	+ 5	T	-.8
Hartford . . .	65	0	.4	-.4	MONT.Billings . . .	57	- 4	.2	-.4	Amarillo . . .	75	+ 2	.2	-.6
D.C.Washington . . .	74	+ 3	1.4	+ .6	Glasgow . . .	60	+ 2	.9	+ .4	Austin . . .	82	+ 3	T	-.8
FLA.Apalachicola . .	78	- 1	0	-1.0	Great Falls . . .	55	- 1	.5	-.2	Beaumont . . .	80	+ 1	T	-.9
Ft. Myers . . .	---	---	---	---	Helena . . .	57	- 1	1.3	+ .8	Brownsville . . .	82	+ 1	0	-.9
Jacksonville . . .	73	- 7	0	-1.2	Havre . . .	57	- 1	1.3	+ .8	Corpus Christi . .	80	- 1	0	-.7
Key West . . .	81	0	.6	-.2	Helena . . .	51	- 5	.7	+ .2	Dallas . . .	83	+ 4	T	-.9
Lakeland . . .	---	---	---	---	Kalispell . . .	54	- 1	.8	+ .2	Del Rio . . .	83	0	T	-.7
Miami . . .	80	0	.8	-.8	Miles City . . .	61	0	.5	0	El Paso . . .	76	- 3	0	-.2
Orlando . . .	79	- 1	2.0	+ .8	Missoula . . .	57	+ 2	1.2	+ .8	Fort Worth . . .	80	+ 2	T	-.9
Tallahassee . . .	76	- 3	0	-1.4	NEBR.Grand Island .	69	+ 2	1.8	+ .9	Galveston . . .	80	0	0	-.6
Tampa . . .	78	- 2	.8	-.8	Lincoln . . .	74	+ 5	.5	-.4	Houston . . .	78	- 2	T	-1.0
GA.Atlanta . . .	76	+ 1	.5	-.4	Norfolk . . .	68	+ 2	1.6	+ .7	Lubbock . . .	78	+ 4	.8	0
Augusta . . .	75	- 2	0	-.6	North Platte . . .	63	- 2	1.1	+ .4	Midland . . .	79	0	.1	-.3
Macon . . .	79	0	.2	-.4	Omaha . . .	71	+ 4	.3	-.5	San Angelo . . .	83	+ 3	0	-.5
Savannah . . .	77	- 1	0	-1.0	Valentine . . .	65	+ 2	.5	-.2	San Antonio . . .	84	+ 4	T	-.7
HAWAII.Hilo . . .	---	---	---	---	NEV.Ely . . .	47	- 7	.2	+ .2	Victoria . . .	81	+ 2	.9	+ .2
Honolulu . . .	---	---	---	---	Las Vegas . . .	71	- 7	T	0	Waco . . .	82	+ 3	T	-.8
Kahului . . .	---	---	---	---	Reno . . .	50	- 7	.1	0	Wichita Falls . . .	83	+ 5	.3	-.6
Lihue . . .	---	---	---	---	Winnemucca . . .	53	- 4	.6	+ .4	UTAH.Blanding . . .	57	- 5	0	-.1
IDAHO.Boise . . .	59	- 2	.1	-.1	N.H.Concord . . .	59	- 3	.4	-.4	Salt Lake City . . .	58	- 5	.3	0
Lewiston . . .	57	- 4	1.3	+ .9	N.J.Atlantic City . .	66	- 2	.2	-.5	VT.Burlington . . .	56	- 5	.3	-.4
Pocatello . . .	53	- 5	.5	+ .2	Trenton . . .	69	+ 1	.8	+ .1	VA.Lynchburg . . .	73	+ 3	.1	-.7
ILL.Cairo . . .	---	---	---	---	N.MEX.Albuquerque . .	65	- 6	0	-.1	Norfolk . . .	73	0	.5	-.3
Chicago . . .	73	+ 6	.8	-.1	Roswell . . .	77	+ 3	T	-.2	Richmond . . .	74	+ 2	.1	-.7
Moline . . .	74	+ 6	.8	-.1	N.Y.Albany . . .	59	- 6	T	-.7	Roanoke . . .	73	+ 2	T	-.9
Peoria . . .	73	+ 5	.3	-.7	Binghamton . . .	63	+ 3	.2	-.7	WASH.Colville . . .	58	- 1	.5	0
Rockford . . .	---	---	---	---	Buffalo . . .	63	+ 2	1.7	+1.1	Omak . . .	60	- 3	.6	+ .3
Springfield . . .	77	+ 7	T	-1.1	New York . . .	68	- 1	.2	-.6	Quillayute . . .	49	- 6	.3	-.6
IND.Evansville . . .	76	+ 4	.9	0	Rochester . . .	62	- 1	.6	+ .1	Seattle-Tacoma . .	53	- 5	.3	-.1
Port Wayne . . .	72	+ 5	1.8	+ .8	Syracuse . . .	61	- 3	.4	-.2	Spokane . . .	54	- 5	1.1	+ .7
Indianapolis . . .	72	+ 4	.8	-.2	N.C.Asheville . . .	70	+ 1	.6	-.2	Walla Walla . . .	---	---	---	---
South Bend . . .	71	+ 6	.5	-.3	Charlotte . . .	76	+ 1	0	-.8	Yakima . . .	58	- 3	.4	+ .2
IOWA.Burlington . . .	74	+ 6	.7	-.3	Greensboro . . .	73	+ 1	0	-.8	W.VA.Beckley . . .	67	+ 1	.2	-.8
Des Moines . . .	73	+ 6	1.4	+ .4	Hatteras . . .	71	- 2	.6	-.3	Charleston . . .	72	+ 2	.3	-.5
Dubuque . . .	70	+ 5	2.0	+1.1	Raleigh . . .	74	+ 2	0	-.8	Huntington . . .	73	+ 3	.4	-.5
Sioux City . . .	69	+ 1	2.0	+1.1	Wilmington . . .	75	0	0	-.9	Parkersburg . . .	73	+ 4	1.7	+ .7
KANS.Concordia . . .	72	+ 2	.5	-.6	N.DAK.Bismarck . . .	61	+ 1	1.1	+ .5	WIS.Green Bay . . .	65	+ 3	.3	-.4
Dodge City . . .	73	+ 3	1.3	+ .6	Fargo . . .	64	+ 3	1.3	+ .7	La Crosse . . .	68	+ 2	.7	-.2
Goodland . . .	66	0	.1	-.5	Williston . . .	61	+ 2	2.2	+1.7	Madison . . .	67	+ 4	.2	-.6
Topeka . . .	73	+ 2	.5	-.5	OHIO.Akron-Canton . .	71	+ 5	2.1	+1.2	Milwaukee . . .	63	+ 3	.7	+ .1
Wichita . . .	76	+ 4	1.2	+ .3	Cincinnati . . .	76	+ 6	T	-.9	WYO.Casper . . .	58	0	T	-.4
Wichita . . .	76	+ 4	1.2	+ .3	Cleveland . . .	70	+ 5	.6	-.2	Cheyenne . . .	56	- 3	T	-.5
Wichita . . .	76	+ 4	1.2	+ .3	Columbus . . .	74	+ 7	.1	-.8	Lander . . .	56	- 2	.1	-.3
Wichita . . .	76	+ 4	1.2	+ .3	Dayton . . .	75	+ 7	.2	-.7	Sheridan . . .	56	- 2	.2	-.4
Wichita . . .	76	+ 4	1.2	+ .3	Toledo . . .	---	---	---	---	P.R. San Juan . . .	82	+ 4	.4	-.8
Wichita . . .	76	+ 4	1.2	+ .3	Youngstown . . .	68	+ 4	1.4	+ .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: Warmest week of year with temperatures reaching 90's all sections. Partly cloudy, warm, and humid with a few scattered showers all week, becoming general Sunday. Temperatures averaged much above normal. Rainfall light to moderate with a few locally heavy amounts. Farmers cultivating and fertilizing row crops, cutting hay, planting soybeans, and combining small grains. Cotton made good progress with warm daytime temperatures, but cool nights kept crop from making optimum growth. Corn made good progress; earliest fields tasseling. Dew Line confirms blight 5 additional counties; detected on volunteer T Cytoplasm plants. Peanuts good growth. Planting soybeans active. Combining small grains good progress south. Baldwin County's potato harvest peaked, yields low, quality good. Vegetable harvest increased south. Tomato yields poor southeast. Pastures good to excellent.

ALASKA: Growing degree days well below average. Freezing early in week isolated areas. Precipitation heavy southern Kenai Peninsula and Kodiak. Little or none elsewhere. Despite below-average precipitation, there is still adequate soil moisture for crop growth. Growth all crops improved by warm weekend temperatures. Higher elevations Kenai Peninsula snow covered or too wet for cultivation. High winds Tanana Valley resulted some crop loss. Planting crops Matanuska and Tanana Valley nearing completion, except vegetables. Livestock good condition. Prospect new feed growth fair to good. Pasture growth Kenai Peninsula still minimal. Some winter kill irrigated grass Matanuska Valley.

ARIZONA: Temperatures much below normal most of week rising to near normal by weekend. Strong winds and blowing dust in irrigated valleys in south. No precipitation. Cotton condition improving, although cool weather continues slow growth. First blooms opening Yuma. Few fields squaring Salt River Valley. Small grain harvest full swing Yuma and central Arizona, just starting southeast. Sorghum making good progress. Early Yuma fields reached bloom stage. Planting following small grain continues. Aphids problem Willcox area. Harvest sugar beets active Salt River Valley. Cantaloupe harvest increasing Yuma. Early fruit has good sugar. Lettuce harvest active Willcox area, quality good. Limited quantity valencia oranges, grapefruit being picked. Trees good condition, new crop fruit developing well. Ranges generally poor. Extensive supplemental feeding, water hauling continue. Marketings above normal, weights below average.

ARKANSAS: First warm and humid week of year. Temperatures averaged about 2° above normal and ranged in 70's. Extremes 55° to 97°. Local showers heaviest west-central and northeastward and along Mississippi River. Helena high with 2.09 inches. Crop prospects improved by warmer weather, especially cotton. Soil moisture excessive some northeast and east-central counties, adequate elsewhere, except short south. Much cotton still poor condition despite some improvement. Rice normal progress. Soybeans 60% to 65% planted. Good stands and growth generally. Feed grains show good progress. No reports Southern

Corn Leaf Blight, but conditions favorable for insects. Oats and wheat combining will begin next few days. Haying continued. Fruit and vegetable prospects mostly good. Marketing early peaches south. Good tomato crop nearly ready for picking. Pastures providing ample grazing.

CALIFORNIA: Average temperatures 6° to 8° below normal major parts of State. Eighth consecutive week with below-normal temperatures. Light precipitation northeast 1/4 on several days with amounts greater than 0.50 inch in mountains. Wheat harvest active Desert. Barley past halfway Desert; starting slowly Central Valley. Cut alfalfa hurt by rain Central Valley. Sugar beet progress good. Desert cotton setting squares; San Joaquin hurt by rain, damping-off. Corn good shape, but slow. Rice growth also slow; some replanting. Milo and bean planting continues. Harvest Coachella grapes well underway. Harvest Bing cherries at peak. Picking apricots increasing. Peaches, nectarines, plums continue good progress. Early varieties being picked. Harvest valencia oranges continues. Harvest lemons continues; over 60% complete. Picking grapefruit continues, good quality. Range feed good mountain areas; dry lower elevations. Movement to mountain ranges and feedlots increasing. Water supplies adequate. Egg quality improving; culling older hens. Broccoli-cauliflower harvest Salinas-Santa Maria moderate. Imperial cantaloupes increasing; Palo Verde to start June 11; Salinas and San Joaquin Valley carrot volume increasing. Oceano-Guadalupe celery increasing; Orange and Oxnard area continue active. Sweet corn Coachella and Imperial Valleys active. Salinas spring lettuce past peak. Good volume expected Salinas and Santa Maria this week. Imperial and Palo Verde onion harvest slowing. Potatoes Kern district expected increase this week. Watermelon shipments Imperial Valley increasing.

COLORADO: Temperatures near or a little above seasonal normals except for cold nights in some mountain areas. Scattered light rain except locally heavy amounts with severe thunderstorms extreme northeast. High winds several eastern plains areas. Spring planting, other fieldwork made good progress. Cool temperatures continue slow seed germination. Light to heavy hail damage northeast. Surface soil moisture adequate most areas. Condition small grain crops good to excellent. Spring-planted crops mostly good. Winter wheat 3/4 headed, small acreage turning color southeast. About 90% winter barley jointed, nearly 2/3 headed, limited acreage turning color. Nearly all spring barley and oat acreage up to stand. Corn seeding 96% complete, 73% emerged. Sorghum 2/3 seeded, 1/3 up. Dry beans 36% planted, 18% emerged. Sugar beet acreage 96% emerged, over 25% blocked. Most summer and fall potato acreage up. Ranges and pastures good. Cool weather slowing grass growth.

FLORIDA: Temperatures averaged 3° to 5° below normal north and central, slightly below normal south due to low minimum temperatures early in week. Little or no rain north; 0.30 to 0.60 inch elsewhere except near 1.00 inch Everglades and south coast. Rain mostly midweek and Sunday. Citrus trees good to excellent. Surface moisture adequate due to irrigation. More rain needed.

New grapefruit progressing well. Cover crops excellent progress. Soil moisture short most field crop areas. Peanuts good stand. Harvest flue cured tobacco to start soon. Shade-grown tobacco harvest continues. Southern Corn Leaf Blight: No change from last week. Blight present in 5 counties only on volunteer corn and T-Cytoplasm corn, to date of no consequence. Pastures poor to fair. Supplemental feeding continues. Cattle and calves good condition. Vegetable shipments increased led by sweet corn and watermelons. Harvest of other vegetables declining.

GEORGIA: Widely scattered showers, most areas receiving little or none. Last general rains May 15 and many sections quite dry. Mild beginning of week but warming trend brought highest temperatures of year by weekend. Dublin 100° Sunday and readings in high 90's common all areas except mountains and along coast. Averages ranged from 2° below normal southeast to 3° above normal northwest. Warmer weather favorable for crop growth, but insufficient moisture becoming factor. Planting and replanting crops other than soybeans and sorghums about complete. Soybeans seed germination hindered by dry soils. Hay harvest active. Small grain harvest increased. Cultivating, fertilizing, insect disease and weed control active in tobacco, fruits and nuts, peanuts, and cotton. Peach harvest increased. Considerable acreage crops destroyed by hail Burke County area May 28. Snap bean and cabbage supplies decreasing. Other truck crops making fair progress, but need rain. Trace corn blight found volunteer corn Bacon County June 1. Small amount found on T Cytoplasm indicator plot at Tifton.

HAWAII: Warm, dry, and favorable for crop growth and maturity. Soil moisture adequate. Harvesting sugarcane normal. Picking pineapples increasing seasonally. Papaya production increasing gradually. Supplies bananas light. Vegetable supplies adequate. Watermelon production increasing. Pasture and cattle condition fair to good.

IDAHO: Temperatures returned to below normal and averaged 3° to 9° lower than normal. Lowest temperature dropped below freezing in higher valleys last half of week. Heavy precipitation all divisions excepting moderate to light southwest. Heaviest totals north where Moscow recorded 3.02 inches, St. Maries 2.61 inches, Potlatch 2.55 inches, Coeur d'Alene 2.31 inches, and Nezperce 2.29 inches for the greatest totals. A new 24-hour June total was set at Moscow with 1.84 inches Wednesday June 2. Slow crop growth due cold and wet weather. Ranges responding with lush growth. Bean planting delayed. Hay harvest interrupted. Winter wheat good--heading southern areas. Pea disease causing concern.

ILLINOIS: Warm with thundershowers. Locally heavy with 3.00 inches in 45 minutes at Marshall. Precipitation ranged from 0.20 inch in central areas to 1.20 inches in southeast. Temperatures averaged from 63° in northeast to 77° extreme south. Tornado damage northeast Stephenson County on 1st. Corn condition good to excellent. Rain, warm weather encouraged rapid growth. Cutworms minor problem scattered areas. Fields weedy many areas, cultivation active. Soybean crop 90% planted, 85% last year. Crop good to excellent. Some replanting southeast due flooding. Rains and warm weather beneficial. Wheat good to excellent. All wheat headed, 75% reached filling

stage, 10% turning yellow. Army worms minor problem some areas south. Oats good to excellent most areas, 30% headed--same as year ago. Alfalfa hay 40% cut, red clover hay 30% cut, both crops good to excellent. Alfalfa weevil reported west and southwest. Pastures good to excellent. Apples, peaches good to excellent. Fruit set heavy. Soil moisture 29% short, 55% adequate, 16% surplus. Five suitable work days, cultivating corn, planting soybeans, haying, pesticide application main activities.

INDIANA: Warm week, 5° to 8° above normal. Highest temperatures in low to mid-90's. Thunderstorms early and late in week provided spotty heavy rain and some hail. Most areas received some rain but rainfall continues to lag, greatest deficiencies west-central, northwest and north-central. Evaporative losses were excessive, week's total over 2 inches. Higher humidity than usual plus warm temperatures favored rapid growth. Four days suitable fieldwork. Topsoil moisture rated mostly adequate to surplus. Subsoil moisture rated adequate. No blight yet. Corn 95% planted, 80% average. Corn 85% emerged and stands fair to mostly good. Corn 5 inches high, 4 inches average. Soybeans 75% planted, 55% average. Soybeans 50% emerged and stands fair to mostly good. Soybeans 2 inches high, same as average. Wheat 80% headed, 5% ripening. Alfalfa hay 30% cut. Clover 10% cut. Pastures fair to mostly good.

IOWA: Warm week with showers. Precipitation light south, moderate to heavy elsewhere. Temperatures about 5° above normal. Warm weather speeded growth and improved crop conditions. Corn up to 95% of normal stand. Mostly good, but ranges from fair to excellent. Soybeans over 95% in. About 2/3 crop emerged. Progress about same as year ago, but little ahead average. Soybeans mostly good. Weed control for both corn and soybeans fair to good. First cutting alfalfa 15% complete while harvest clo-tim just getting underway. Condition oats, hay and pasture mostly good. Wet fields limited fieldwork, but over 5 days suitable for fieldwork. Topsoil and subsoil adequate. No change Southern Corn Leaf Blight situation. Cases found in 5 counties, but infection extremely light. No problem at present time.

KANSAS: Moderate to heavy rains east-central and southeast, generally light to moderate elsewhere. Locally over 5.00 inches parts east-central. Temperatures averaged above seasonal south-central and southwest, near normal elsewhere. Scattered hail several days but damage not widespread. Barley harvest and test cutting wheat began extreme south. Small grains generally filling well, but some additional damage from hail and streak mosaic. Wheat virtually all headed with 25% turning color, compared with 67% last year, average 39%. Corn and sorghum grain growth responded to warmer weather. Some replanting necessary. Sorghum planting 47% complete, 52% year earlier, 48% average. Corn laid by 8%, same year earlier. Soybeans 44% planted, 37% year earlier, 58% average. Alfalfa 72% cut by weekend, 76% last year and average. Pasture feed mostly good with additional moisture. Few livestock lost in floods.

KENTUCKY: Light to heavy rain in west, generally light or none balance. Rain mostly on 1st and 2d totaled from trace to 2.61 inches. Temperatures seasonal or below first 2 days, warm and humid

balance. Weekly averages 1° to 6° above normal, warmest in north and west. Sunny most days. Soil moisture 60% adequate, 10% surplus, and 30% short. Wettest areas western 1/3 and driest areas central and east. Five days favorable fieldwork. Soybeans 1/2 planted, slightly ahead last year. Corn 85% of full stand, with average height 8 inches. Replanting necessary many areas due insect damage and extended periods cool weather. Burley tobacco 30% set, 11 days later than normal. Dark types 40% set, also late. Plants in beds uneven in size and may take 2 to 3 pullings to set this year's crop. Plant supplies 70% adequate. Wheat ripening. Barley harvest underway western counties. First crop alfalfa hay 80% harvested. Pastures good to excellent. Strawberry picking full swing with good yields and excellent quality.

LOUISIANA: Temperatures slightly above normal northwest, 1° to 2° below normal other sections for 4th week. Extremes: 95° Ashland Wednesday; 51° Amite last Monday. Precipitation widely scattered summer-type thundershowers. Most places no rain. Few areas eastern 0.50 to more than 2.00 inches. Greatest 1-day total, 1.36 inches at Monroe 7 a.m. Wednesday. Weather generally favorable for fieldwork. Cultivation corn, cotton, sugarcane, and soybeans active. Rice being flooded and top-dressed. Harvest wheat and oats nearing halfway mark, yields fair. Haying active. Planting all crops except soybeans, sorghum grain, sweet potatoes, virtually completed. Soybean planting reached 75% completion, compared 85% year ago. Sorghum grain 80% in, sweet potatoes 60%. Dry soil slowing planting and seed germination some areas. Row crops generally need more moisture for good growth. Supply pasture feed below average.

MARYLAND AND DELAWARE: Warm and humid last 3 days. Temperatures averaged near normal to 3° above normal. Extremes mid-80's to low 90's, mid-40's to upper 50's. Totals from scattered evening and night thunderstorms, 2d to 6th, mostly 0.50 to 1.00 inch. Fieldwork interrupted by showers and wet soils. Corn planting practically finished. Soybeans 48% seeded, slightly ahead normal. Tobacco setting slowed, about 1/4 done, normal 1/3. Hay harvest progress behind normal. Green pea harvest started, snap bean picking for fresh market starting this week. Strawberry harvest ended southern shore counties, active central areas.

MICHIGAN: Temperatures for week averaged from near normal to 4° above normal. Cool early in the week but warmed through week becoming very warm and humid over weekend. Showers all areas occurring mostly early in week and over weekend. Heaviest rains of 0.75 to 1.50 inches in Upper Peninsula and eastern Lower Michigan. Much of western Lower Michigan still needs moisture. Dry soils limited crop growth southern 1/3 Lower Peninsula. Warmer weather stimulated growth northern areas. State averaged 5 days suitable fieldwork. Fall potatoes 80%, soybeans 75%, and dry beans 20% planted. Some poor stands corn. Herbicides failed to control weeds due dry weather. Hay crop short and late. Pasture feed supplies less than average southern 2/3 Lower Peninsula, but average elsewhere. First cutting hay started. Wheat heading southern counties. Apples set average, cherries below average. Onion development average, other vegetables below average.

MINNESOTA: Warm week with temperatures 3° above normal in the south and 7° above normal along Canadian Border. Extremes: 91°, 29°. Very wet week through southern 2/3 of State; northern

districts very dry, especially along Canadian Border. Rainfall generally of 1.00 to 2.00 inches fell south of Fargo-Duluth line, but several rainfall streaks of 3.00 to 4.00 inches common across area. Two tornadoes southeast of Albert Lea and northwest of Faribault causing minor damage. Wet weather slowed crop and fieldwork progress. Corn emergence near normal. Soybean emergence slightly later than normal. Percent spring-planted crops emerged: Corn 90, normal 81; soybeans 68, normal 73; oats 100, normal 86; spring wheat 100, normal 78; barley 100, normal 82; flax 88, normal 64. Cutting 1st crop alfalfa beginning, yield fair to good. Topsoil moisture adequate to surplus, except north half northern districts.

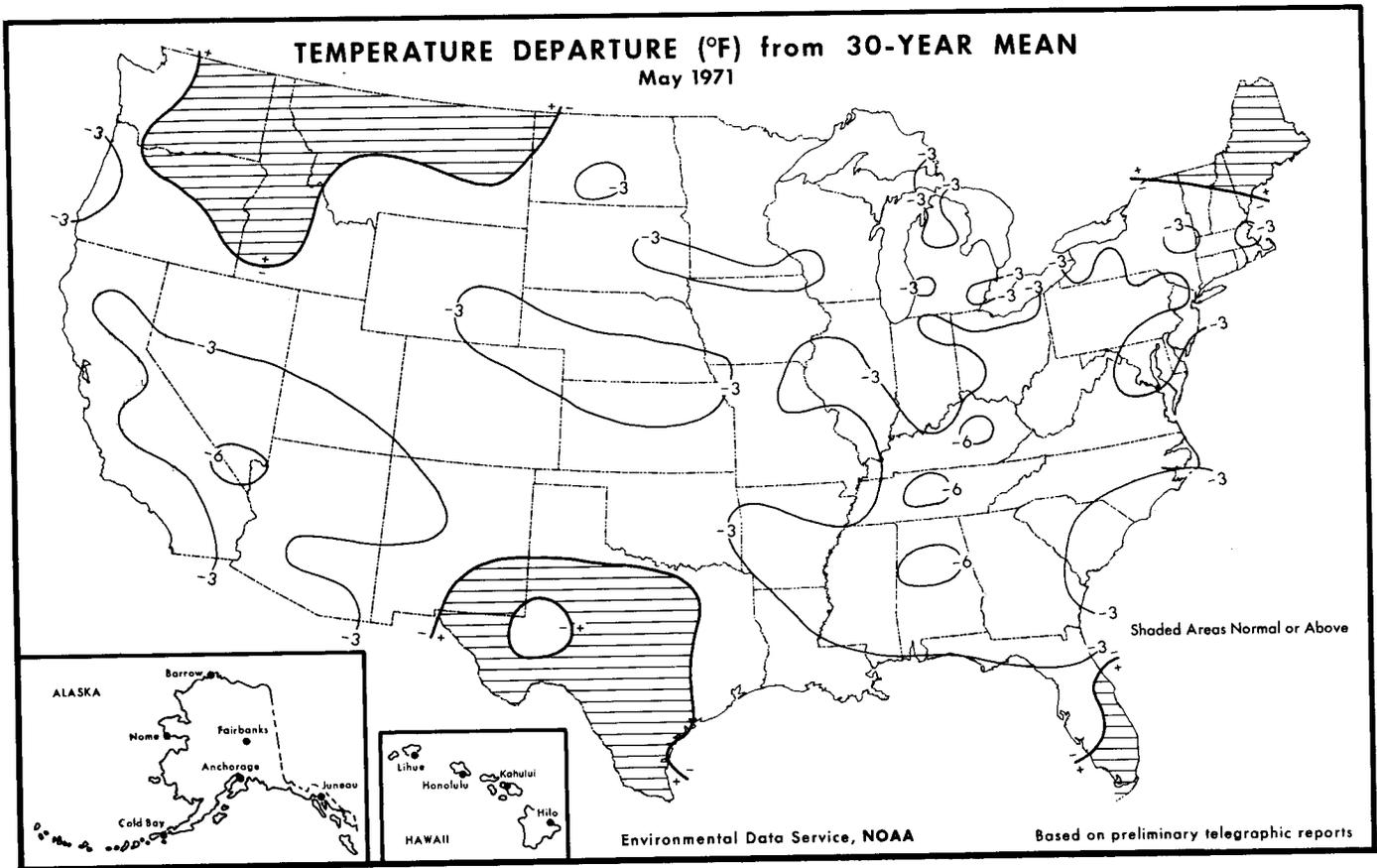
MISSISSIPPI: Fifth cool week. Most stations 5° to 8° below normal. Little or no rain central and south. Elsewhere mostly less than 0.60 inch. Widely scattered weekend thundershowers, most totals under 0.50 inch. Leland measured 2.60 inches Saturday morning. Winds overturned trailer at Drew Sunday; woman killed, child injured. Soil moisture very short to adequate Lower Delta and southeast, short to surplus northwest, other areas adequate. Average 5 days suitable fieldwork. Winter wheat 10%, oats 22%, hay 23% harvested. Soybeans 56%, corn 91%, sorghum 69%, sweet potatoes 62% planted. Cotton 3% squaring. Cotton poor to fair. Corn, rice, soybeans, truck crops, sweet potatoes, peaches fair to good. Pastures and livestock good.

MISSOURI: Week started cool but warmed rapidly after midweek. Temperatures in 90's were common over weekend. Showers across State Tuesday and Wednesday and western 1/3 of State Thursday. Amounts ranged from 0.30 inch east to over 2.00 inches portions of west and in Bootheel. Average 4 days suitable for fieldwork. Soybeans 81% planted. Grain sorghum 83% planted. Wheat 36% turning color. First cutting of alfalfa hay 65% completed with weevil damage to 38% of crop. Corn good condition. Wheat fair to good. Soil moisture adequate.

MONTANA: Mostly cool, rather wet most areas. Showers or thundershowers somewhere every day, some heavy. Precipitation generally moderate to heavy. Tornadoes near Billings and Lewistown and in 3 southeastern counties Wednesday and Thursday, some causing damage but no injuries. Ekalaka weekly total 3.24 inches. Topsoil moisture generally adequate. Winter wheat 10% excellent, 70% good and 20% fair condition. Winter wheat 30% boot stage. Spring grains 5% excellent condition, 80% good and 15% fair. Corn 95% planted. Flaxseed 90% and potatoes 85% planted. Alfalfa weevil damage very light. Sugar beets 22% thinned. Range cattle and sheep 90% moved to summer ranges.

NEBRASKA: Warm and cloudy with frequent showers. Field operations hampered some areas by rains and wet soils. Corn planting nearing completion. About 75% sorghums and soybeans planted, compared 91% normal. Farmers cultivating, hoeing and spraying weeds. Warmer temperatures over weekend beneficial to row crops. Wheat remains good to excellent. Local, severe hail few areas of Panhandle and central caused damage to crops. Sugar beet thinning slower than year ago. Alfalfa hay harvest slowed by wet weather. Livestock good with average to above average pasture and range feed.

NEVADA: Third consecutive cool wet week. Temperatures all stations averaged 6° to 8° below
(Continued on page 10)



WEATHER - MAY 1971

TEMPERATURE: Temperatures averaged below normal over most of the Nation in May. The main exceptions included an area from central Washington to the Montana-North Dakota border, western, central and southern Texas, and southern Florida.

Cool weather prevailed over the Southwest and the East early in May. On the morning of May 4, the thermometer at Rome, Ga., dipped to 32°. The Great Plains were warmer than normal. Laredo, Tex., registered 98° on the afternoon of May 7. Pleasant temperatures were widespread at midmonth. Mild spring weather lay over the Northeast in the 3d week of May but winter temperatures predominated in the West. On May 19, the temperature at Albuquerque, N. Mex., dropped to 34°, the coldest temperature of record for so late in the season at Albuquerque. The last week of May was colder than normal over most of the Nation. On May 28, the temperature at Yuma, Ariz., rose no higher than 68°; this is 30° colder than the normal maximum, 98°, for that date at Yuma. Much of the central Great Plains and the Ohio River Valley averaged 6° to 9° or more colder than normal in the last week of May.

PRECIPITATION: Cold rain and drizzle fell in the Northeast early in May. Seven inches of snow fell at Mt. Washington, N.H., Monday evening, May 3. A storm developed up in the central Rocky Mountains and moved slowly to the nearby Great Plains. Thunderstorms occurred in the Great Basin and the Rocky Mountains. Tornadoes touched down in the central Great Plains on May 5. Showers and thunderstorms occurred from the central and southern Great Plains to the middle Atlantic coast on the 6th, tornadoes struck scattered spots from Iowa

and Indiana southward to Texas and Kentucky. Thunderstorms popped out over much of the eastern half of the Nation. Hail as large as baseballs fell from some of the thunderclouds in Texas. The drought in the Florida Peninsula intensified.

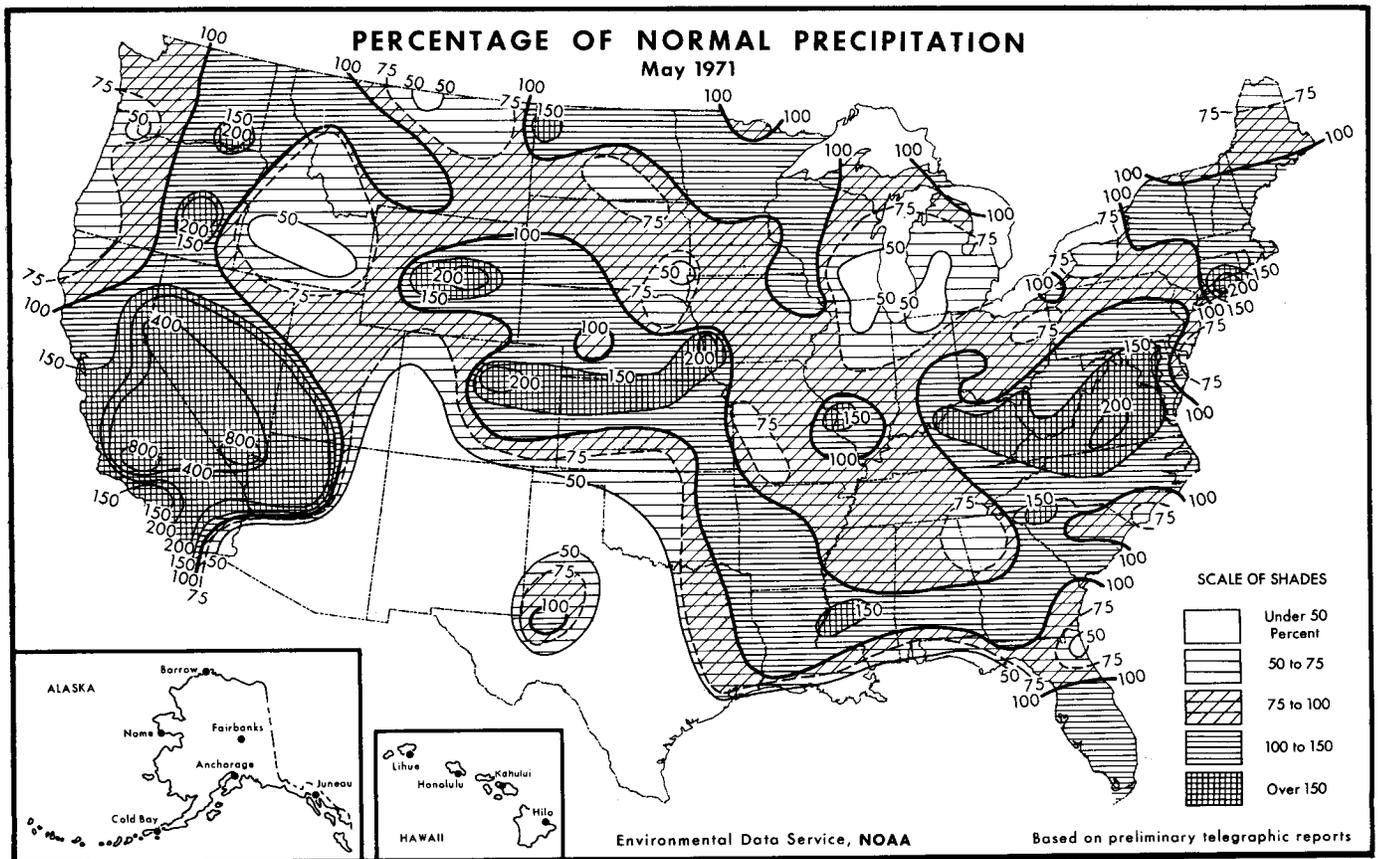
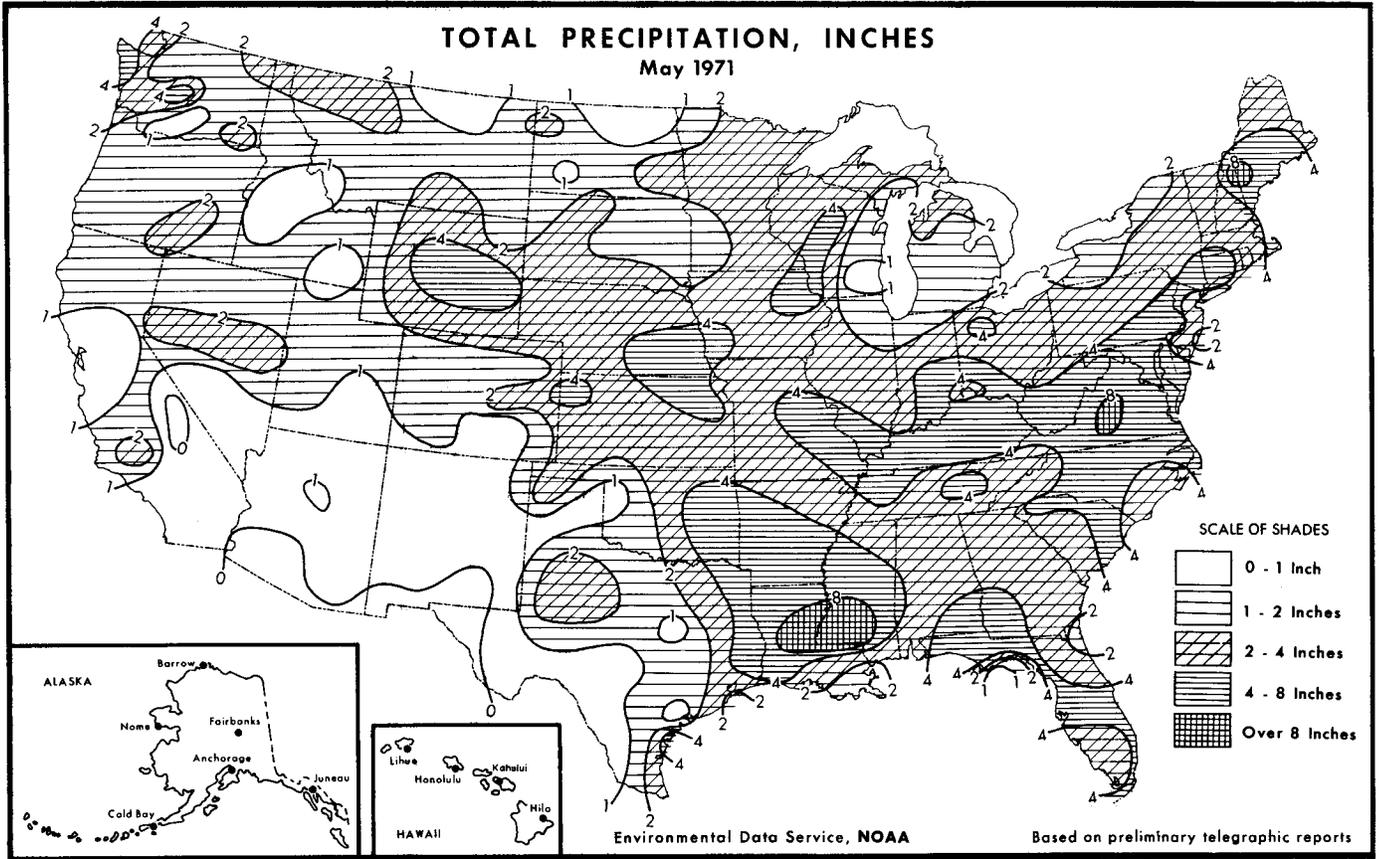
Heavy rains fell over portions of the central and southern Great Plains in the 2d week of May. About 5.50 inches of rain swamped Greenwood, Nebr., between Elmwood and Murdock in 45 minutes. The heavy downpours flooded fields and closed roads. The Florida Peninsula received some drought-relieving rains about midmonth. Parts of Texas received beneficial rains but other parts of the State continued dry.

A storm developed over Nevada in the 3d week of May. It spread several inches of snow over the northern and central Rocky Mountains and the northern Great Plains.

A storm system moved from the central Great Plains toward the Great Lakes in the last week of May. Warm humid air covered the area east of the storm. Showers, thunderstorms, and numerous tornadoes occurred in the moist air. Some previously dry areas from California to the western edge of the Great Plains received rain in the last few days of May. A storm moving northward along the Atlantic coast brought light to heavy rains to the coastal States. Some streams in western Maryland and the Virginias overflowed their banks.

Monthly totals exceeded 4.00 inches over much of the southeastern quarter of the Nation. A few spots in the Southeast received 6.00 to 8.00 inches or more. Very little rain fell along the Mexican Border.

L. W. Dye



(Nevada continued from page 7)

normal. Moderate to heavy precipitation in north averaging 0.30 to 0.50 inch. Elko, 0.96 inch, Wells 0.76 inch, very light and spotty in south-central. None in extreme south. Light snowfall in north first part of week. Plantings late season crops continue. Fall-planted crops good to excellent. Cutting 2d crop alfalfa hay started southern valleys. Cotton Pahrump Valley emerged, but growth hampered by wind and cool weather. Livestock good condition with calving 80% complete and lambing ending. Death losses about average. Shearing nearly complete, but no wool sales reported. Range condition and outlook good.

NEW ENGLAND: Few scattered showers 31st and more general showers on 3d and 4th, with scattered thunderstorms 3d. Otherwise dry. Weekly totals mostly from about 0.10 to 0.40 inch but locally higher in areas of heavier thundershowers in south. Temperatures averaged from 2° to 5° below normal except near or slightly above normal along Maine coast and over coastal sections of Connecticut and Rhode Island. Crops made good progress. Haying slowed by late spring but should start soon. Pastures providing excellent roughage. Planting corn for silage 75% complete. Potato planting Aroostook County, Maine, 85% complete. Planting peas for processing and oats will finish well ahead last year. Apples past bloom most areas and set looks good. Vegetable planting continues seasonally. Setting tobacco active with season running 7 to 10 days behind schedule. Cranberries late, but prospects good.

NEW JERSEY: This was the 11th consecutive week with below-normal temperatures in central and southern portions. Except for normal temperatures at Toms River and Millville, readings ran 1° to 4° below normal. In contrast, northern counties ran normal to 2° above normal for the 1st time in 11 weeks. The highest readings were in the 80's on the 4th and the lowest were in the low 40's on the 1st and 2d. Nocturnal thundershowers throughout the week. Northern, central, and interior sections averaged 0.70 inch and the coastal zone 0.30 inch. Soil moisture adequate most areas. Crop harvest increasing. Supplies asparagus, lettuce, spinach, escarole and other greens available. Harvest of cabbage and beets is light. Early-planted potatoes beginning to bloom. Strawberry harvest becoming general. Apples and peaches are sizing and spraying active. Germination and growth of early field corn and soybeans good, planting continues. Haymaking interrupted by showers. Barley coloring.

NEW MEXICO: Light showers extreme northeast. Continued dry elsewhere. Temperatures averaged much below normal in western half and above normal in eastern plains. Coolest Tuesday, warming to Saturday with 101° at Carlsbad. Soil moisture extremely short. Northeast and high mountains received some rain. Harvesting barley active. Wheat harvest should begin shortly. Dryland crop poor. Irrigated sorghum grain good. Some limited planting dryland acreage underway. Cotton fair to good. Second cut alfalfa active. Lettuce harvest active Valencia County. Onion topping underway Mesilla Valley. Ranges extremely dry and in poor condition. Livestock fair. Heavy supplemental feeding and water hauling.

NEW YORK: Temperatures averaged well below normal northeast 1/4, although gradual warming trend continued through week. Maximums low 80's on 4th and 6th, warmest since May 20. Cool nights early

week with minimums mostly 35° to low 40's Upstate on 1st and 2d. Showers southeast on 30th and 31st, totals 0.40 to 0.80 inch coastal to mid-Hudson Valley. Dry elsewhere until widespread showers on 2d and 3d. Totals 0.10 to 0.30 inch southern tier to Long Island up to 0.40 to 0.70 inch Lake Erie to Mohawk Valley. Upper Hudson and northern valleys averaged 0.30 inch. Favorable weather permitted good progress fieldwork. Soil moisture remains adequate most areas. Corn planting continued as main activity with most of crop in. Growth and germination slow. Haying beginning few areas. Pastures good to excellent. Potatoes 90% planted Upstate, while on Long Island cool weather retarded growth. Lettuce planting and celery transplanting main muckland activity. Sweet corn about 2/3 planted Hudson Valley. Cabbage transplanting active. Early snap bean plantings doing well. Hudson Valley fruit past petal fall stage. Western New York petal fall sprays being applied apples. Pear and sweet cherry set appears good. First picking Long Island strawberries expected this week, while harvest Upstate berries about 10 days away.

NORTH CAROLINA: Steadily rising temperatures averaged near normal. Highs climbing from 60's to 90's and lows from near 50° to near 70°. No precipitation in June except widely scattered showers west. Soil moisture adequate most areas with little change from previous period. Growing crops remain generally good. Planting most field crops near completion. Some soybeans later following small grains and spring vegetables. Burley tobacco transplanting active. Hay harvest 1/4 complete. Small grain combining just starting. Spring cabbage harvest continues. Blueberries nearing peak. Harvest early maturing peaches beginning.

NORTH DAKOTA: Heavy rains. Nearly all station amounts over 1.00 inch. Heaviest southwest and south-central. Temperatures averaged near normal southwest to 5° above normal northeast. Weeding small grains virtually complete. Rain late week halted planting corn, flax, and potatoes. Heavy rains and some hail damaged small plants local areas. Subsoil moisture supplies improved southeast, along with topsoil moisture supplies northeast.

OHIO: A tornado skipped across portions of Ottawa and Hancock counties on 2d. Torrential rains portions of Ohio 5th and 6th. Several funnels aloft on 6th. A warm humid week. Showers widespread 1st and 2d. Showers or thundershowers limited to northeast 3d, 4th, and over entire State 5th and 6th. West Millgrove Wood County received 2.80 inches of rain in just over 1 hour on 5th. Freedonia, Licking County, received 4.75 inches in 1 hour and storm total of 5.05 inches on 6th. Piketon reported 3.32 inches of rain on 6th. Days favorable for fieldwork 5. Soil moisture supplies 20% short, 60% adequate, 20% surplus. Corn planting virtually completed. Soybean 85% planted, last year and usual 65%. Transplanting tobacco 50% completed. Harvest alfalfa hay 1/3 finished. Same as 1970 and usual. Clover-timothy 1/5 completed, also same as last year and average. Wheat 80% headed, last year 85% normal 75%. Barley 85% headed. Oats 15% headed.

OKLAHOMA: Temperatures averaged near normal east-central to 7° above normal southwest. Extremes 100° and 44°. Precipitation ranged from 0.14 inch Panhandle to 3.05 inches central. Wet fields delayed small grain harvest. Light to heavy

hail and wind damage in north. Wheat harvest about 1/3 complete southwest and expected to reach full scale during current week. Wheat harvest 8%, oats 12% and barley 22% complete, somewhat ahead year earlier. Surface soil moisture much improved and planting row crops to move ahead rapidly in areas where moisture short. Corn essentially planted, 78% up. Cotton 35%, soybeans 59%, sorghum 48% planted; all sharply behind year ago. Peanuts 58% in. Some replanting row crops necessary result poor stands and heavy rains. First cutting alfalfa 87% complete. Pastures responding to recent moisture, grazing improvement expected.

OREGON: Mostly cloudy week with cooler rainy days mid-period. Temperatures averaged 2° to 5° below normal west of Cascades, 6° to 10° east side. Minima 28° to 45° east, 39° to 46° west. Maxima 56° to 65° along coast, elsewhere up to 87° at Hermiston. Rain and showers on 3 to 5 days totaled 0.10 to 0.40 inch along coast, elsewhere up to 0.80 inch except 1.50 to 1.60 inches 4 northeast counties. Continued cool, wet weather slowed development all crops. Some hay loss from wet weather. Growers making preparation for start of green pea, cherry and strawberry harvest. Calves and lambs doing well. Range and pasture feed excellent.

PENNSYLVANIA: Warm, humid. Severe thunderstorms Wednesday with tornado Erie County and golf ball size hail Colphin County. Temperatures averaged near to slightly below normal east half and 3° to 5° above normal west half. Mild first half of week and warm latter half. High 92° at Huntingdon 6th and low 34° at Bradford 1st. Showers and thundershowers with weekly totals generally 0.50 to 1.00 inch. Fieldwork good progress. Topsoil moisture adequate 1/2 and surplus 1/3. Corn planting 90% completed. Potatoes planting in progress. Barley headed and wheat 50% headed. Tomato transplanting starting, delayed by wet weather. Strawberries slow ripening. Growth sweet corn, snap beans, and tomatoes slow. Vegetables 1 to 2 weeks late. Cutting of asparagus continues with increased volume.

PUERTO RICO: Generally warm and dry in north coast and western interior with heavier showers south and east. Averaged rainfall 1.30 inches or about 0.10 inch below normal. Highest weekly total 3.91 inches near west coast. Temperatures averaged 79° to 80° on coast and 74° to 75° interior or about normal. Highest maximum, 94°; lowest minimum, 56°. Crop moisture near normal all divisions except too wet northern slope in eastern interior. Sugar-cane harvesting operations continued normally, except some interruptions in east due heavy rain showers. Good weather favored coffee zones where fertilizing and seeding operations made good progress. Pastures good to excellent. Minor crop zones active cultivating and seeding.

SOUTH CAROLINA: Temperatures averaged near normal. Lows of 44° May 31. Much warmer by end of week. Rainfall light and came early in the week. Amounts averaged 0.30 to 0.40 inch in the Piedmont and 0.50 to 0.60 inch in coastal plain. Soil moisture short most Piedmont, southern sand hills, upper coastal plain. Active week fieldwork. Tobacco condition good to excellent. Bud worms main insect problem. Condition cotton stands, plants mostly fair. Some acreage abandoned. Corn good. Soybeans 61% planted. Plants good to excellent, stands mostly good. Sorghum 52% planted. Peaches fair to good. Harvest active coastal plain, light ridge and sandhills. Small grains 95% turned color, 50% ripened. Oats 17% harvested wheat 7%

cut. Pastures mostly good. Vegetables and melons fair to good.

SOUTH DAKOTA: Weekly temperatures averaged from near normal to 4° above normal. Extremes ranged from 36° near Centerville on the 1st to 89° at Menno on the 3d. Showers and thundershowers scattered through week with locally heavy amounts end of week. Weekly totals ranged from about 0.50 inch to over 3.00 inches. Virtually entire State has adequate or above topsoil moisture. Growth and development small grains and grasses mostly moderate to rapid. Broad leaf weeds wild oats becoming problem. Damp cloudy weather slowed growth row crops and made weed control measures difficult. No Southern corn leaf blight. Soybean planting nearly completed. Sorghum planting slow at 66% complete. Percent small grains at or past boot stage; oats 28%, spring wheat 23%, barley 23%. Winter wheat virtually all boot or past with 36% in head, winter rye nearly all headed. Corn average height 3 inches and 22% cultivated 1st time. Pastures excellent. Many pastures best in years.

TENNESSEE: Week began warm, ended very warm and humid. Widespread thundershower activity at mid-week and late in period. Precipitation highly variable, but local amounts ranged up to 1.50 inches. Warmer temperatures boosted cotton, corn growth. Haymaking, tobacco setting main activities. Corn, cotton cultivation and barley harvest started. Soybean planting and little planting or replanting corn continue. No new corn blight. Boll weevils feeding in terminal buds southern cotton counties. Snap bean planting well along Cumberland Plateau. Tobacco 80% set. Tobacco plant shortage problem due lateness and uneven development seedling beds. Cotton planting about completed. Corn 95%, soybeans 75% in. Wheat 75% turning color, 5% ripe. First harvest expected this week. Barley 80% turning color, 40% ripe. First cutting alfalfa 95% harvested. Pastures fair to good, declining seasonally. Soil moisture adequate most areas, but mostly short middle Tennessee. Days suitable fieldwork 4.8.

TEXAS: Precipitation confined mostly to scattered showers in West Texas. Weekly totals generally less than 1.00 inch; however, Littlefield caught 2.50 inches Sunday. Much more rain needed all sections. No important temperature changes during week. Planting of Plains dryland acreage made good progress after last week's rain. Showers covered much Plains area and should afford adequate moisture for planting and replanting. Harvest small grain crop making good progress. Irrigated cotton, corn, sorghum south making good progress while dryland crops continue to suffer. Thundershowers brought relief to dry ranges, but did not afford optimum benefit as runoff was heavy. Main activities planting, replanting, cultivation, irrigation, harvest small grains, tending livestock. Percent planted to date: cotton 76, 88 year ago; corn 99, 100 year ago; sorghum 81, 87 year ago; sugar beets 100, 100 year ago; peanuts 40, 51 year ago. Percent harvested to date: wheat 14, 6 year ago; oats 39, 26 year ago. Onion harvest past peak Winter Garden-Presidio, gets underway High Plains late June. Harvest most spring vegetables past peak Lower Valley, but declining supplies cantaloupe, honeydews, watermelons, cucumbers, peppers, tomatoes available for several more weeks. Laredo cantaloupe, honeydew harvest underway. Watermelon harvest active South Texas. High Plains vegetables good progress. Citrus harvest nearly completed. Peach prospects below normal. Harvest early varieties underway. Pecan prospects fair.

UTAH: Considerable scattered shower and thunderstorm activity forepart of week and northwest portion latter part. Accumulated moisture light to moderate but locally heavy few localities. Temperatures continued cool, averaging generally 4° to 11° below normal. Growth crops and range feed progressed moderately due cool weather. Soil moisture adequate in north, short south and central sections. Good winter wheat crop in the making. About 85% acreage jointed; 30% headed. About 15% 1st crop alfalfa hay cut. Fair to good yields expected. Sugar beet thinning nearing peak. About 40% acreage thinned to date. Utah fruit escaped serious freeze damage, except in leading Utah County where considerable loss occurred. Production prospects fair to good for apricots and cherries. Good green pea crop in prospect. Movement cattle and sheep to high elevation summer ranges about 55% completed, and will be very active this week.

VIRGINIA: Temperatures near normal 1st half and above normal 2d half. Some rain east 1st day and scattered showers and thundershowers 2d half. Fields muddy, fieldwork limited. Mown hay rained on, some lost. Yields improved from earlier. Planted some corn, soybeans and peanuts. Corn and peanut stands average. Setting tobacco. Barley and oats 1% harvested, heads filling well. Harvesting cabbage Eastern Shore. Sheep shearing continued. Pastures excellent.

WASHINGTON: West of Cascades: Cool and cloudy with light showers. Average temperatures 3° below normal. Pastures and peas growing rapidly. Warmer weather needed for corn. Harvesting lettuce, spinach, and radishes. Strawberry harvest expected later than usual. Raspberries full bloom. East of Cascades: Cloudy and cool with rain several days. Average temperatures 5° to 7° below normal. Rainfall amounts 0.50 to 0.75 inch central basin and south 1.25 to 2.25 inches east and southeast. Apple drop heavy. Asparagus cutting continues. Cutting alfalfa delayed by rain. Some hay damaged. Wheat looking good with heading well along early areas. Pastures good.

WEST VIRGINIA: Humid cloudy week. Light scattered showers June 2 and 3, heavier thunderstorms June 4 to 6. Temperatures below normal beginning of period but above normal from midweek on. Crop development rapid with adequate moisture and warmer weather. Fieldwork possible 4.5 days. Hay harvest hampered by rain. Tobacco setting started, plants scarce. Small grains and pastures greatly improved. Fruit prospects good, strawberry picking active.

WISCONSIN: Warm and humid tropical air overspread State after midweek. Maximum temperatures in upper 80's or low 90's over weekend. Rainfall light and scattered. Some showers extreme south Monday and Tuesday and across northwest 1/3 over weekend. Warm weather boosted corn growth. Corn planting finishing up. Spraying for weed control. State acreage 70% under chemical weed control. Haying getting underway, 5% cut. Small grains doing very well. Pastures improving, but still short much of dry southeast. Orchards blooming north. Good pollination weather for Door County cherries. Tobacco fields prepared for transplanting. Soil moisture 75% adequate, 25% short.

WYOMING: Much of State received from 1.00 to 3.00 inches moisture; Fort Laramie 11 NNW reported most, 3.94 inches. Temperatures averaged near to a little below normal. Maxima mostly 60's to low 70's west of Divide, 70° to low 80's east. Minima high 20's to mid-30's west of Divide, 30° to mid-40's east. Temperature extremes: 86° at Worland and 24° at Foxpark. Planting dry beans and potatoes neared completion. Corn 90% planted. Sugar beets, corn, and potatoes were 90%, 60%, and 65% emerged respectively. Dry beans 10% emerged. Sugar beets 20% thinned. Soil moisture adequate to surplus. Small grains and hay prospects good to excellent. Range and pasture prospects for summer grazing good to excellent.

WATCHING FOR CORN BLIGHT - 1971 STYLE

With Corn Belt States reporting most of their corn acreage seeded and many fields emerged, attention is shifting more and more to the possible spread and development of the Southern Corn Leaf Blight. Last year the rapid spread and severity of the blight caught farmers, researchers, and commodity markets by surprise. This year all concerned are determined that, should the fungus again invade the Nation's corn fields, there will be ample warning of its arrival. Various groups, representing Federal, State, and local governments, universities, and corn industry personnel, are engaged in a wide range of efforts to not only monitor the disease, if and when it develops, but also to investigate parameters that may influence its rate of development, its spread, and its severity.

One of the most ambitious programs, under the title of the 1971 Corn Blight Watch Experiment, will combine field observations of blight occurrence with remote sensing techniques, using infrared aerial photography of selected areas in seven Corn Belt States. Special measurements in various portions of the radiation electromagnetic spectrum (multispectral data) will be obtained over an "intensive study area" in western Indiana. Cooperators in this endeavor include the U.S. Department of Agriculture (USDA), the National Aeronautics and Space Administration (NASA), the State Cooperative Extension Services (CES), the State Agricultural Experiment Stations (SAES), the Laboratory for Applications of Remote Sensing (LARS) at Purdue University, and the Institute for Science and Technology (IST) at the University of Michigan. Beginning in mid-June, field observations and aerial overflights will be made at bi-weekly intervals. Information from the field observations will be analyzed by the Statistical Reporting Service of USDA, while the aerial photographs will be processed at NASA's Manned Spacecraft Center and then analyzed at LARS. The multispectral data will be handled by the LARS and IST groups. Results based on the combined analyses of field observations and remotely-sensed data will be released through the USDA.

Other regional cooperative efforts include the Dixie Early Warning Line (DEW Line) and the Southern Corn Leaf Blight Reporting Service. The DEW Line is a communication network set up in Southern corn producing states by Extension Plant Pathologists. Weekly communications among the Southern pathologists, and a few Corn Belt region pathologists, will provide a joint assessment of the current disease situation. The SCLB Reporting Service is a cooperative project between the Agricultural Research Service, USDA, and the State Agricultural Experiment Stations in corn producing states of the Midwest, South, and Northeast. A reporting network of "key pathologists" has been organized under the direction of the Regional Plant Pathologist, USDA, at Iowa State University. Spore samplers have been supplied to the field personnel, who will document the time of initial spore observations and make measurements of environmental conditions in the area to relate to spore occurrence and disease

development. Blight advisories will be issued periodically based on information received from the various States involved.

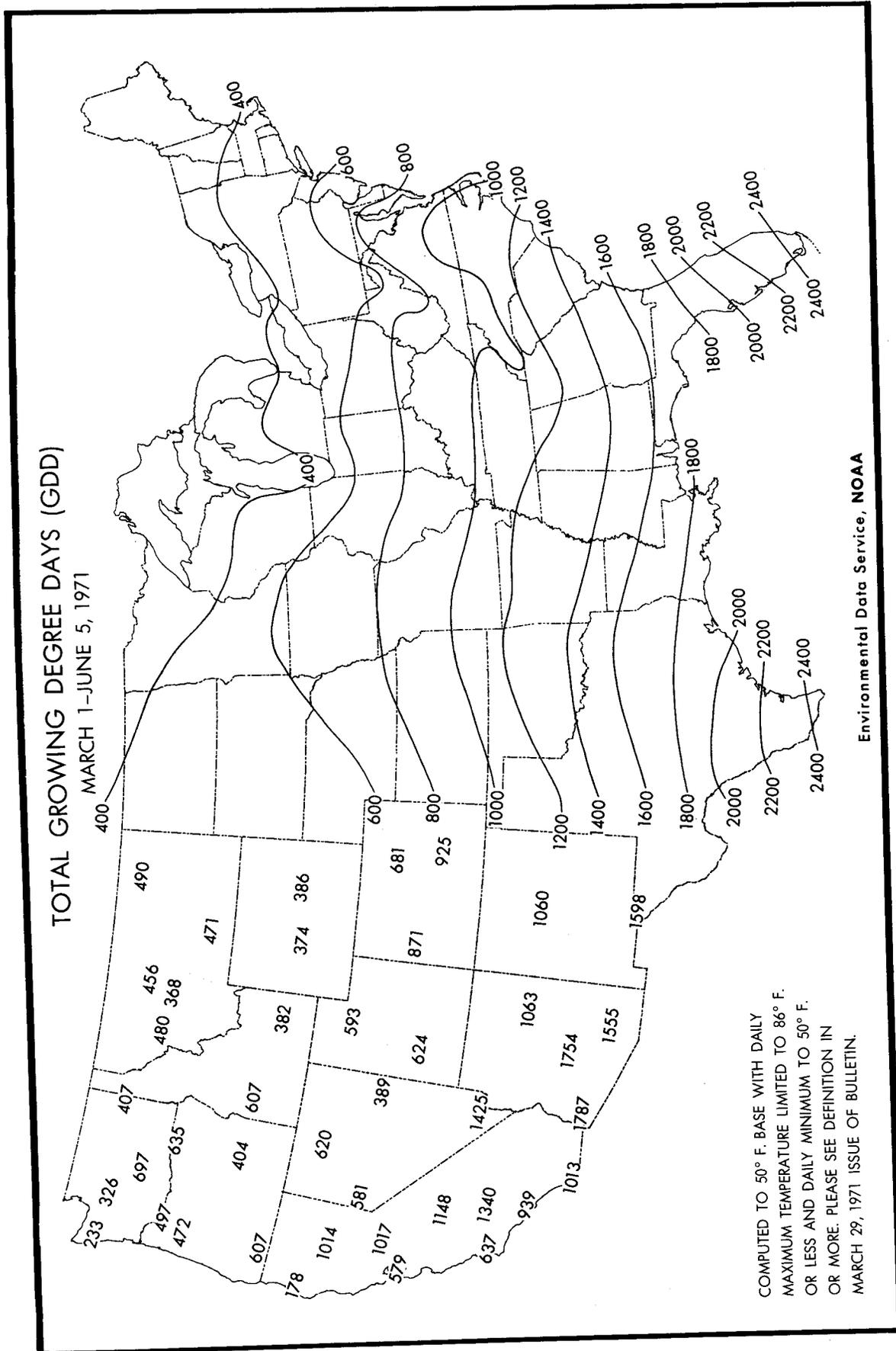
Various universities and State agencies will issue periodic reports on conditions in their State or local areas. Private and commercial organizations also will be closely following the disease situation. Some States have set up formal experiments to monitor any blight development in their region. The University of Missouri, for example, has established a network of about 20 plots around the State in which will be planted various corn hybrids that are known to be susceptible to a number of diseases, including Southern Corn Leaf Blight. Known resistant varieties will also be planted. These sites will be visited weekly and observed for any signs of disease. A few of the plots will be located near weather stations so that environmental conditions may be monitored along with the disease observations.

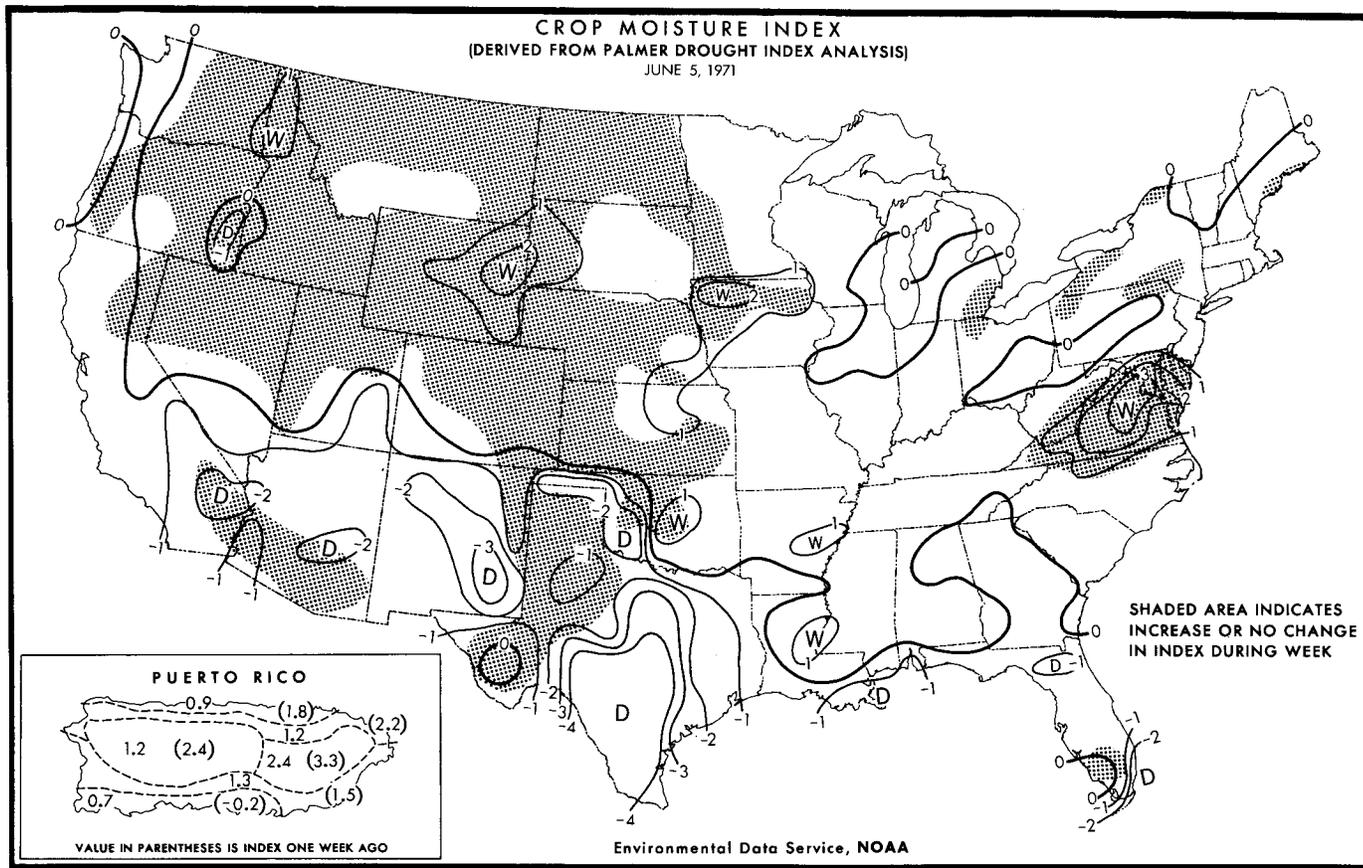
An interesting computer simulation of corn blight has been developed by Dr. Paul Waggoner at the Connecticut Agricultural Experiment Station. The simulation program uses 3-hourly observations of temperature, leaf wetness, darkness, and wind to continuously update an estimate of the presence and number of fungus spores on corn stalks, spore germination and penetration, incubating infection, and lesions. Tests of this program, called EPIMAY, using both laboratory and field data, have indicated that it is quite successful in estimating disease spread and development. Hopefully, the required real-time data will be available at sufficient stations this season so that experimental (probably weekly) estimates can be made of blight potential.

It is natural that in a situation such as exists with the corn blight problem there will be many rumors and unverified reports of blight occurrence and damage. Recognizing this fact, the USDA has set up the National Federal-State Information Center on Corn Blight for 1971. This center will cooperate with various USDA agencies, extension and university groups, and other organizations in assembling, evaluating and distributing summarized information concerning the corn blight situation during the coming summer. It will be to the advantage of all interested parties to check the source and accuracy of any blight information which is not released through official Federal, State, or university sources.

Our intent in the Weekly Weather and Crop Bulletin is to furnish up-to-date information concerning verified blight occurrence and damage, and especially to highlight environmental conditions that may influence spread and development of the disease. Our regular weekly State summaries will contain general information on conditions within a given State, and we will be in contact with Government and university personnel in the field to maintain current knowledge of the situation as it develops.

J. J. Rahn





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.

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

IMMEDIATE - U. S. Weather Report
This Report Will be Treated in All Respects as Letter Mail

FIRST CLASS MAIL



Postage & Fees Paid
United States Department of Commerce

This bulletin is available on subscription: Price per year \$5.00 domestic, foreign mailing \$1.25 extra; for period December through March \$1.50 domestic, foreign mailing 50 cents extra. Single issue 10 cents. Order from Superintendent of Documents, Government Printing Office, Washington, D. C., 20402. Released at 12 noon eastern local time Tuesday.

Publication of this bulletin began in 1872 as the Weekly Weather Chronicle. It is now issued under general authority contained in the Act of January 12, 1895 (44 USC 213), 53d Cong., Ill. Sess. Quotation or reproduction of this material is encouraged. Please give credit to this publication and, in case of special articles, to authors.

Questions, comments, and suggestions concerning the content are desired; please send to the Editor at the above address.