

Weekly Weather & Crop Bulletin

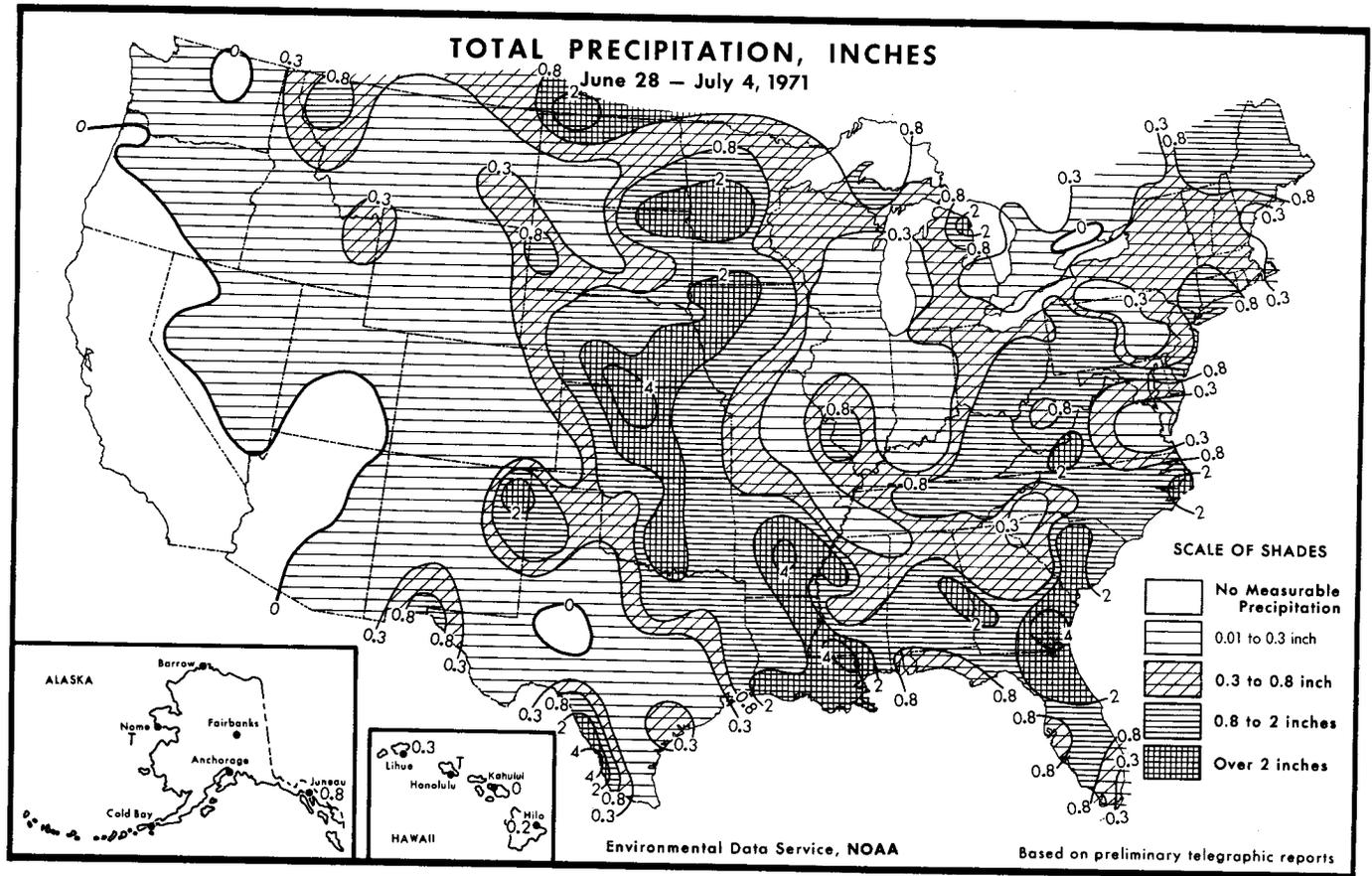
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Edited by Lucius W. Dye

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NATIONAL WEATHER SUMMARY

HIGHLIGHTS: The weather last week was typical of late June and early July. Some flood-producing thundershowers occurred in the central Great Plains. The Far Southwest was hot and dry, the Southeast hot and humid early in the week but cooled somewhat in the latter half.

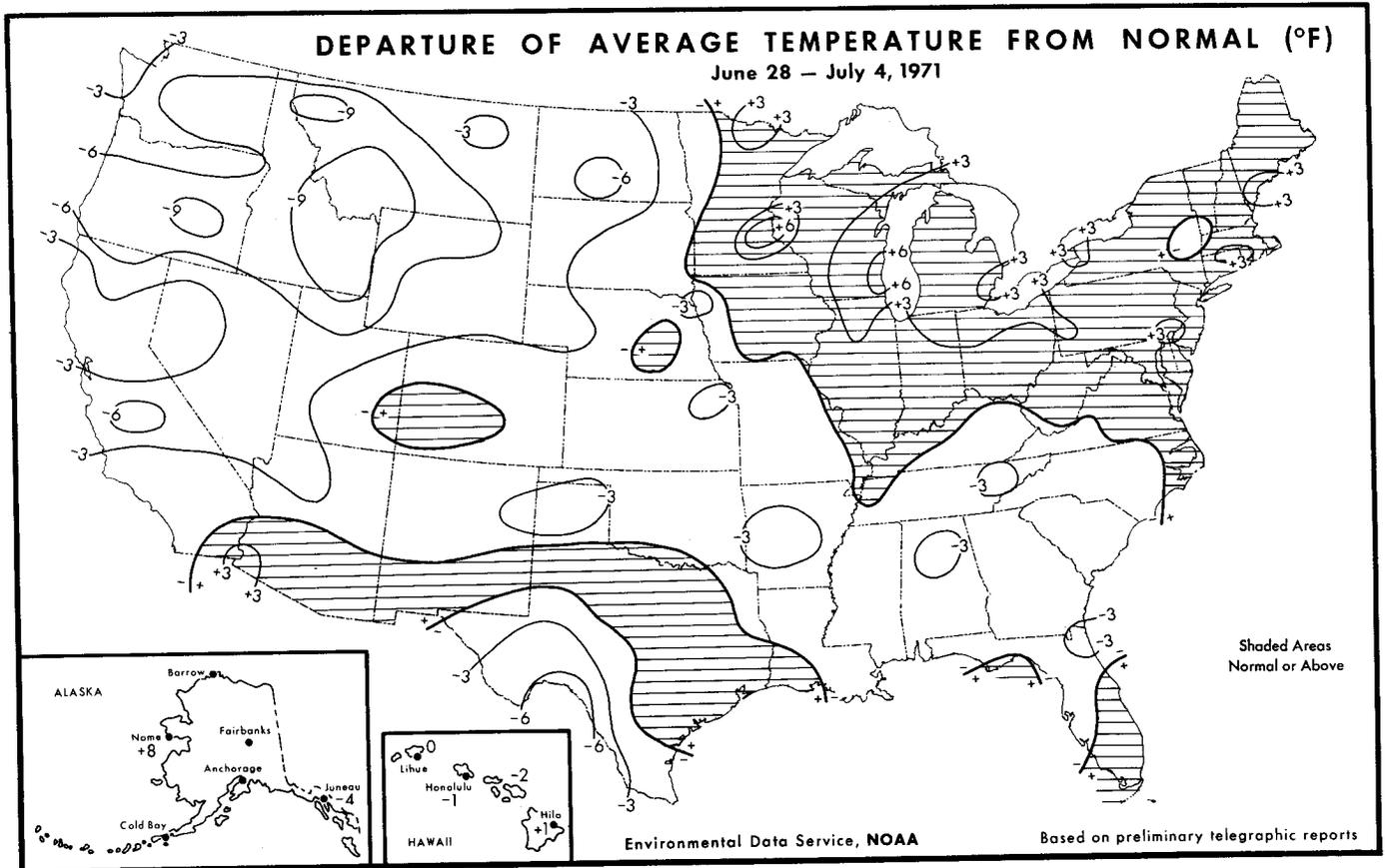
PRECIPITATION: Typical summer thunderstorms brought most of the rains last week. On Monday a cold front extended from Wisconsin to Nebraska. Heavy thunderstorms occurred near, in advance of, and behind the front. A 5-inch rain fell at Pipestone, Minn., Monday night and 6.00 inches fell at Jasper, Minn. Four to 6.25 inches of rain caused extensive flooding in the Asherton and Cotulla vicinities in Texas and Gonzales, Tex., about 60 miles east of San Antonio, received about 8.00 inches of rain. More heavy thundershowers occurred Tuesday night in Nebraska and

Iowa. Hastings, Nebr., received 3.25 inches and 3.36 inches fell at Ft. Dodge, Iowa, in the 24-hour period ending at 7 a.m. Wednesday.

By Wednesday the cold front extended from the Great Lakes to Texas. Showers and thunderstorms occurred along the front. No precipitation or only widely scattered light sprinkles fell in Southern California, Arizona, and New Mexico.

A few severe thunderstorms occurred in the East. Early Thursday afternoon a thunderstorm in the Roanoke, Va., vicinity was accompanied by winds gusting to 84 m.p.h. Later in the afternoon winds associated with a thunderstorm in the Lancaster, Pa., vicinity approaching 60 m.p.h., overturned and damaged aircraft. Most of the thunderstorms, however, were not severe but brought needed rainshowers.

Flood-producing thundershowers fell in



parts of north-central Kansas over the weekend. A station near Harlan, Kans., received 6.75 inches Saturday. Heavy showers fell in Kansas and other nearby States in the central Great Plains. Generous weekend rains also fell in the Southeast. Some weekend totals in Georgia and South Carolina approached or exceeded 3.00 inches. No rain or only widely scattered light sprinkles fell in California, Arizona, and nearby portions of neighboring States. The drought continued in western Texas.

TEMPERATURE: Hot humid weather prevailed early in the week from the central Great Plains to Pennsylvania and southward to the Gulf of Mexico. Bay City, Mich., registered 103° and Columbus, Ohio, 104°, Monday afternoon. The showers and thunderstorms brought slight relief to some vicinities. Cooler weather pushed into the northern border States Wednesday which was sunny and mild from the northern and central Pacific to the Upper Mississippi River Valley. Hot weather continued across the south from southern California to the Atlantic Ocean. Southerly winds swept hot humid air northward over the

eastern half of the Nation. Sultry weather persisted from the Great Lakes to the Gulf of Mexico and eastward to the Atlantic Ocean. By Wednesday the heat wave over the central Great Plains was broken: Norfolk, Nebr., registered 93° Tuesday but no higher than 82° Wednesday. As the weekend approached, drier air was moving southward over the north-central and north-eastern States. Afternoon temperatures in the 80's were common over the weekend in those sections. High humidity persisted in the Southeast. Weekend maximums exceeded 100° over the Far Southwest in southeastern New Mexico and north-central Texas. Elsewhere across the South from northern New Mexico to Mississippi, afternoon temperatures over the weekend were generally in the 90's. Weekly average temperatures exceeded the normals from Minnesota and Iowa to the Atlantic Ocean and as far south as the Ohio River; also from southern New Mexico to north-eastern Texas and in southeastern Texas. Elsewhere, temperatures averaged cooler than normal for late June and early July.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Wheat harvest rapid in Kansas. * Row crops made excellent growth. * Grape picking started in California. * Haymaking widespread.

SMALL GRAINS: Wheat combining made giant strides on the Great Plains. Combines worked long hours in Kansas as 46 percent of the crop was cut during the week. The Kansas wheat crop is now 79 percent in the bin. Rains interrupted combining in the northern part of the State, or else more of the crop would be under cover. Harvesting of winter wheat and oats is completed in Oklahoma, Texas and New Mexico. Oklahoma growers already have 1/2 of their wheat fields plowed.

Hot, dry weather pushed Colorado wheat combining and 24 percent of the crop is in. Repeated showers kept combines moving at a slow pace in Nebraska, where only 20 percent of the crop is cut, compared to 55 percent last year. Locally heavy hail caused crop damage in Nebraska's Panhandle. Harvest of fall seeded grains should start this week in South Dakota. Spring-seeded grains are turning color with combining only a short way off. Grain crops continue to look promising in North Dakota and Minnesota. Heading is well along. Moving to the West, winter wheat remains in good to excellent condition in Montana and Idaho. Start of combining in Washington is already more than one week late, but grain crops look good. California wheat harvesting is also in full swing under dry weather.

In the eastern half of the Nation, daily showers prolonged the end of harvesting in the Deep South. Combining dominated the farm activities in Tennessee where both wheat and barley are 90 percent cut. Barley harvesting is underway as far North as Pennsylvania. Wheat is ripening in New York and Wisconsin, with harvest underway in Iowa.

CORN: The western Corn Belt experienced another good week of growing weather -- normal temperatures and good rainfall. However, it was another dry hot week in the eastern Corn Belt. Soil moisture is becoming short over most of Illinois, but over 90 percent of the corn acreage remains in good to excellent shape. Hot temperatures caused leaf rolling in Illinois and Michigan. Crop development continues good over the entire Corn Belt, with even some early corn tasseled and 6 feet high as far North as Wisconsin. A large corn borer population is present in Wisconsin, due to last winter's deep snow cover. Other States with spreading infestations of corn borers are Iowa, Nebraska and South Dakota.

Corn made rapid growth along the Atlantic Coast and Southern States. Tasseling is very active in the South. Alabama and Georgia corn crop prospects are the best in years.

Severity of Southern corn leaf blight remains low. Hot, dry weather slowed development of the disease over much of the Corn Belt.

SOYBEANS: Soybean prospects continue good to excellent across the Nation. Rains boosted crop growth in the South and Great Plains. Soybeans are over 90 percent seeded in the South, with widespread seeding following small grain harvest active between rain showers. Many stands are uneven in the dry areas of western Illinois. About 20 percent of the crop is blooming in Iowa, with blooming started in Minnesota.

COTTON: Warm humid weather was nearly ideal for cotton growth and development throughout the South. Much of the acreage is squaring with bolls starting to set in many fields.

Texas cotton growers have finally finished seeding this year's acreage. Heavy irrigation is underway in the High Plains and Trans-Pecos areas. A buildup of boll weevils and bollworms is noted in southern areas.

Fields are starting to bloom in the San Joaquin Valley of California. Boll setting is underway in the Desert area, plus the Yuma area of Arizona.

OTHER CROPS: Sorghum planting continues on a limited acreage in the South, plus California. Rain aided the crop on the Great Plains, with heading started in Kansas and Oklahoma. Texas growers are irrigating on the High Plains. Haymaking was widespread throughout the Nation. Farmers were getting their first cutting in the North, while farther South some fields were being cut for the second and third times. Sweetpotato planting is ending in Louisiana. The crop outlook is good in both North Carolina and Louisiana, the two leading sweetpotato producing States. Digging of California potatoes is slow due to poor market conditions. Some Louisiana rice fields were drained in preparation for harvest. Growth of Kentucky tobacco remains uneven, but crop progress is improving. Rains slowed harvesting in Georgia, however 19 percent of the crop is gathered. North Carolina growers were busy harvesting types 12 and 13.

Fruits and Nuts: Daily showers interrupted peach picking in the South. Picking is well underway in most States, and moving northward. Sweet cherry harvesting is active from Oregon to New York. Tart cherry picking started in Pennsylvania. Apples and peaches are sizing well in New Jersey, but sizes are below average in Michigan. Hail damaged some fruit in Niagara County, New York.

Warm California weather pushed development of deciduous fruits. Grapes look good; with picking of the Thompsons seedless variety underway in the Cochella Valley.

Vegetables: Cold weather continued to plague vegetable development in the Pacific Northwest. Only cole crops are making good growth. Moving into California, picking of tomatoes for fresh market is active in the San Diego area. Vegetables are in seasonal supply from the South; with Georgia watermelon and cantaloupe picking nearing peak volume. Supplies of vegetables are available along the Atlantic Coast, with supplies declining from Florida, but increasing northward into New England. Non-irrigated crops are under stress in Michigan.

PASTURES AND LIVESTOCK: Good rains improved the pasture situation from the Great Plains eastward. Most herds are grazing on luscious grass. A good rain is needed from the Great Lakes to New England. Ranges are excellent in the West, however no improvement occurred in the dry Southwest. Livestock are in good condition, but are being bothered by flies.

Steve Pscodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., July 4, 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 . . .	78	-4	1.6	+ .5	New Orleans . . .	80	-1	3.1	+1.8	OKLA, Okla. City . .	80	-1	2.6	+1.8
Mobile . . .	82	-1	.6	+1.2	Shreveport . . .	82	-2	.9	+ .2	Tulsa . . .	80	-1	1.5	+ .6
Montgomery . . .	80	-1	1.1	- .1	MAINE, Caribou . . .	62	0	1.4	+ .4	OREG, Astoria . . .	56	-4	.1	- .2
ALASKA, Anchorage . .	---	---	---	---	Portland . . .	69	+4	.3	- .5	Burns . . .	57	-10	T	- .1
Barrow . . .	---	---	---	---	MD, Baltimore . . .	77	+1	1.2	+ .4	Medford . . .	62	-7	0	- .1
Fairbanks . . .	---	---	---	---	MASS, Boston . . .	72	+1	.5	- .3	Pendleton . . .	66	-5	T	- .1
Juneau . . .	51	-4	.8	- .1	Chatham . . .	66	---	---	---	Portland . . .	61	-5	0	- .3
Nome . . .	57	+8	T	- .4	MICH, Alpena . . .	68	+3	2.6	+2.0	Salem . . .	58	-6	.1	- .1
ARIZ, Flagstaff . . .	61	-3	0	- .3	Detroit . . .	75	+1	.3	- .4	PA, Allentown . . .	74	+1	.3	- .7
Phoenix . . .	91	+2	0	- .1	Flint . . .	74	+4	.3	- .3	Erie . . .	72	+1	1.3	+ .5
Tucson . . .	87	+1	T	- .3	Grand Rapids . . .	76	+5	.3	- .4	Harrisburg . . .	77	+2	.1	- .7
Winslow . . .	78	-1	0	- .1	Houghton Lake . . .	71	+5	.6	- .1	Philadelphia . . .	77	+3	.6	- .3
Yuma . . .	87	+4	0	0	Lansing . . .	75	+4	.5	- .1	Pittsburgh . . .	75	+3	.9	- .3
ARK, Fort Smith . . .	79	-3	1.7	+ .9	Marquette . . .	67	+2	.9	0	Scranton . . .	71	0	.7	- .3
Little Rock . . .	78	-4	4.5	+3.7	Muskegon . . .	74	+3	.2	- .4	R.I, Providence . . .	73	+3	.4	- .3
CALIF, Bakersfield . .	81	-2	T	0	S. Ste. Marie . . .	66	+3	.1	- .6	S.C, Charleston . . .	80	-2	2.6	+1.5
Eureka . . .	54	-2	0	- .1	MINN, Duluth . . .	65	+2	.5	- .4	Columbia . . .	80	-2	.2	- .5
Fresno . . .	71	-8	0	0	Internat'l Falls . .	66	+3	.8	- .1	Greenville . . .	78	-2	.2	- .5
Los Angeles . . .	69	-2	0	0	Minneapolis . . .	77	+6	.8	- .1	S.DAK, Aberdeen . .	70	-1	2.7	+2.0
Red Bluff . . .	79	-3	0	0	Rochester . . .	72	+2	.8	- .2	Huron . . .	71	-2	.5	0
San Diego . . .	66	-1	0	0	St. Cloud . . .	71	+2	3.5	+2.6	Rapid City . . .	73	0	.8	- .0
San Francisco . . .	59	-3	0	0	MISS, Jackson . . .	81	-1	.3	- .7	Sioux Falls . . .	78	-2	.5	- .5
Stockton . . .	75	-2	0	0	Meridian . . .	80	-1	.9	- .4	TENN, Chattanooga .	75	-3	1.2	+ .3
COLO, Denver . . .	70	-1	.1	- .3	MO, Columbia . . .	77	-1	T	- .8	Knoxville . . .	81	0	.1	- .7
Grand Junction . . .	77	+1	T	- .1	Kansas City . . .	78	-2	.8	- .3	Memphis . . .	79	-1	1.2	+ .5
Pueblo . . .	76	0	.1	- .2	St. Louis . . .	79	+2	1.0	0	Nashville . . .	85	+2	T	- .6
CONN, Bridgeport . . .	73	+2	1.1	+ .3	Springfield . . .	77	-1	.4	- .7	TEX, Abilene . . .	77	-4	1.4	+ .8
Hartford . . .	74	+3	1.0	+ .1	MONT, Billings . . .	64	-8	.2	- .2	Amarillo . . .	85	+1	.1	- .6
D.C, Washington . . .	79	+1	.7	- .1	Glasgow . . .	66	-2	.1	- .3	Austin . . .	84	+3	.3	- .9
FLA, Apalachicola . .	84	+3	.6	- .9	Great Falls . . .	59	-7	.1	- .3	Beaumont . . .	83	-1	.1	- .4
Ft. Myers . . .	81	-1	1.1	-1.0	Havre . . .	62	-5	.2	- .3	Brownsville . . .	84	0	0	- .5
Jacksonville . . .	79	-4	3.0	+1.3	Helena . . .	54	-11	.2	- .2	Corpus Christi . . .	84	0	0	- .2
Key West . . .	85	+2	.6	- .4	Kalispell . . .	53	-11	1.4	+1.1	Dallas . . .	86	+1	.8	+ .5
Lakeland . . .	80	-1	2.3	0	Miles City . . .	67	-5	.5	0	Del Rio . . .	78	-8	1.4	+1.0
Miami . . .	83	+2	.3	-1.5	Missoula . . .	56	-8	.5	+ .2	El Paso . . .	82	0	1.7	+1.5
Orlando . . .	82	0	1.4	- .4	NEBR, Grand Island .	77	+1	3.9	+3.2	Fort Worth . . .	85	0	1.0	+ .5
Tallahassee . . .	79	-2	1.4	- .3	Lincoln . . .	78	0	2.0	+ .2	Galveston . . .	83	0	T	- .8
Tampa . . .	81	-1	.3	-1.6	Norfolk . . .	76	0	2.0	+1.0	Houston . . .	83	+1	.1	- .9
GA, Atlanta . . .	78	-1	.4	- .6	North Platte . . .	72	-3	3.7	+3.0	Lubbock . . .	81	+1	.2	- .3
Augusta . . .	79	-1	.7	- .3	Omaha . . .	76	-1	2.0	+1.1	Midland . . .	80	-3	0	- .4
Macon . . .	80	-2	.7	- .5	Valentine . . .	72	-1	1.0	+ .3	San Angelo . . .	83	-1	0	- .4
Savannah . . .	80	-1	3.5	+2.1	NEV, Ely . . .	61	-4	T	0	San Antonio . . .	84	+1	.1	- .5
HAWAII, Hilo . . .	76	+1	.2	-1.6	Las Vegas . . .	85	-3	0	- .1	Victoria . . .	84	+1	.7	0
Honolulu . . .	78	-1	T	- .1	Reno . . .	63	-2	0	- .1	Waco . . .	87	+2	.1	- .4
Kahului . . .	76	-2	0	0	Winnemucca . . .	65	-3	0	- .1	Wichita Falls . . .	86	+1	.3	- .3
Lihue . . .	78	0	.3	0	N.H, Concord . . .	68	0	.4	- .5	UTAH, Blanding . . .	71	0	0	- .2
IDAHO, Boise . . .	64	-8	.1	0	N.J, Atlantic City . .	73	0	.9	+ .2	Salt Lake City . . .	68	-6	.2	+ .1
Lewiston . . .	65	-6	T	- .2	Trenton . . .	74	0	.5	- .4	VT, Burlington . . .	69	+1	.4	- .5
Pocatello . . .	59	-10	.2	0	N.MEX, Albuquerque .	76	-2	---	---	VA, Lynchburg . . .	77	+1	.7	- .2
ILL, Cairo . . .	81	0	.6	- .2	Roswell . . .	81	+2	T	- .3	Norfolk . . .	80	+1	T	-1.2
Chicago . . .	74	0	.3	- .5	N.Y, Albany . . .	70	-1	.6	- .2	Richmond . . .	78	0	.1	- .9
Moline . . .	75	-1	.1	- .8	Binghamton . . .	68	+1	.3	- .6	Roanoke . . .	75	-1	2.4	-1.5
Peoria . . .	78	+3	.1	- .8	Buffalo . . .	73	+4	.6	0	WASH, Colville . . .	59	-7	0	- .2
Rockford . . .	77	+3	.1	- .9	New York . . .	75	0	1.1	+ .3	Omak . . .	63	-6	0	- .2
Springfield . . .	78	0	.7	- .2	Rochester . . .	72	+1	.6	0	Quillayute . . .	57	-1	.2	- .4
IND, Evansville . . .	80	+1	.2	- .6	Syracuse . . .	72	+1	.7	0	Seattle-Tacoma . . .	57	-6	.1	- .2
Fort Wayne . . .	78	+4	.1	- .7	N.C, Asheville . . .	73	-1	.1	- .8	Spokane . . .	60	-7	T	- .2
Indianapolis . . .	77	+2	T	-1.0	Charlotte . . .	77	-2	.7	- .3	Walla Walla . . .	69	-4	T	- .2
South Bend . . .	77	+4	.3	- .5	Greensboro . . .	76	-1	.9	0	Yakima . . .	63	-6	T	- .1
IOWA, Burlington . . .	76	0	.2	- .6	Hatteras . . .	78	+1	2.8	+1.7	W.VA, Beckley . . .	71	+1	.2	- .8
Des Moines . . .	76	+1	1.8	+ .8	Raleigh . . .	77	-1	1.8	+ .7	Charleston . . .	76	+1	.6	- .4
Dubuque . . .	73	+1	.2	- .6	Wilmington . . .	80	0	.8	- .5	Huntington . . .	75	0	1.4	+ .3
Sioux City . . .	72	-3	1.2	+ .4	N.DAK, Bismarck . . .	64	-6	T	- .7	Parkersburg . . .	77	+1	2.0	+1.0
KANS, Concordia . . .	77	-2	2.9	+2.2	Fargo . . .	68	-2	1.0	+ .3	WIS, Green Bay . . .	74	+4	.1	- .6
Dodge City . . .	77	-2	1.1	+ .5	Williston . . .	64	-5	.7	- .1	La Crosse . . .	74	+2	.7	- .3
Goodland . . .	73	-1	.8	+ .2	OHIO, Akron-Canton .	75	+3	1.9	+1.0	Madison . . .	74	+4	T	- .9
Topeka . . .	76	-3	1.8	+ .9	Cincinnati . . .	78	+2	.6	- .4	Milwaukee . . .	74	+7	T	- .8
Wichita . . .	79	-2	2.0	+1.1	Cleveland . . .	75	+4	---	---	WYO, Casper . . .	65	-4	T	- .2
KY, Lexington . . .	75	-2	1.2	- .1	Columbus . . .	75	+1	1.0	0	Cheyenne . . .	65	-3	.2	- .3
Louisville . . .	78	+1	.2	- .6	Dayton . . .	77	+2	.4	- .4	Lander . . .	64	-4	T	- .2
LA, Baton Rouge . . .	81	-2	2.5	+1.8	Toledo . . .	75	+3	.3	- .5	Sheridan . . .	61	-8	.1	- .4
Lake Charles . . .	84	+2	2.4	+1.1	Youngstown . . .	73	+3	T	- .9	P.R. San Juan . . .	83	+3	.4	- .9

* 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: Quite warm and humid with scattered showers and thundershowers each day. Partly cloudy sunny days with average temperatures near seasonal. Rainfall variable, generally light north and moderate to heavy south and central. Local amounts varied from none at Anniston to more than 5.00 inches at Georgiana. Scattered showers aided crop growth. Few local areas still dry. Farming activities included application insect and weed controls, cultivating, planting grain sorghum, and harvesting fruit and vegetables. Frequent showers hampered haying operations and pesticide applications. Cotton made rapid growth. Over 1/2 crop squaring. Corn made good growth and has potential for good yields. DEW Line picked up Northern corn leaf blight and old strain Southern corn leaf blight damaging N-cytoplasm corn south Alabama. To date these have been found Houston and Escambia Counties. Approximately 95% soybeans planted; 88% emerged. Peanut development good. Seasonal vegetable harvest continued. Pastures and livestock continue good.

ALASKA: Temperatures turned cold early in the week and remained cold remainder of period. Freezing temperatures occurred in upper Tanana Valley at weekend. Precipitation was near or above normal all areas for first time this season. Cool, wet weather, at least temporarily, alleviated critical forest fire problems. Crops responding well to additional moisture. Warmer temperatures would be helpful also. Frost June 30 Delta Junction damaged garden vegetables. Hay harvest underway Matanuska and Tanana Valley. Early-seeded grain averages 8 inches in height. Crops about 2 weeks behind normal. Some vegetable harvest underway with demand greater than supply. Rhubarb, greens, radishes, and onions available roadside stands.

ARIZONA: Temperatures averaged slightly below normal over State most of week. Widely scattered showers fell at higher elevations in southeastern part of State but precipitation amounts were quite light. Cotton making good progress. About 1/2 Yuma fields setting bolls. Blooming, squaring active central area, some fields approaching fruiting stage. Harvest small grains nearing completion central, southwest areas. Still active southeast. Sorghum good. Planting following small grain harvest continues. Cantaloupe harvest active central areas, past peak Yuma. Watermelon harvest active central, southwest areas. Potato harvest continued Queen Creek area. Grapefruit harvest near completion Salt River Valley. Grape harvest active Yuma, Salt River Valley. Ranges poor. Extensive supplemental feeding holding livestock in fair condition.

ARKANSAS: Weekly temperatures averaged near normal and ranged from upper 90's to low 80's. Daily extremes: 55° to 99°. Considerable afternoon and evening thunderstorm activity south, central, and northwest counties. Less than 1.00 inch parts east-central and northeast. Hot Springs high with 5.00 inches. Crop growth mostly good. Rain beneficial many upland areas. Soil moisture still short most northern upland and southwest counties. Week nearly ideal for cotton development. Squaring general, some blooming. Rice making good to excellent progress. Soybeans fair

to good. Planting over 95% completed. Some seeding continues following small grain harvest, moisture beneficial most localities. Corn and sorghum good growth where moisture adequate. Early corn roasting ear stage, most tasseling. No confirmed Southern corn leaf blight. Sorghum mostly all planted. Earliest headed, little reaching maturity. Combining wheat and oats nearing completion except extreme north. Harvest peaches, apples, squash, cucumbers and tomatoes active. Peak tomato volume expected to start next week. Watermelons good growth, harvest starting south. Dry pastures slowing livestock gains some northern and southwestern areas.

CALIFORNIA: Average temperatures 2° to 4° below in northern Sacramento Valley and Cascades. Locally moderate rain on 26th and 27th in coast range and northern Sierras. Warm weather aiding growth maturity field crops. Cotton fields starting bloom San Joaquin Valley; setting bolls Desert areas. Barley harvest past peak Central Valley. Wheat harvest full swing. Planting milo and beans active following small grains. Early planted corn and milo good. Rice growth improving. Warmer weather pushing development deciduous fruits and nuts. Harvest cherries complete. Early apricot varieties nearly complete. Picking early plums, freestone peaches and nectarines continues. Harvest early clingstone peaches to begin Bakersfield. Prunes and pears good development; good fruit sizes. Jonathans golden delicious normal. Watsonville crop appears normal. Almond and walnut crops good development. Grapes look good all areas; harvest Cochella Valley Thompsons underway. Picking valencia oranges continues as prorate will allow. Summer ranges good to excellent. Mature turkeys moving to market. Honey production below normal. Broccoli and cauliflower light, Salinas-Santa Maria. Carrots steady, Salinas-King City and Santa Maria; underway Hanford. Celery increasing Salinas; steady Guadalupe-Oceano. Sweet corn active Kern, Brentwood, and South Coast. Cucumber harvest underway South Coast and Upper San Joaquin. Lettuce steady Salinas-Santa Maria. Onions continue Stockton. Potatoes slow Kern; delayed Riverside and Madera by market conditions. Market tomatoes active San Diego. Slow Visalia, started Merced district. Watermelons declining Imperial Valley.

COLORADO: Cooler though week, warming over weekend. Maximums dropped 10° to 20° below highs of previous week. Little or no precipitation west; light rains some mountain areas. Light to locally heavy rains east. Heavy thunderstorms over weekend in northeast with some local damaging hail and winds. Weather continued hot and dry most areas. Irrigation full swing where water supplies ample. Stream flow on decline. Winter wheat 88% turned color, 40% ripe. Winter barley 95% turned color and 50% ripe. Barley 17% harvested, 71% southeast area. Winter wheat 24% harvested. Harvest progressing rapidly. Hot temperatures caused some shriveling. First cutting alfalfa 88% in. Second cutting 18% done. Corn 66% laid-by. Dry beans all up to stand, condition good. Sorghum all emerged. Condition fair. Harvest of vegetables underway, mainly spinach and lettuce. Range and pastures fair to poor.

FLORIDA: Typical summertime weather as numerous showers and thunderstorms kept daytime temperatures in the low 90's causing average temperatures to fall 2° to 3° below normal. Precipitation averaged 1.00 to 2.00 inches all stations except over 3.00 inches in the southwest. Many stations reported over 3.00 inches for week with 7.80 inches at Moore Haven. Heavy precipitation often accompanied by gusty winds and some hail and isolated tornadoes reported. Peanuts, soybeans prospects excellent. Corn generally good. Tobacco harvest, shade and flue-cured, still active. Southern corn leaf blight now in 14 counties, only in T-Cytoplasm and blends; small acreage infected; still of no economic consequence. Pastures and livestock improving, mostly good. Grasses making excellent growth. Citrus trees mostly excellent condition. Abundant new foliage. New crop sizing well. Very little late bloom. Vegetable harvest limited. Good supply water-melons available north Florida. Harvest declining north-central area. Sweet corn harvest nearly complete.

GEORGIA: Almost daily showers and thundershowers brought light to locally heavy rainfall to most areas. Amounts varied greatly from place to place, ranging from less than 0.50 inch to more than 5.00 inches. Most areas have now had rain. Temperatures varied little from day to day until the weekend when slightly cooler air moved in. Highs were in the high 80's and low 90's and lows in the 60's and low 70's. Averages were mostly 1° to 2° below normal. Very heavy rain occurred in extreme south and southeast during weekend. Soil moisture mostly adequate except for isolated dry spots. Farm activity high with cultivation, insect and disease control and harvesting main items. Wheat 90% and oats 94% harvested. Peaches 42% picked and tobacco 19% gathered. Soybean seeding 92% complete and sorghum 87% planted. Nearly all crops improved last week. Cotton 1/3 setting bolls much later than normal. Peanuts blooming and pegging freely with prospects promising. Corn condition best in years. Leaf blight found several additional counties, but all on volunteer or T-cytoplasm corn which is small percentage total acreage. Pasture, hay crops and cattle good and improving. Watermelon and cantaloupe harvest nearing peak.

HAWAII: Dry all areas. Crops unirrigated areas showing moisture stress. Progress fair to good for irrigated crops. Sugarcane harvesting on schedule. Production to date below same period last year. Pineapple harvesting peaking; canneries full swing. Vegetable and melon supply ample despite shipping strike west coast. Banana supplies light, but papayas ample. Some pastures showing effect dry weather. Cattle fair to good condition.

IDAHO: Temperatures averaged 2° to 10° below normal. Minimum temperatures fell to below 40° over much of State and frost occurred at Hamer and Winchester. The lowest minimum reported was 27° at Teton. Precipitation was general throughout State with greatest amounts in southwest. New Meadows received 2.10 inches, Mountain Home 1.36 inches, and Emmett 1.25 inches. Weekly deficits from normal precipitation only at Malad, Burley and a few stations in extreme north. Good growing weather following general rains. Haying and summer fallow behind north. Pea diseases showing up due wet conditions. Cherry orchards open for local pickers following rain damage. Winter wheat good to excellent; mostly blooming north and east; turning color to mature elsewhere.

Some smut in spring barley in Magic Valley. Ranges excellent. Dried out lower ranges now fire hazard. Cultivation delayed due to rain.

ILLINOIS: Precipitation occurred in two periods with amounts beneficial mainly in east, northeast, and south. Temperatures above normal a few degrees and mainly averaging in the 80's for daily highs. Humid periods early and late in week; otherwise generally dry. Corn excellent 44%, good 47%, fair 9%--some leaf rolling. Blight conditions stabilized by high temperatures, dry weather. Corn generally good color. Average height 50 inches. Soybeans 32% excellent, 55% good, 13% fair. Some uneven stands dry areas, especially west. Winter wheat 41% excellent, 48% good, 10% fair, 1% poor. Wheat 90% combined. Oats 50% ripe, 5% combined. Red clover hay mostly good. First crop 90% cut. Alfalfa mostly fair to good, 2d crop 35% harvested. Pastures 10% excellent, 27% good, 37% fair, 24% poor, 2% failure. Soil moisture 82% short, 18% adequate. Work days averaged 6 1/2, main activities combining, cultivating soybeans, making hay, baling straw.

INDIANA: Week of warmth and some beneficial showers. Temperatures 2° to 5° above normal, and in 90's. Highest in upper 90's. Frontal passage early in week produced scattered rainfall less than 0.50 inch. More beneficial late weekend amounts of 1.00 to 2.00 inches in west-central, northwest and parts of southwest. Other areas under 0.50 inch. Humidity lower than usual by 5% while evaporation higher than usual due dry midweek conditions. Some heat stress on corn till weekend. Six days suitable fieldwork. Topsoil and subsoil moisture mostly adequate. Soybean height 11 inches, 10 usual. Corn 40 inches, growth ahead of last year, beginning to silk. Wheat harvest 20% done, compared 15% average. Crop 55% ripe. Oats less than 5% harvested; barley 25% and rye 15%. Alfalfa hay 20% cut 2d time. Pastures fair to good.

IOWA: Hot early in week. Maxima to 99° at Carroll on 28th. Cool at midweek with 48° at Tripoli on July 1. Moderate to heavy showers in all but eastern counties. Southeast division with subnormal precipitation for 6th consecutive week totaling 35% of normal. Crops continue to make good progress. Small grain harvest started. Nearly 6 days suitable fieldwork. Corn 50% excellent, 48% good, and 2% fair. Infestation corn borers reported areas western Iowa, localized areas northern 1/3 of State, and few in southeast. Southern corn leaf blight identified 3 additional counties, which brings total to 43 counties. Infection very light. Soybeans reported mostly good to excellent. Almost 20% soybean fields blooming. Winter wheat harvest underway with oat harvest starting early maturing fields. Alfalfa 2d cutting over 10% complete. Clover hay 1st cutting nearly 80% complete. Hay crops and pastures mostly good to excellent. Topsoil moisture 83% adequate and 17% short. Subsoil moisture 85% adequate and 15% short. Moisture situation mostly short southeast area.

KANSAS: Moderate to heavy rain most of State. Few southwest areas no significant moisture. Precipitation generally 0.75 to 2.50 inches locally, locally over 4.00 inches central and east causing flash flooding. Weekly mean temperatures averaged below normal. Maxima 80's and 90's most days. Wheat 79% harvested, 85% year earlier and average 74%. Harvest northwest

started, but delayed by rains. Only scattered fields unharvested south and central. Wind and hail caused some shattering standing grain. Rains late in week will aid row crop development. Sorghums coming along well, beginning to head southern areas. Some damage from wireworms, greenbugs, and chinch bugs. Corn 80% laid-by, 78% year earlier. Southern corn leaf blight confirmed 20 counties, infection still light. Some weeds sprayed and sugar beets hood. Pastures helped by recent rains. Sudan and other planted forage being grazed. Flies and pinkeye bothering some cattle.

KENTUCKY: Warm humid and mostly sunny with scattered showers daily through 1st and in south-east on 2d. Mostly fair and somewhat less warm and humid over weekend. Precipitation spotty, totals variable from less than 0.10 to more than 2.00 inches at several points. About 4 1/2 days favorable fieldwork, mostly between showers. Vegetative growth rapid, with generally adequate soil moisture. Nearly 25% corn tasseling, compared with 15% year ago. Soybeans average 10 inches tall, some still being seeded behind small grains. About 60% wheat harvested, yields generally excellent. Tobacco growth uneven, but progress improving, 75% crop still 12 inches or under. Pastures excellent, furnishing plenty livestock feed. About 1/2 spring lamb crop already marketed. Early peach harvest getting started.

LOUISIANA: Continued warm and humid. Temperatures averaged 1° to 3° below normal except 2° above normal southwest. Daily extremes: 99° De Ridder June 28 and 65° Bogalusa Thursday. Afternoon thundershowers daily most numerous and heaviest southeast quarter. Weekly rainfall totals trace to more than 2.00 inches north, 0.50 to locally more than 4.00 inches south. Greatest 1-day rain, 3.97 inches Houma measured 8 a.m. Tuesday. Fieldwork slowed by showers. Soil moisture generally adequate. Cultivation row crops active as weather permitted. Some soybeans, sorghum grain and sweetpotatoes planted, but nearing completion. Condition and growth field crops mostly good. Areas of excessive moisture some fields getting grassy. Cotton showing good growth and beginning to square. Rice good to excellent, early varieties well headed and few fields drained in preparation for harvest. Soybeans generally showing good stands, early plantings beginning to bloom. Showers very beneficial to corn, yield prospects mostly good. No leaf blight damage. Sugarcane growth about normal. Sweetpotatoes good progress. Watermelons late, harvest just underway. Haying slowed by showers. Pasture feed improving rapidly.

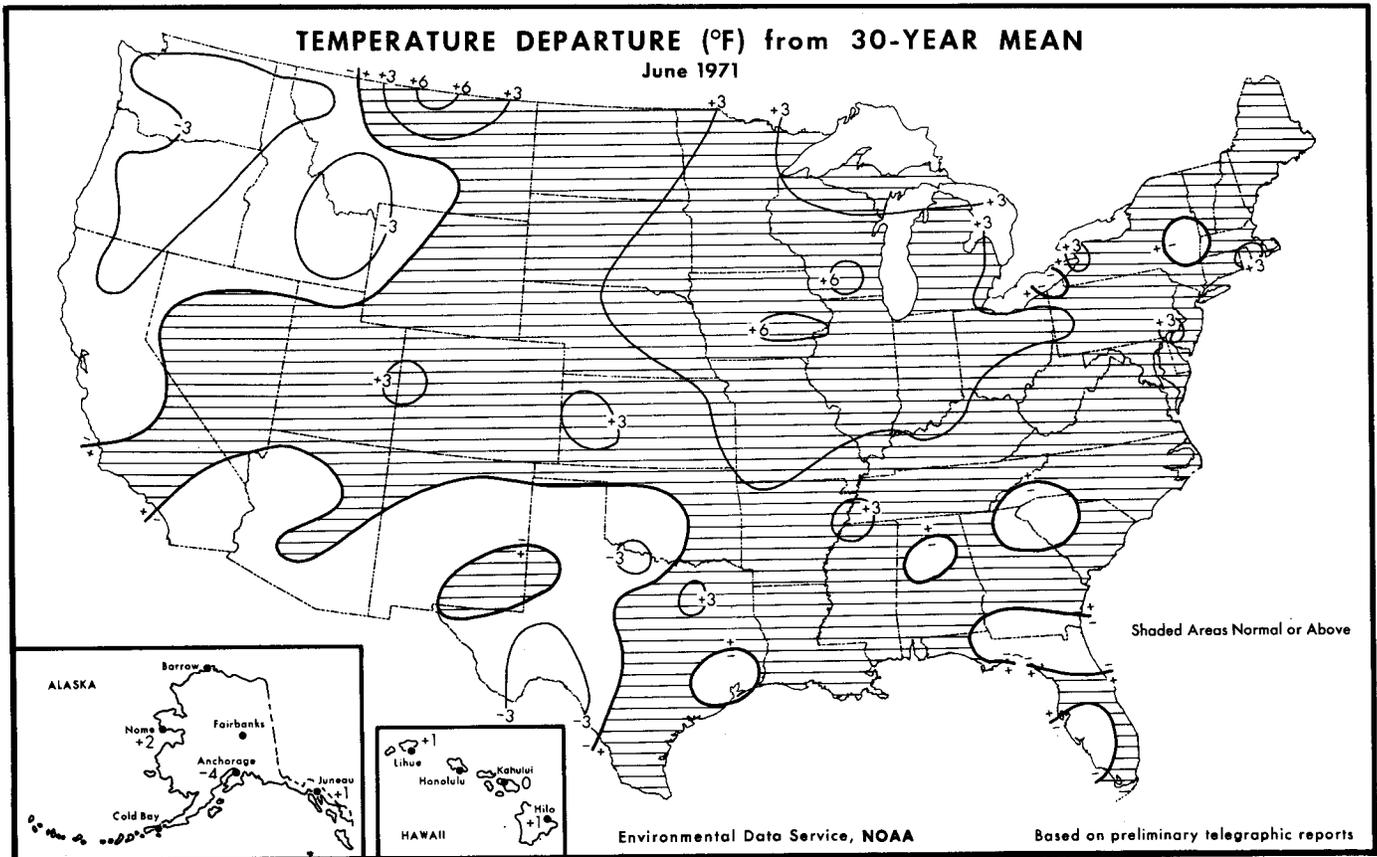
MARYLAND AND DELAWARE: Temperatures averaged 1° to 3° above normal. Extremes upper 80's to mid-90's, 50's. Rainfall quite variable with totals ranging from as little as a 0.10 inch to over 3.00 inches. Heaviest totals mostly in central and north-central Maryland, least in northern 1/2 of Eastern Shore, central Delaware, and Allegany and Washington Counties. Long July 4th weekend sunny and cool. June 1971 temperatures slightly above normal and rainfall mostly below normal to much below normal. Showers welcomed, but scattered dry spots remain. Corn and soybeans growing well. Barley harvest slowed by lodging northern areas. Wheat harvest started south. Vegetable harvest active all areas. Early peaches and summer apples being picked.

MICHIGAN: Temperatures for period averaged 2° to 4° above normal in Upper Peninsula, while in Lower Michigan, averages were from 3° to 7° above normal. It was unseasonably hot early in week with several stations reporting 100° or slightly higher. Some new record high temperatures were established. Saginaw reported 103° on 28th. Cooler latter part of period. Showers midweek, late Sunday night, and continuing into Monday brought relief to much of the parched regions of southwest Lower Michigan. Much of southwest, central, and northeast Michigan received from 1.00 to 2.00 inches with some isolated areas in southwest receiving 3.00 to 4.00 inches from storm which continued into Monday, July 5. The western Upper Peninsula received 0.50 to 0.75 inch during week. Northwest and southeast areas received from 0.10 to 0.30 inch. Extreme heat and dry soils damaged oats, corn, vegetables, and small fruits many Lower Peninsula localities. Locally heavy showers brought temporary relief scattered areas. State averaged 5.6 days suitable fieldwork. Hot weather speeded wheat and oats toward maturity and aided haymaking. About 80% turning yellow. Oats 3/4 headed. About 3/4 1st cutting hay made. Corn rolled badly southwest. Average height corn over 2 feet. Pasture feed supplies less than average most Lower Peninsula, above average Upper Peninsula. Sweet cherry harvest underway and strawberry harvest finished southwest. Apple and pear sizes below average. Non-irrigated vegetables severely damaged by dry heat. Celery harvest underway.

MINNESOTA: Warm week with temperatures averaging 2° above normal. Extremes: 100°, 42°. Precipitation variable from 0.50 to 5.00 inches. Heaviest rainfalls through southwest, west-central, and central districts, generally 3.00 to 4.00 inches. Unofficial 6.00 inches reported at Pipestone. Several small tornadoes during week. Crops making excellent progress. Topsoil moisture adequate to surplus. Corn height 31 inches, normal 21 inches; soybeans 12 inches, normal 9 inches. No new evidence Southern corn leaf blight. Soybeans blooming 11%, normal 4%; flax 38%, normal 29%. Spring wheat headed 85%, normal 43%; oats 85%, normal 58%; barley 87%, normal 47%; spring grains beginning to ripen. Percent turning ripe: Rye 51, normal 30; winter wheat 34, normal 13.

MISSISSIPPI: Weekly temperature averages were near and slightly above normal in northern 1/3 of State with southern 2/3 ranging from 3° below normal to normal; extremes of 99° on 26th at Cleveland and 61° on 28th at Corinth. Two to 4 days of rain with scattered thunderstorms; most weekly totals over 1.00 inch with several locations over 3.00 inches. On 29th up to golf ball size hail reported and 4.20 inches of rain reported at Goshen Springs for greatest 1-day amount. Over weekend: On 3d, a tornado and lightning near Biloxi caused some minor damage and one person killed by the lightning; Columbia recorded 3.59 inches of rain 3d and 4th. Soil moisture very short to surplus Lower Delta and northeast, other areas mostly adequate. Peaches 36%, Irish potatoes 75%, hay crops 45% harvested. Cotton 54% squaring, 19% setting bolls. Corn 32% tasseled. Condition cotton, peaches, and pecans mostly fair to good. Corn, sorghum, hay, soybeans, rice, sweet potatoes fair to mostly good. Pastures and livestock good. One 10-acre field indicator plots planted by State Experiment Station affected by corn leaf blight, also 37 rows sweet corn.

(Continued on page 10)



WEATHER - JUNE 1971

TEMPERATURE: June temperatures averaged below normal in the Far Northwest, slightly below normal in the Southwest, and near or above normal over the rest of the Nation. A large area from eastern Nebraska to Lower Michigan and from Minnesota to the Ohio River averaged 3° to 6° above normal.

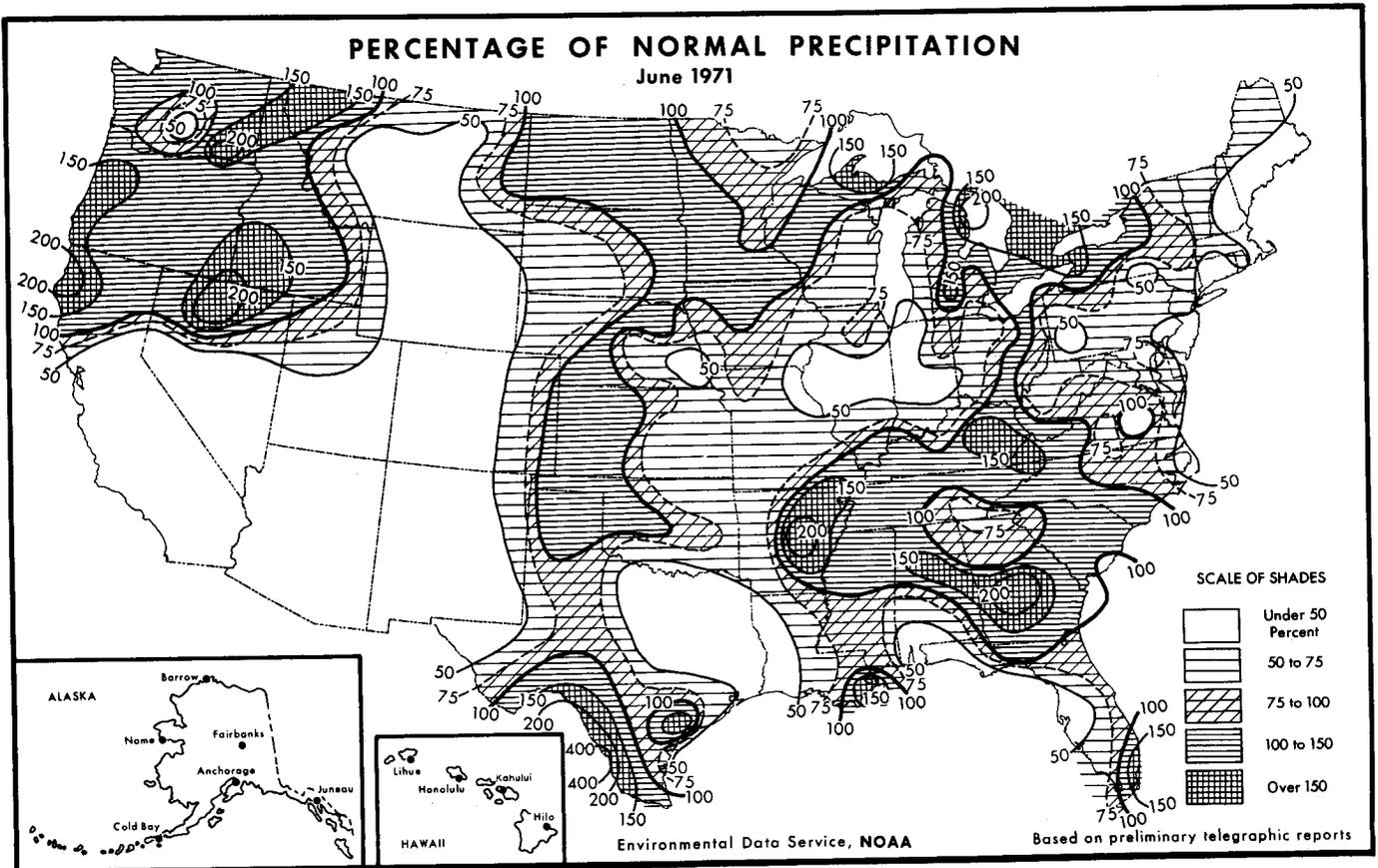
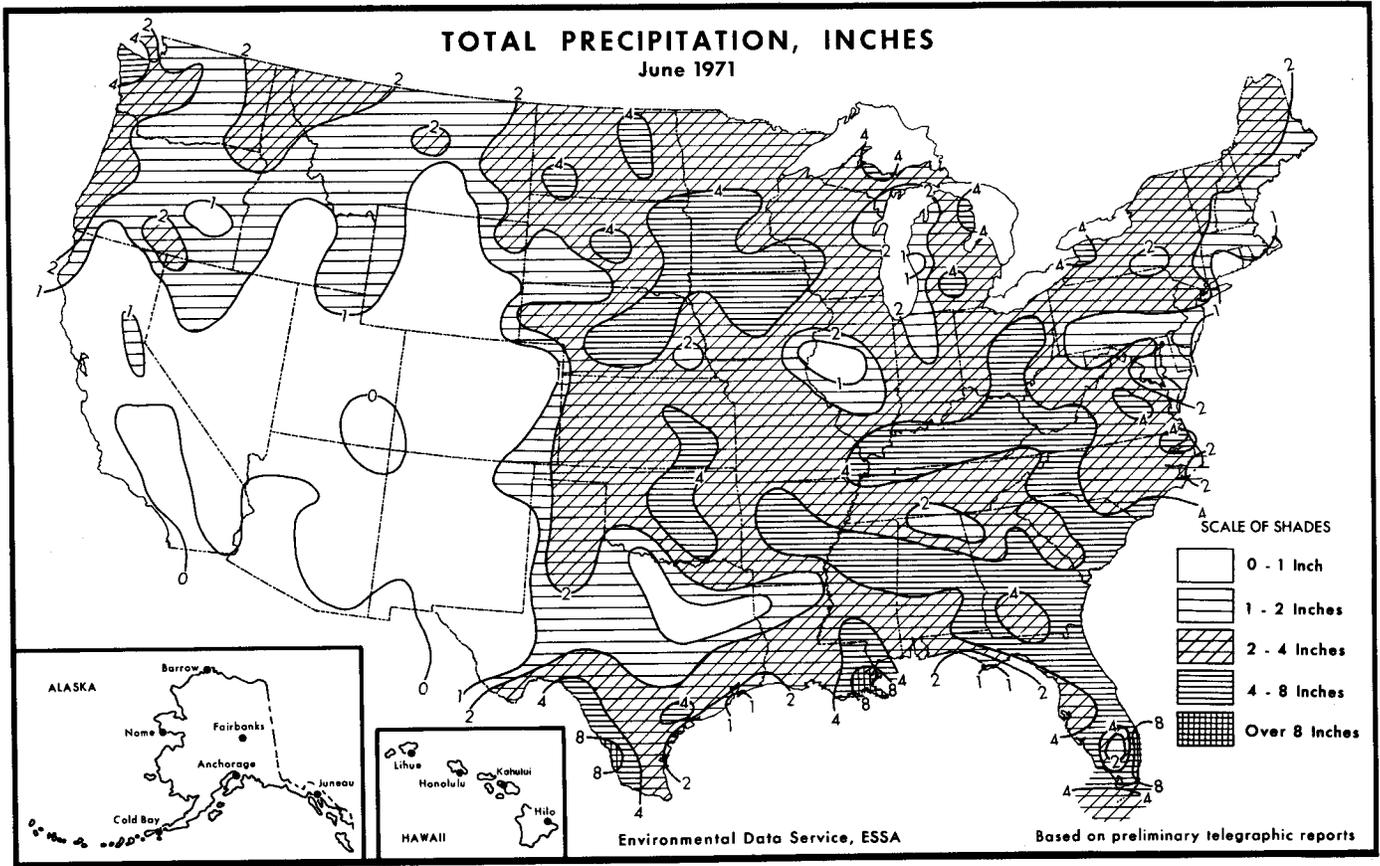
The Far Northwest averaged slightly cooler than normal throughout the entire month. The Southwest was cooler than normal in the 1st half of June but warmer than normal in the last half. Texas was relatively cool in the last week of June. The Middle Atlantic States averaged warmer than normal except in the 3d week and the southern Appalachians were slightly cooler than normal in the last half of June.

Subfreezing weather occurred in the Great Basin on 1 or 2 days in the Rocky Mountains several mornings early in June. Flagstaff, Ariz., registered 27° on June 2 and Leadville, Colo., recorded 29° on June 7. In contrast, the mercury climbed to 104° at Cotulla, Tex., on June 2 and to 94° at Lebanon, N.H., on the 7th. The hottest weather of the month hit the Southwestern Deserts in the last half when maximums ranged from 100° to 114°. Needles and Blythe, Calif., registered 114° on the 22d. The central Great Plains were especially hot from June 24 to the 26th. Most of Nebraska endured 100° heat Saturday, June 26. The hot weather spread northeastward reaching the Lower Great Lakes and the St. Lawrence River Valley by June 29 when Bay City, Mich., recorded 100°. High relative humidity made the hot weather feel more oppressive.

PRECIPITATION: Summer-type precipitation in June included scattered thunderstorms, some with large hail, strong winds, and torrential rains, and a few tornadoes. Most of the severe weather occurred in the central and southeastern parts of the Nation in the hot humid air that lay over those areas.

Numerous tornadoes struck mid-America near the end of the 1st week of June. Hail from 1 inch in diameter to as large as baseballs pelted some localities in the Great Plains and the Mississippi River Valley in the 1st week of June. Winds at Hastings, Nebr., gusted to 81 m.p.h. on Friday afternoon June 4. During the storm hail as large as golf balls pelted the vicinity. The stormy weather spread eastward and on June 6, heavy rains in Pennsylvania and West Virginia sent a number of streams to near bankfull. Moist air continued to stream northward in the 2d week of June with widespread stormy weather over the central and southern Great Plains. Heavy rains on the 9th produced flash floods along many small streams and substantial rises on several major streams from South Dakota to Kansas. Strong winds downed trees and power lines and tornadoes destroyed buildings at scattered locations. A tornado destroyed a hangar and damaged airplanes near Adrian, Tex., on June 11. Hail as large as baseballs fell at Frankfort, Ind., and torrential rains flooded some lowlands in western Illinois. Hail accumulated to 6 inches in depth 12 miles north of Sidney, Nebr., and heavy rains flooded highways 10 miles east of Sidney.

The last half of June brought a continuation



of the same kind of weather so characteristic of the first half. Torrential rains, severe thunderstorms, large hail, strong gusty winds and a few tornadoes. A cloudburst drenched Evansville, Ind., with 1.65 inches of rain in 20 minutes on the afternoon of the 18th. Hail up to 2 1/2 inches pelted an area a few miles northwest of Dickenson, N. Dak., and winds gusting to 64 m.p.h. at Albuquerque, N. Mex., raised clouds of dust reducing the visibility to less than 200 yards. The same kinds of weather occurred in the last week of June but the localities were different. June rainfall totals exceed 1.00 inch over the Far Northwest and 2.00 inches over most of the area east of the Continental Divide. Several large areas in the Great Plains, the Ohio River Valley, and the Deep South received from 4.00 to 6.00 inches or more in June. Some of the largest totals included 8.70 inches at Laredo, Tex., 8.02 inches at New Orleans, La., and 11.65 inches at Miami, Fla. Portions of the Southwestern deserts received no rain or only light sprinkles in June.

L. W. Dye

(Continued from page 7)

MISSOURI: The 5th straight week of below-normal precipitation. Hot early in the week, with somewhat cooler readings over the July 4th weekend. Rainfall extremely spotty with central and southern areas receiving almost no rainfall since June 1. Evapotranspiration measurements from a soybean field near Columbia have exceeded rainfall by more than 6.00 inches. Missouri farmers worked average 6 days during week. About 40% 2d cutting alfalfa completed. Harvest clover-timothy hay and winter wheat grain 69% finished. Corn about 18% silked and condition mostly good. Soybean condition reported mostly good. Cotton ranged fair to good. Soil moisture reported short to adequate, but ranges mostly on short side across State.

MONTANA: Cold for season, especially west and central, with some local freezes west half first of week. June 29, Helena had coldest minimum so late in season in 91 years. All areas had some precipitation, and all divisions had variable totals ranging from light to heavy. Topsoil moisture adequate west, spotty remainder. Hail and grasshopper damage light. Winter wheat 10% excellent, 80% good, 10% fair. Winter wheat 10% turning color. Spring grains good, about 40% headed out. Sugarbeets and potatoes good. Sugarbeets 85% thinned. First cutting alfalfa hay 40% stacked, and wild hay harvest 10% complete.

NEBRASKA: Repeated showers, locally heavy with isolated hailstorms. Half wheat ripe and farmers have combined 20% acreage. Hail in portions Panhandle and northwest caused locally severe crop damage. Corn development very good with most good to excellent. Irrigation operations underway. Corn leaf blight found 5 additional counties bringing total to 38 counties. Previous dry, windy weather slowed spread of disease. Corn borer infestations eastern areas requiring control measures. Sorghum and soybeans good to excellent. About 15% 2d crop alfalfa cut. Pasture and ranges providing adequate forage.

NEVADA: Temperatures at most stations below normal in north to 3° below normal in extreme south. From 3° below normal in Las Vegas to 11° below normal at Sheldon. Light, spotty precipitation in north with a trace at Austin to 0.44 inch at

Owyhee. None in south. First cutting alfalfa hay nearly half completed west and will soon be underway northeast. Hay 3d cutting in progress southern valleys. Small grain good, but development 1 or 2 weeks behind previous year's. Over 40% winter grain and 10% spring-planted grain have reached milk stage. Corn, potatoes, and cotton emerged and being cultivated. Livestock good, with movement to summer ranges nearly complete. Ranges good north, while fair south.

NEW ENGLAND: Sunny week. Temperatures ranged widely with many maxima in 90's Wednesday and Thursday, but some lows down to 40° Sunday morning. Week averaged mostly a little above normal but up to 3° to 5° above normal some sections. Thundershowers with local hail and damaging wind on July 1 brought nearly all week's rain. Totals ranged from none to 3.00 inches, but mostly 0.25 to 1.00 inch. Haying at peak with curing weather excellent. Crop conditions satisfactory, but many areas seriously dry. Cranberries feeling moisture shortage. Maine potatoes developing well. Cabbage plentiful. Snap beans and summer squash increasing.

NEW JERSEY: Week averaged 1° to 3° below normal throughout State with exception of Newark which ran 3° above normal. Readings ranged from the low to mid-90's to the low to mid-40's. Rainfall generally light, ranging from trace at 1 station to 1.57 at Long Branch. North Jersey averaged 0.70 inch, central and southern interior 0.50 inch, while the coastal area averaged 0.60 inch. State could use good soaking rain. Crops continue to look good, however irrigation heavy when available. Cabbage, escarole, squash, and snap bean volumes moderate. Sweet corn, fresh market tomatoes, onions, eggplant and cucumber harvest light, but increasing. Pepper harvest expected to start one week. White and sweet-potato fields excellent. Blueberry harvest becoming general. Apples and peaches sizing well. Barley combining general. Second cutting alfalfa underway. Corn blight detected 3 counties to date, Salem, Cumberland and Burlington; infection light.

NEW MEXICO: Light showers early in July but with totals of 1.00 to 2.00 inches in some northeastern localities. One half to 1.00 inch or more at some south-central localities for their 1st significant rain of the year. Cooling then warming. Highest Sunday. Temperatures averaged near seasonal in most localities. Rain received varying from trace southwest, moderate northeast. Soil very dry west. Wheat, barley combining and planting dryland sorghum, broomcorn near end. Cotton, peanuts other crops good growth. Windrowed alfalfa limited rain damage, starting 2d cut north, 3d south. Ranges poor, very dry west, limited improvement east. Livestock fair, heavy feeding continues.

NEW YORK: Second warm week. Hot early half with maximums upper 80's to mid-90's between 28th and July 1. Change to seasonally cool weather on weekend. Minimums 45° to 50° interior section on 3d and 4th. Wide-ranging thunderstorms on 30th and 1st with heaviest storm totals 0.90 to 1.50 inches from west-central to Susquehanna River watershed. Elsewhere 0.60 to 1.00 inch eastern 1/3 decreasing to 0.20 to 0.40 inch along Great Lakes to Saint Lawrence Valley. First cutting alfalfa nearing completion. Dry weather slowing 2d growth hay and causing fair to poor pasture conditions. Wheat good condition and turning color south. Early oats heading and in fair to

good condition. Hot weather making corn grow very fast, but still little behind schedule. Dry beans good. Lettuce volume, quality and yields good Orange County, but onion growth slow. Hail damaged small acreage onions Elba area. Earliest snap bean plantings in bloom, while earliest sweet corn planting showing silk. Tomatoes all planted. Setting cabbage continues. Potatoes normal. Apple prospects good. Niagara County hail reduced quality apples, cherries, and peaches. Sweet cherries harvest underway this week West. Grape set appears good. Good potential peach and pear crops.

NORTH CAROLINA: Temperatures averaged near normal. Highs mostly in 90's and lows near 70°. Turning 5° to 10° cooler at weekend. Precipitation extremely variable in daily showers and thunder-showers except clearing at weekend. Daily rainfall amounts zero to 4.00 inches and totals trace to 5.00 inches mostly 1.00 to 2.00 inches. Scattered reports of hail and strong winds in thunderstorms. Soil moisture mostly adequate. Many local areas dry especially northern Piedmont. Flue-cured tobacco fair to good, mostly good. Harvest underway types 12 and 13. Burley mostly fair. Corn good, some twisting dry areas. Tasseling early areas. Cotton holding fair to good. Some blooms southern Coastal Plain. Peanuts, soybeans, hays, Irish potatoes, sweetpotatoes generally good. Apples and peaches fair to good. Peach harvest well underway. Small grain yields high and harvest accelerating. Wheat 62% harvested, oats 76%, Rye 77%. Pastures generally green, but some need moisture.

NORTH DAKOTA: Temperatures averaged 1° to 4° below normal. Precipitation averaged about 0.10 inch southwest and 0.40 to 0.80 inch elsewhere except extreme southeast where amounts to near 4.00 inches fell over weekend. Crop condition continues to look promising. Warm weather speeding crop development. Moisture supplies generally adequate although topsoil moisture reserve diminishing rapidly. About 50% barley and oats headed and over 1/3 hard wheat and durum headed. Cutting 1st crop hay well underway. No Southern corn leaf blight found to date.

OHIO: Warm and Humid through 3d. Clear and mild remainder of week. Highs on 28th ranged from 92° at Chesapeake to 101° at Coshocton. Most areas received 0.10 to 0.60 inch of rain on 28th. Showers widespread over southern 1/2 State on 1st, but amounts were generally less than 0.40 inch. Six days favorable fieldwork. Soil moisture supplies 50% short, 45% adequate, and 5% surplus. Corn height 40 inches, compared 32 inches last year and normal 19 inches. Height soybean 12 inches, above last year's 11 inches and average 9 inches. First crop alfalfa harvest virtually completed. First crop clover-timothy harvest 85% finished equal to last year. Wheat almost completely yellow and 35% ripe, above 5-year average of 30% wheat ripe. Barley 30% harvested, 45% last year. Oats 5% ripe. Rye harvest just starting.

OKLAHOMA: Rainfall varied from 0.50 inch west-central to 2.25 inches northeast. Temperatures averaged near normal. Extremes: 105° and 58°. Crops some areas beginning to burn, but moisture provided temporary relief. Additional moisture needed soon as surface soil moisture nearly becoming short. Small grain harvest complete. Nearly 1/2 harvested wheat stubble fields plowed. Some fields being plant-

ed to hay crops. Row crops made fair to good growth. Sorghums, cotton, peanuts, soybeans around 90% up. Corn 1/4 tasseling 7% dough -- same year earlier. Sorghums 7% heading -- 5% year ago. Cotton 1% squaring -- 6% year ago. Soybeans 3% flowering, 9% year ago. Condition corn, sorghums, soybeans good to excellent, other row crops mostly fair to good. Several fields western Oklahoma have thin stands. Alfalfa 2d cutting nearly 4/5 complete. Third cutting underway -- yields continue good. Pecans good set, but heavy case borer damage many areas. Pasture and range condition declined moderately, but rain will help. Livestock mostly good to excellent.

OREGON: First of week light rains aided cool week, warmer days at close. Temperatures averaged 1° to 4° below normal along coast, 6° to 11° below elsewhere. Maxima 62° to 70° coast, 76° to 90° elsewhere. Minima 28° to 30° few stations in Cascades and Northeast, 33° to 46° elsewhere. Rains missed north-central but elsewhere 0.10 to 0.30 inch except 0.50 to 0.80 inch eastern 1/3 of State. Strawberry harvest past peak. Yields running above average. Harvest sweet cherries and red raspberries beginning western Oregon. Crimson clover is being swathed. Wind-rowing rye grass and other grass seed crops underway. Green pea harvest continues. Cole crops making good growth. Snap beans and sweet corn need warmer weather. Ranges and livestock good.

PENNSYLVANIA: Hot humid weather through Thursday with only temporary respite eastern sections Tuesday due to thick cloudiness that kept temperatures in 70's. During 1st extended heat wave of season, daytime temperatures climbed into upper 80's and 90's and nights cooled only to 60's and 70's. Considerably cooler and drier latter part of week with maxima in 80's and minima 40's and 50's. Extremes: 99° Pittsburgh Monday afternoon to 34° Philipsburg Saturday morning. Scattered showers and thunderstorms mid-period brought 0.50 inch or less rainfall most northwestern and eastern counties with number of places reporting less than 0.10 inch. Heavier amounts of 1.00 to over 3.00 inches measured extreme western and central counties. Soil moisture short. Haymaking major farm activity. Corn growth rapid. Cultivating corn and picking strawberries north. Barley combining and spraying potatoes full swing central. Snap bean and tart cherry harvest underway with barley combining continuing south.

PUERTO RICO: Rainfall averaged 0.90 inch or about 0.50 inch below normal. Much of the South Coast received little or no rain with eastern interior receiving generally less than 0.50 inch except some heavier rains near Luquillo Mountains. Greatest weekly total, 3.72 inches along northern coast. Temperatures averaged 80° on coast and 75° interior with average departure of 0.6° below normal. Crop moisture condition near normal islandwide, except too dry some areas eastern interior. Sugarcane harvesting and grinding operations continued on schedule. Young plantations and ratoons developing well all zones. Coffee plantations good progress fieldwork under favorable weather. Pastures too dry parts eastern interior otherwise good to excellent. Minor crops good progress fieldwork and harvest-ing operations.

SOUTH CAROLINA: Scattered showers daily throughout the State. Divisional averages ranged from 0.50 inch in the north-central to 2.00 inches in the west-central division. Temperatures averaged 80° except in the mountains. Most daily highs were around 90°, lows around 70°. Soil moisture short portions Piedmont, excessive portion Pee Dee, coastal plain; adequate elsewhere. Tobacco 8% harvested, condition good to excellent. Insect control successful to date. Cotton condition fair to good 77% squaring, 7% setting bolls. Corn good to excellent; 47% silking, 16% dough stage. Soybeans 91% planted. Stands, condition plants good to excellent. Sweetpotato transplanting 92% complete. Peanuts stands fair to good. Plant condition good to excellent. Peaches mostly good. Irrigation underway where soil moisture short. Grape condition fair to good. Small grain harvest virtually complete. Condition hay crops, pastures good. Vegetables mostly good. Watermelons fair to good, 4% harvested.

SOUTH DAKOTA: Weekly temperatures averaged from 4° below normal in west to 3° above normal in the east. Extremes ranged from 38° at Ralph on 1st to 98° at Wagner on the 28th. Precipitation fell as showers and thundershowers mostly first 1/2 and end of week. Totals ranged from less than 0.10 inch in the northwest to over 4.00 inches in the northeast. Waubay Wildlife Refuge reported 4.20 inches on 29th. Spring-seeded small grains turning color fast and harvest will begin soon. Corn, sorghum, flaxseed, and soybeans all making rapid growth and are well advanced. Harvest winter grains expected to begin this week. High temperatures particularly southern part State caused some fields small grains to mature too rapidly. Topsoil moisture shortages continue to develop many areas. Corn borer infestation spreading. Southern corn leaf blight still minor, but identified in 2 new counties, Hutchinson and Turner. Pastures becoming dry, but mostly still good. Livestock good condition, but generally being bothered by many flies and mosquitoes. Several localized reports of pink eye.

TENNESSEE: Scattered light to moderate showers first 5 or 6 days of week. Precipitation totals varied from 0.25 to 0.50 inch in west to 0.50 to 2.00 inches in east. Temperatures below normal except near normal at midweek. Sunny weekend. Hot temperatures and scattered showers characterized Tennessee weather during week. Grain harvest dominated farm activity. Rapid growth continues row crops. Small grain harvest reached peak. Wheat harvest 90% complete, oats 70%, and barley 90%. Almost all soybeans emerged and growing rapidly. Cotton squaring rapidly and beginning to bloom some areas. Tobacco is growing well. Black shank and wire worms causing heavy damage some areas. Snap bean harvest full swing Fentress county. Green lima bean planting 50% complete. Days favorable fieldwork averaged 4.3 days. Soil moisture: 56%, short 27% and surplus 17%.

TEXAS: A few locally heavy rains of 2.00 to 4.00 inches fell in northern High Plains Wednesday while El Paso area caught 1.00 to 2.00 inches Friday. Elsewhere light to moderate showers fell in north-central and East Texas during week. Extensive flooding of most South Texas creeks and rivers continued as a result of last week's torrential downpours in Winter Garden area. Significant 24-hour rainfall amounts include

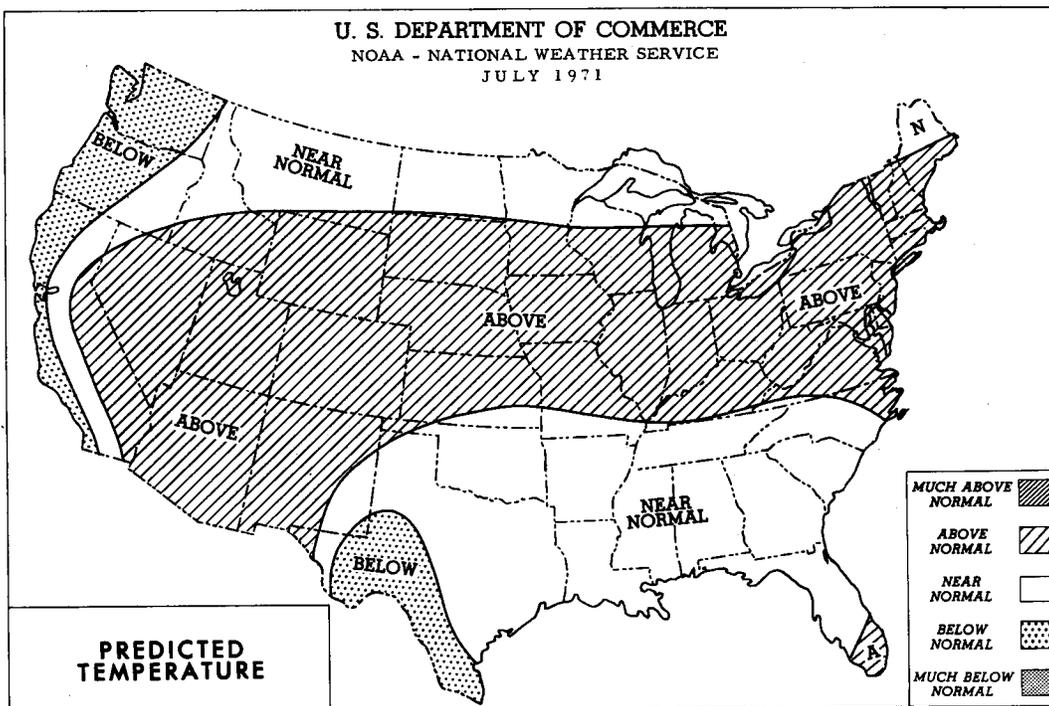
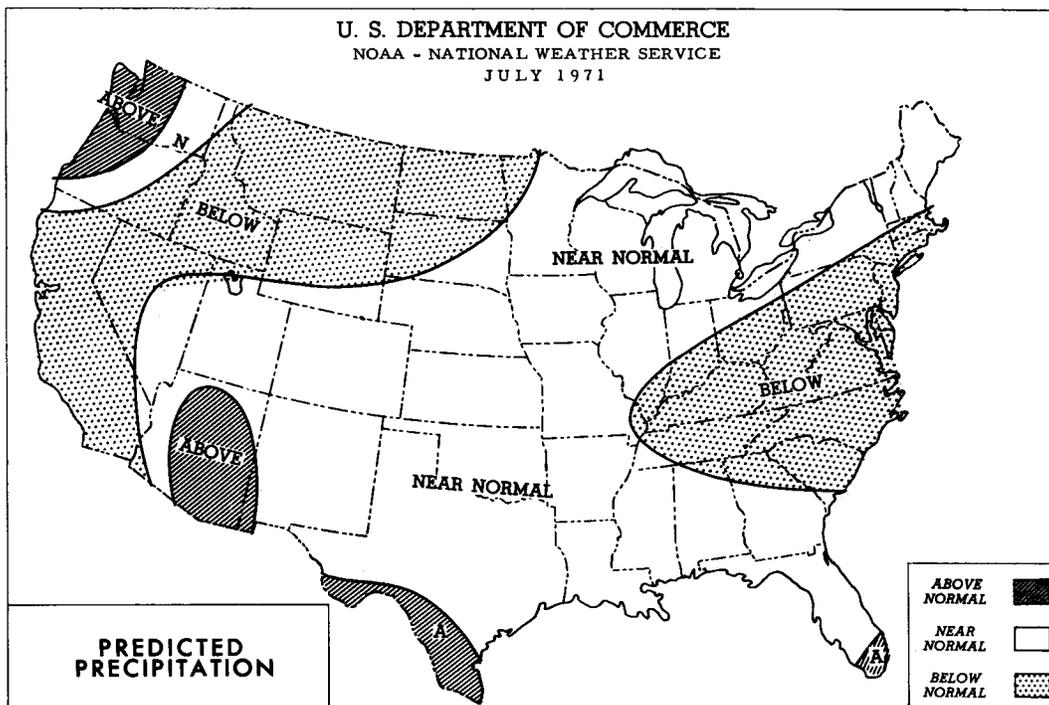
Dumas 3.98 inches, Stinnett 4.05 inches and Canadian 2.50 inches. Temperatures most sections were slightly hotter than previous week. Stockmen culling herds and feeding where necessary. Good rains, south, south-central, and High Plains brought relief and improved ranges. Heavy irrigation cotton, sorghum underway High Plains and Trans-Pecos. Cotton fruiting well southern High Plains, Blacklands and south-central. Boll weevil and bollworms continue buildup southern half. Corn and sorghum making good to excellent progress High Plains. Wheat harvest near completion High Plains. Percent harvested major crops: Wheat 96, 97 last year; oats complete. Percent planted: Cotton complete; sorghum 99, 100 last year; soybeans 98, 98 last year; peanuts 92, 90 last year; corn complete. High Plains onion, potato harvest underway with harvest expected to become active current week. Watermelon harvest past peak Winter Garden, starts south-central, underway east Texas. Cantaloupe harvest past peak Winter Garden, starts Pecos and North Texas area in about week. Trans-Pecos onion harvest becoming active. Light supplies tomatoes, cucumbers from East Texas. Citrus prospects enhanced as heavy rains watershed replenish irrigation water supplies Falcon Lake. Peach harvest continues, but supplies south-central below last year. Pecan prospects poor to fair.

UTAH: A few isolated showers or thunderstorms early in period and over weekend. Accumulated moisture light to moderate. Average temperatures ranged between normal and 6° below normal in west and central sections and 2° to 5° above normal in east. Soil temperatures at 4-inch depth ranged from upper 60's in Cache Valley to mid-70's in Salt Lake City, near 80° at Richfield and 90° at St. George. Harvest 1st crop alfalfa, green peas, and sweet cherries, plus growth all other crops and range grasses progressed well. Except for Washington County, no winter wheat ripe and start of harvest in earliest areas will be about July 15, week to 10 days later than usual. About 70% spring grain acreage headed out. Green pea harvest about 35% completed. Cattle and sheep thriving. Grass fires pose threat many areas, particularly in foothills.

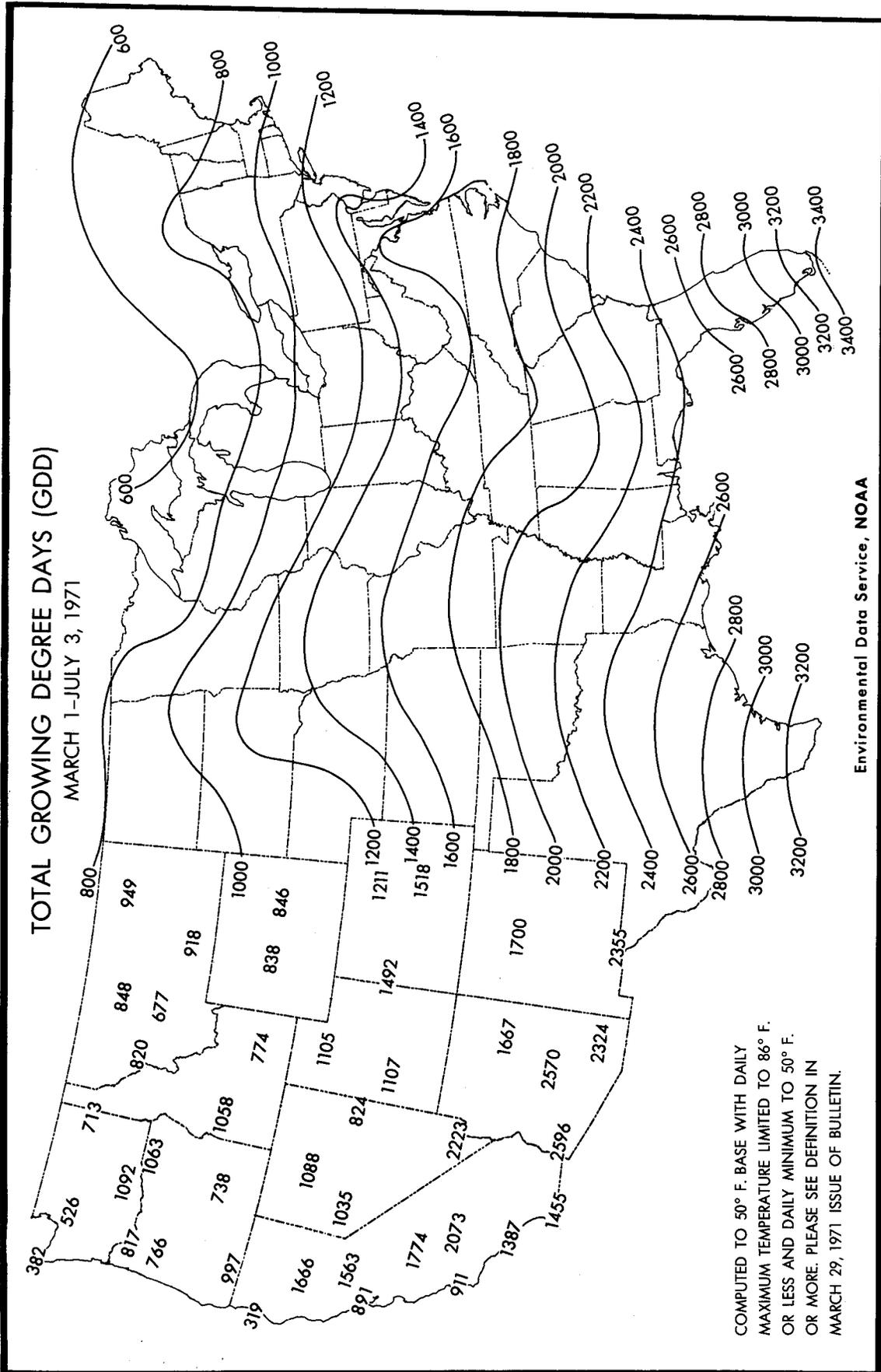
VIRGINIA: Temperatures normal to above becoming below normal over weekend. Scattered showers and thundershowers at midweek. Most stations received less than 0.50 inch. Fieldwork progressed well. Chief activities haying, cultivating, and harvesting small grains and planting soybeans after small grains. Crops grew well. Soils dried out considerably. Haying active west of mountains and in north. Corn 40% silked southeast and 10% southern Piedmont. Little corn blight identified. Barley over 1/2 harvested, oats nearly 1/2 and wheat 1/4. Little burley tobacco set southwest. Pastures excellent. Harvested Irish potatoes, snap beans, cucumbers, and cabbage eastern shore. Picking peaches southeast and cherries northern valley.

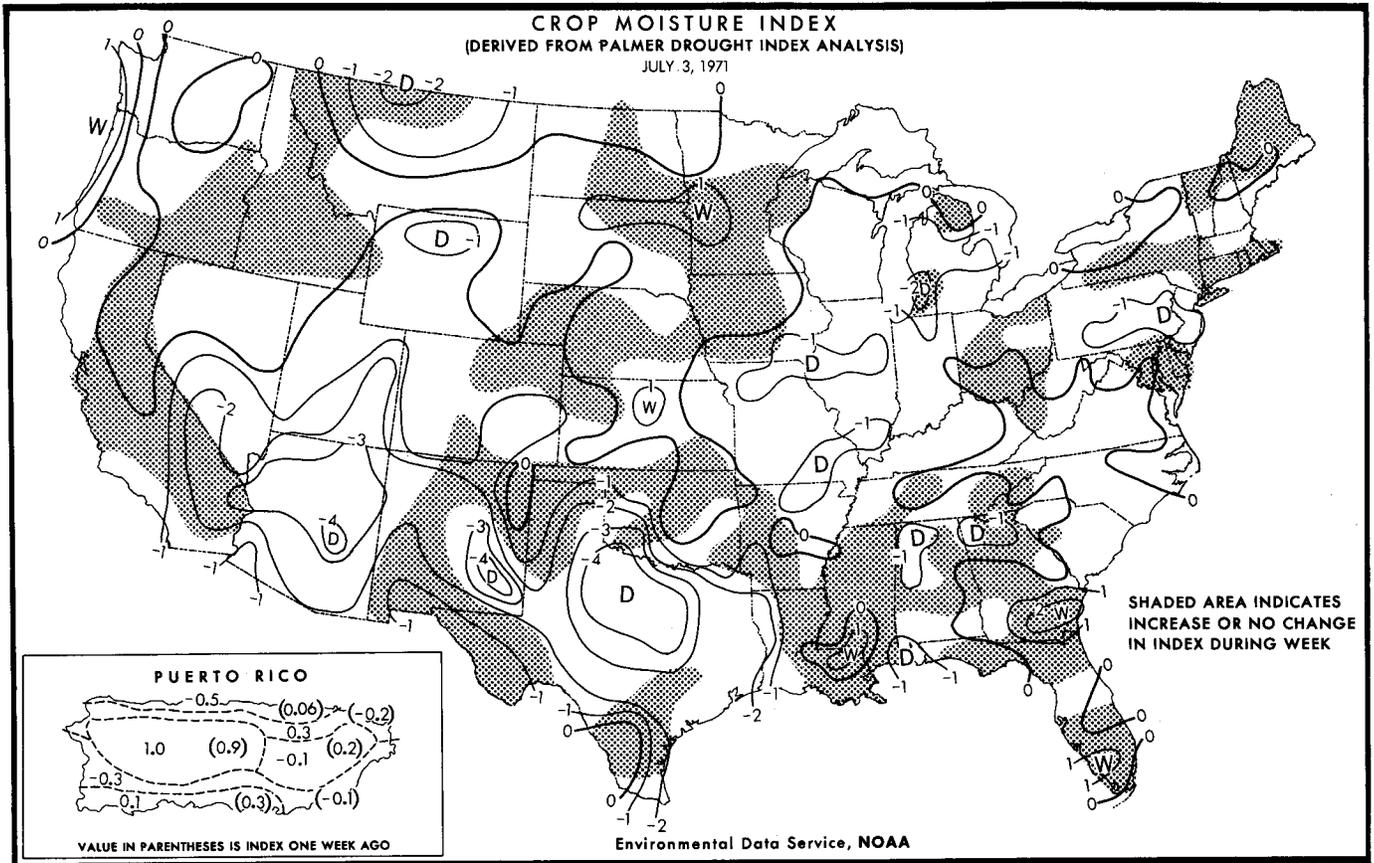
WASHINGTON: West of Cascades: Mostly cloudy with cool temperatures. Some gradual improvement last 2 days of week. Average temperatures were below normal due to low maximums. Showers several days with amounts mostly light. Mt. Rainier Paradise Ranger Station reported 3 inches new snow, and snow reported at Stampede Pass at 4,000 feet this weekend. Harvesting peas to begin. Cool temperatures causing poor corn growth. Strawberry harvest at peak, but cool, wet conditions causing mold and rot. Cauliflower and lettuce harvest continues. Grass
(Continued on back page)

AVERAGE MONTHLY WEATHER OUTLOOK



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





INDEX DECREASED DURING WEEK
(Unshaded Areas)

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

INDEX

- ABOVE 3.0 SOME DRYING, BUT STILL EXCESSIVELY WET.
- 2.0 to 3.0 MORE DRY WEATHER NEEDED, WORK DELAYED.
- 1.0 to 2.0 FAVORABLE, EXCEPT STILL TOO WET IN SPOTS.
- 0 to 1.0 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK.
- 0 to -1.0 TOPSOIL MOISTURE SHORT, GERMINATION SLOW.
- 1.0 to -2.0 ABNORMALLY DRY, PROSPECTS DETERIORATING.
- 2.0 to -3.0 TOO DRY, YIELD PROSPECTS REDUCED.
- 3.0 to -4.0 POTENTIAL YIELDS SEVERELY CUT BY DROUGHT.
- BELOW -4.0 EXCEPTIONALLY DRY, MOST CROPS ABOUT RUINED

INDEX

- ABOVE 3.0 EXCESSIVELY WET, SOME FIELDS FLOODED.
- 2.0 to 3.0 TOO WET, SOME STANDING WATER.
- 1.0 to 2.0 PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET.
- 0 to 1.0 MOISTURE ADEQUATE FOR PRESENT NORMAL NEEDS.
- 0 to -1.0 PROSPECTS IMPROVED, BUT RAIN STILL NEEDED.
- 1.0 to -2.0 SOME IMPROVEMENT, BUT STILL TOO DRY.
- 2.0 to -3.0 DROUGHT EASED, BUT STILL SERIOUS.
- 3.0 to -4.0 DROUGHT CONTINUES, RAIN URGENTLY NEEDED.
- BELOW -4.0 NOT ENOUGH RAIN, STILL EXCEPTIONALLY DRY.

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

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

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

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



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(WASHINGTON continued from page 12)

silage and hay making behind schedule. Range and pasture plentiful most regions. East of Cascades: Average temperatures below normal with cloudy to partly cloudy for the week. Few showers near mountains with very light amounts. Haying full swing with improved weather conditions. Asparagus harvest about completed. Cherry harvest ending lower Yakima Valley, but continues other areas. Grains look good, harvest more than week late. Potatoes and peas doing well, but melons, squash, pumpkins, and cucumbers slow growing due cool weather.

WEST VIRGINIA: Late June heat wave finally broken July 1 by cold front which set off scattered intense thunderstorms, mostly in western sections. Temperatures peaked into 90's June 28 and weekly temperatures continued above normal. Continued warm and humid weather beneficial crop growth. Scattered showers occurred over State but some areas need rain. Soil moisture 35% short, 55% adequate 10% surplus. Average 4 days devoted to fieldwork. Corn 97% emerged. Tobacco 92% set. Hay 1st cutting 70% complete.

WISCONSIN: A continuation of fine summer weather. Hot and humid early in period. Mostly fair and pleasant latter part. Rainfall very light except northwest 1/3 of State where some moderate amounts fell. Soils getting very dry again southeast half. Corn generally doing very well. Growth extremely rapid last 2 weeks. Average height over 2 feet. Early-planted corn tasseled out and isolated fields 6 feet tall. Color very good. Some daytime curling leaves drier areas. Large corn borer population present due last winter's protective snow cover. Oats 2/3 headed. Wheat, rye, and early oats turning color. Lodging not serious problem this year as straw mostly short. About 3/4 1st cutting hay harvested. Weather often too humid for good drying. Pastures improved, but still only fair many southeastern areas. Soybeans and tobacco doing good. Potatoes excellent. Soil moisture 2/3 adequate and 1/3 short.

WYOMING: Scattered light to moderate showers statewide. Gillette reported the most moisture with 1.53 inches. Temperatures averaged near to a little below normal. Maxima were mostly 80's west of Divide and Upper Platte Drainage, 85° to 100° elsewhere. Minima were mostly upper 20's and 30's west of Divide, mid-30's and 40's elsewhere. Temperature extremes: 102° at La Grange and 25° at Foxpark and Evanston. Irrigating, cultivating, spraying and haying main activities. Winter wheat 50% milk stage, 20% soft dough. Barley 70%, spring wheat 40% and oats 35% headed. Alfalfa 55%, clover 25% cut. Soil moisture generally short to adequate. Contracting cattle, calves, and lambs for fall delivery underway.