

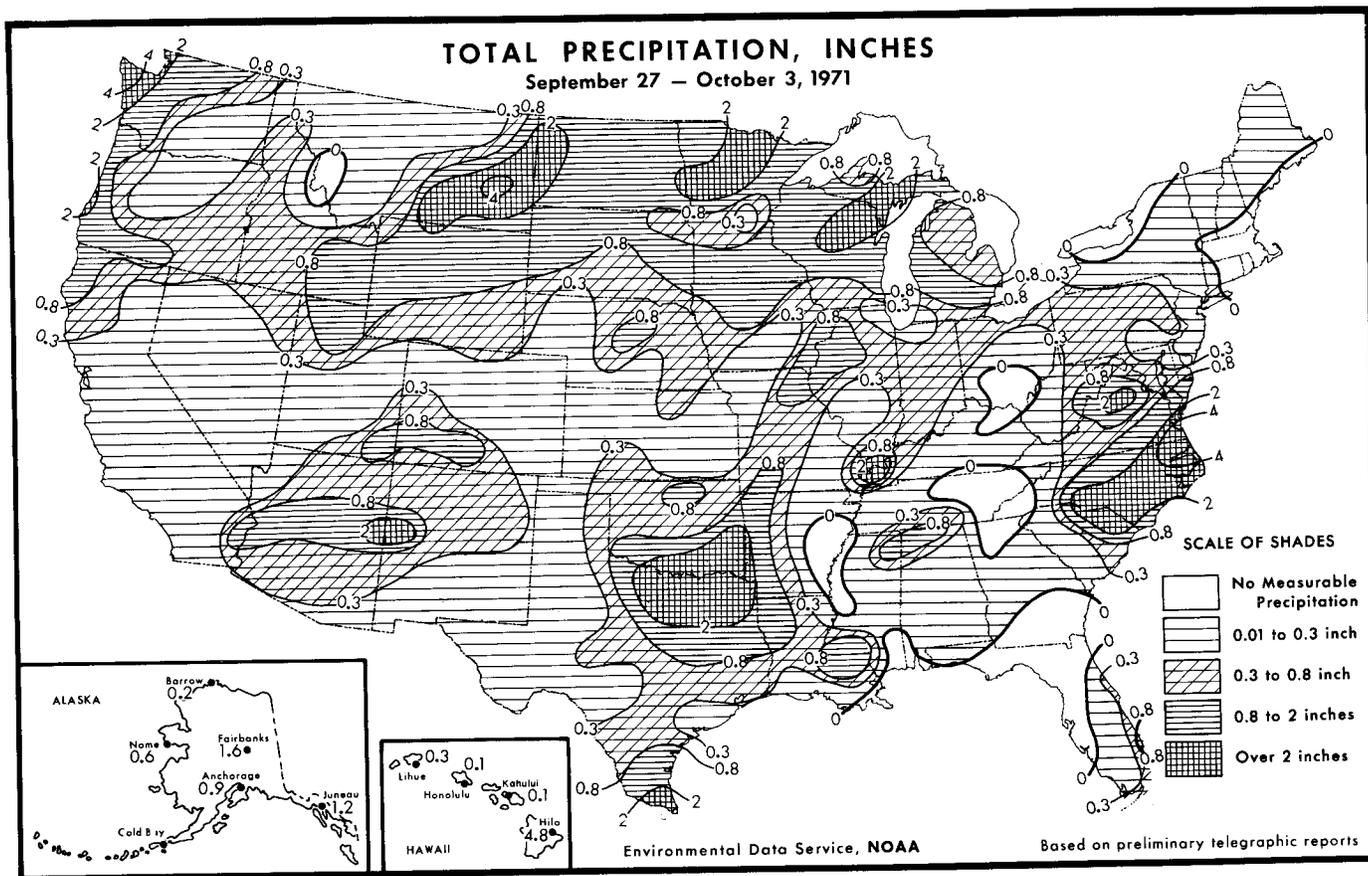
Weekly Weather & Crop Bulletin

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

Volume 58, No. 40

Edited by Lucius W. Dye

October 4, 1971 Washington, D. C.



HIGHLIGHTS: The West was unseasonably cool last week; the East, unseasonably warm. Cold rain and snow fell in the Northwest. Thunderstorms occurred in the sultry South.

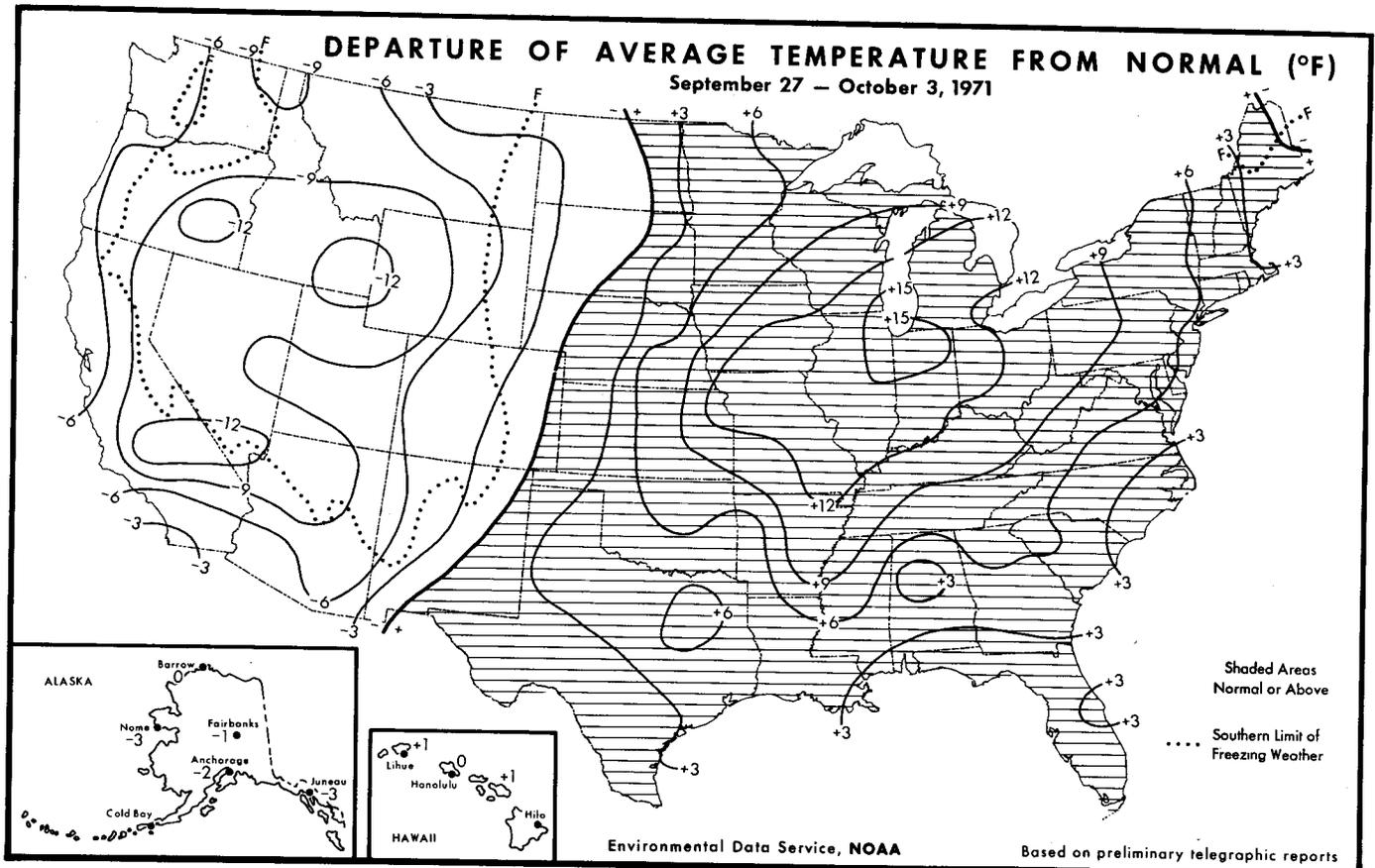
PRECIPITATION: Cold rain and snow fell in the Northwest on several days last week. Four inches of snow fell at Salt Lake City, Utah, in 6 hours Thursday. This is the 2d time in 40 years that more than a few flakes of snow have fallen at Salt Lake City in September. The previous time was September 17, 1965, when 2.2 inches fell.

Tropical Storm Olivia, off the coast of Baja California, moved northeastward. It brought generous showers to the arid Southwest late Wednesday. Arizona and New Mexico benefitted most from these showers. Flagstaff, Ariz., received 1.70 inches and 2.23 inches fell at Zuni, N. Mex. Thursday a low pressure area over the

central Great Plains caused strong gusty winds from northwestern Oklahoma to western South Dakota. Gusts reached 61 m.p.h. at Russell, Kans., and 56 m.p.h. at Lincoln, Nebr. Elsewhere, over the central Great Plains the gusts were generally 40 to 55 m.p.h.

Hurricane Ginger, after meandering in the Atlantic Ocean for almost 3 weeks, began moving toward the Middle Atlantic Coast about midweek. It crossed the North Carolina coast Thursday. Winds at Cape Hatteras gusted to 74 m.p.h. and 5.62 inches of rain fell in 24 hours. The storm brought about 8.50 inches of rain to the Wanchese, N.C., Radio Station. By the weekend, Ginger had weakened but produced generous rains to portions of Virginia and North Carolina before moving to the Atlantic Ocean.

A weekend storm moved across the northern Great Plains and dumped wet snow over the Rocky



Mountains and cold rain accompanied by blustery winds. Snow accumulated to a foot or more in southeastern Montana. Light rains fell over the northern and central Great Plains Thursday and Friday and heavy showers occurred from northern Texas to northern Missouri Saturday with a few localities in Texas and eastern Oklahoma receiving more than 3.00 inches.

TEMPERATURE: In general, the Northwest was seasonally cool, the northern States from the northern Great Plains were somewhat chilly, the Southwest, hot and a large area from the central Great Plains to the Gulf of Mexico and eastward to the Atlantic was warm and humid. Rising temperatures prevailed over the central Great Plains early in the week. Chicago, Ill., was 20° warmer Monday afternoon than Sunday. The respective maximum temperatures on those days were 84° and 64°. In contrast to the sultry summer weather which prevailed over the central and eastern States, a large Low over the central Great Plains shortly after midweek brought damp chilly autumn to the

northern Rocky Mountains and the northern Great Plains. West Yellowstone, Mont., warmed to only 33° Thursday afternoon. Sunday morning, the autumn chill penetrated far southward into Arizona and New Mexico, with temperatures over the northern portions of those States tumbling to below freezing. Southerly winds brought unusually mild weather across the central and southern Great Plains to the Great Lakes region late in the week. Madison, Wisc., registered 88° Thursday and Friday afternoons. By Sunday, cool air lay over the northern Great Plains and maximums remained mostly in the 50's.

Weekly mean temperatures averaged below normal from the Pacific Ocean to the western edge of the Great Plains and above normal over the rest of the Nation. The Great Basin averaged 9° to 12° colder than normal. The Mississippi and Ohio River Valleys and the Great Lakes Region averaged 9° to 15° warmer than normal.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Crop harvest rapid in Illinois. *Fair weather speeds cotton maturity and harvesting in the South. *Rains plaguing Texas crop harvest. *Potato digging active from Idaho to Maine.

SMALL GRAINS: Wheat seeding moved ahead rapidly in Kansas. Kansas wheat growers planted about 1/3 of their acreage during the week, and now have nearly 2/3rds of the crop seeded. Progress was not as good in Oklahoma and Texas, as wet fields and heavy rains frequently kept planting equipment idle. Emerged fields are growing extremely well in these 3 States as moisture is plentiful.

On the northern Great Plains, winter wheat seeding has ended in the Dakota's. Wheat growers in Nebraska have only 90 percent of their acreage in, with dry soils in the eastern counties delaying seeding progress. Hard rains held up completion of harvest in North Dakota, but only a few fields remain to be combined. Moisture is adequate for the completion of fall seeding in Colorado; over 90 percent of the wheat is in. Some reseeded will be done in the southeast. Montana growers also made good headway in seeding their fall grain acreage. It was a wet week in the Pacific Northwest, but seeding was active between rains. Growth is good on early emerged stands. Seeding was also active east of the Mississippi River, with moisture sufficient to get grain crops off to a fast start.

CORN: Corn harvesting progress varied in the Corn Belt. Temperatures were well above normal throughout the Belt, but rain and high humidity slowed picking in the Northern region. However, dry weather was ideal for harvesting in southern Corn Belt States. Harvest progress is a few days ahead of last fall in Illinois, but picking is about the same as last season in Iowa. A bad combination of corn borers, root worms, and stalk rot is causing an increase in lodging in many Illinois areas. High winds also caused lodging in Nebraska and South Dakota. Some areas are experiencing an above normal amount of ear droppage; much of this damage is occurring to stalks previously weakened by corn borers. Moisture content remains high in some States and a frost would be welcome to aid in the drying process. Corn Belt harvest is most advanced in Kansas and Missouri where 30 percent of the crop is under cover. Silo-filling is doing well and is finished on many farms.

It was a dry week throughout the South and harvest activity was on the rise after a few weeks of wet weather. Hurricane Ginger damaged corn fields in central North Carolina. Tennessee growers were hampered as the moisture content of corn was too high for picking in many fields. Losses from lodged or broken corn stalks will be less this year than last year in Kentucky.

SOYBEANS: Hot, dry weather hastened soybean ripening from the Great Plains eastward. Combining has made giant headway in Illinois the past 2 weeks -- 50 percent of the crop is in storage. However, bean size is small due to dry August weather. Combining also made rapid progress in Missouri and Kansas and is well ahead of the 1970 pace. Farmers made slower progress in the northern sections of the Corn Belt as rains and high humidity interrupted fieldwork. It was a rather dry week in the South and soybean harvesting increased. Overall progress is behind last fall. Hurricane Ginger also damaged some acreage in North Carolina.

COTTON: Hard rains kept cotton pickers idle a good part of the week in Texas. Maturity of the crop on the High Plains continues to lag. California harvest got underway in the Kern area, and defoliation activities were widespread throughout the San Joaquin Valley. Rains interrupted harvesting in Arizona and caused boll rot to increase. After many weeks of rain; warm, dry weather returned to the South. This allowed farmers to make better progress with harvesting and defoliation of their crop. Harvest is generally light, but was starting to gain momentum as the week closed. The amount of cotton picked to date is well behind last fall. Rain, wind, and floods from Hurricane Ginger caused minor damage to some fields in North Carolina.

OTHER CROPS: Sorghum harvesting made good headway in Kansas, but rain held combining to a minimum in Texas and Oklahoma. Strong winds caused some lodging in Nebraska. California harvest was picking up as fields dried out. The Kentucky tobacco crop continues to suffer from houseburn. Poor drying conditions exist in most other tobacco producing States. Cutting is drawing to a close in Tennessee and Virginia. Clear skies aided peanut harvesting in Georgia and Alabama, where harvest is nearing completion. Rain slowed digging in Texas and Hurricane Ginger also damaged some North Carolina acreage. Potato digging is extremely rapid from Idaho to Maine, but showers caused frequent digging interruptions. Lifting of the 1971 sugar beet crop is underway in major producing States. Rice harvest ended in Texas, with Louisiana growers working on their last few fields. The Michigan navy bean harvest is near completion. Nearly half the Louisiana sweet-potato crop is dug, but some rotting has occurred due to excess soil moisture.

Fruits and Nuts: Apple picking continued to be the main activity on Northern fruit farms. Most farms are putting apples into storage. Cranberry harvest continues on schedule. Pecan harvest got underway in southern Louisiana, with a few nuts falling in northern sections of the State. Pecan prospects are favorable in sprayed Alabama orchards. Grape picking is active in California, New York and Michigan. Light harvest of lemons is underway in Yuma, Arizona. Florida citrus prospects are excellent, with harvest starting to increase.

Vegetables: Showers continue to halt winter vegetable planting in the Lower Valley of Texas. No acreage has been seeded since early September. Harvesting on the High Plains is increasing as fields dry. Planting of late fall and winter crops made good headway in Florida. Harvest of some early season produce started, but volume is extremely light. Shipments of cabbage, carrots and cauliflower are increasing from Michigan and New York. Tomato, cucumber and sweet corn supplies are falling off rapidly as fall approaches the Northeast section of the Nation. Lettuce cutting started in Cochise County, Arizona.

PASTURES AND LIVESTOCK: Pastures are basically in good condition for this late in the season. Good rainfall in September kept pastures growing and most herds are now grazing on good grass. Marketing of feeder cattle is increasing. Cattle movement is slowed by lack of volunteer wheat pastures for grazing in Kansas, but some herds are grazing in harvested corn fields. Snow slowed Utah cattlemen in their movement of cattle to fall and winter ranges.

Steve J. Pscodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., October 3, 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. . . .	74	+ 2	T	- .7	New Orleans	78	+ 3	0	-1.1	OKLA.Okla. City . . .	75	+ 6	.6	- .1
Mobile	80	+ 5	T	-1.2	Shreveport.	79	+ 4	1.2	+ .6	Tulsa	76	+ 7	.8	- .1
Montgomery.	78	+ 4	.3	- .5	MAINE.Caribou	48	- 1	.1	- .7	OREG.Astoria.	53	- 3	1.2	+1.1
ALASKA.Anchorage. . .	40	- 2	.9	+ .4	Portland.	58	+ 3	0	- .8	Burns	41	-13	.5	+ .3
Barrow	25	0	.2	+ .1	MD.Baltimore.	---	---	---	---	Medford	52	- 8	.9	+ .6
Fairbanks	36	- 1	1.6	+1.4	MASS.Boston	65	+ 3	0	- .7	Pendleton	53	- 7	.1	- .1
Juneau	43	- 3	1.2	- .7	Nantucket	63	---	0	---	Portland.	55	- 4	.8	+ .2
Nome.	34	- 3	.6	+ .1	MICH.Alpena	66	+14	.5	- .3	Salem	52	- 8	.8	+ .3
ARIZ.Flagstaff.	43	-11	1.7	+1.4	Detroit	69	+10	1.1	+ .5	PA.Allentown.	65	+ 5	.3	+ .5
Phoenix	72	- 6	.8	+ .7	Flint	69	+13	.5	- .1	Erie	65	+ 6	.2	- .7
Tucson	70	- 8	.7	+ .5	Grand Rapids.	72	+14	1.9	+1.3	Harrisburg.	68	+ 6	.2	- .4
Winslow	57	- 9	1.2	+1.1	Houghton Lake	66	+13	.6	- .1	Philadelphia.	69	+ 7	.4	- .3
Yuma.	---	---	---	---	Lansing	70	+13	1.5	+ .9	Pittsburgh.	70	+11	.5	- .1
ARK.Fort Smith.	75	+ 5	1.5	+ .7	Marquette	62	+ 8	3.1	+2.3	Scranton.	64	+ 7	.3	- .5
Little Rock	79	+10	T	- .7	Muskegon.	71	+12	.8	+ .2	R.I.Providence. . . .	64	+ 5	T	- .8
CALIF.Bakersfield. . .	53	-11	T	- .1	S.Ste.Marie	60	+ 8	1.2	+ .2	S.C.Charleston. . . .	76	+ 4	.4	- .8
Eureka	63	- 3	1.3	+1.0	MINN.Duluth	57	+ 6	1.5	+ .9	Columbia.	77	+ 6	.1	- .7
Fresno.	60	-11	T	- .1	Internatl Falls	55	+ 6	3.8	+3.3	Greenville	74	+ 5	.0	- .8
Los Angeles	67	- 4	0	- .1	Minneapolis	63	+ 8	1.7	+1.3	S.DAK.Aberdeen. . . .	56	0	.7	+ .4
Red Bluff	60	-12	.5	+ .3	Rochester	66	+ 9	1.0	+ .6	Huron	59	+ 3	.9	+ .6
San Diego	66	- 2	T	- .1	St. Cloud	60	+ 5	T	- .2	Rapid City.	53	- 3	1.4	+1.2
San Francisco	60	- 4	.1	0	MISS.Jackson.	78	+ 6	T	- .5	Sioux Falls	61	+ 4	.9	+ .5
Stockton	63	- 6	.2	+ .1	Meridian.	78	+ 6	.1	- .5	TENN.Chattanooga. . .	75	+ 6	0	- .7
COLO.Denver	55	- 3	T	- .3	MO.Columbia	77	+12	.7	- .1	Knoxville	74	+ 6	T	- .6
Grand Junction. . . .	56	- 6	.4	+ .2	Kansas City	78	+11	.1	- .6	Memphis	79	+10	0	- .6
Pueblo.	61	- 1	.1	- .1	St. Louis	78	+13	.2	- .4	Nashville	76	+ 8	0	- .6
CONN.Bridgeport . . .	66	+ 4	T	- .8	Springfield	75	+ 9	1.9	+1.0	TEX.Abilene	76	+ 5	.3	- .4
Hartford.	64	+ 6	0	- .8	MONT.Billings	46	- 9	2.2	+1.9	Amarillo.	68	+ 1	.4	0
D.C.Washington. . . .	72	+ 7	.5	- .2	Glasgow	49	- 3	.2	0	Austin.	79	+ 3	.7	0
FLA.Apalachicola. . .	79	+ 3	0	-1.2	Great Falls	46	- 7	.1	- .1	Beaumont.	79	+ 4	.5	- .2
Ft. Myers	82	+ 3	0	-1.7	Havre	48	- 3	T	- .2	Brownsville	80	+ 1	3.6	+2.5
Jacksonville.	77	0	0	-1.7	Helena.	43	- 8	.2	0	Corpus Christi. . . .	82	+ 3	1.0	+ .1
Key West.	82	+ 1	.4	-1.1	Kalispell	43	- 7	.2	- .1	Dallas	81	+ 8	4.0	+3.3
Lakeland.	79	+ 1	0	-1.1	Miles City.	50	- 5	4.0	+3.8	Del Rio	78	+ 1	.2	- .4
Miami	81	+ 1	.4	-2.0	Missoula.	44	- 6	T	- .3	El Paso	72	+ 1	.1	- .1
Orlando	81	+ 3	T	-1.4	NEBR.Grand Island . .	67	+ 7	.3	0	Fort Worth.	79	+ 5	2.1	+1.5
Tallahassee	76	+ 1	0	- .9	Lincoln	73	+10	. .	- .4	Galveston	82	+ 4	.2	-1.0
Tampa	79	0	T	-1.2	Norfolk	65	+ 5	.5	+ .1	Houston	79	+ 4	.5	- .5
GA.Atlanta.	75	+ 6	0	- .6	North Platte.	60	+ 2	.4	+ .1	Lubbock	72	+ 5	T	- .6
Augusta	75	+ 3	T	- .6	Omaha	71	+10	.4	0	Midland	73	+ 1	T	- .5
Macon	---	---	---	---	Valentine	57	+ 1	.4	+ .1	San Angelo.	75	+ 1	.4	- .2
Savannah.	78	+ 5	T	- .8	NEV.Ely	40	- 8	.3	+ .2	San Antonio	81	+ 5	.8	0
HAWAII.Hilo	75	- 1	4.8	+2.7	Las Vegas	62	-12	0	- .1	Victoria.	81	+ 4	.2	- .7
Honolulu.	79	0	.1	- .2	Reno.	44	-11	.1	0	Waco.	81	+ 6	1.0	+ .4
Kahului	79	+ 1	.1	0	Winnemucca.	48	- 6	.3	+ .2	Wichita Falls	77	+ 4	2.1	+1.4
Lihue	79	+ 1	.3	- .2	N.H.Concord	56	+ 1	0	- .7	UTAH.Blanding	50	- 8	1.2	+ .9
IDAHO.Boise	48	-10	.3	+ .2	N.J.Atlantic City . . .	66	+ 3	.1	- .6	Salt Lake City. . . .	48	-11	1.6	+1.4
Lewiston.	52	- 7	.4	+ .1	Trenton	66	+ 3	.1	- .6	VT.Burlington	60	+ 6	.1	- .6
Pocatello	42	-13	1.6	+1.4	N.MEX.Albuquerque . .	61	- 4	.4	+ .2	VA.Lynchburg.	69	+ 5	1.1	+ .4
ILL.Cairo	79	+11	2.0	+1.3	Roswell	69	+ 4	.1	- .3	Norfolk	71	+ 3	7.6	+6.8
Chicago	78	+16	.2	- .4	N.Y.Albany.	61	+ 4	0	- .7	Richmond.	70	+ 5	1.9	+1.2
Moline.	74	+14	1.1	+ .5	Binghamton.	62	+ 7	.2	- .5	Roanoke	70	+ 6	.3	- .5
Peoria.	75	+13	1.0	+ .4	Buffalo	67	+10	T	- .7	WASH.Colville	46	- 9	.6	+ .3
Rockford.	73	+14	.7	0	New York.	67	+ 2	.2	- .6	Omak.	48	- 7	1.2	+1.0
Springfield	78	+15	.1	- .6	Rochester	67	+ 9	T	- .6	Quillayute.	61	- 5	4.5	+2.5
IND.Evansville. . . .	77	+12	.6	- .1	Syracuse.	64	+ 6	T	- .7	Seattle-Tacoma. . . .	53	- 4	1.1	+ .5
Fort Wayne.	75	+15	.5	- .2	N.C.Asheville	72	+ 8	T	- .6	Spokane	48	- 8	.1	- .2
Indianapolis.	76	+14	.3	- .5	Charlotte	73	+ 4	2.2	+1.4	Walla Walla	55	- 6	.2	0
South Bend.	74	+15	.3	- .4	Greensboro.	71	+ 5	1.7	+1.0	Yakima.	50	- 7	.1	0
IOWA.Burlington . . .	74	+13	1.6	+ .9	Hatteras.	---	---	---	---	W.VA.Beckley.	68	+ 8	.3	- .3
Des Moines.	74	+13	.1	- .3	Raleigh	69	+ 3	3.6	+2.8	Charleston.	73	+ 9	.1	- .5
Dubuque	69	+11	.4	- .2	Wilmington.	73	+ 1	1.3	+ .4	Huntington.	74	+10	T	- .6
Sioux City.	68	+ 7	.6	+ .1	N.DAK.Bismarck. . . .	51	- 2	1.8	+1.6	Parkersburg	73	+10	T	- .6
KANS.Concordia. . . .	72	+ 7	.4	- .1	Fargo	57	+ 4	2.4	+2.1	WIS.Green Bay	67	+11	1.9	+1.3
Dodge City.	69	+ 3	.5	+ .2	Williston	49	- 3	2.5	+2.3	La Crosse	62	+ 4	.6	0
Goodland.	62	+ 1	T	- .2	OHIO.Akron-Canton . .	70	+11	.1	- .5	Madison	70	+13	.6	- .3
Topeka	77	+12	.1	- .5	Cincinnati.	76	+11	T	- .6	Milwaukee	71	+15	.9	+ .3
Wichita	73	+ 7	.2	- .4	Cleveland	70	+10	.6	0	WYO.Casper.	45	- 9	.2	0
KY.Lexington.	76	+11	0	- .6	Columbus.	73	+12	0	- .6	Cheyenne.	49	- 5	.4	+ .2
Louisville.	77	+12	T	- .6	Dayton.	76	+14	0	- .6	Lander.	44	-10	1.2	+ .9
LA.Baton Rouge. . . .	79	+ 4	1.2	+ .3	Toledo.	72	+13	.4	- .1	Sheridan.	46	- 7	1.2	+ .9
Lake Charles.	81	+ 5	.1	- .7	Youngstown.	69	+11	.6	- .1	P.R. San Juan	83	+ 2	.3	- .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: Mostly fair with hot days and mild nights. Average temperatures much above normal with daily maximums near 90° all sections. Little or no rain with only a few isolated showers first half of week. Open weather aided crop maturity and permitted farmers to make better progress with harvest. Cotton opening faster with defoliation underway many fields. Harvest still light, but should gain momentum next few weeks. Corn almost 90% mature and about 20% harvested, 40% harvested last year. Moisture content too high for harvest many areas. Soybeans made good progress--20% matured and small percentage harvested. Peanut harvest nears completion, good to excellent yields. Prospects for good yields of high quality pecans favorable sprayed orchards. Sweet potato harvest full swing Cullman County. Large quantity hay saved, but much over matured. Pastures supplied adequate grazing and livestock good condition.

ALASKA: Heavy rain all areas latter part of week producing above normal precipitation. No snow. Temperatures responsive to amount of cloudiness. Generally clear skies during the first half of week produced both the warmest and coldest temperatures ranging from a high of 58° and a low of 23°. Rains stopped crop harvest. Approximately 50% barley for grain to be harvested Tanana Valley. Main grain crop Kenai Peninsula will be oats, bundled and shocked for hay. Potato harvest Tanana and Matanuska Valleys virtually completed. Few acres remain to be harvest Kenai Peninsula. Most oats and barley for grain Matanuska Valley still unharvested. Topsoil moisture surplus all areas Railbelt.

ARIZONA: Moisture from Tropical Storm Olivia brought precipitation to most of State on 29th. Precipitation significant and local flooding many areas. Temperatures near normal beginning of week but fell much below normal 29th and remained below normal rest of week. Rain interrupted cotton harvest and defoliation. Cool weather delayed boll maturity southeast. Rainfall caused increase boll rot. Leaf perforators continued problem Yuma, controls being applied. Rains delayed early sorghum harvest, later plantings fair to good. Planting fall sugar beets active central. Spring-planted sugar beets making satisfactory progress. Renovation and preparation for new plantings underway. Fall lettuce making good progress Salt River Valley, Pima and Pinal Counties. Lettuce harvest underway Cochise County. Winter lettuce activity delayed Yuma, heavy rain. Cantaloupes making good progress. Limited lemon harvest Salt River Valley. Ring picking continued Yuma. Sizes generally small. Ranges continue to improve. Most supplying adequate feed. Higher elevation range feed shorter than normal, if early winter freeze, winter and spring feed may be light. Sheep and lambs fair.

ARKANSAS: Cooling northwest Sunday and Monday but elsewhere little variation in afternoon temperatures while nighttime temperatures generally cooling. Weekly means 4° to 11° above normal. Showers Sunday and Monday with amounts ranging from a trace to more than 1.50 inches. Heaviest in northwest and west-central and least

along southern border and in east. Heaviest 1.74 inches at Fayetteville. Peak harvest excellent rice crop underway. Bulk now combined. Harvest cotton and soybeans increasing, but not general. Fair to good yields expected. Over half cotton open, and 5% to 10% picked, mostly northeast. Sorghum harvest well advanced. Picking corn underway, but most still in field. Hay harvest nearly over. Fruit and vegetable season nearing completion. Good pecan crop expected. Early-seeded small grains aided by showers. Bulk of seeding must await harvest other crops. Pastures short north half, but generally favorable south. Some feeding livestock drier areas, but situation mostly favorable.

CALIFORNIA: Cold week for this time of year with moderate rains last 2 days of September. 18 inches of snow fell at Donner Summit; strong winds in Sacramento Valley. Average temperatures 4° to 12° below normal except immediate coast, and 14° to 18° below normal in Interior Basin, Sierra Nevadas. Precipitation amounts ranged from 2.00 inches on north coast to few hundredths southern San Joaquin Valley, near 0.50 inch at several locations low desert. Apple harvest Sebastopol continues. Harvest Watsonville continues, much fruit going cold storage. Grape harvest continues with picking wine varieties active. Most Thompsons raisins dried and rolled. Picking Tokays active. Few late plums and freestone peaches continue to be harvested. Prune harvest to decline, picking complete many areas. Almond harvest active. Picking dates Coachella Valley underway. Olive harvest increasing. Valencia orange harvest active Southern California. Picking nearly complete central California. Land preparation small grains continues. Limited plantings wheat, barley San Joaquin. Imperial Valley planting sugar beets, replanting due to rain; harvesting increased Sacramento Valley; digging continues central coast. Dry bean harvest nearly complete South Coast. Rice picking up momentum Sacramento Valley. Harvesting field corn northern San Joaquin Valley. Milo harvest picking up as fields dry out. Desert areas light picking cotton; light picking underway Kern. Growers defoliating early fields throughout San Joaquin Valley. Cooler weather slowed forage growth. Supplemental feeding required. Broccoli, cauliflower Salinas, Santa Maria seasonally normal. West Side cantaloupes declining. Imperial Valley underway. Celery Santa Maria-Salinas seasonally normal. Southern California sweet corn moderately active. Honeydews Sacramento Valley declining. Lettuce Salinas declining, San Joaquin Valley early areas increasing. Green peppers San Joaquin Valley moderately active. Potatoes slow all areas, Tulalake underway. Merced sweetpotato digging active. Market tomatoes King City-Stockton active.

COLORADO: First half period warm and dry. Colder with general storm last half. Minimums near or below freezing most areas over weekend. Precipitation 0.50 to over 3.00 inches southwest, southern mountains, and some areas central mountains, slight elsewhere. Rain most areas, snow higher mountain ranges. Generally high winds after storm. Local showers slowed harvest operations. Strong winds

dried surface soil eastern plains. Soil moisture adequate for completing fall grain seeding. Winter wheat seeding 93% complete, 71% emerged. Condition emerged acreage good. Winter barley 92% seeded, 60% emerged. Some reseeding winter wheat southeast. Corn harvest underway limited acres. Corn for silage 70% harvested. All sorghum turned color. Small acreage harvested eastern area. Dry beans 94% cut, 65% threshed. Quality beans reduced southwest. Sugar beet harvest underway. Fall potato harvest San Luis Valley near 50% complete. Range and pastures holding steady. Some supplemental feeding livestock local areas southeast. Movement sheep and lambs to winter pastures slow.

FLORIDA: Warm sunny weather. Temperatures averaged 3° above normal with daytime highs in low 90's. Rain sparse, with mostly less than 0.20 inch. Lower east coast averaged near 0.50 inch with West Palm Beach receiving 1.28 inches. Melbourne with 1.00 inch was the only other station reporting at least 1.00 inch. Harvest field crops active. Peanuts passed peak, corn continues, soybeans beginning, haying active, planting small grain. Pastures under stress and showing some decline. Cattle and calves mostly good. Citrus condition near excellent, harvest slowly increasing. Irrigation increasing. New foliage turning darker green. Fruit splitting not serious. Fall vegetables making good progress. Planting for late fall and winter harvest active. Harvest early season eggplant, pole beans, squash, cucumbers, radishes and greens for processing underway with very light volume. Everglades sweet corn harvest expected start early October. First tomato and celery shipments expected late October. Supplies most other fall commodities will be available in light and increasing volume during most October. Land preparation winter potatoes active, planting Dade and Ft. Myers-Immokalee areas expected to start soon.

GEORGIA: Warm and dry throughout week. Soil becoming quite dry after 2d straight week with little or no rainfall. Unseasonably warm, from 3° to 7° above normal. September rainfall ranged from slightly above normal in north to much below normal in extreme south and southeast. Temperatures were warmer than normal all areas. First month of 1971 to average above normal. Conditions favorable for all harvesting operations, land preparation, and seeding fall-planted crops. Small grain seeding 25% complete. Peanut harvest nearing completion, 98% dug and 95% threshed. Corn harvest 20% complete, very good yield. Cotton rated fair to good, 17% picked, much later than normal. Soybean condition declined slightly, but still mostly good. Good quality hay harvested. Pasture and cattle good. Harvest fall vegetables and apples active.

HAWAII: Rain watershed areas replenished water supply. Crops under heavy irrigation. Sugar harvest continues. Pineapple planting full swing. Sorghum planting and harvesting continues. Banana supply light. Papaya production increasing. New growth pastures from recent rain. Cattle good.

IDAHO: Marked cooling and general precipitation with considerable snow above 5,000 feet high-lighted the week. Mean temperatures dropped about 20°. Higher valleys east portion and somewhat less amounts elsewhere. Temperatures statewide averaged about 5° to 15° below normal for

week. Precipitation was heaviest since week ending September 3. Greatest totals north and east averaging about 1.00 inch. Pocatello recorded 1.46 inches for largest total. A tourist group was stranded at 6300 feet Silver City, Owyhee County, by about 15 inches of snow on September 30. This was the greatest depth reported. Rain and snow halted harvest. Fall-sown grains helped by moisture. Seeding 25% done. Snows moved cattle off high elevation ranges. Potato harvest 25% complete. Corn silage and dry bean harvest final stages. Alfalfa seed harvest 75% done. Some 3d and 4th cutting hay in swath when rains came.

ILLINOIS: Showers Wednesday when front stalled over central Illinois. Showers Sunday when cold front passed over State. Temperatures unseasonably warm with maximums Thursday and Friday above 90° some areas. Chicago set record of 92° Thursday. Soil moisture 38% short, 60% adequate, 2% surplus. Corn crop 20% harvested. Wide range yields but mostly good to excellent. Grain quality good to excellent. Grain moisture ranged 12% to 28%. Stalks lodging most areas due corn borer, root worm, and stalk rot. Soybeans 50% harvested, compared 30% year ago, yields vary. Bean size small this year due dry August. Soybean quality better north than south. Wheat 45% sown, last year 25%. Suitable for fieldwork 5 1/4 days. Main activities corn and soybeans harvest, sowing wheat and plowing.

INDIANA: Very warm week. Temperatures averaged 12° above normal. Greatest departure any week this season. Some 90's Thursday and Friday. Cold front late Sunday produced 0.30 to 1.00 inch of rain and cooler temperatures. Four-week rainfall above normal all divisions. Evaporation and sunshine more than usual. Five days suitable fieldwork. Topsoil and subsoil moisture adequate. Corn 10% harvested, 5% average. Farmers attempt to stay ahead blight damage. Soybeans 15% combined, 20% average. Wheat land 85% plowed, 35% seeded. Rye 65% seeded, 45% last year. Barley 70% seeded. Tobacco 70% cut.

IOWA: Hot and windy turning cooler midweek to late week. Precipitation moderate north, mostly light south. Humid weather slowed corn and soybean harvest. Five days suitable fieldwork. Corn harvest 15% complete, equals last year, but 5-year average only 5%. Soybean harvest 20% complete, equals last year and 5-year average. Grain sorghum harvest 25% complete, ahead of last year. About 70% winter wheat seeded. Topsoil moisture 58% short, 41% adequate, and 1% surplus.

KANSAS: Changeable weather. Warm and very windy much of week. Cool air surges 28th and October 1 and 2. Second cold front brought widespread precipitation but amounts extremely variable. Significant precipitation 0.25 to 1.00 inch most of southern and central 1/3 State, generally light elsewhere. Weekly mean temperatures near normal northwest, above seasonal elsewhere. Minima in the 30's several days late in period, but no hard freezes recorded. Wheat seeding moved ahead rapidly, following moisture western areas. Wheat 63% seeded, 58% last year, 1960-69 average 67%. Emerging stands generally good, high winds and grasshoppers caused local problems. Winter barley 44% seeded, 49% year earlier, average 55%. Row crops ripening and harvest moved ahead. Sorghum grain 72% mature and 24% harvested, compared with averages 56% and 14%. Corn 89% mature, average 84%, 30% harvested, average 18%. Soybean harvest 22% completed, 12% last year. Sugar beet

harvest full swing. Cattle movement slowed by lack volunteer wheat for grazing, but some cattle grazing stalk fields.

KENTUCKY: Mostly sunny, warm, and humid. Little or no rain. Afternoon temperatures in the 80's 8 consecutive days. Temperatures for week averaged 8° to 11° above normal. Fieldwork 5 days. Soil moisture 81% adequate, 11% surplus, 8% short. Corn 15% harvested, 38% last year and 29% in 1969. Losses expected from lodged and/or fallen corn stalks considerably below last year and slightly below previous years. Soybeans 10% harvested, 12% last year. Leaves still entirely green 21% acreage. Houseburn on tobacco prevailing most areas. Most damage light to moderate, but more than last year. Winter hay supply about normal. Pastures good to excellent.

LOUISIANA: Weekly temperatures 3° to 7° above normal as highs remained in 80's or low 90's and lows ranged in 60's or low 70's throughout week. Extremes: 93° Wednesday at Calhoun and Winnsboro and 58° Friday at Winnfield. Precipitation lighter and more scattered than last few weeks. Many places all sections reported no rain while heaviest totals, in northwest and south, ranged between 1.00 and 2.00 inches. Greatest 1-day totals 1.19 inches at Shreveport and 1.18 inches at Baton Rouge, both measured at 7 a.m. today. Soil moisture short to adequate north, adequate to surplus elsewhere. Fieldwork active north and where soil moisture permitted central and south. Cotton defoliation increased with crop 40% open, less than 5% picked. Corn and sorghum grain 60% harvested, rice 95%, soybeans 5% to 10%, sweetpotatoes 45%, some rotting due excessive moisture. Some straightening sugarcane, planting limited by excessive moisture. Pecan harvest beginning south. Few nuts falling north. Fall snap bean prospects poor, some scalding. Pasture feed average to above, livestock good condition.

MARYLAND AND DELAWARE: Temperatures above normal 6 or 7 days, averaged 5° to 7° above normal. Rainfall totaled mostly 0.75 to 1.50 inches eastern Maryland and Delaware, 0.50 to 0.75 inch elsewhere. September 1971 temperatures averaged 1° to 4° above normal, rainfall above normal to much above normal in north and below normal in southern Maryland and parts of central Eastern Shore and southern Delaware. Fall work about 1 week behind normal. Corn for grain harvest 31%, normal 41%. Silo filling about normal, 86%. Soybeans maturing slowly, no general harvest activity. Fall vegetable harvest continues, lima and snap beans 2/3 harvested, peppers 90%. Picking red and golden Delicious apples full swing.

MICHIGAN: Unseasonably warm, intermittent rain and showers most sections. Temperature averages 9° to 11° above normal Upper Peninsula, 11° to 15° above normal Lower Peninsula except less than 0.10 inch Thumb area. Rains and wet fields slowed fieldwork, but restored soil moisture supplies to normal most areas. State averaged 4.2 days suitable fieldwork. Over 70% corn acreage mature. Silage corn 80% harvested; corn for grain over 5% harvested. Soybean acreage 1/3 mature, over 5% harvested. Navy bean harvest nearing completion. Colored bean harvest active. Fall potato harvest active; sugar beet digging started. Pastures improved. Winter wheat over 80% planted. Germination and growth early-planted wheat excellent. Rapid harvest grapes and winter apples. Delicious apple color good. Celery and onion harvest nearing completion. Harvest cabbage, carrot, cauliflower active.

MINNESOTA: Rainy warm week with temperatures averaging 4° above normal in west to 9° above normal in southeast. Extremes: 87°, 34°. Cloudy damp weather across State entire week. Northern half of State exceptionally wet receiving more than 2.00 inches of rain, south half received generally less than 1.00 inch except for two 40-mile wide strips from Redwood Falls through the Twin Cities and Rochester area which averaged 1.00 to 1.50 inches of rain. Weather delayed corn and soybean harvest. Corn 93% mature, normal 82%; 4% picked, normal 3%. Soybeans 90% mature, normal 84%; combined 17%, normal 23%. Flax 89% combined, normal 79%. Potatoes 67% harvested, normal 50%. Sugar beets 21% harvested. Corn silage 92% cut.

MISSISSIPPI: Up to 2 days rain some locations with weekly totals less than 1.00 inch. On 26th, Abbeville reported 6.50 inches of rain in 6 hours from a local thundershower. On Monday, some dense widespread morning fog. Weekly average temperatures were 4° to 7° above normal with extremes of 93° at Wiggins on 25th and 26th and at Merrill on Tuesday; 56° at D'Lo on Thursday and Friday. Over weekend, mostly sunny and fair except for few widely scattered showers in northwest near Mississippi River. Soil moisture short northwest, mostly adequate remainder. Average 5 days suitable for fieldwork. Corn 75% mature, 20% harvested. Cotton 30% opened, 3% harvested. Soybeans 22% mature, 7% combined. Sorghum 54% harvested, remainder mature. Rice 80% combined, remainder mature. Cotton and corn fair to good. Hay, soybeans, livestock, and pastures mostly good. Pecans fair condition.

MISSOURI: Very warm dry week. Temperatures averaged 10° above normal. A surge of cool air crossed State Saturday and Sunday October 2 and 3, dropped temperatures to near normal and caused light showers. Heaviest showers in Ozarks where a few stations received over 1.00 inch of rain. Harvest full swing. Corn 30% harvested, last year 25%. Soybeans 61% matured, 25% harvested, 2 weeks ahead last year. Grain sorghum 36% harvested, double last year at this date. Cotton bolls half open, slightly ahead previous year. Cotton harvest underway, behind last season. Pastures poor northwest and south-central, remainder fair. Fall seeding nearing halfway point. Soil moisture adequate north-central, northeast and Bootheel, remainder mostly short.

MONTANA: Cool during week, warming weekend. Third consecutive week below normal temperatures. Heavy rain and snow south Thursday, Saturday; heaviest southeastern division with up to 14.00 inches of snow and 4.00 inches of moisture causing damage to utility lines. Only light precipitation elsewhere. Topsoil moisture adequate southern 1/3, spotty elsewhere. Winter wheat 80% planted, good progress past week. Winter wheat germination fair to good. Dry bean harvest 80% complete. Harvesting corn silage 90% finished. Potato digging 15% complete and sugar beet lifting 5% complete. Range cattle and sheep 55% moved from summer ranges. Calves and lambs somewhat lighter than normal.

NEBRASKA: Cold in west, warm in east. Several days strong winds. Light rain and snow west, showers and thunderstorms in east. Amounts generally less than a 0.50 inch but range up to 2.00 to 3.00 inches some sites. Harvesting operations progressing slowly due intermittent showers and high moisture grain. Strong winds caused some lodging corn and milo with few reports corn ears dropping to ground. Corn 97% matured, sorghum 95% ripe. Most soybeans have

shed their leaves, 85% acreage matured. Potato digging well underway, and dry bean harvest nearing completion. Slightly more than 90% wheat planted, but dry topsoil problem many eastern counties. Livestock conditions generally good, but few cases swine disease.

NEVADA: Very cold week. All stations averaged 10° to 13° below normal. All divisions except extreme southern reported moderate to heavy precipitation averaging 0.25 inch. Sheldon reported 23 inches snow midweek, and snow ground cover in mountains. Alfalfa seed harvest continues, should be completed by mid-October. Hay crops continue to be harvested. Onion, garlic and potato harvest progress Pershing, Lyon, and Humboldt Counties. Cotton Pahrum Valley continues late. Bolls about 1/3 open. Planting winter grains progressing. Livestock good.

NEW ENGLAND: Mild, sunny, and very dry. Temperatures averaged 1° to 6° above normal, very warm October 2 with many highs in 80's but much cooler next day. Many freezing lows extreme north on 4th. No rain most places, scattered showers some areas, but mostly less than 0.10 inch. Harvest all crops on schedule with little interruption. Apple picking active for storage and local market. McIntosh coloring good with recent cool nights. Potato digging full swing Maine. About 3/4 crop dry. Cutting corn for silage at peak with surplus some northern areas. Cranberry harvest 2/3 complete, color fair, size good. Fall vegetables available heavy volume.

NEW JERSEY: Quite warm with temperatures averaging from 3° to 8° above normal. Afternoon readings ranged from upper 60's to low 80's and overnight lows were between upper 40's and low 60's. Rain-fall generally light averaging 0.20 inch North Jersey, 0.40 inch over south, and 0.30 inch along coast. Station totals varied from 0.10 inch at several stations to 1.70 inches at Seabrook. Harvest fall vegetable crops slow. Pepper harvest continues active. Irish and sweetpotato digging increasing. Apple picking heavy, quality excellent. Peaches continue to move out of storage. Cranberry harvest on schedule. Weather delaying field corn harvest. Hay making delayed, many fields will go into winter with heavy growth. Grain and cover crop seeding continues as conditions permit.

NEW MEXICO: General rain at month end with light totals except for 1.00 to 3.00 inches in northwestern quarter of State on Thursday. Cooling to much below normal temperatures in northwest. Warmer in southeast with temperatures near 5° above normal. Highest temperatures early in week and lowest temperatures on weekend. Moisture short to adequate. Temperatures near freezing north, limited crop frost damage. Cotton late, hand-picking increasing south. Grain sorghum nearing maturity. Alfalfa harvest active, some rain damage. Active harvesting broomcorn, apples, lettuce, other vegetables. Ranges fair to good and livestock improved.

NEW YORK: Cool early period becoming unseasonably warm mid- and late week. Maximums mid-70's to low 80's almost daily from 29th through 3d. Rochester 86° on 2d. Lowest minimums in 40's 1 or 2 nights except 35° to 40° northern valleys on 27th. Precipitation very light with 0.10 inch or less generally. Heaviest 0.20 to 0.50 inch St. Lawrence Valley from showers on 29th and 30th. Grain corn harvesting beginning all areas. Corn drying down

fast central sections. Silage corn harvest 65% complete. Dry bean pulling and combining continuing. About 10% crop in. Hay harvesting continues. Potato harvest active with rapid movement into storage. Steuben County 50% harvested. Volume from muckland areas also increasing. Onions drying slowly. Movement to storage active. Celery continues, lettuce harvest complete. Movement cabbage and cauliflower increasing Long Island. Upstate storage cabbage developing well. Completing processing tomatoes and sweet corn. McIntosh harvest continues. Quality good, but size smaller than last year. Hudson Valley picking Cortlands and Delicious. Concord grape volume harvest stage, both Finger Lakes and Chautauqua-Erie areas.

NORTH CAROLINA: Rain and wind from Hurricane Giner began on coast late 29th, spread inland 30th, diminishing but covering most of State 1st and 2d. Rain averaged 5.00 inches Coastal Plain, over 10.00 inches some stations. Highest wind gusts 90 m.p.h. on coast and 40 to 60 m.p.h. eastern interior, diminishing westward. Temperatures averaged above normal west portion and near normal east. Highest middle 80's and lowest near 50°. Winds, rain, flooding, associated with Hurricane Giner damaged unharvested crops Coastal Plain. Damage heaviest east-central, flooding central coastal. Soybeans and corn most severely damaged. Some damage peanuts, cotton, sorghum grain. Half to 3/4 corn harvested, affected areas. No soybeans harvested, but little shattering. Other areas little affected. Crops continued generally good. Corn 40% harvested. Peanuts 40% dug, 30% threshed. Hays over 80% harvested. Flue-cured marketing continues, type 13 auction closed. Pastures good.

NORTH DAKOTA: Temperatures averaged below normal west and above normal extreme east. Precipitation ranged from 1.50 to 2.50 inches over State with heaviest amounts southeast and northwest. Locally heavy moisture continued to hold up completion of small grain harvest. Flax and dry bean harvest windup stage. Over 1/2 soybeans combined and about 3/4 potatoes dug. Lifting sugarbeets underway, will pick up with completion delivery restrictions this week. Cattlemen sorting calves and moving feed to winter quarters.

OHIO: Warm, sunny, and humid. Mean temperatures more common to July over State. Temperatures generally 8° to 15° above normal. Widely scattered showers 29th. Five days favorable field work. Topsoil moisture 5% short, 85% adequate, 10% surplus. Corn for grain 90% mature, and 15% harvested. Soybeans 70% mature, 25% harvested, last year 80% mature and 30% harvested. Corn silage 85% cut, equal to last year. Potatoes 70% dug, usual 65%. Apples 25% picked, last year 30%. Sugar beets 10% dug. Grapes 25% picked, last year 35%. Tobacco 90% cut, normally 95%. Intended fall acreage for wheat 40% planted, barley 65% seeded. Rye 55% planted.

OKLAHOMA: Rainfall varied from 0.15 inch Panhandle to 1.80 inches east-central and south-central. Unseasonably warm until turning cooler over weekend. Temperatures averaged 3° to 7° above normal. Wet fields continued delay seeding small grains, harvesting row crops. Wheat seeding north-central and west-central areas progressed rapidly. Slightly over 1/2 wheat acreage seeded, 3/5 year ago. Oats and barley about 1/3 seeded, 2/5 year earlier. Cotton continues to mature slowly, only 1/5 bolls open, 3/5 year ago. Few

fields harvested. Corn harvest progressed rapidly most areas, 2/5 picked. Sorghum grain harvest very slow except south-central area 20% harvested. Rains will benefit late acreage. Soybeans maturing rapidly, but wet fields delayed harvest, 14% harvested. Surface soil moisture 10% short, 88% adequate, 2% surplus. Pasture and ranges fair to good. Demand for stocker cattle increasing. Winter wheat pastures look promising.

OREGON: Wet week. Cooling trend continued. Temperatures averaged 3° to 8° below normal west, mostly 8° to 13° below normal east. Maxima 60° to 64° coast, 56° to 83° elsewhere. Minima 24° to 45°. Rains totaled 0.10 to 0.50 inch east of Cascades, 1.20 to 2.00 inches western valleys, 2.20 to 4.00 inches along coast and northern Cascades. Land preparation and fall seeding active. Early-seeded grains emerging to good stands. Some dust seeding grain low elevations north-central. Some alfalfa and clover seed harvest. Pear harvest nearing completion Hood River. Newton apple harvest begun there. Prune harvest approaching completion. Walnut harvest expected October 15. Late vegetable, onion, and potato harvest underway. Cranberry harvest expected October 10. Sugar beet lifting expected Malheur County week October 5. Rains aided fall pastures. Growth good. Fall livestock movement active. Marketing about normal.

PENNSYLVANIA: Cloudy, mild. Rainfall 0.50 to 0.75 inch northwest, north-central and lower Susquehanna, under 0.50 inch elsewhere. Temperatures 6° to 8° above normal east, 8° to 12° above normal west. Extremes: 87° and 42°. Wet weather continues hamper fall harvest. Corn silage 75% completed, stalk roots and mold enhanced by damp weather. Fall potato harvest started, 1 to 2 weeks late. Grape harvest to start October 4, 1 week later than last year. Apple harvest red and golden delicious continues. Peaches finished. Fall plowing 75% completed. Pasture growth lush, hay over mature. Tomato harvest nearing end.

PUERTO RICO: Average rainfall 0.56 inch or 1.15 inches below normal. Heavier showers centered over western Cordilleras with totals over 3.00 inches. No rain large areas of south coast and eastern interior. Mild to moderate agricultural drought continued along most of north and south coasts. Temperatures averaged 81° along coast and 76° interior divisions with average departure of 0.2° above normal. Highest maximum 96°, lowest minimum 56°. Sugarcane developing well irrigated zones along south coast, but non-irrigated zones north reporting poor development due lack rain. Coffee plantations good progress harvesting and seeding, except extreme west. Operations delayed by heavy rain showers. Pastures generally fair to good except some areas south and north need more rain. Minor crops report generally good progress seeding and cultivating except some areas too dry north and south. Locally heavy rains west delayed harvesting and fieldwork.

SOUTH CAROLINA: One-half to 1.00 inch rain fell in northeast as Hurricane Ginger entered coast on 30th. Rainfall elsewhere under 0.50 inch except 1.00 to 2.00 inches extreme northwest. Temperatures normal elsewhere, averaging 71° to 75°. Extremes were 52° on 26th and 91° at Anderson on October 1st. Soil moisture generally adequate. Cotton fair to good. Bolls opening 72%, about 13% harvested. Soybeans condition good to excellent 30% mature. Condition sorghum good to excellent, harvest over 1/4

complete. Peanuts good to excellent, 62% harvested. Corn good to excellent, harvest about 46% complete. Pecans fair to good. Apples mostly good. Harvest 82% complete. Hay crops, pastures fair to good. Planting winter grains. Fall vegetables fair to good.

SOUTH DAKOTA: Temperatures averaged from 3° below normal in west to 6° above normal in East. Extremes ranged from 34° at Leola and Ipswich on 29th to 87° at Gettysburg on 27th. Precipitation fell as general showers and Thundershowers scattered through week with totals ranging from 0.25 inch to over 2.00 inches. Belle Fourche reported 1.70 inches on the 2d. Up to 6 inches snow fell in northern Black Hills end of week. Topsoil moisture supplies generally adequate. Harvest row crops east-central and southeast slowed by wet weather. Frost would be welcomed some areas to aid corn drying. Several areas suffered corn ear droppage and lodging corn and sorghum due high winds. Most damage to corn in areas where corn borer weakened stalks. Potato harvest underway. Heavy hail parts Haakon and Jackson Counties caused considerable damage. Progress harvest still well ahead normal with 14% corn, 35% sorghum, and 28% soybeans harvested. Most fall grains seeded and moisture ample to establish good stands. Some calves and lambs moving to market. Pastures greening from recent rains.

TENNESSEE: Mostly fair, no significant precipitation, only a few light isolated showers. Temperatures averaged well above normal with greatest departures west. Warm early in week, quite warm and humid midweek, and warming again over weekend. Crop outlook continues favorable, although development later than normal. Corn harvest 20% complete, increasing but moisture too high many fields. Soybean prospects good, leaves turning yellow rapidly. Cutting good tobacco crop drawing to close. Cotton prospects good, about 10% picked. Small grain seeding continues active. Oats and barley 50% planted. Wheat seeding 1/3 complete. Fall apple harvest continues. Hay and pasture conditions good. Calf marketing gaining momentum. Days favorable fieldwork 5.0. Soil moisture 77% adequate, 13% short, and 10% surplus.

TEXAS: Heavy showers and thundershowers fell on much of eastern 2/3 Texas over weekend, triggered by cool front that swept southward across State. 3.00 to 5.00 inch amounts reported in north-central Texas with some local flooding. Three persons drowned in surging waters of White Rock Creek in Dallas. Two to 3.00 inch rains common in Hill Country southward through southern Texas. Average temperatures slightly warmer than during previous week. Delay harvest and planting activities widespread as wet fields and scattered precipitation covers most State. Maturity rate cotton and sorghum High Plains retarded, as warm open weather failed to develop. Pastures and small grain making good growth as abundant moisture prevails. Percent harvested cotton 19, 27 year ago; corn 74, 86 year ago; sorghum 46, 64 year ago; peanuts 26, 30 year ago; rice 100, 100 year ago. Percent planted; wheat 60, 65 year ago; oats 42, 48 year ago. High Plains vegetable harvest slowly regaining normal activities as fields dry from heavy rains previous week. Lettuce shipments light, but expected increase. Carrot digging resuming, bell pepper harvest active. Light supplies potatoes, cabbage, tomatoes, cantaloupe available High Plains. East Texas sweetpotato digging full swing. Winter Garden showers, wet fields hampering planting winter vegetables. Early fields winter vegetables

fair progress, but excessive moisture creating disease, insect problems. Coastal Bend harvesting few cucumbers. Lower Valley showers kept fields wet and prohibited planting winter vegetables with none seeded since early September. Fall peppers, tomatoes, cucumbers, and winter vegetables only fair due excessive rain September, with fields flooded. Citrus trees good, fruit sizing well. Harvesting early oranges at standstill due rains. Pecans maturing with shucks beginning to split.

UTAH: First major snowstorm of season swept across much of State during latter part week. Moisture heavy over and near northern Wasatch Mountains but light to moderate elsewhere. Heaviest snowfall so early in season reported at many stations along Wasatch front. Temperatures averaged 3° to 12° below normal. Another killing freeze most major agricultural areas. Rain and snow storms interrupted harvest hay, potatoes, dry onions, dry beans, corn, apples, and other late crops. Heavy snow interfering with downward movement livestock from high country. Harvest 90% complete 3d crop alfalfa hay, 30% potatoes, 65% dry onions, 25% dry beans, 80% field corn, 85% alfalfa seed and 35% apples. Winter wheat planting 80% completed.

VIRGINIA: Temperature mainly above normal. Generally dry until rain from Hurricane Ginger beginning Thursday in southeast. Weather more favorable for field work until Thursday. Corn silage harvest active. Corn picking full swing northern Tidewater and Piedmont, nearly done southern Tidewater. Flue-cured tobacco harvest nearly complete. Other types final stages. Peanuts 10% dug and 5% combined. Little cotton picked. Barley and oats 30% planted, wheat 10%. Pastures excellent. Vaccinating horses for Venezuelan equine encephalitis. Marketing feeders. Vegetable harvest included sweetpotatoes, snap beans, cucumbers and peppers. Apple picking active.

WESTERN WASHINGTON: Cloudy and cool with moderate to heavy rain. First widespread snow of the season occurred in the mountains. Harvest corn, carrots, beets, potatoes, lettuce, cauliflower, and cabbage continues. Next week will wind up blackberry harvest. Pastures continue to improve. Berry field cleanup beginning.

EASTERN WASHINGTON: Cool temperatures and showers with temperatures below normal and precipitation above normal in the north. Apple harvest continuing. Soil moisture good

supply. Grape harvest getting underway and somewhat later usual. Harvest potatoes, sugar beets, lima bean, silage corn and clover and alfalfa seed continuing. First frost season general.

WEST VIRGINIA: Warm and humid all week, highest September 29. Some rain morning September 26, over 1.00 inch north-central sections. Light rain from Hurricane Ginger October 2 southeastern and eastern parts of State. Totals generally below 0.50 inch. Break in rainy spell allowed 3.6 days fieldwork, increase from last week. Soil moisture adequate to surplus. Main activities seeding winter grains, picking apples and preparing for winter. About 85% 2d cutting hay completed. Potatoes 70% harvested, some lost due rotting. Tobacco 80% harvested. Hay and pastures mostly good.

WISCONSIN: Much above normal temperature and precipitation with many record-breaking warm days and showers and thundershowers almost daily. Average temperatures 9° above normal. Precipitation ranged from near 0.50 inch in south to over 2.00 inches in north. Severe thunderstorms, hail, and one or two tornados on Tuesday evening. Silos 2/3 filled, not much corn in cribs yet. Moisture content still high, need frost. More corn ripe north than expected. Fall plowing continues. Pasture conditions poor south, good elsewhere. Soybeans ripening well. Still harvesting potatoes, good crop. Cranberries being harvested, yield down. Apple harvest good and also quality. Soil moisture about 20% short, 60% adequate, and 20% surplus. Dry south.

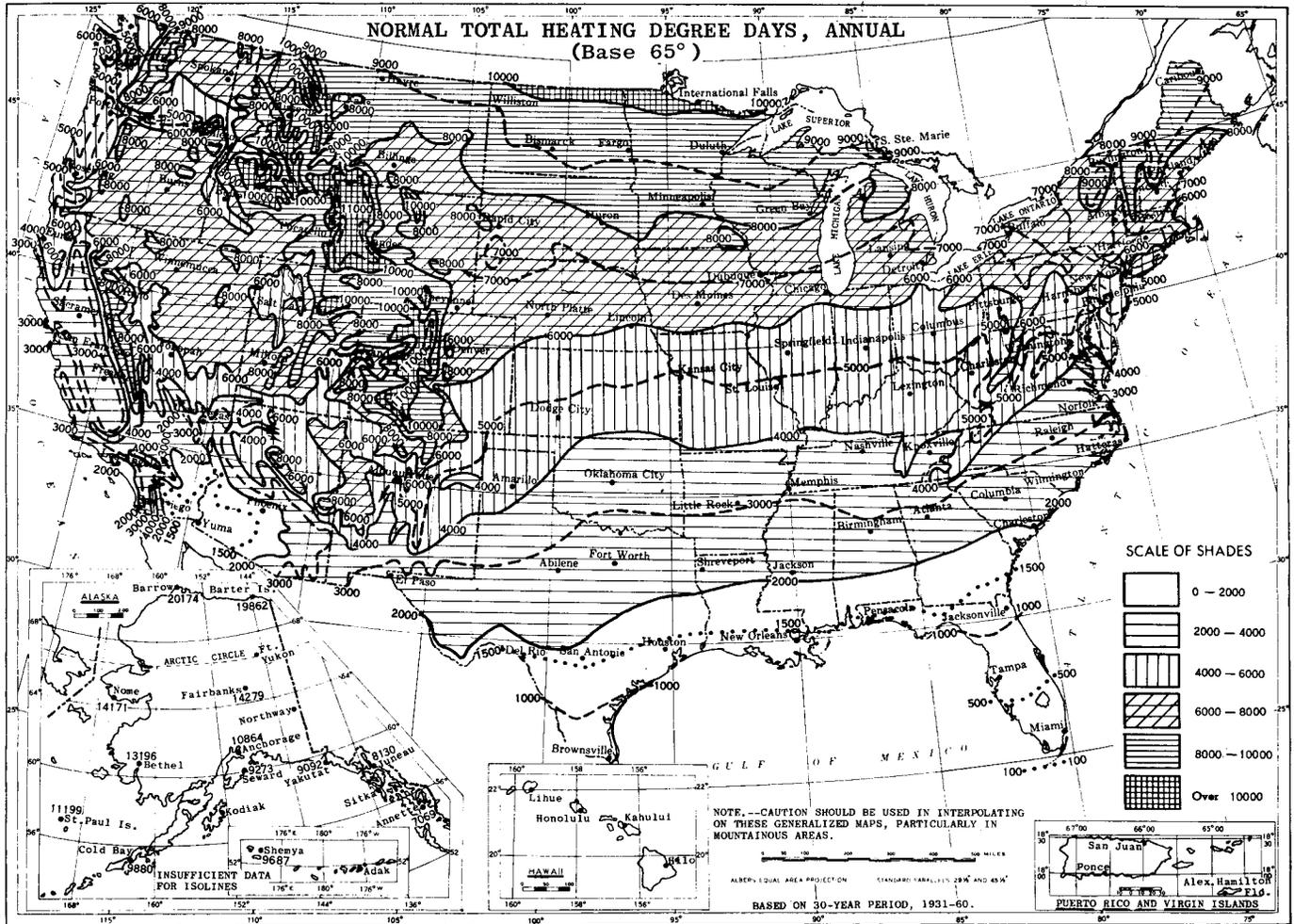
WYOMING: Light to moderate snow and rain over State except Upper Platte Drainage where little moisture fell. Diversion Dam reported the most moisture with 1.48 inches. Temperatures in western half of State averaged from 3° to 8° below normal; slightly below normal east half. Minima mostly teens west of Divide, 20's to low 30's east. Maxima mostly mid-60's to 70's west of Divide and Upper Platte Drainage, high 70's to 80's elsewhere. Temperature extremes: 85° at Red Bird and 10° at Big Piney. Main agricultural activities: harvesting corn silage, dry beans, sugar beets, and moving and shipping livestock. Harvest corn silage about 90% complete. Dry bean harvest slowed some areas by rain or snow. Sugar beet harvest begun, but less than 5% pulled. Approximately 90% potatoes dug. Surface soil moisture supplies generally adequate, while subsoil moisture short to adequate.

Heating Degree Days (Base 65° F.)

SEPTEMBER 1971

ALA. Birmingham	0	MAINE, Caribou	275	OKLA. Okla. City	59
Mobile	0	Portland	147	Tulsa	53
Montgomery	0	MD. Baltimore	24	OREG. Astoria	212
ALASKA, Anchorage	561	MASS. Boston	37	Burns	381
Barrow	990	Chatham	44	Medford	108
Fairbanks	600	MICH. Alpena	193	Pendleton	182
Juneau	504	Detroit	72	Portland	123
Nome	---	Flint	108	Salem	169
ARIZ. Flagstaff	352	Grand Rapids	167	PA. Allentown	52
Phoenix	0	Houghton Lake	183	Erie	184
Tucson	0	Lansing	129	Harrisburg	40
Winslow	59	Marquette	182	Philadelphia	17
Yuma	0	S. Ste. Marie	262	Pittsburgh	41
ARK. Fort Smith	23	MINN. Duluth	273	Scranton	90
Little Rock	9	Internatl Falls	---	R. I. Providence	42
CALIF. Bakersfield	12	Minneapolis	164	S. C. Charleston	0
Eureka	---	Rochester	170	Columbia	0
Fresno	20	St. Cloud	221	Greenville	0
Los Angeles	0	MISS. Jackson	0	S. DAK. Aberdeen	220
Red Bluff	36	Meridian	0	Huron	211
Sacramento	---	Vicksburg	---	Rapid City	267
San Diego	0	MO. Columbia	71	Sioux Falls	177
San Francisco	47	Kansas City	57	TENN. Chattanooga	0
COLO. Denver	273	St. Louis	47	Knoxville	0
Grand Junction	134	Springfield	61	Memphis	9
Pueblo	180	MONT. Billings	305	Nashville	0
CONN. Bridgeport	---	Glasgow	267	TEX. Abilene	44
Hartford	55	Great Falls	326	Amarillo	120
D. C. Washington	12	Havre	310	Austin	0
FLA. Apalachicola	0	Helena	454	Beaumont	0
Ft. Myers	0	Kalispell	470	Brownsville	0
Jacksonville	0	Miles City	---	Corpus Christi	0
Key West	0	Missoula	386	Dallas	8
Lakeland	0	NEBR. Grand Island	131	Del Rio	9
Miami	0	Lincoln	89	El Paso	31
Orlando	0	Norfolk	148	Fort Worth	12
Pensacola	---	North Platte	210	Galveston	0
Tallahassee	---	Omaha	111	Houston	2
Tampa	0	Valentine	215	Lubbock	83
GA. Atlanta	0	NEV. Ely	369	Midland	51
Augusta	0	Las Vegas	4	San Angelo	23
Macon	0	Reno	264	San Antonio	1
Savannah	0	Winnemucca	306	Victoria	2
IDAHO, Boise	210	N. H. Concord	165	Waco	0
Lewiston	206	N. J. Atlantic City	47	Wichita Falls	37
Pocatello	374	Trenton	31	UTAH, Blanding	---
ILL. Cairo	---	N. MEX. Albuquerque	101	Salt Lake City	201
Chicago	56	Roswell	82	VT. Burlington	131
Moline	94	N. Y. Albany	109	VA. Lynchburg	13
Peoria	85	Binghamton	144	Norfolk	3
Rockford	95	Buffalo	---	Richmond	11
Springfield	65	New York	17	Roanoke	12
IND. Evansville	23	Rochester	74	WASH. Colville	333
Fort Wayne	120	Syracuse	96	Omak	---
Indianapolis	49	N. C. Asheville	6	Quillayute	305
South Bend	86	Charlotte	4	Seattle-Tacoma	213
IOWA, Burlington	95	Greensboro	9	Spokane	297
Des Moines	96	Hatteras	0	Walla Walla	157
Dubuque	127	Raleigh	3	Yakima	282
Sioux City	126	Wilmington	0	W. VA. Beckley	46
KANS. Concordia	99	N. DAK. Bismarck	271	Charleston	1
Dodge City	110	Fargo	241	Huntington	11
Goodland	193	Williston	283	Parkersburg	22
Topeka	69	OHIO. Akron-Canton	68	WIS. Green Bay	155
Wichita	77	Cincinnati	29	Madison	131
KY. Lexington	8	Cleveland	63	Milwaukee	119
Louisville	13	Columbus	52	WYO. Casper	352
LA. Baton Rouge	0	Dayton	50	Cheyenne	364
Lake Charles	0	Toledo	78	Lander	366
New Orleans	0	Youngstown	76	Sheridan	328
Shreveport	4				

Preliminary reports from airport locations.



HEATING DEGREE DAYS

One of the most practical of weather statistics is the "heating degree day". First devised some 50 years ago, the degree day system has been in general use by the heating industry for more than 30 years.

Heating degree days are figured for each day as the number of degrees the daily average temperature is below 65°. For example, a day with an average temperature of 50° has 15 heating degree days (65-50 = 15) while one with an average temperature of 65° or higher has none. Normally heating is not required in a building when the outdoor average daily temperature is 65°, and the amount required at lower temperatures is proportional to the degree-day value. A fuel bill would usually be about twice as high for a month with 1,000 heating degree days as for a month with 500 heating degree days. Comparing normal seasonal degree days in different locations gives a rough estimate of seasonal fuel consumption. For example, it would require roughly 4 1/2 times as much fuel to heat a building in Chicago, Ill., where the mean annual total heating degree days are about 6,200 as to heat a similar building in New Orleans, La., where the annual total heating degree days are around 1,400. Using degree days has the advantage that the consumption ratios are

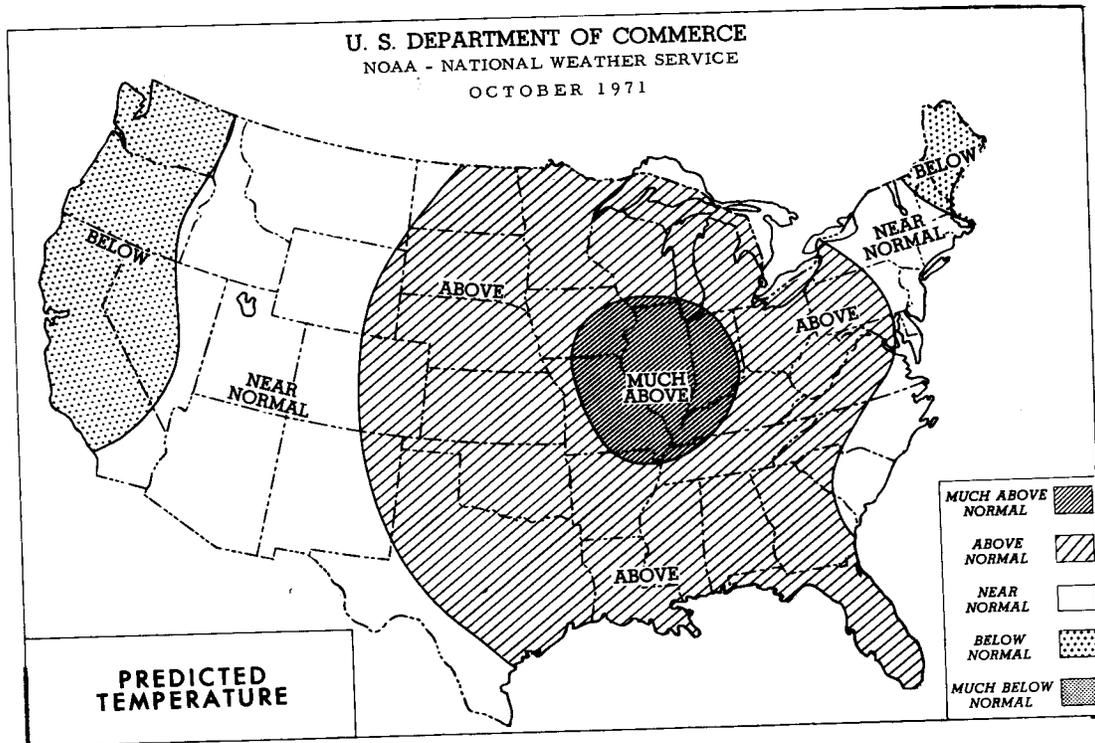
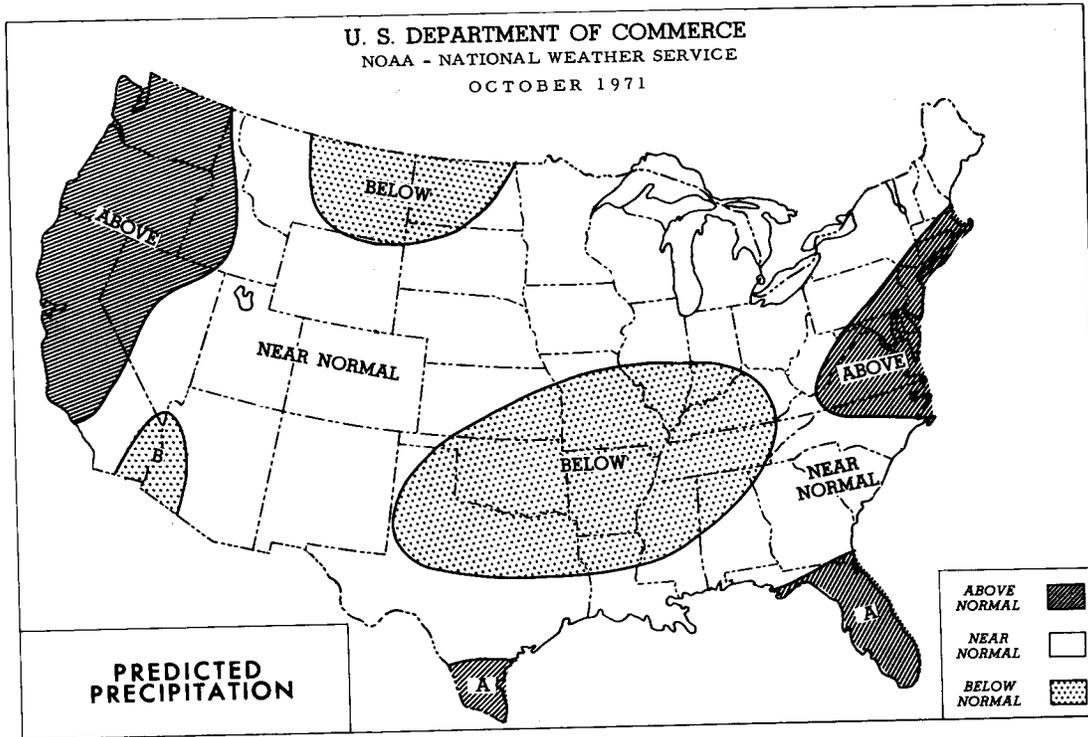
fairly constant, i.e., the fuel consumed per 100 degree days is about the same whether the 100 degree days occur in only 3 or 4 days or are spread over 7 or 8 days. They are used in scheduling deliveries and the precise evaluation of use rates and peak demands.

The map above shows that the mean annual total heating degree days are about 100 in the Florida Keys, and less than 1,000 in the Florida Peninsula and extreme southern Texas. These values increase northward to 5,000 across most of the middle of the eastern two-thirds of the Country and reach over 9,000 in northern New England and 10,000 near the Canadian border from the Rockies to the Great Lakes, and in the higher elevations of the Rockies. There are usually less than 2,000 heating degree days a year in the southeastern California-southwestern Arizona area and along the extreme southern California coast.

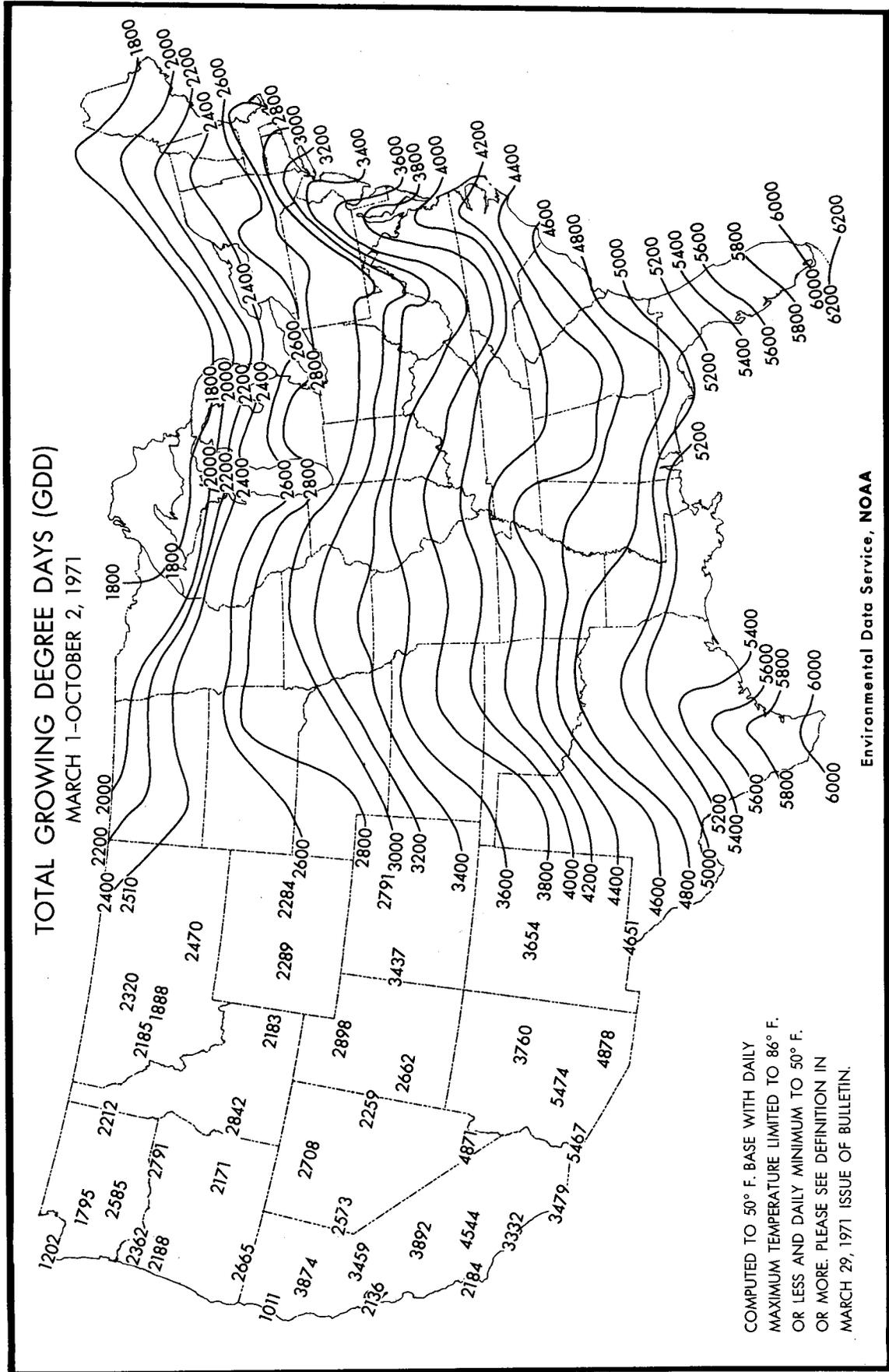
In Alaska they range from near 10,000 in the southern and southwestern coastal areas and islands to over 20,000 in the extreme northern portion. Heating degree days do not occur in Hawaii, except on the higher mountains, Puerto Rico, nor the Virgin Islands.

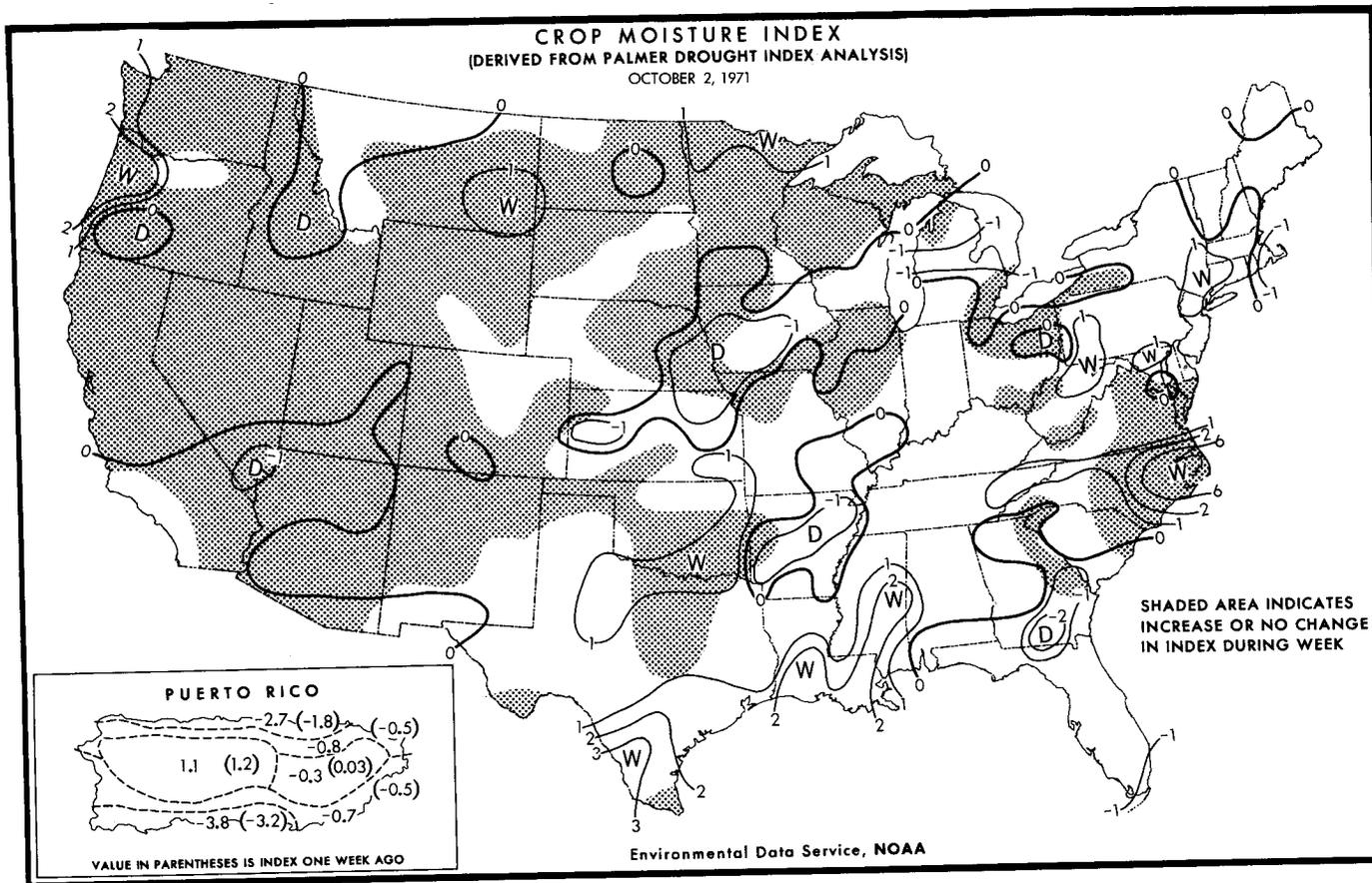
J. L. Baldwin

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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