

WEEKLY WEATHER AND CROP BULLETIN

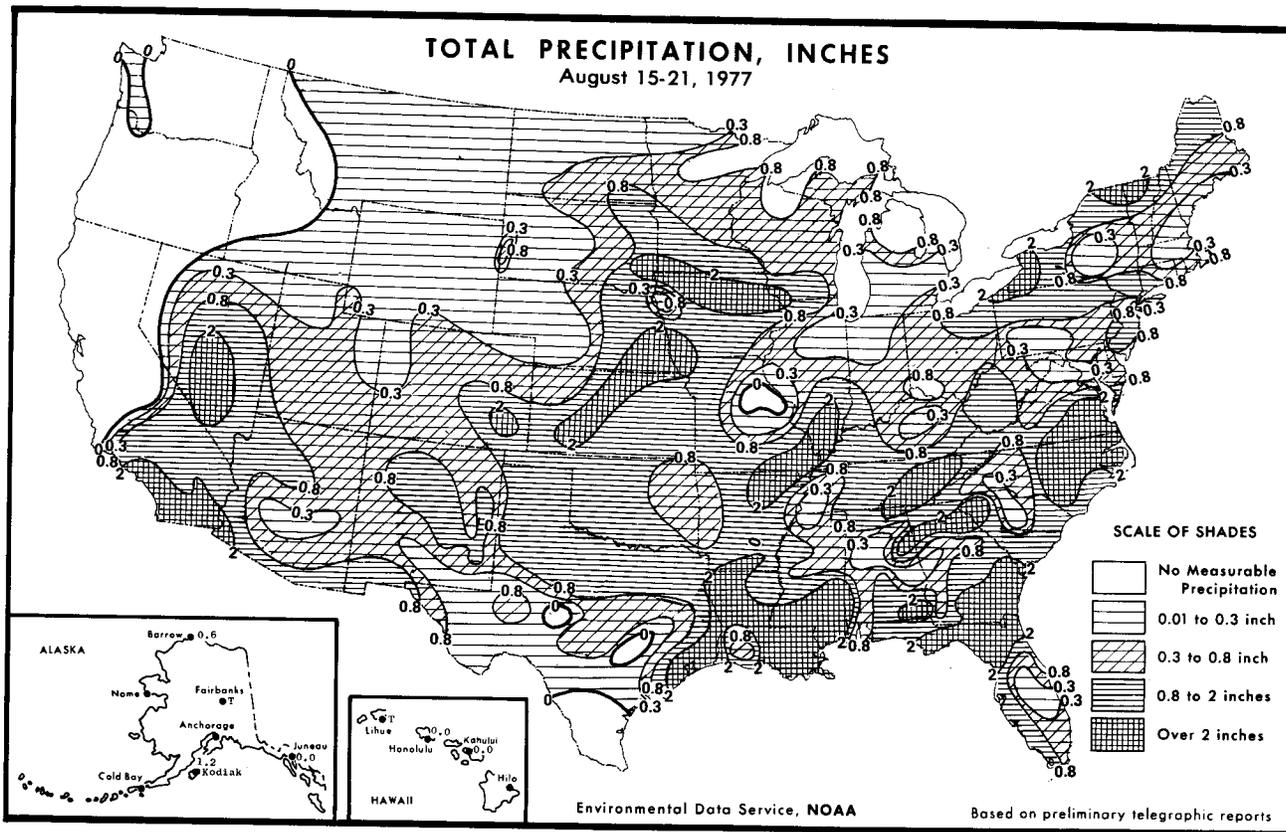
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National Weather Summary August 15-21

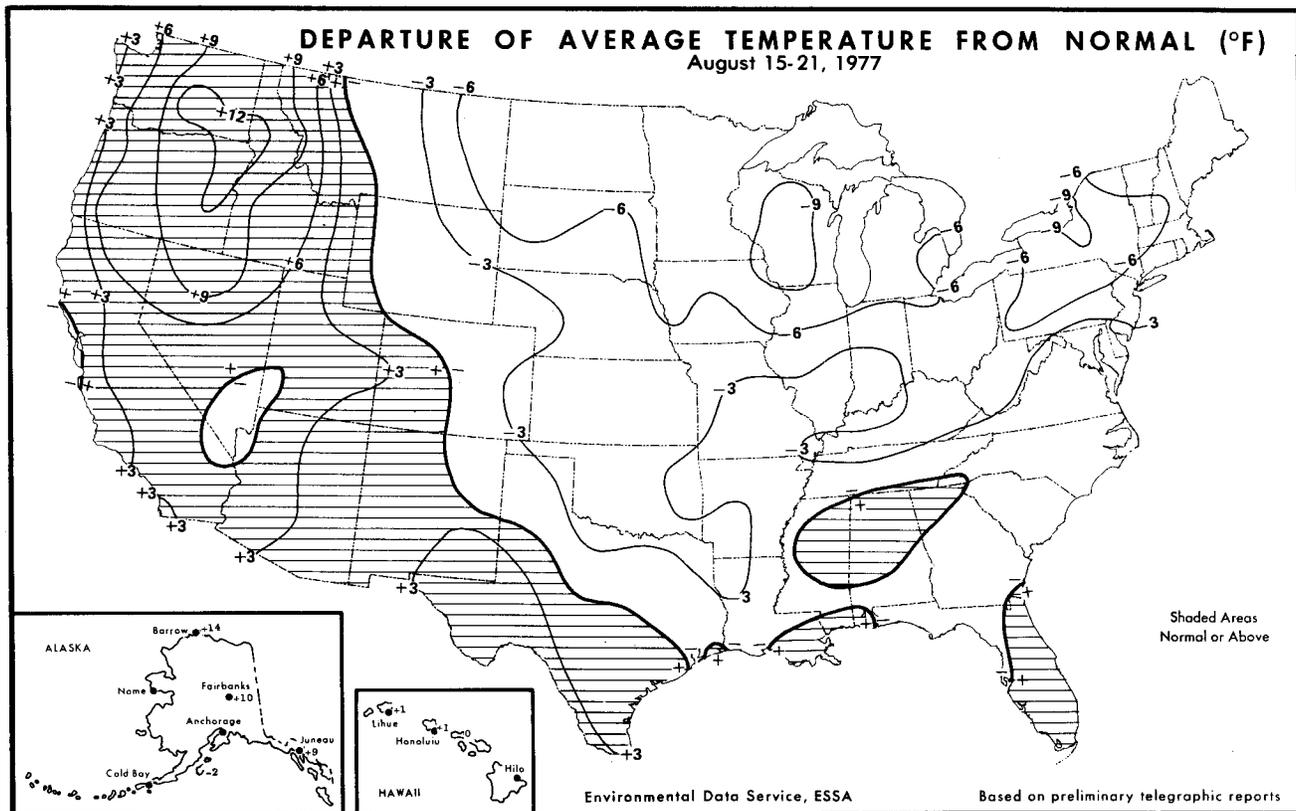
HIGHLIGHTS: Tropical storm Doreen delivered heavy precipitation to the southwestern U.S. Flash floods and mud slides were reported as well as some crop damage in California's Imperial Valley. Rain fell over most of the Nation except the Pacific Northwest; amounts varied widely.

Washington and Oregon also were hit by hot temperatures, averaging as much as 12° above normal. Nearly the entire country east of the Rockies was cooler than normal--6 to 9° lower in the Great Lakes area.

Before daybreak on Monday, the heaviest rainfall produced more than one inch in Panama City, Fla., and Quincy, Ill. Moisture-laden air, partially caused by Hurricane Doreen, pushed showers into the Southwest. Showers also occurred from the eastern Dakotas through the upper Midwest to the upper Mississippi Valley. Sioux Falls, S. Dak., was soaked by 5.20 in. There was precipitation

from the eastern portions of Oklahoma and Texas to the southern half of the Atlantic Coast. Panama City totaled more than 3 inches and Fayetteville, N.C., over 4 inches. By afternoon, heavy thunderstorms rumbled over southeastern California, Arizona, and southern Nevada triggering some flooding. Severe thunderstorms brought rain and hail to parts of eastern Nebraska and Iowa. Points in Iowa measured 5 to 7 inches of rain.

Downgraded to a tropical storm, Doreen moved up the Baja Peninsula bringing moisture to the desert Southwest and southern California on Tuesday. More than two inches of rain had fallen on Imperial, Calif., and Yuma, Ariz., by noon. Heavy thunderstorms extended from the western Great Lakes into eastern Colorado producing torrential rains in some sections; Zearing, in central Iowa, sloshed through 8.11 inches while other towns reported 6 to 7 in. Rapidly rising rivers overflowed. Other heavy storms dumped over 5 inches on south central



North Carolina, triggered flooding east of Evansville, Ind., and soaked western New York.

The remnants of Doreen had plenty left. Los Angeles broke its August rain record of 0.61 inch established in 1889; more than 2 inches fell. San Diego exceeded its 1883 record by measuring nearly 2 inches. Rains in the Imperial Valley were greater than is expected for the entire year. To the north, the Pacific Northwest was the hottest section in the country; this rare occurrence showed the hot spots to be The Dalles, Oreg., and Walla Walla, Wash., chalking up 110°.

Parts of New England were hit hard by rain; north central Vermont received 3.75 in. Heavy rains extended through the Appalachians across the Ohio and Mississippi Valleys into the south central Plains. Showers and occasional thunderstorms dotted northern California and moved into Oregon at nightfall. Tornadoes touched down in Maryland and North Carolina.

A front extending from Texas to the Atlantic Coast on Thursday brought downpours to several areas; hardest hit were East Texas, northern Louisiana, and portions of Georgia. Lufkin, Tex., got nearly four inches while Savannah, Ga., had two feet of water in the streets after a thunderstorm. Other heavy rain fell from the central Rockies to California; parts of Utah and the mountains east of San Diego were soaked.

Nearly a dozen record low temperatures in the 30's and 40's chilled points from Minnesota to Pennsylvania.

A frontal zone running from the Carolina Coast through the Gulf Coast States to the south central Plains carried precipitation to several areas on

Friday. The heaviest rain fell in the Oklahoma Panhandle and various locales in the Deep South. Thunderstorms rumbled over New Mexico, Colorado, and Nebraska producing some flooding. Large hail was reported in sections of New Mexico and North Dakota.

Temperatures finally began to drop in the Pacific Northwest after a record heat wave.

Heavy rains were concentrated over northeastern Texas covering several areas with heavy rain on Saturday; some streams overflowed. Storms built up over the central Plains. Large hail pummeled Nebraska and Iowa while showers dampened the lower half of the Rockies, Plateau Region, Atlantic Seaboard, upper Great Lakes, lower Ohio Valley, and areas from Texas to Georgia. A tornado clipped Blair, Nebr., northwest of Omaha.

Temperatures were unseasonably cool from northern Michigan to North Carolina.

Sunday dawned showing precipitation from the upper Mississippi Valley to the central and southwestern Plains. Two tornadoes in Illinois caused five deaths and heavy damage. Showers and thunderstorms, some severe, marched over the middle Mississippi Valley eastward through the Ohio Valley and lower Great Lakes. Hail pelted the southern regions of Illinois, Indiana, and Ohio and parts of Kansas. Other storms hit many portions of the Nation. Scattered stations counting more than an inch of rain included Ottumwa, Iowa; Amarillo, Tex.; Shreveport, La.; Jacksonville, Fla.; Youngstown, Ohio; and El Dorado, Ark.

Record low temperatures were set at several points in the Northeast from Pennsylvania to Maine.

National Agricultural Summary

August 15-21

HIGHLIGHTS: Additional rains and cooler temperatures over much of the East continued to improve soil moisture and crop conditions. Little relief was seen, though, to drier parts of the South and Far West. Hurricane Doreen damaged some crops in southern California, but the rains brought much needed moisture to some of the Southwest. Small grain harvest proceeded rapidly in the West, but was slowed somewhat in the north central States. Fall planting continued active. The corn crop maintained rapid development, with over half the acreage in the dent stage or past. Harvest increased in the South as fields continued to mature rapidly. Soybeans were fair to good as most of the crop was well along in setting pods and turning color in many central and southern States. Cotton development was also generally fair to good, and harvest continued across much of the South. The sorghum crop matured rapidly and harvest continued in the south central areas. Harvest of rice and peanuts was also underway as well as many fruit and vegetable crops. Pastures were mostly in fair to good condition except in the dry South and West.

SMALL GRAINS: Combining of the Nation's remaining winter wheat crop moved along rapidly with the dry, warm weather over much of the West. Seedbed preparation and planting of next year's crop continued throughout the U. S. In Indiana, plowing was 20% complete despite cool, rainy conditions. Illinois producers plowed 70% of their acreage, and in Oklahoma, one-third of the winter wheat seedbeds were ready for planting. Fall seeding conditions in the Pacific Northwest were very poor because of extremely dry soils.

Harvest of other small grains was slowed by cool, damp weather over many north central areas. In Minnesota, combining of spring wheat, oats, and barley was 85-97% finished, generally well ahead of last year and the average. North Dakota harvest progress was slow with spring wheat 65% complete, oats 75%, and barley 80% done. The Wisconsin oat harvest was 90% complete, compared with the normal 70%, and Michigan growers were 95% finished, compared with the average of 73%. Harvest of spring grains in the Mountain States ranged from 45-75% complete with the northern areas least advanced.

CORN: The Nation's corn crop continued to make good development with rains and cooler temperatures over much of the eastern half of the country. Harvest progressed throughout the South, though hampered by showers in many areas. The crop was maturing rapidly in the region, ranging from 48% mature in Mississippi to 88% ready for harvest in Louisiana.

In the Corn Belt States, most of the crop was well into the dent stage; 45-50% in Ohio and Indiana, and 84% in both Illinois and Missouri, well ahead of normal. Corn was in fair to good condition and some harvest for silage was underway. Wisconsin corn was 45% dented, although maturity had slowed somewhat and some fields were showing moisture stress.

Corn in the western north central States also moved rapidly into the dent stages. Kansas and Nebraska corn was 50-65% dented and Minnesota was 72% into the dent stage.

SOYBEANS: Soybeans remained fair to good throughout the major producing regions. In the north central States, soybeans setting pods ranged from

72% in Missouri to 96% in Illinois. Leaves were turning color in many States, with 10% turned in Illinois, 15% in Iowa, and 30% yellowing in Nebraska. Wisconsin's crop was showing continued large foliage growth and good pod development.

In the south central region, the crop also rated mostly fair to good. Podding was 50% complete in Oklahoma and up to 84% in Tennessee; pod set was underway throughout Texas after receiving a boost from previous showers.

COTTON: Cotton development also continued fair to good over much of the country, except in the Southeast where fields were plagued by dry soils and heavy insect infestations. Plants had set bolls on 90-100% of the acreage in most States, and over much of the South bolls were opening; 9% in Arkansas, 15-25% in Mississippi, Tennessee and Georgia, and 22% in South Carolina. Harvest in Texas was 7% complete, making good progress from the Lower Valley to the Blacklands. Some of the crop continued under moisture stress and was shedding. In the Southwest, cotton was in good condition except in parts of Arizona and California where the effects of Hurricane Doreen were felt. In the hard hit Imperial Valley, open bolls were knocked off many plants.

OTHER CROPS: Harvest of sorghum continued in several south central States, ranging from 4% complete in Arkansas to 58% done in Texas. The Texas harvest was in full swing in the southern Low Plains and other early areas; the south High Plains crop was aided by rains, but still showed moisture stress. In the north central States, heading ranged from 75% in Kansas to 92% in Missouri. The crop in South Dakota had turned color on 35% of the acreage, and in Nebraska 60% had colored.

The rice crop continued in good condition with harvest underway across much of the South. In Texas, 87% of the crop was in, slightly behind last year but ahead of normal. Operations were slowed by showers in the upper Coast. Louisiana's crop was 50% harvested, compared with 44% last year and the average of 36%. Rice development was good in Mississippi.

The U. S. peanut crop was in fair to good condition in most States. In Texas, harvest was 5% complete and in Mississippi, 14% of the crop was harvested. Tobacco harvest was nearing completion in Florida, and 79% complete in Georgia, 55-81% in the Carolinas, and well along in Virginia.

Maine potatoes made good progress while early digging in Washington continued. Progress of the Idaho crop was about normal.

FRUITS AND NUTS: Southern peach growers were cleaning up the last of the crop while picking remained active in the northern States and the Pacific Coast. Harvest of early apples accelerated in major producing States, and the Florida citrus groves were excellent. Pear harvest in the Pacific Coast States was active. California's harvest of nearly all fruit crops continued, although interrupted in some southern areas by Hurricane Doreen. In the San Joaquin Valley, grapes suffered bunch rot and splitting from the rain.

VEGETABLES: Picking of late summer vegetables was active in Florida, Texas, and California as well as the northern producing States. Fall planting

(continued on last page)

Temperature and Precipitation Data for the Week Ending Midnight, Aug. 21, 1977

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 . . .	81	+ 2	T	-1.0	La. Baton Rouge . . .	82	0	3.2	+2.2	Youngstown . . .	64	- 5	1.3	+ .6
Mobile . . .	84	+ 2	.8	- .7	Lake Charles . . .	81	- 1	.8	- .2	OKLA. Okla. City . . .	78	- 3	.9	+ .3
Montgomery . . .	81	0	.1	- .3	New Orleans . . .	82	0	3.0	+1.9	Tulsa . . .	78	- 3	.7	+ .1
ALASKA. Anchorage . . .	--	--	--	-1.0	Shreveport . . .	79	- 4	2.0	+1.4	OREG. Astoria . . .	63	+ 3	T	- .4
Barrow . . .	52	+14	.6	+ .4	MAINE. Caribou . . .	60	- 2	1.3	+ .5	Burns . . .	77	+11	T	- .1
Fairbanks . . .	65	+10	T	- .5	Portland . . .	63	- 3	.2	- .4	Medford . . .	78	+ 8	T	- .1
Juneau . . .	63	+ 9	0	-1.1	MD. Baltimore . . .	73	- 2	.5	- .5	Pendleton . . .	82	+11	0	- .1
Kodiak . . .	53	- 2	1.2	+ .2	MASS. Boston . . .	69	- 2	.2	- .6	Portland . . .	74	+ 7	T	- .2
Nome . . .	--	--	--	--	Chatham . . .	65	--	.9	--	Salem . . .	71	+ 5	T	- .1
ARIZ. Flagstaff . . .	66	+ 3	1.1	+ .5	MICH. Alpena . . .	56	- 8	1.8	+1.2	PA. Allentown . . .	67	- 5	.6	- .2
Phoenix . . .	93	+ 4	T	- .3	Detroit . . .	66	- 5	.3	- .5	Erie . . .	62	- 5	2.2	+1.4
Tucson . . .	85	+ 2	.5	0	Flint . . .	63	- 5	.2	- .6	Harrisburg . . .	69	- 5	.3	- .4
Winslow . . .	77	+ 1	.5	+ .1	Grand Rapids . . .	62	- 8	.7	+ .1	Philadelphia . . .	72	- 3	1.0	+ .1
Yuma . . .	88	+ 5	2.3	+2.2	Houghton Lake . . .	57	- 8	1.6	+1.1	Pittsburgh . . .	63	- 7	.2	- .5
ARK. Fort Smith . . .	79	- 2	.5	- .1	Lansing . . .	62	- 8	.1	- .5	Scranton . . .	62	- 8	1.3	+ .6
Little Rock . . .	78	- 3	1.9	+1.2	Marquette . . .	58	- 8	.7	0	R.I. Providence . . .	68	- 2	.5	- .4
CALIF. Bakersfield . . .	84	+ 3	1.0	+1.0	Muskegon . . .	61	- 8	.1	- .5	S.C. Charleston . . .	80	0	1.9	+ .5
Eureka . . .	58	+ 1	T	- .1	S. Ste. Marie . . .	53	-10	1.2	+ .5	Columbia . . .	77	- 3	.2	-1.1
Fresno . . .	80	+ 2	T	0	MINN. Duluth . . .	56	- 8	.3	- .6	Greenville . . .	77	- 1	3.0	-2.1
Los Angeles . . .	78	+ 4	2.3	+2.3	Internat'l Falls . . .	56	- 7	.3	- .5	S.D. Aberdeen . . .	65	- 6	.9	+ .4
Red Bluff . . .	83	+ 3	T	- .1	Minneapolis . . .	62	- 8	.5	- .2	Huron . . .	69	- 3	.5	0
San Diego . . .	74	+ 2	2.1	+2.1	Rochester . . .	61	- 8	1.1	+ .3	Rapid City . . .	66	- 6	T	- .4
San Francisco . . .	62	- 1	T	0	St. Cloud . . .	60	- 8	.4	- .5	Sioux Falls . . .	65	- 7	3.6	+3.0
Stockton . . .	79	+ 4	0	0	MISS. Jackson . . .	81	0	1.2	+ .4	TENN. Chattanooga . . .	80	+ 2	2.0	+1.4
COLO. Denver . . .	71	- 1	.5	+ .2	Meridian . . .	82	+ 1	2.3	+2.5	Knoxville . . .	75	- 2	3.0	+2.3
Grand Junction . . .	78	+ 3	.2	- .1	MO. Columbia . . .	75	- 1	T	- .7	Memphis . . .	79	- 1	1.1	- .7
Pueblo . . .	73	- 1	1.3	+ .8	Kansas City . . .	72	- 5	1.7	+ .9	Nashville . . .	76	- 3	1.2	+ .6
CONN. Bridgeport . . .	69	- 4	1.3	+ .5	St. Louis . . .	75	- 2	T	- .6	TEX. Abilene . . .	83	- 1	.8	+ .4
Hartford . . .	66	- 4	.2	- .7	Springfield . . .	76	- 1	.9	- .3	Amarillo . . .	76	- 2	1.2	+ .5
D.C. Washington . . .	76	- 1	T	-1.1	MONT. Billings . . .	69	- 1	.2	0	Austin . . .	87	+ 2	T	- .5
FLA. Apalachicola . . .	80	- 1	2.8	+1.0	Glasgow . . .	63	- 6	.1	- .3	Beaumont . . .	85	+ 2	2.4	+1.1
Daytona Beach . . .	82	+ 1	.7	- .8	Great Falls . . .	65	- 2	.1	- .2	Brownsville . . .	87	+ 3	0	- .6
Ft. Myers . . .	83	0	2.0	+ .3	Havre . . .	66	- 2	.3	+ .1	Corpus Christi . . .	87	+ 2	0	- .7
Jacksonville . . .	82	+ 1	3.8	+2.0	Helena . . .	68	+ 2	T	- .2	Dallas . . .	90	+ 4	T	- .3
Key West . . .	84	- 1	1.3	+ .3	Kalispell . . .	70	+ 8	.1	- .2	Del Rio . . .	83	+ 3	.8	+ .6
Lakeland . . .	84	+ 2	1	-1.5	Miles City . . .	67	- 6	.1	- .2	El Paso . . .	84	- 1	1.6	+1.1
Miami . . .	84	+ 1	.6	- .9	Missoula . . .	74	+ 9	0	- .2	Fort Worth . . .	83	- 1	3.4	+2.4
Orlando . . .	82	0	1.7	+ .2	NEBR. Grand Island . . .	71	- 4	.9	+ .3	Galveston . . .	82	0	2.1	+1.1
Tallahassee . . .	80	- 1	4.4	+2.9	Lincoln . . .	71	- 5	2.8	+2.0	Houston . . .	83	- 1	1.0	+ .6
Tampa . . .	83	0	1.6	- .2	Norfolk . . .	70	- 4	1.6	+1.0	Lubbock . . .	79	+ 1	.0	- .4
W. Palm Beach . . .	83	+ 1	.6	-1.0	N. Platte . . .	70	- 3	T	- .4	Midland . . .	86	+ 4	0	- .3
GA. Atlanta . . .	76	- 2	.6	- .2	Omaha . . .	68	- 6	2.3	+1.4	San Angelo . . .	87	+ 2	0	- .3
Augusta . . .	78	- 2	1.9	+1.0	Valentine . . .	68	- 5	.3	- .3	San Antonio . . .	86	+ 1	T	- .6
Macon . . .	80	- 1	.9	+ .1	NEV. Ely . . .	67	+ 2	1.3	+1.2	Victoria . . .	85	0	.1	- .6
Savannah . . .	80	- 1	3.0	+1.6	Las Vegas . . .	85	- 2	1.3	+1.2	Waco . . .	86	0	.4	0
HAWAII. Hilo . . .	--	--	--	--	Reno . . .	72	+ 5	T	- .1	Wichita Falls . . .	82	- 4	1.5	+1.1
Honolulu . . .	82	+ 1	0	- .2	Winnemucca . . .	77	+10	.4	+ .3	UTAH. Blanding . . .	71	0	.5	+ .1
Kahului . . .	79	0	0	- .1	N.H. Concord . . .	61	- 6	T	- .6	Salt Lake City . . .	77	+ 3	.3	+ .1
Lihue . . .	80	+ 1	T	- .5	N.J. Atlantic City . . .	70	- 3	.7	- .4	VT. Burlington . . .	62	- 5	3.0	+2.2
IDAHO. Boise . . .	81	+ 9	T	- .1	Trenton . . .	70	- 4	1.3	+ .4	VA. Lynchburg . . .	73	- 1	.9	0
Lewiston . . .	85	+14	T	- .1	N. MEX. Albuquerque . . .	77	+ 4	.9	+ .6	Norfolk . . .	76	- 1	3.8	+2.5
Pocatello . . .	73	+ 4	T	- .1	Roswell . . .	82	+ 4	.5	+ .2	Richmond . . .	76	0	3.3	+2.2
ILL. Cairo . . .	75	- 4	2.4	+1.6	N.Y. Albany . . .	62	- 7	.5	- .1	Roanoke . . .	74	0	.6	- .4
Chicago . . .	67	- 7	.3	- .4	Binghamton . . .	60	- 7	.2	- .6	WASH. Colville . . .	--	--	--	--
Moline . . .	67	- 6	.7	0	Buffalo . . .	62	- 6	2.6	+1.8	Omak . . .	79	+11	0	- .1
Peoria . . .	69	- 5	.1	- .6	New York . . .	70	- 5	.1	- .9	Quillayute . . .	61	+ 2	T	- .6
Rockford . . .	64	- 8	1.0	+ .2	Rochester . . .	62	- 7	.9	+ .2	Seattle-Tacoma . . .	70	+ 6	T	- .3
Springfield . . .	70	- 4	.7	+ .1	Syracuse . . .	61	- 9	.3	- .5	Spokane . . .	78	+10	T	- .1
IND. Evansville . . .	74	- 2	1.2	+ .6	N.C. Asheville . . .	73	0	.3	- .7	Walla Walla . . .	85	+12	T	- .1
Ft. Wayne . . .	66	- 5	.7	+ .1	Charlotte . . .	76	- 2	.4	- .5	Yakima . . .	81	+13	T	- .1
Indianapolis . . .	71	- 2	.3	- .3	Greensboro . . .	75	- 1	3.2	+2.2	W. Va. Beckley . . .	65	- 4	.9	+ .1
South Bend . . .	65	- 6	.3	- .4	Hatteras . . .	79	+ 2	2.5	+1.0	Charleston . . .	69	- 4	1.1	+ .3
IOWA. Burlington . . .	68	- 6	.5	- .3	Raleigh . . .	75	- 1	2.3	+1.2	Huntington . . .	70	- 4	.8	+ .1
Des Moines . . .	69	- 4	.9	+ .1	Wilmington . . .	77	- 2	1.8	+ .3	Parkersburg . . .	71	- 3	.9	+ .2
Dubuque . . .	61	- 9	2.5	+1.6	N. DAK. Bismarck . . .	62	- 7	.3	- .2	WIS. Green Bay . . .	61	- 7	.5	- .1
Sioux City . . .	67	- 7	T	- .6	Fargo . . .	62	- 7	.6	0	La Crosse . . .	62	-10	.4	- .3
KANS. Concordia . . .	72	- 5	4.6	+3.9	Williston . . .	63	- 6	.2	- .2	Madison . . .	59	-10	1.1	+ .4
Dodge City . . .	74	- 4	2.6	+2.0	OHIO. Akron-Canton . . .	67	- 3	1.0	+ .4	Milwaukee . . .	63	- 6	.5	- .1
Goodland . . .	69	- 5	.4	- .1	Cincinnati . . .	70	- 4	1.6	+1.0	WYO. Casper . . .	68	- 2	T	- .1
Goepka . . .	74	- 3	1.1	+ .1	Cleveland . . .	65	- 5	.9	+ .2	Cheyenne . . .	64	- 4	.2	- .2
Wichita . . .	74	- 6	1.1	+ .5	Columbus . . .	68	- 4	.4	- .2	Lander . . .	68	- 1	1.1	0
Wichita . . .	71	- 4	.1	- .6	Dayton . . .	69	- 4	.5	- .1	Sheridan . . .	66	- 3	T	- .2
KY. Lexington . . .	71	- 4	.1	- .6	Toledo . . .	64	- 7	.8	+ .1	P.R. San Juan . . .	82	+ 1	.5	-1.1
Louisville . . .	74	- 2	1.7	+1.1										

Based on 1941-70 normals

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State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by SRS State offices in cooperation with the National Weather Service.

ALABAMA: Normal temperatures and scattered showers. Fieldwork: 5.0 days suitable. Soil moisture short to adequate. Cotton condition; 99% setting bolls, 94% 1976; bolls opening few fields. Corn poor condition; 58% mature, 57% 1976, 48% average. Early corn harvest underway, 18% complete. Soybeans fair to good condition; 61% podding, 63% 1976, 68% average. Peanuts fair to good. Pasture and hay fields poor to fair.

ALASKA: Tanana Valley continued warm, dry. Temperatures 10 to 12° above normal. No significant rainfall; total for season slightly above normal. Matanuska Valley rainy. Temperatures 6 to 8° above normal. Seasonal rainfall 20 to 25% below normal. Soil moisture supplies rated mostly short to adequate throughout railbelt. Warm, dry weather Tanana and Matanuska Valleys hastened ripening small grain. Barley combining gained momentum. Second crop hay shows effects of dry weather. Potato digging underway. Vegetable growers harvested moderate volumes cabbage, greens, lettuce, radishes, squash.

ARIZONA: Widespread thunderstorms. Rainfall greatest Colorado River, Central Mountains. Average temperatures below normal west, 1 to 8° above elsewhere.

Rains interrupted fieldwork. Cotton good progress except portions Yuma County; some fields standing water. Early grain sorghum mature; harvest expected this week; later plantings good progress. Corn growing well. Alfalfa hay activity slow; some cut hay Yuma County lost. Harvest safflower virtually complete. Fall sugarbeets good progress. Fall vegetable planting well underway; lettuce emerging earlier fields. Melons emerging west. Lemon ring picking delayed by wet groves. Livestock generally good condition higher elevations; mostly poor to fair lower ranges.

ARKANSAS: Highest mean 82°, lowest 75°. Extremes: 100 and 57°. Most precipitation 3.96 in., least 0.04 in.

Soil moisture short 48% of counties, adequate 50%, 2% surplus. Fieldwork: 4.6 days suitable. Soybean pod set aided by cooler weather. Worm populations building up. Cotton good, build up of foliage feeders causing concern. Cabbage looper infestations. Insecticides scarce some counties. Boll rot some fields. No harvest activity reported. Open bolls 9% of acreage. Rice good condition, few more fields harvested. Fields drained in preparation. Some lodging reported. Corn fair to good. Sorghum good, 4% harvested. Good apple harvests continued. Small grain seedbeds being prepared. Watermelon harvest continued. Harvest grass hay continued. Pastures below average amounts feed 51% of counties, average 40%, above average 9%.

CALIFORNIA: Tropical storm Doreen dumped large amounts rain southern California; Imperial, Coachella Valleys 4.00 in., Los Angeles basin 2.50 in., Mojave Desert 1.00 to 2.00 in. No rain elsewhere. Temperatures above normal except in southeastern interiors.

Heavy rains caused some crop damage southern California, San Joaquin Valley; most damage to Imperial Valley cotton, alfalfa seed, and alfalfa hay. San Joaquin grapes suffered bunch rot and splitting. Harvest peaches, plums, nectarines,

almonds, Valencia oranges interrupted. Cotton growing well. New crop sugarbeet harvest began Sacramento Valley. Rice heads developing. Corn turning. Early prune harvest began last week. Almond, apple, table grape, lemon, Valencia orange, nectarine, peach, plum, pear harvests continue. Harvest active broccoli, carrots, cauliflower, sweet corn, celery, cucumber, lettuce, bell peppers, potatoes, sweetpotatoes, fresh market tomatoes, melons. Processing tomato harvest full swing Sacramento and San Joaquin Valleys. Rains in Imperial Valley muddied feedlots. Permanent pastures drying; water hauling, supplemental feeding, herd culling continue. Sheep, cattle on stubble; some moved because of fires. Mountain ranges poor lower elevations; some pastures severely overgrazed.

COLORADO: Cloudy, unseasonably wet. Rains averaged from 0.25 to 1.00 in. Temperatures near normal eastern plains, 2° below mountains, 3° above west.

Mild temperatures and rain temporarily abated drought. Spring barley harvested 63%, 64% 1976, 48% average. Corn very good, 96% silked. Dry beans good except southwest fair to poor. Alfalfa 75% 2d cutting, 32% 3d cutting. Peach and pear harvest progressing. Ranges very poor west, fair to good east. Livestock good.

FLORIDA: Considerable cloudiness and shower activity set in across central, north. Scattered afternoon thundershowers, south. Rainfall averaged 2.00 to 4.00 in. north, near 1.00 in. central; about 0.50 in. south.

Moisture mostly adequate, surplus conditions western Panhandle, west central coast. Some central, east coast localities need more rain. Corn harvest making good progress, complete some areas. Tobacco harvest nearing completion, marketing underway. Peanuts good progress, worms a problem. Harvest green peanuts making headway. Soybeans generally good condition, excellent growth. Spray programs initiated most areas to combat worm problems. Hay making active as weather permits; crop short due to drought, worm infestation. Sugarcane making good growth. Pecan crop looks good. Northern Peninsula, eastern Panhandle pastures poor to fair. Mostly good elsewhere, pest problems some areas. Cattle condition mostly good. Citrus grove condition excellent. Moisture generally adequate, more rain could be used sandy areas. Good sizes, new fruit, fruit droppage and splitting minimal to date, abundance of new growth. Fall vegetable plantings active. Tomato plantings underway major southern producing areas. Eggplant, pepper plantings gained momentum. Early planted acreage progressing favorably, stands good. Squash, okra planted Dade county showing good stands. Light cucumber seeding west central area. Land preparation continues active other fall crops.

GEORGIA: Temperatures near normal. Extremes: 97 and 55°. Thundershowers widespread but concentrated in the southeast.

Soil moisture short to adequate, improved from last week. Crop conditions declined due to unprecedented build-up of armyworms. Pesticides in short supply. Five days suitable for fieldwork. Corn still rated poor. Tobacco fair; 79% harvested, 100% last year, average 96%. Cotton poor to fair; 99% setting bolls, last year 100%; this year 25% reported open, 2% last year. Soybeans poor to

mostly fair. Peanuts poor to mostly fair; 100% blooming, 100% pegging, virtually equal to last year. Pastures poor to fair. Cattle mostly fair; hogs fair to good. Peaches fair; 99% harvested, virtually complete last year, average 99%. Apples fair to good; 38% harvested, last year 49%. Watermelons poor to fair; 97% harvested, virtually complete last year.

HAWAII: Warm, humid. Showers light, higher elevations.

Heavy irrigation, frequent spraying to maintain fair to good crop growth. Field preparations and plantings of tomato active Kona. Some leafy crops, snap beans short supply. Banana supplies moderate to heavy. Papaya supplies moderate. Pineapple harvesting declining. Sugar harvesting steady. Pastures fair to good.

IDAHO: Temperatures 5 to 10° above normal. Isolated thunderstorms mountains.

Crops advancing faster than last year. Combining in full swing. Winter wheat 98% ripe, 85% 1976; 75% harvested, 40% 1976. Spring wheat 90% ripe, 60% 1976; 45% harvested, 35% 1976. Barley 80% ripe, 75% 1976; 50% harvested, 30% 1976. Second cutting alfalfa 80% complete, 75% 1976. Potatoes 50% turning, 50% 1976. Sugarbeets making more headway in warm weather. Dry beans maturing rapidly.

ILLINOIS: Temperatures: 2 to 9° below normal, cool period fourth straight week. Precipitation: trace to more than 2.00 in. Most rain after mid-week.

Corn 14% excellent, 59% good, 23% fair, 4% poor; 84% reached dent, 44% 1976, 45% average; 35% mature, 1% 1976, 8% average. Soybeans 13% excellent, 74% good, 13% fair; 96% setting pods, 94% 1976, 82% average; 10% turning yellow, 19% 1976, 10% average. 1978 winter wheat 70% plowed, 58% 1977, 55% average. Third crop alfalfa hay 73% cut, 46% 1976, 38% average; mostly good. Pastures mostly good. Soil moisture 15% short, 80% adequate, 5% surplus. Fieldwork: 4.75 days suitable.

INDIANA: Cool and rainy week. Temperatures 2 to 4° below normal and ranged from 40 to 91°. Rainfall normal to 1.10 in. above normal. Most south central with 1.80 in., least northwest and east central with 0.70 in.

Fieldwork averaged 3 days. Topsoil moisture mostly adequate to surplus. Subsoil moisture short to mostly adequate. Pastures improved, fair to mostly good. Corn 95% in dough, 1976 75%. Corn 50% dented and 10% mature. Corn and soybean conditions unchanged, fair to mostly good. Soybeans 85% podding, 1976 90%. Wheat land 20% plowed, 1976 35%, average 40%. Tomatoes 60% picked once, 1976 50%.

IOWA: Cool moist week with heavy rains beginning of week and light to moderate showers weekend. Temperatures averaged 4 to 8° subnormal to approximate normals of early to mid-September.

Soil moisture continues improvement. Topsoil: 16% short, 76% adequate, 8% surplus. Subsoil: 79% short, 20% adequate, 1% surplus. Fieldwork: 4.4 days suitable. Corn: 36% in dough, 54% in dent stage. Last year, 38% dented; average 29%. About 6% of corn being cut for silage. Soybeans: 86% setting pods, 15% with leaves turning. Last year, pod setting complete, 13% leaves turning, normal 82% setting pods, 4% leaves turning. 3d cutting alfalfa 53% complete. 2d cutting red clover 73% complete. Rains are maintaining crops. Corn good to fair. Soybeans, good. Alfalfa and clover hays good to fair. Pasture continues improvement, fair to good. Livestock mostly good with some cases pinkeye and face flies.

KANSAS: Moisture fell all sections state. Amounts variable, from few hundredths to over 5.00 in. Temperatures averaged from 71 to 75°, 3 to 6° below normal.

Cooler, cloudy weather, scattered rains past week. Statewide crops best condition August several years. Moisture supplies adequate, exception southwest subsoil short. Corn good rating, 85% dough stage, last year 70%, average 75%. Corn dent stage 50%, last year 30%, average 40%. Corn fully mature 25%, last year and average 10%. Insects in corn; grasshoppers, spider mites; little damage reported. Sorghums growing well, 75% produced heads, last year and average 65%. Sorghums turning color 25%, last year and average 10%. Insects in sorghums, chinch bugs, fall armyworms, greenbugs, sorghum webworms. Traces to heavy infestations. Soybeans 75% setting pods, last year 60%, average 70%. Alfalfa hay 85% third cut, 20% fourth cut, last year 80% third cut, 10% fourth cut, average third cut 70%. Livestock grazing native pastures, sudan fields, wheat stubble. Pastures-ranges excellent condition. Principal farm activities-working summer fallow ground, haying, irrigating and fertilizing.

KENTUCKY: Temperatures low 70's; 5 to 10° below normal. Rainfall 2.00 in. west; lighter north and central.

Rain, wet soils reduced outside farmwork to 2.5 days. Soil moisture 56% adequate, 44% wet. Activities: Topping and cutting tobacco, cutting hay, chopping corn silage, mowing and spraying weeds. Corn 12% mature, 88% dough or later stages. Armyworms causing damage on late corn. Soybeans 67% podded or podding, 55% last year, 59% average. Burley tobacco 81% topped, 83% last year, 57% average; 10% has been cut. Cool, wet weather slowed down cutting last week. Plowing land for fall seeded crops began and is 10 to 15% complete.

LOUISIANA: Temperatures 2° below normal to 2° above. Extremes: 64 and 99°. Rain late week most areas.

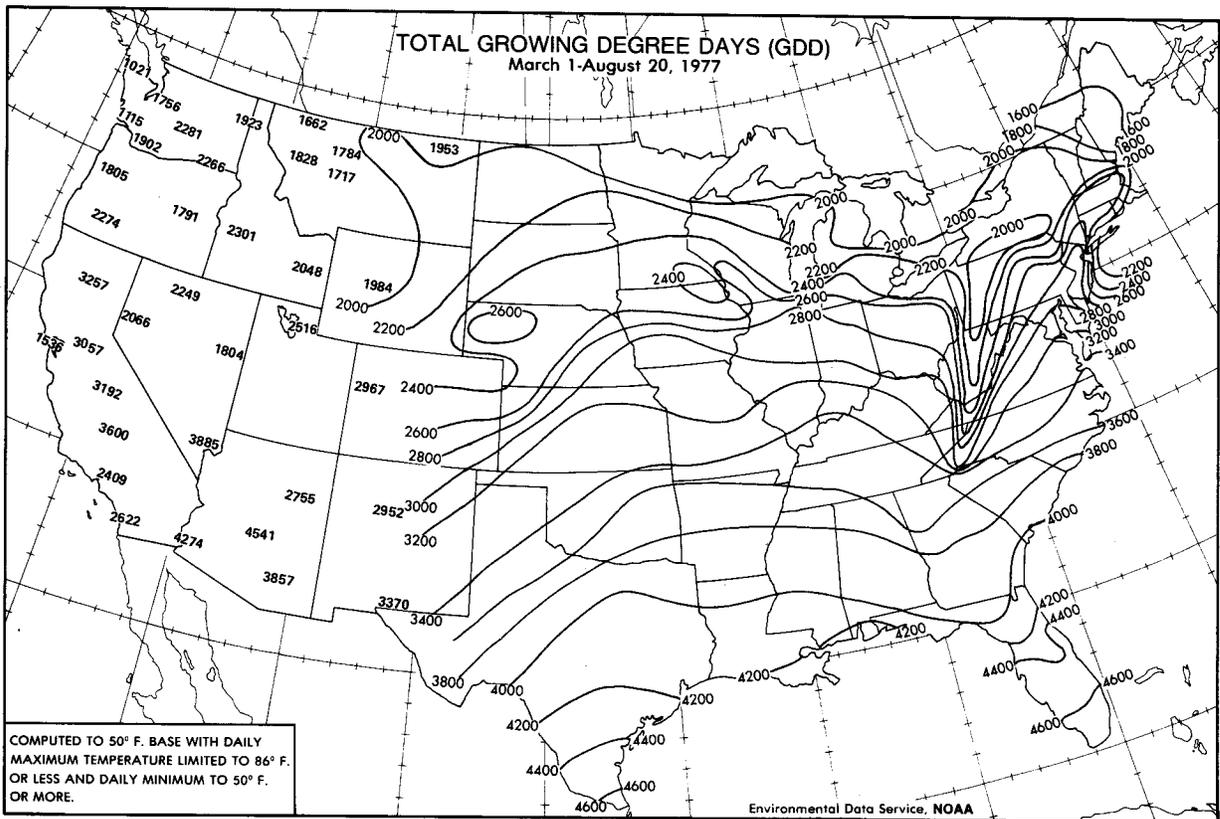
Soil moisture adequate. Fieldwork: 4.0 days suitable. Main activities: Harvesting rice, corn; insect control cotton; soybeans; haying. Rice good condition; 66% ripe; 50% harvested, 44% last year, 36% average. Cotton fair to good; bolls open 7%. Corn fair, 88% mature; 20% harvested, 16% last year. Sorghum fair to good; 50% turning color. Soybeans fair to good; 92% blooming, 75% setting pods. Sugarcane good, fall planting underway. Sweetpotatoes fair to good; 21% harvested, 11% last year. Hay and pastures fair to good. Cattle fair to good.

MARYLAND & DELAWARE: Temperatures 2° above normal except western Maryland and northern Delaware. Extremes: 80's, 50's. Precipitation widespread.

Soil moisture supplies short. Pastures below average. Some early corn harvested; 75% dough stage; 1976 75%, average 63%; 40% dent stage, 1976 35%, average 27%. Soybeans 85% bloomed, 55% podded; 1976 85% and 55%, average 76%, 40%. Tobacco 30% harvested, 1976 and average 27%. Fruit harvest in full swing.

MICHIGAN: Temperatures well below normal ranging 5° below normal in southeast. Lower to 11° below normal in western Upper. Record lows on 18th, 19th and 20th with many areas of Upper and northern Lower reporting frost. Precipitation averaged 0.86 in. Upper to 0.83 in. Lower.

Topsoil moisture improved, subsoil dry. Pasture feed supplies improving but still below average. Fieldwork: 5 days suitable. Fall plowing and alfalfa seeding in progress. 2d cut hay 90% complete, 80% 1976, 70% normal. Corn 60% dough, 54%



1976, 43% normal. Oats 95% complete, 89% 1976, 73% normal. Drybeans 65% pods set, 26% 1976. Soybeans 90% pods set, 69% 1976, 75% normal. Pickle harvest 55%, 40% 1976, 43% normal. Harvest of other fruits and vegetables continues.

MINNESOTA: Temperatures 8° below normal. Extremes: 84 and 35°. Precipitation averaged 0.25 in. below normal central through northeast; 0.50 in. above normal elsewhere. Totals ranged from less than 0.30 in. extreme northwest, north central to over 3.00 in. extreme southwest, south central.

Good rains south help late soybeans fill; little effect on corn due to advanced development. Moisture remains short northwest, north central, central. Some silage corn cut. Small grain combining nearing completion. Winter wheat, rye seeding underway. Corn 72% dented, 1976 28%, normal 10%. Soybeans 21% turning yellow, 1976 13%, normal 8%. Combined: Spring wheat 85%, 1976 79%, normal 54%; oats 94%, 1976 92%, normal 75%; barley 97%, 1976 91%, normal 72%; flax 35%, 1976 40%, normal 28%. Sweet corn 70% harvested, 1976 49%, normal 40%.

MISSISSIPPI: Temperatures near or slightly above normal. Extremes: 98 and 58°. Greatest 24-hr. rainfall 3.33 in.

Soil moisture short to adequate north, adequate elsewhere. Fieldwork: 4.9 days suitable. Soybeans 95% blooming, 94% 1976, 71% average; 68% podding, 53% 1976, 4% turning. Cotton 16% open bolls, 1% 1976, 2% average. Rice 80% headed, 67% 1976; 7% mature, 4% 1976. Corn 96% dented, 88% 1976; 48% mature, 43% 1976; 7% harvested. Sorghums 54% ripe, 35% 1976; 13% harvested, 12% 1976. Hay crops 63% harvested, 70% 1976, 65% average. Peanuts 14% harvested. Watermelons 88% harvested, 91% 1976, 84% average. Sweetpotatoes 13% harvested, 4% 1976,

19% average. Corn silage 65% harvested, 44% 1976. Sorghum silage 40% harvested, 31% 1976. Soybeans, cotton, and pastures in good to fair condition. Rice in good condition. Corn in fair to poor condition. Pecans in fair condition.

MISSOURI: Precipitation ranged from 1.00 to 5.00 in.; heaviest south central. Temperatures subnormal north and central; near normal south.

Fieldwork: 4.2 days suitable. Soybean condition good to fair; 92% blooming, 81% last year; 72% setting pods, 63% last year. Sorghum 92% headed, 82% last year; 18% matured, 7% last year, 12% normal. Corn 84% dented, 37% last year, 48% normal; 21% matured, 7% last year, 9% normal. Cotton bolls open; condition fair to good. Condition of pasture fair to good. Soil moisture 36% short, 64% adequate.

MONTANA: Unsettled week began and ended cool and wet. Temperatures averaged well above normal western divisions, below normal east. Highest maximums in 90's midweek. Precipitation heaviest central and north central divisions, nearly none west.

Soil moisture improved much north central--main winter wheat area. Prospects better for seeding winter wheat. About 85% winter wheat harvested, last year and normal 65%. Spring wheat harvest 45% done, last year 55%, normal near 30%. Barley 45% combined, last year 45%, normal 35%. Oats 50% harvested, last year 60%, normal 35%. Second cutting alfalfa 60% harvested, last year and normal 45%. Wild hay 90% cut. Corn silage 5% chopped. Stockwater supply ranges short to adequate except mostly short northeast and southeast. Range feed short most areas. Mostly adequate southwest and parts south central. Nearly 15% all livestock moved from summer ranges, last year none, normal 5%.

NEBRASKA: Temperatures 1 to 7° below normal. General rainfall of 1.00 to 4.00 in.

Corn 65% denting, 70% year ago, 25% normal. Sorghum 60% turning, 35% year ago, 20% normal. Soybeans 30% leaves turning, last year and normal less than 5%. Third cutting alfalfa hay 70% completed, year ago 45%. Topsoil moisture 77% adequate to surplus, 23% short. Subsoil moisture 53% adequate, 47% short.

NEVADA: Thundershowers general; flash flooding south, north. Temperatures remained 5° above normal. Extremes: 110 to 38°.

Small grain harvest extending north. Second crop alfalfa hay about completed north; fifth cutting underway extreme south.

NEW ENGLAND: Temperatures little below normal. Rainfall ranged from 1.50 to 3.00 in. north to 1.00 in. along south coast. Aroostook, Maine potatoes making good progress; some growers applying top killer. Vegetable crops good. Peaches, early apples, pears and blueberries being harvested. Field corn growth good most areas. Showers hindered hay harvest.

NEW JERSEY: Cool week. Temperatures averaged 4° below normal. Extremes: 40 and 91°. Weekly rainfall averaged 1.04 in. north, 1.33 in. central and 0.51 in. south.

Estimated soil moisture, in percent of field capacity, past week averaged: 86% north, 90% central and 59% south. Four in. soil temperature averaged: 68° north, 73° central and south. Continued rainfall benefited some areas passed over by previous weeks rains. Below normal temperatures also good for leafy crops. Marketings of summer vegetables continue at moderate but slowing volume. Some cracking of tomatoes because of rain. Size and quality of later variety peaches good, volume heavy.

NEW MEXICO: Scattered showers throughout week; 2.00 to 3.00 in. some areas.

Irrigated grain sorghum, cotton, corn good. Dryland grain sorghum fair to good. Cotton 95% setting bolls. Corn 85% in dough. Irrigated grain sorghum 90% heading; dryland 80%. Third cutting alfalfa hay 45% completed north; fourth cutting 40% completed south. Ranges fair; showing improvement from rains. Livestock fair to good.

NEW YORK: Widespread rains 16th; 3.00 in. north, 0.50 in. central and coast. Temperatures 4 to 6° below normal.

Rains slowed harvest hay, grains; boosted crop growth. Corn condition good; most milk to dough stage. Oat combining 60% done. Dry beans good growth. Second cutting alfalfa 80% complete; 3d cutting 10%; regrowth improving.

NORTH CAROLINA: Welcomed rainfall received over most of state. Temperatures warm early in week and cooler later in week.

Fieldwork: 4.3 days suitable. Soil moisture 7% very short, 22% short, 63% adequate and 8% surplus. Conditions: Corn, pasture and hay poor to fair. Tobacco, soybeans, cotton and Irish potatoes fair. Peanuts, apples and sweetpotatoes fair to good. Harvested: Flue-cured tobacco 55%, 1976 72%, average 67%; hay 77%, 1976 76%; apples 10%, 1976 13%, average 15%; sweetpotatoes 5%, 1976 7%.

NORTH DAKOTA: Partly cloudy skies, frequent light showers. Temperatures averaged 5 to 10° below normal. Precipitation ranged from trace northwest to 0.50 in. southeast.

Harvest progress slow. Hard red spring wheat combining 65% complete, durum 40%, oats 75%, barley 80%. Drought stressed corn being cut for silage. Dry bean and limited early potato harvest occurred. Pasture deteriorating.

OHIO: Temperatures below normal. Extremes: 89° at Marietta, 43° at Toledo. Precipitation light--1.59 in. at Findlay to 0.21 in. at Zanesville.

Fieldwork: 4.50 days suitable. Main activities: Vegetable harvesting, peach harvesting, hay making, tobacco topping, plowing for winter wheat (30%). Crop development: 45% corn in dent stage, 1976 35%, average 25%; soybeans 60% had set pods, 1976 55%, average 45%. Corn cut for silage 8% complete, 1976 5%, average 5%. Alfalfa, third cutting, 40% complete, 1976 35%. Corn, soybeans and pastures mostly good. Soil moisture 1% short, 76% adequate, 23% surplus.

OKLAHOMA: Temperatures below normal. Rain 2.00 in. south central, west; 0.60 in. east central, southeast.

Wheat ground good condition; early seeding western Panhandle to start this week. More early seeding than usual anticipated for use as fall grazing. Corn good to fair; 85% in dough stage or past, average for date, ahead year ago's 75%. Sorghums responding well to rains; 43% in dough stage or past, same as year ago but behind 55% average. Rains aided cotton; 90% setting bolls, 80% year ago, 70% average. Peanuts fair to good; 70% crop spiking or past, average for date, later than 1976. Soybeans remain good, 50% setting pods, 30% year ago, 45% average. Alfalfa seed combine in progress. Pastures much improved by rains. Cattle good to excellent.

OREGON: Interior temperatures continued hot; east 10 to 13° above normal, west 8 to 10° above. No precipitation inland.

Grain harvest continues east, nearing completion west. Grass, clover seed harvest continues. Haying continuing. Bean harvest underway Willamette Valley; sweet corn beginning. Pear harvest underway Hood River, Rogue Valleys. Summer fallow very dry east; fall seeding questionable. Stock, domestic water shortage becoming very acute several areas. Ranges poor condition east, fair west.

PENNSYLVANIA: Warm weather turned colder by mid-week. Temperatures below normal. Extremes: 88 and 33°. Rainfall 0.25 to 2.50 in.

Fieldwork: 4 days suitable. Soil moisture 80% adequate, 20% surplus. Activities: Haymaking, spraying, baling straw, fall plowing, harvesting silage corn, oats, potatoes, tobacco, apples, peaches, vegetables, seeding alfalfa. Oats 94% combined, 1976 88%. Tobacco 19% cut, 1976 21%. Potatoes 17% dug, last year 15%. Corn 50% dough, 11% dented; 3 days ahead of last year's 47% and 6%; a few fields cut for silage. Fall plowing 19%, last year 22%. Hay quality 50% fair, 33% poor. Alfalfa third cutting 48%, fourth cutting 13%. Clo-tim 63% second cutting. Pasture feed average.

PUERTO RICO: Island average rainfall 1.61 in. or 0.50 in. below normal. Temperatures averaged 81° on coasts and 76° interior. Extremes: 96 and 60°.

Near normal rainfall continues to replenish water supplies and improve development of all crops. Preparations coffee harvest started. Pastures recuperating except south. Soil preparation for tobacco seedbeds active.

SOUTH CAROLINA: Temperatures near normal. Extremes: 95 and 57°. Rainfall general, heaviest 2.06 in.

Soil moisture adequate. High insect infestation. Tobacco harvesting 81% complete. Cotton condition poor to fair; bollworm, armyworm, earworm infestations heavy. Producers spraying frequently. Open bolls on 22% of crop. Harvesting corn for hay, silage, grain; 28% complete, 18% 1976. Soybean condition fair; armyworm, earworm, looper infestations heavy. Beans 82% in bloom, 41% setting pods. Rains stimulated growth. Peach volume declining. Some late varieties still harvested in Piedmont. Lespedeza, hay crops poor to fair. Rains helped pastures.

SOUTH DAKOTA: Heavy rains east, over 3.00 in. common. Light rains elsewhere. Temperatures below normal. Extremes: 34 and 92°. Topsoil moisture, 25% short, 75% adequate.

Crop development slowed slightly by cool weather. Greenbugs causing damage in sorghum, head moths in sunflowers. Flax ripe 92%, 1976 96%, normal 85%. Flax harvested 62%, 1976 82%, normal 53%. Fall plowing completed 29%, 1976 23%, normal 21%. Soybeans podded 88%, 1976 94%, normal 94%. Sorghum showing color 35%, 1976 14%, normal 6%. Corn in dough 91%, 1976 54%, normal 55%. Corn denting 36%, 1976 32%, normal 37%. Cattle in good condition. Cool weather keeping fly problems down.

TENNESSEE: Thundershowers scattered early week with a cold front Wednesday. Temperatures from 3° below normal to 2° above. Rainfall 2 in. for the week.

Fieldwork: 3.3 days suitable. Soil moisture adequate. Crops in generally good condition. Soybeans blooming 97%, 88% 1976, 87% normal. Soybeans setting pods 84%, 47% 1976, 50% normal. Cotton open bolls 15%, 0% 1976, 0% normal. Corn in dough 100%, 95% 1976, 86% normal. Corn dented 75%, 49% 1976, 53% normal. Corn mature 22%, 7% 1976, 13% normal. Lespedeza hay harvested 44%, 54% 1976, 39% normal. Burley tobacco harvested 40%, 46% 1976, 20% normal. Fall plowing completed 30%, 22% 1976, 29% normal.

TEXAS: Cold front Wednesday caused heavy thundershowers. Temperatures 1 to 2° above normal south Texas, Lower Valley; 5° above normal Edwards Plateau; elsewhere, normal.

Rains on northern High Plains beneficial to crops, pastures. Cotton harvest continues good progress from Lower Valley through Blacklands. Some dryland cotton stressed, shedding. Irrigated cotton fruiting well. Bollworm activity increasing. Sorghum harvest full swing southern Low Plains, Cross-Timbers, and Edwards Plateau. Corn harvest continues active from southern Low Plains southward; slowed by showers Upper Coast. Corn High Plains maturing rapidly; silage cutting active. Peanut harvest active south Texas. Late crop needs rain. Rice harvest slowed by showers Upper Coast. Soybean fields High Plains given boost by showers. Crop setting pods statewide. Wheat land preparations active; few early fields seeded. Sorghum harvested 58% 1977, 47% 1976, 50% average. Rice harvested 87% 1977, 88% 1976, 71% average. Corn harvested 15% 1977, 19% 1976, 24% average. Cotton harvested 7% 1977, 4% 1976, 5% average. Peanuts harvested 5% 1977, 8% 1976, 6% average.

Fall vegetable planting continues. Lack of moisture stressed vegetables central Texas. Harvest tomatoes, cantaloups, melons, potatoes, onions, cucumbers, carrots. Peach harvest almost complete east and central. Pecans developing solid kernels north central; heavy shedding problem, trees stressed hot, dry weather.

Grasses most areas cured; grazing still adequate, decreasing. Ranchers dryer areas feeding, hauling water. Pastures many areas responding to rains. Livestock fair to good.

UTAH: Remnants of Hurricane Doreen brought record 24-hr. accumulation narrow strip across north. Light to moderate moisture elsewhere. Temperatures near normal to 6° above.

Dryland soil moisture short to very short; storms helped greatly north. Irrigation water supply 45% normal. Second crop alfalfa hay harvest nearing completion; third crop starting. Winter wheat 80% harvested; spring grains about 75%. Prospects for corn (silage & grain), potatoes, sugarbeets, and dry onions fair to good. Range feed supplies poor to fair. Fall-winter range feed outlook also poor to fair. One-fourth of stock water being hauled.

VIRGINIA: Rainfall all station ranging 0.02 to 5.14 in. Averaged 1.75 in. Temperatures above normal. Extremes: 101 and 48°. Topsoil moisture 67% short, 30% adequate, 3% surplus.

Fieldwork: 4.8 days suitable. Pasture area livestock watering supplies 38% adequate, 53% short, 9% critical. Irrigation water supply mostly short. Infestations of corn earworms in soybeans, peanuts. Soybeans fair. Winds caused some problems spraying. Few reports shortages desired pesticides. Peanuts good condition. Corn poor. Silage harvest active, yields low. Grain harvest slowly gaining momentum east and southeast. Flue tobacco 33% harvested, 33% 1976, 31% normal. Fire 21% harvested, 26% 1976, 14% normal. Burley 5% cut, 16% 1976, 5% normal. Sun 17% harvested, 11% 1976, 5% normal.

WASHINGTON: West: Temperatures 4 to 7° above normal. Precipitation very light.

Cauliflower, cucumbers and vegetable seed crops being harvested. Sweet corn will start soon. Blueberries, blackberries continue; green peas finished. Christmas trees being sheared. Non-irrigated range and pasture feed very dry.

East: Temperatures 8 to 10° above normal. Only traces precipitation, except 0.05 in. Spokane.

Green bean, summer onion harvest continues; fall onions just starting. Sweet corn in full swing; processing started. Pear, peach harvest continues. Some sunburn on fruit; hot weather washing out apple color and advancing maturity. Mint, potato harvest ongoing; hop, carrot harvest starts soon. Small grain harvest mostly over. Cattle being turned out on stubble. Fall seeding conditions extremely poor. Range and pasture feed short or non-existent. Fire hazard quite high.

WEST VIRGINIA: Temperatures below normal; high 95°. Rainfall near normal except above in north central.

Fieldwork: 2.9 days suitable. Soil moisture adequate to surplus. 2d haying 52%, 53% 1976, 50% average. Oats harvest 87%, 89% 1976, 84% average. Corn 8% pre-silked, 52% silked, 40% dough stage; corn condition mostly good. Potatoes 31% dug, 33% 1976, 27% average. Tobacco 69% topped, 58% 1976, 51% average. Pastures mostly fair except northeast.

WISCONSIN: Temperatures averaged 9° below normal. Several stations reported lows in 30's. High temperatures 60's and 70's. Showers occurred most days except Wednesday which was sunny and pleasant. Weekly rainfall totals again heaviest in south at 1.00 in.

Oat harvest 90% completed, 1976 90%, normal 70%. Grain yields very good. Straw supplies mostly adequate. Corn 45% in dent, 1976 5%, normal 1%. Maturity slowed in cool August weather but early corn should be safe from frost damage

by September 1. Most corn looks excellent and extra storage space may be needed. Some corn on light soils shows effects of moisture shortage. Little silo filling started. Soybeans look very good, foliage growth large and pod development promising. Third crop hay 20% harvested, 1976 2%, normal none. Yields of third crop good. Hay storage space filling up and some areas will have surplus hay for sale. Pasture conditions well above last year and better than normal for August. Tobacco harvest in full swing, crop has good size. Sweet corn yields high. Harvesting continues for potatoes, apples and vegetables. Soil moisture supplies 34% short, 63% adequate, 3% surplus. Need rain. Trees turning color north.

WYOMING: Temperatures mostly below normal. Highest temperature recorded Lower Platte drainage. Lowest temperature Belle Bourche drainage. Precipitation below normal.

Soil moisture short. Topsoil: Very short 3%, short 55%, adequate 42%. Winter wheat seeding started, 7% planted. Harvest 93% complete. Barley, spring wheat and oats: 70%, 59%, and 46% harvested, respectively. Corn for grain mostly in dough stage. Dry beans had set pods, 23% had leaves turning color. Second cutting of alfalfa 57% put up, third cutting started. 84% other hays put up. Pastures and ranges fair condition. Fall grazing prospects mostly fair, poor in southwestern counties.

World Weather and Crop Update

USSR. Shower activity brought significant amounts of rainfall to most parts of the USSR; the southern and eastern Ukraine and the central and lower Volga Valley were helped most by the precipitation. Temperatures were generally below normal, especially towards the end of the week when scattered light frost was reported in several stations in the new lands. The grain harvest continued ahead of normal; harvesting centered in the northwest part of the Russian Republic and in the principal spring wheat areas of Siberia and Kazakhstan. As of August 15, threshing was completed on 62 million hectares, or nearly 50 percent of the total grain area. Conditions for most row crops were generally good. Harvesting of flax, potatoes, vegetables, and fruit was well underway. Fall plowing and seeding of winter grains took place in northern European Russia.

ASIA. In the People's Republic of China, light to moderate rains moistened most of northern China, including the northeastern provinces--a welcome respite from the heavy rains that have drenched this region in recent weeks. In the rice growing provinces south of the Yangtze River, the central provinces received only light moisture but heavier amounts, even excessive in isolated places, fell on the coastal provinces. Monsoon activity declined considerably in India, especially in the northern and western regions. Overall performances of the monsoon thus far, however, has been favorable over the entire country. Prospects for the fall harvest are rated better than in 1976, a generally good year. Precipitation was more timely and better distributed than last year. Rainfall in Australia's main grain areas was limited to light showers in the coastal and near-coastal regions.

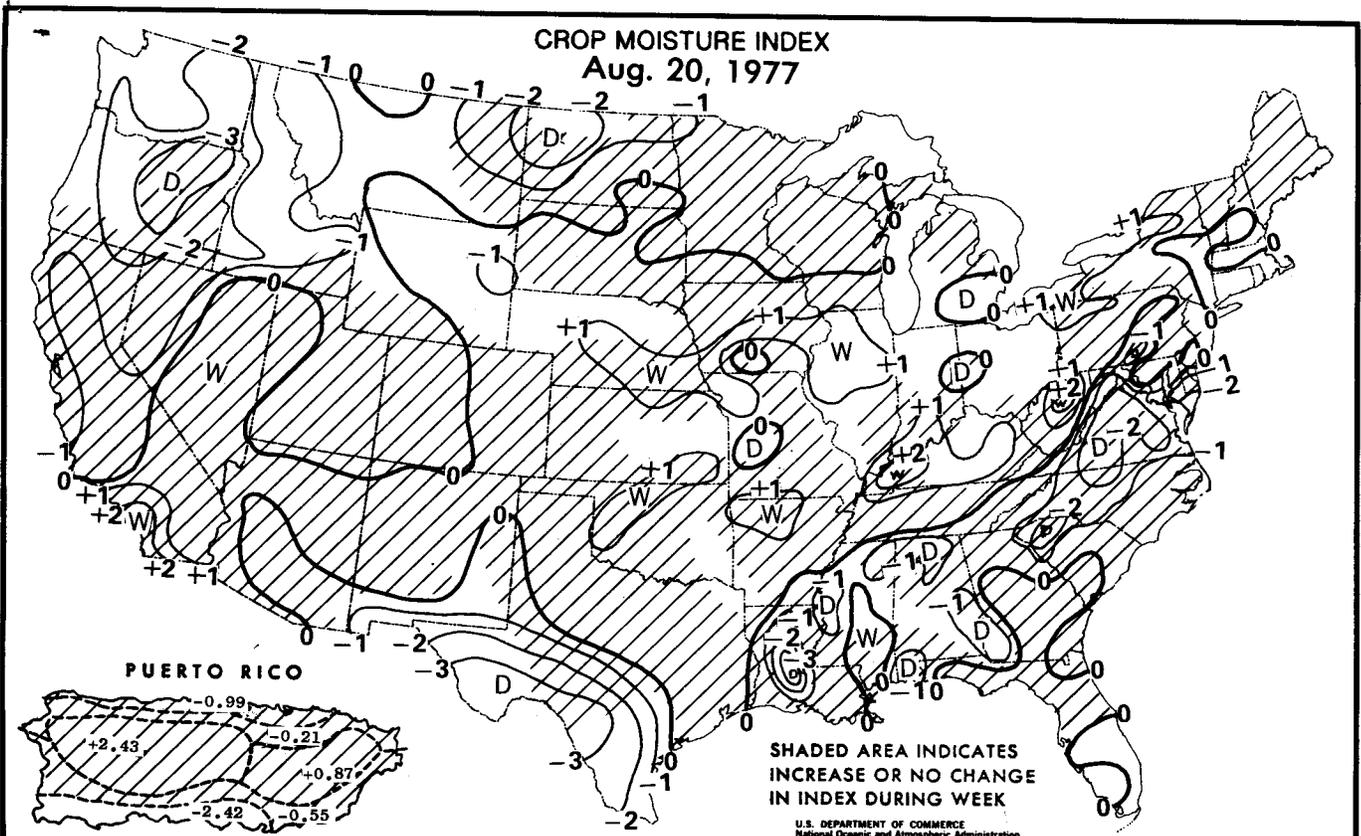
AFRICA. North Africa was seasonally warm and dry while at the other end of the continent South Africa was cool and dry. Precipitation in the main agricultural areas of South Africa has been well below normal since April. Coastal regions of West Africa continued to receive heavy monsoon rains, but the summer monsoon season to date has been disappointing for the central African countries of Mauritania, Senegal, Gambia, Mali, Niger, and

Sudan. The Sahel region in these countries is experiencing serious rainfall deficits which could have dire consequences for agriculture during the upcoming dry fall and winter seasons.

SOUTH AMERICA. Heavy rains pelted the eastern half of Rio Grande do Sul and Santa Catarina, but moisture was light elsewhere in Brazil's main agricultural regions. Temperatures in the coffee growing states of Brazil have been well above freezing, posing no threat to the coffee trees. The principal grain areas of Argentina continued low in moisture with practically no rainfall during the past week.

EUROPE. It was wet and cool over much of western Europe. The heaviest precipitation fell in the United Kingdom replenishing the short surface moisture supplies in some areas. Although crop prospects are generally favorable throughout western Europe, warm sunshine is needed for crops to reach full potential, especially for grain crops and sugarbeets. There was no relief to southern Spain where soil moisture is very short. Northern Italy received heavy rains--3 inches fell on Rome--but only isolated showers fell on the drought-stricken south. Cool temperatures and frequent showers characterized the weather in the northern half of eastern Europe, including Hungary, East Germany, Poland, and Czechoslovakia. Light, frequent showers fell over Yugoslavia and Romania, but Bulgaria was seasonally warm and dry. Drought-stricken Greece also was dry while the principal agricultural regions in Turkey received only light rainfall.

NORTH AMERICA. Recent rains continued to improve moisture in the Corn Belt and parts of the Southeast. But there was little relief from the Piedmont region in Virginia into South Carolina. Tropical storm Doreen brought heavy rains to southern California replenishing reservoirs but damaging crops in the Imperial Valley. Spin-off rains from Doreen brought needed moisture to pastures in Arizona, Nevada, Utah, and New Mexico. Harvest operations have been retarded in the Canadian Prairie Provinces by cool, showery weather; there was even scattered light frost in some areas.



The Crop Moisture Index measures the degree to which moisture requirements of growing crops were met during the previous week. The index is computed from average weekly values of temperature and precipitation. These values are used to calculate the potential moisture demand. Taking into account the previous soil moisture condition and current rainfall, the actual moisture loss is determined.

If the potential moisture demand, or potential evapotranspiration, exceeds available moisture supplies, actual evapotranspiration is reduced and the CMI gives a negative

value. However, if moisture meets or exceeds demand the index is positive.

Shaded areas indicate the index was unchanged or increased from the previous week's value; soils dried in the unshaded areas. Centers of positive and negative areas are identified by W for wet and D for dry.

Local moisture conditions may vary because of differences in rainfall distribution or soil types. The type of agriculture and stage of crop development must be considered when assessing the impact of moisture conditions based on the Crop Moisture Index. Some general guidelines follow.

UNSHADED AREAS: INDEX DECREASED	
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 EXTREMELY DRY, MOST CROPS RUINED

SHADED AREA: INDEX INCREASED OR DID NOT CHANGE	
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 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 EXTREMELY DRY

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was underway in Florida and Texas; moisture shortages stressed some of the central Texas vegetable crops. The High Plains onion harvest wound down. Pickle harvest in Michigan, at 55% complete, remained well ahead of schedule, and picking of processing tomatoes in California continued active.

PASTURES AND LIVESTOCK: Pastures were rated fair to good over much of the Nation, boosted by rains throughout most of the eastern half. Conditions

in parts of the South and most of the West, however, remained poor. Hurricane Doreen delivered rains to some Southwest pastures, but those in the northern Mountain States and the Pacific Northwest provided very poor feed supplies and fire hazards remained high. In California, some stock was moved due to fire danger and many pastures continued to be severely overgrazed. Livestock were generally fair to good throughout the country.