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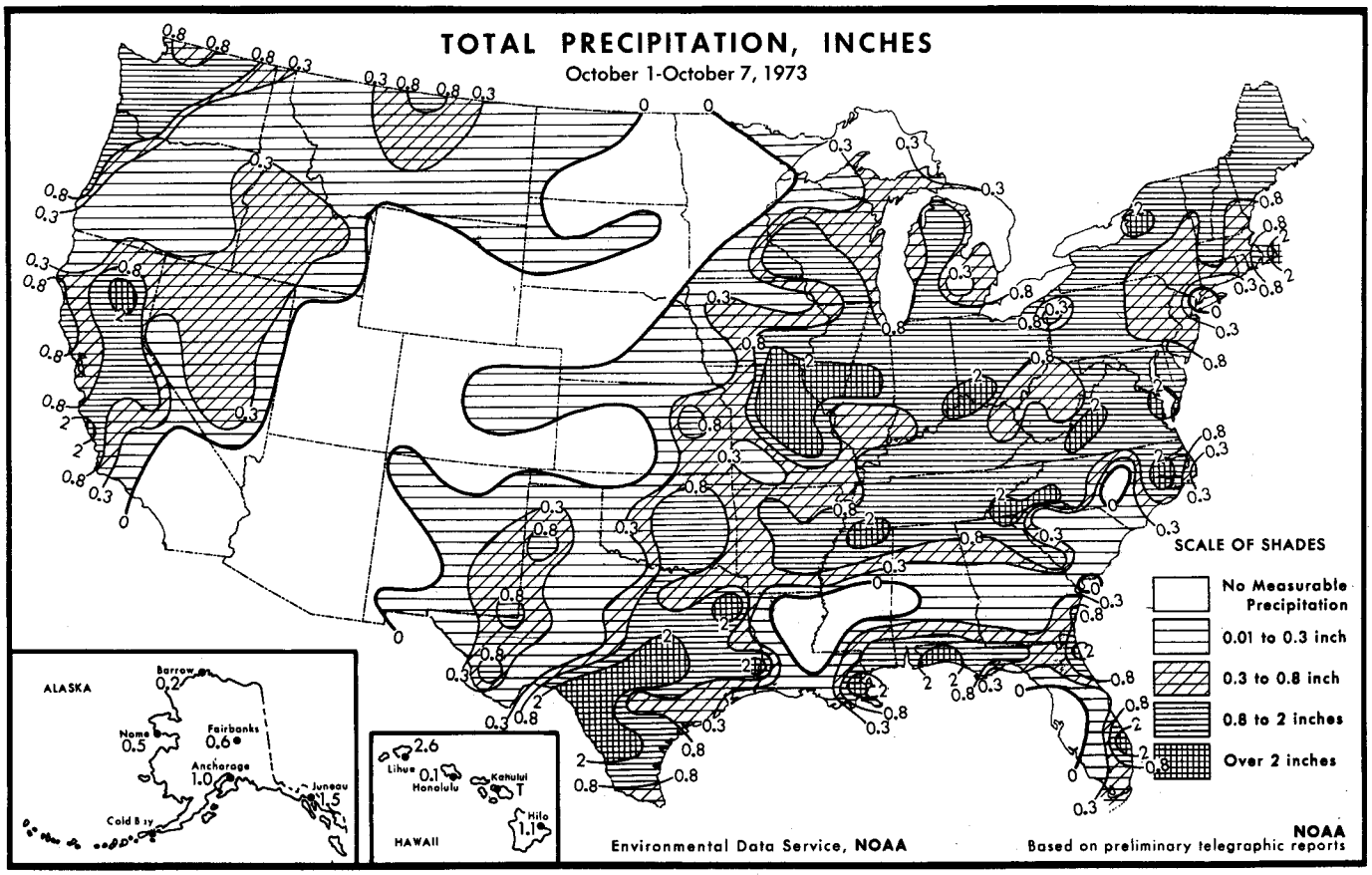


NATIONAL WEATHER SUMMARY

HIGHLIGHTS: While fall came to New England, and other parts of the Northeast, winter invaded the Pacific Northwest -- snow drove its way into Washington and the Rockies. Elsewhere, precipitation was mainly associated with a slow moving cold front. Some Corn Belt areas received truly torrential rains, mostly about midweek.

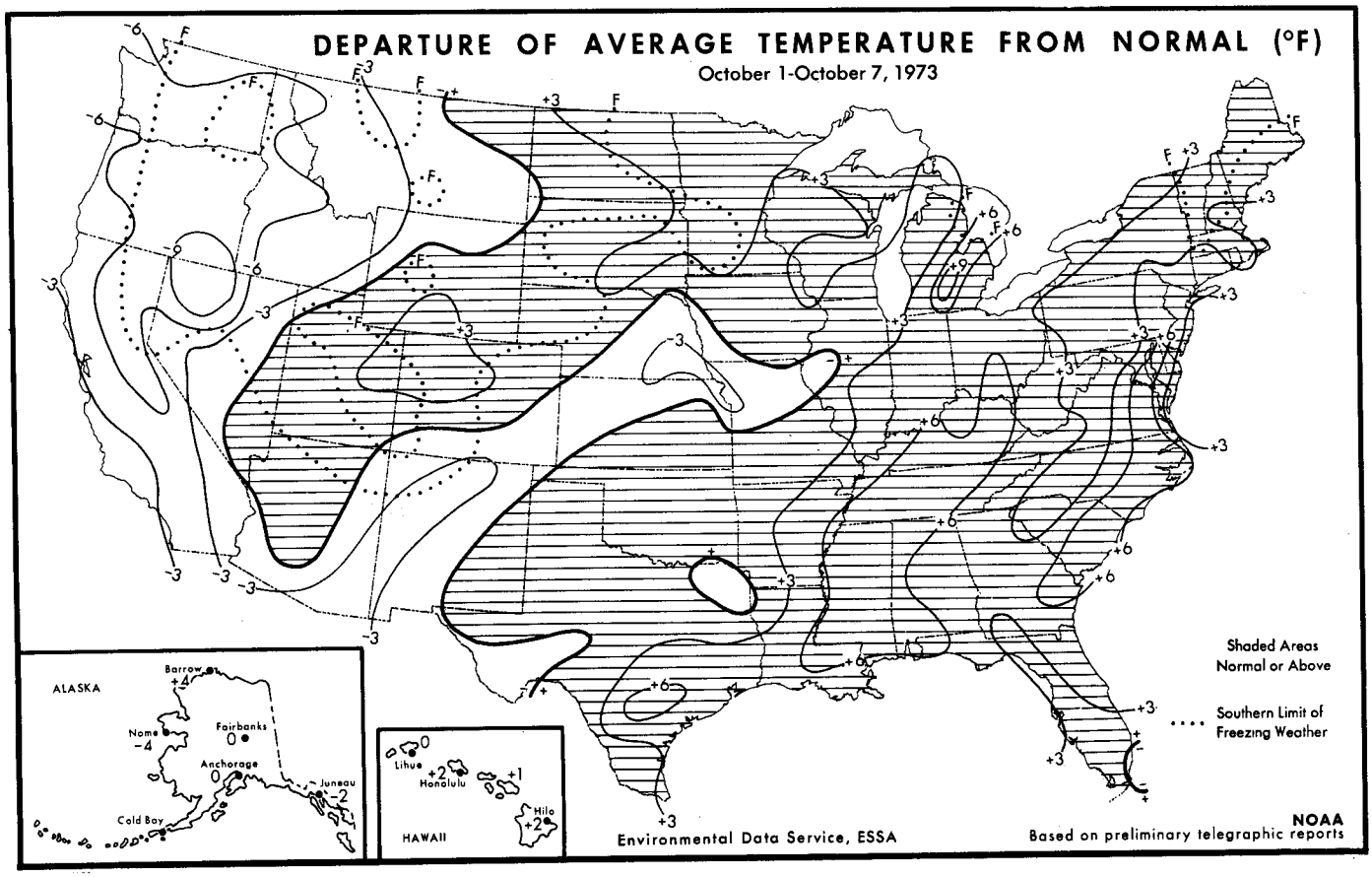
PRECIPITATION: Large areas from the Corn Belt east had from 0.80 to 2.00 in. rain, while most other eastern areas got from 0.30 to 0.80 in. Most rain was associated with a cold front, which took from about Tuesday through Friday to meander from the western Plains to the Atlantic Seaboard.

In the West, weekend rain and snow swept into droughty areas. Parts of California got 2.00 in. rain, while mountain areas got up to 0.30 in. precipitation in rain and snow.

Scattered Monday thundershowers dropped rain mostly east of the Mississippi, chiefly in the South. Valparaiso, Fla., got 2.35 in., Knoxville, Tenn., got 1.82 in. Tuesday was also rainy in the Nation's eastern third. The East Coast felt some significant downpours -- Newport News, Va., got 2.00 in. Later in the day, a cold front began to move through the Corn Belt, dumping heavy rains and hail. Springfield, Ill., received more than 3.00 in. of rain in 3 hours accompanied by 3/4 in. hail. During the 6 hours ending 1 a.m. Wednesday, Sedalia, Mo., had 4.70 in. rain.

Wednesday, a cold front moved eastwards with a band of showers. The day's main rains extended from central Oklahoma through northeast Illinois, heaviest from east Kansas to central Illinois.

Northern Missouri, which received over 4.00 in. overnight Tuesday-Wednesday rain, posted flash flood warnings; marble-sized hail pelted



Moberly, Mo., Wednesday morning, while Montgomery, Mo., reported golf-ball sized at the same time.

Thursday morning, storms extended along the same front from the Great Lakes and the Ohio Valley through northwest Texas. Heaviest overnight rains hit Missouri: Clifton City was drenched in 7.00 in., nearby Sedalia got 5.50 in. along with 1-in. hail. Thundershowers continued throughout the afternoon: Ft. Leonard Wood, Mo., got 1.16 in. in 6 hours. San Antonio, Tex., got more than 3.00 in. between 2:30 and 5:30 p.m. Late Thursday, the storm reached Pennsylvania, where winds damaged homes and barns. The storm cracked open three natural gas wells near Ninevah, Pa.

Friday, the front hung along the Appalachians, through the Deep South, and into Texas. While showers punctuated the front, most rain was light. By mid-Saturday, a high pushed the front out over the Atlantic from Georgia north, while it still ran through the South into Texas.

Early Saturday a storm spread into the mountains of the Pacific Northwest. Heavy snow was reported in Washington mountains from 3,000 ft. up. Rain drenched lower elevations: Toledo, Wash., got almost 2.00 in. rain Friday-Saturday. Sunday rain and snow moved through the Northwest: Stockton, Calif., reported 0.50 in. rain in 6 hours. By late Sunday, rain and snow was general from the North Pacific Coast to the Great Basin, an area that remained mostly dry all summer.

TEMPERATURE: East of the Rockies temperatures averaged mostly above normal. Large areas east of the Mississippi held 3° to 6° above normal, while a large East Coast area, and one extending from the Deep South into Ohio averaged 6° above normal.

In the West, temperatures averaged mostly 3° to 6° subnormal, while one Nevada-Oregon coldspot averaged 9° below the norm.

Monday, a High moving across New England brought subfreezing temperatures to northern New England. Elsewhere, temperatures were in the 30's and 40's from the north Pacific Coast into the Dakotas; 50's, 60's and 70's opened the week across the southern tier of States.

Tuesday temperatures began mostly in the 50's and 60's; however, they ranged from 81° at Needles, Calif., to 29° at Redmond, Oreg. By midday the mercury only reached cool 50's in the Pacific Northwest.

Wednesday morning both northern and southern Rockies felt freezing temperatures. Missoula, Mont., began with 27°, while high areas in Colorado and Utah also recorded high 20's. Thursday, an 11-State western area, from Washington to the Dakotas and south into Arizona-New Mexico, began the day below 32°. During the day most of the area got into the low 60's to low 70's.

To the east, things were warmer, eastern areas began Friday in the 50's -- New England -- to the 70's -- the Gulf States.

Saturday, a High over Pennsylvania brought cooler temperatures to the Northeast -- lows in the 30's were felt around the Great Lakes and

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NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Rain and wet fields delayed winter wheat seeding in the Great Plains for the fourth straight week. The wet conditions also slowed corn and soybean harvesting in the Corn Belt and stopped cotton harvesting in Texas for the second consecutive week.

SMALL GRAINS: Showers and soil soaked by late September downpours delayed winter wheat seeding in the southern Great Plains for the fourth consecutive week. The wet conditions kept planting progress in Kansas at a virtual standstill and at 35% complete is 10 days behind normal. A year ago 85% was seeded there.

Wetness slowed planting in Nebraska at 85% done versus 100% normal progress and also in Colorado, 86% done. Rains again slowed progress in Oklahoma at 52% seeded versus 78% in 1972.

Texas wheat planting is progressing on schedule with 72% seeded versus 74% in 1972.

Scattered weekend showers benefited wheat seedings in much of Montana, Idaho, and the Pacific States. Seeding is 85% done in Montana. Fall grain seeding continued active in the Northwest where early seeded acreage has emerged and looks good.

CORN: Mild, wet weather continued over the Corn Belt for the second week permitting much additional late maturing corn acreage to reach maturity untouched by frost. The Corn Belt crop is 90% mature, about the same as a year earlier.

However; rain, cloudy weather and wet fields put a damper on corn picking now 8% complete and equal to 1972 Corn Belt progress but behind the average of 12%. More harvest progress was shown in the eastern than in the western Corn Belt.

Corn harvest completion reached 15% in Ohio, 10% in Indiana, Illinois and Kansas, 7% in Michigan and Minnesota, 8% in Iowa and Missouri, and 12% in South Dakota. Reporters rated topsoil moisture surplus in much of Nebraska, Kansas,Iowa, Missouri, and Illinois. Any additional precipitation in these areas will hinder harvesting progress.

In the South Atlantic States, harvesting moved past the midpoint, ahead of normal. But corn maturity and harvesting in the South Central States continued behind the normal pace.

COTTON: Harvesting of cotton in the South gained some momentum but most States are running 1 to 2 weeks behind 1972 progress. Rain and wet fields held Texas harvesting to a standstill with no increase from the 13% complete registered a week earlier versus 29% in 1972.

Cotton harvest completion stands at 10% in Tennessee and Mississippi, 5% in Arkansas and Missouri, 3% in Louisiana, 12% in North Carolina, 18% in South Carolina, and 15% in Georgia. About half the bolls are open on cotton in the Delta area.

California cotton harvesting was slow, but harvest gained momentum in Arizona under nearly ideal harvesting weather. Bolls were opening in all areas of New Mexico and limited harvesting started.

SOYBEANS: Rains and wet fields slowed soybean harvesting in the Corn Belt to 15% complete, slightly behind last year's progress of 19%. Mild temperatures allowed additional late planted acreage to mature without danger of frost.

Harvesting progress in the eastern Corn Belt outpaced that of the western portion despite the wet weather. Soybean harvest completion advanced to 30% in Ohio, 25% in Indiana, 20% in Illinois, 10% in Michigan, and South Dakota, 18% in Minnesota, and 5% in Iowa and Missouri.

In the South Atlantic Region, soybean harvesting was light. Combining increased in the South Central Region, although behind last year. Soybeans in Mississippi are 28% mature and 10% harvested versus 15% harvested in 1972. Harvesting was limited in Arkansas.

OTHER CROPS: Sorghum harvesting continued on schedule in Texas at 58% complete versus 53% in 1972. Less than 5% of Kansas sorghum acreage is harvested, well behind the usual 20% harvested. Both the Kansas and Nebraska sorghum crops are less mature than average.

Tobacco harvesting is in the wrap-up stage in Virginia and North Carolina. Burley stripping began in Kentucky with favorable curing weather.

Peanut harvesting is 87% complete in Georgia, 46% in Texas, 65% in North Carolina, and about one-half done in Alabama and Virginia.

The first general statewide frost ended Idaho's potato growing season; harvest there is 40% complete. Many Aroostook County, Maine, potato growers finished digging over the weekend.

FRUITS AND NUTS: Apple picking was in full swing in many orchards throughout the Northeast and Pacific States. Harvest of Cortland and Red Delicious varieties began in New York.

Light picking of Valencia oranges, grapefruit and lemons continued in California. Citrus in Texas continued to size well with limited harvest activity. Florida citrus fruit color increased.

Pecan harvesting began in south Georgia.

VEGETABLES: Harvest of fall vegetable crops advanced rapidly in New Jersey under ideal conditions and lack of frost.

Wet fields slowed vegetable harvesting in Wisconsin and planting in the San Antonio and Lower Rio Grande Valley areas of Texas.

Hot, humid weather hampered growth of vegetable crops in Florida while rains October 6-8 in California may cause some loss in processing tomatoes.

PASTURES AND LIVESTOCK: Pastures from the Great Plains eastwards generally showed improvement reflecting benefits of recent good rains and continued mild weather. Much needed rains fell over the weekend on California and much of Washington.

Cattle and sheep movement from summer ranges is about half complete in Montana. Feed lots are muddy in Nebraska and Kansas.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Oct. 7, 1973

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
ALA.Birmingham	74	+ 3	.3	- .3
Mobile	80	+ 6	1.0	+ .2
Montgomery	77	+ 5	.1	- .5
ALASKA.Anchorage	40	0	1.0	+ .5
Barrow	27	+ 4	.2	+ .1
Fairbanks	35	0	.6	+ .4
Juneau	43	- 2	1.5	- .4
Kodiak	--	---	---	---
Nome	31	- 4	.5	+ .1
ARIZ.Flagstaff	53	+ 1	0	- .4
Phoenix	80	+ 4	0	- .1
Tucson	75	- 5	0	- .2
Winslow	63	0	0	- .2
Yuma	78	- 2	0	- .1
ARK.Fort Smith	70	+ 2	.6	- .2
Little Rock	73	+ 5	1.7	+1.0
CALIF.Bakersfield	70	- 1	.2	+ .1
Eureka	52	- 4	.2	- .3
Fresno	63	- 6	.7	+ .6
Los Angeles	66	- 3	0	- .1
Red Bluff	63	- 7	1.3	+1.1
San Diego	65	- 3	0	- .1
San Francisco	60	- 3	.5	+ .4
Stockton	62	- 6	1.4	+1.3
COLO.Denver	59	+ 3	T	- .2
Grand Junction	64	+ 3	0	- .2
Pueblo	61	0	0	- .3
CONN.Bridgeport	66	+ 6	T	- .8
Hartford	61	+ 4	.9	+ .2
D.C.Washington	69	+ 6	1.2	+ .5
FLA.Apalachicola	80	+ 5	.2	- .4
Daytona Beach	81	+ 5	1.2	---
Ft. Myers	81	+ 2	T	-1.2
Jacksonville	79	+ 4	1.3	- .2
Key West	83	+ 2	.4	-1.0
Lakeland	79	+ 2	0	- .9
Miami	80	0	.5	-2.2
Orlando	81	+ 4	.1	-1.1
Tallahassee	77	+ 3	.9	+ .2
Tampa	81	+ 3	T	- .9
W.Palm Beach	81	+ 1	3.5	---
GA.Atlanta	71	+ 4	.5	0
Augusta	74	+ 4	1.7	+1.2
Macon	75	+ 4	.1	- .4
Savannah	77	+ 6	T	- .7
HAWAII.Hilo	78	+ 2	1.1	-1.3
Honolulu	81	+ 2	.1	- .3
Kahului	79	+ 1	T	- .1
Lihue	78	0	2.6	+1.9
IDAHO.Boise	51	- 6	.5	+ .4
Lewiston	51	- 6	.1	- .2
Pocatello	50	- 4	.2	0
ILL.Cairo	71	+ 4	1.1	+ .5
Chicago	62	+ 2	.5	- .1
Moline	60	+ 1	1.4	+ .8
Peoria	61	0	1.8	+1.2
Rockford	59	+ 2	.9	+ .2
Springfield	64	+ 3	3.6	+2.9
IND.Evansville	69	+ 5	.7	+ .1
Ft. Wayne	63	+ 5	1.5	+ .8
Indianapolis	65	+ 5	1.2	+ .5
South Bend	62	+ 4	1.4	+ .6
IOWA.Burlington	62	+ 2	1.8	+1.1
Des Moines	61	+ 1	.8	+ .3
Dubuque	59	+ 3	.3	- .3
Sioux City	60	0	.3	- .1
KANS.Concordia	62	- 1	T	- .4
Dodge City	65	+ 1	T	- .3
Goodland	57	- 2	T	- .2
Topeka	64	+ 1	.4	- .2
Wichita	65	+ 1	.1	- .5
KY.Lexington	68	+ 5	.8	+ .3
Louisville	69	+ 6	1.2	+ .7
La.Baton Rouge	80	+ 7	T	-1.0
Lake Charles	79	+ 5	.3	- .4
New Orleans	78	+ 4	2.6	+1.9
Shreveport	73	0	T	- .6
MAINE.Caribou	50	+ 2	.9	+ .1
Portland	55	+ 2	1.1	+ .3
MD.Baltimore	64	+ 3	1.0	+ .3
MASS.Boston	61	+ 1	.4	- .2
Chatham	60	---	3.4	---
MICH.Alpena	54	+ 3	.6	0
Detroit	61	+ 4	.3	- .3
Flint	60	+ 6	.3	- .2
Grand Rapids	59	+ 3	1.3	+ .7
Houghton Lake	54	+ 2	.8	+ .1
Lansing	66	+10	.1	- .5
Marquette	57	+ 4	.7	+ .1
Muskegon	58	+ 1	.4	- .2
S. Ste. Marie	52	+ 2	.2	- .5
MINN.Duluth	53	+ 3	T	- .5
Internatl Falls	53	+ 5	.1	- .3
Minneapolis	57	+ 3	T	- .4
Rochester	57	+ 1	1.7	+1.3
St. Cloud	58	+ 5	T	- .4
MISS.Jackson	77	+ 6	0	- .4
Meridian	77	+ 7	T	- .5
MO.Columbia	63	0	2.2	+1.4
Kansas City	63	- 3	.6	- .1
St. Louis	64	+ 1	.3	- .4
Springfield	66	+ 2	.3	- .6
MONT.Billings	52	- 2	.1	- .2
Glasgow	52	+ 1	.2	0
Great Falls	48	- 3	.4	+ .2
Havre	49	- 1	.9	+ .7
Helena	46	- 4	T	- .2
Kalispell	43	- 6	.1	- .2
Miles City	52	- 2	.1	- .2
Missoula	45	- 4	T	- .3
NEBR.Grand Island	58	- 1	.1	- .1
Lincoln	58	- 4	.1	- .3
Norfolk	57	- 1	T	- .3
N.Platte	57	+ 1	T	- .3
Omaha	58	- 1	.2	- .2
Valentine	58	+ 3	0	- .2
NEV.Ely	50	0	.1	0
Las Vegas	73	+ 1	0	0
Reno	49	- 5	T	- .1
Winnemucca	41	-11	.4	+ .2
N.H.Concord	57	+ 4	.5	- .1
N.J.Atlantic City	64	+ 2	.4	- .4
Trenton	66	+ 5	.4	- .3
N.MEX.Albuquerque	61	- 3	.1	- .1
Roswell	66	+ 2	.5	+ .2
N.Y.Albany	57	+ 2	.5	- .1
Binghamton	57	+ 3	.5	- .2
Buffalo	60	+ 5	1.8	+1.0
New York	66	+ 3	T	- .8
Rochester	60	+ 4	1.4	+ .8
Syracuse	59	+ 3	2.0	+1.3
N.C.Asheville	66	+ 4	1.3	+ .7
Charlotte	69	+ 2	.9	+ .2
Greensboro	66	+ 2	.8	+ .1
Hatteras	75	+ 6	.1	- .9
Raleigh	70	+ 5	T	- .7
Wilmington	75	+ 5	.6	- .1
N.DAK.Bismarck	54	+ 2	T	- .3
Fargo	56	+ 5	T	- .3
Williston	52	+ 2	.1	- .1
OHIO.Akron-Canton	61	+ 4	1.1	+ .5
Cincinnati	65	+ 4	2.9	+2.3
Cleveland	62	+ 4	1.2	+ .6
Columbus	65	+ 6	1.2	+ .7
Dayton	65	+ 5	1.7	+1.1
Toledo	61	+ 4	1.5	+ .9
Youngstown	58	+ 2	.3	- .3
OKLA.Okla. City	70	+ 3	.8	+ .2
Tulsa	70	+ 2	1.1	+ .3
OREG.Astoria	48	- 7	1.8	+ .4
Burns	45	- 8	T	- .2
Medford	54	- 4	T	- .4
Pendleton	52	- 6	.1	- .2
Portland	53	- 5	.9	+ .2
Salem	50	- 8	.7	0
PA.Allentown	62	+ 4	.4	- .3
Erie	59	+ 4	1.3	+ .5
Harrisburg	63	+ 3	.7	0
Philadelphia	66	+ 6	.6	- .1
Pittsburgh	61	+ 3	1.3	+ .7
Scranton	60	+ 5	.6	- .2
R.I. Providence	60	+ 2	.8	+ .1
S.C. Charleston	78	+ 8	.1	- .7
Columbia	75	+ 6	T	- .6
Greenville	68	+ 1	.1	- .7
S.D. Aberdeen	56	+ 2	T	- .3
Huron	58	+ 5	T	- .3
Rapid City	57	+ 2	T	- .2
Sioux Falls	55	0	T	- .3
TENN.Chattanooga	73	+ 6	1.3	+ .6
Knoxville	70	+ 4	1.9	+1.3
Memphis	74	+ 6	1.0	+ .5
Nashville	73	+ 7	1.5	+1.0
TEX.Abilene	72	+ 2	.3	- .5
Amarillo	67	+ 2	.5	0
Austin	78	+ 4	2.2	+1.5
Beaumont	79	+ 5	T	- .6
Brownsville	82	+ 3	.3	- .6
Corpus Christi	81	+ 3	1.8	+1.1
Dallas	--	---	---	---
Del Rio	77	+ 2	3.3	+2.8
El Paso	69	0	.1	- .1
Fort Worth	74	+ 1	.4	- .2
Galveston	83	+ 5	.1	- .7
Houston	78	+ 4	.7	- .2
Lubbock	67	+ 1	.2	- .4
Midland	71	+ 1	.4	- .1
San Angelo	72	0	.1	- .4
San Antonio	80	+ 6	.6	0
Victoria	81	+ 5	.8	- .1
Waco	77	+ 3	2.4	+1.8
Wichita Falls	72	+ 1	.1	- .6
UTAH.Blanding	57	0	0	- .4
Salt Lake City	58	+ 1	0	- .2
VT.Burlington	55	+ 3	1.0	+ .3
VA.Lynchburg	65	+ 3	1.2	+ .6
Norfolk	72	+ 6	1.0	+ .3
Richmond	68	+ 5	1.1	+ .4
Roanoke	64	+ 2	2.3	+1.6
WASH.Colville	45	- 7	.5	+ .2
Omak	47	- 5	1.0	+ .8
Quillayute	47	- 8	1.2	-1.1
Seattle-Tacoma	50	- 6	1.2	+ .4
Spokane	46	- 8	.1	- .2
Walla Walla	54	- 6	T	- .3
Yakima	49	- 6	.2	+ .1
W.Va.Beckley	61	+ 3	.6	0
Charleston	66	+ 5	1.1	+ .5
Huntington	68	+ 6	.4	- .1
Parkersburg	66	+ 5	.5	0
WIS.Green Bay	57	+ 3	.4	- .1
La Crosse	61	+ 5	1.1	+ .6
Madison	56	+ 1	1.1	+ .5
Milwaukee	57	+ 2	.8	+ .3
WYO.Casper	54	+ 1	T	- .2
Cheyenne	54	+ 2	T	- .2
Lander	54	+ 2	T	- .3
Sheridan	51	- 1	.1	- .2
P.R.San Juan	83	+ 2	1.0	- .2

CONDENSED STATE SUMMARIES

The Bulletin capsulizes nationally important weather and crop conditions. Every Monday SRS publishes more detailed data in State Weekly Weather and Crop Bulletins in cooperation with the National Weather Service, NOAA. Voluntary weather observers, crop reporters, and county extension agents contribute weekly observations for these reports.

ALABAMA: Mostly dry, fair. Temperatures 7° above normal. Thundershowers Monday and Tuesday, mostly light rains westcentral and north. Dry rest of week except Tennessee Valley Sunday. Rains slowed fieldwork but improved pastures and late season crops. Cotton continued to open rapidly. Defoliating and harvesting gained momentum.

Corn harvest behind 1972 with slightly over 25% harvested. Soybeans 33% mature, about 5% harvested. Peanut harvest over 50% complete. Federal-State Inspection reported 121,213 tons inspected through October 6, compared with 182,622 tons 1972. Pecan prospects favorable in well-managed orchards. Farmers mowing orchards as pecans fell. Final hay cuttings, quality poor due to rains. Pastures furnishing adequate grazing except a few dry spots.

ARIZONA: Dryness continued. Gusty winds compounded drought conditions. Light rain east-central and southeastern mountains, amounts negligible. Temperatures slightly below normal.

Cotton good, harvest gained momentum. Yuma harvest full swing. Defoliation, picking increasing Salt River Valley. Harvest starting Cochise, Graham. Harvest weather almost ideal. Early yields at Yuma good. Insect controls terminated many fields. Sorghum growth good progress. Limited harvest south. Fall sugar beets satisfactory progress southeast, harvest expected end October. Planting spring crop Maricopa County. Little alfalfa seed harvested Graham. Harvest steady Yuma, yields average. Alfalfa haying slow Cochise. Last cutting Graham. Planting, renovating Yuma. Lettuce harvest continued full swing Willcox area. Lettuce good progress central, western areas. Additional planting active Yuma. Weed control difficult Salt River Valley. Planting, thinning mixed vegetables good progress central, west. Cantaloupes fall harvest good progress. Lemon harvest continued Yuma, Salt River Valley, sizes generally small. New crop fruit satisfactory growth. Ranges fair to poor statewide. Lack of late summer precipitation primary reason for deterioration. Prospects for winter feed poor.

Frost high ranges east, central mountains limiting range feed. Southeastern range grasses very dry, little new feed growing. Central, southwestern deserts extremely dry. Northeastern ranges providing limited grazing. Stockwater diminishing rapidly, not yet critical. Cattle, calves good. Sheep, lambs fair to good. Sheep moving to winter pastures.

ARKANSAS: Heaviest rain central and eastcentral with many reports of 0.50 to 1.50 in. Little Rock got most, 1.72 in. Temperatures 2° to 8° above normal, most of State at least 5° above. Mean temperatures ranged from 67° at Calico Rock, north central to 77° at Texarkana, El Dorado, and Eudora along the south border. Extremes: 92°, 45°. Warmest midweek, cooled by weekend.

Soil moisture mostly adequate. Cotton fair to good, 50% of bolls open, 5% harvested with good yields. Rice harvest active, about 44% cut, yields average to above, some lodging. Soybeans good, limited harvest early beans, yield prospects good to excellent. Leaf drop starting on midseason and late varieties. Seeding of wheat, oats well advanced, late soybean crop delaying planting. Some armyworm damage. Harvesting of corn, sorghums, apples and okra continued. Peanut digging underway. Pastures average to above. Armyworms caused a few problems. Livestock fair to good, making good gains. Flies a problem.

CALIFORNIA: No precipitation during the week, up to 2.00 in. rain and snow on weekend. Afternoon temperatures near 100° over desert southeast on Saturday and in 90's central valley. Cooler air moved into State early week dropping afternoon highs into 70's sections of central valley, but in 80's by late week. Temperatures subnormal nearly all of State.

Small grain seeding continued active, some germination. Rice harvest at full, some lodging and blanking. Milo harvest underway, fields still maturing. Cotton harvest slow, defoliation active. Harvest of sugar beets active, near completion in some areas. Plantings of next year's crop Imperial Valley almost complete. Alfalfa still being cut. Corn harvest active. Dry beans being cut. Wine grape harvest continued active. Crushing wine grapes 50% complete, crushing all types for wine 65% complete. Shipments juice grapes continued. Picking Ribiers, Emperors, Calmerias, Almerias fresh market continued active. Raisin harvest complete, 80% rolled, boxed, or delivered.

Almond harvest neared completion. Walnut harvest active all areas, above average yields. Apple picking active statewide, some sunburn damage. Harvesting figs neared completion. Olive harvest gained momentum. Some light picking plums, freestone peaches, pears continued. Harvest of persimmons, pomegranates increased. Light picking avocados, Valencia oranges, grapefruit, lemons continued. Harvest navel oranges expected start about 2 weeks.

Broccoli, cauliflower moderate Salinas, Santa Maria. Brussels sprouts continued. Cantaloupes about complete Westside, began Imperial. Carrots moved Salinas, Santa Maria. Celery heavy Salinas. Sweet corn declined south. Lettuce tapered Salinas, cutting light San Joaquin. Bell pepper continued Salinas, San Joaquin. Onion, potato digging continued north. Sweet potatoes heavy Livingston.

Market tomato some volume south, beginning Merced. Processing tomato deliveries declined Sacramento, San Joaquin Valleys. Rains October 6, 7, 8 may cause some loss, amount undetermined. Barring further rain, no fields will be totally lost, but substantial yield reduction on estimated 10,000 to 15,000 acres remaining. Storms weekend brought needed rain to foothill ranges. Snow throughout Sierra-Nevada Mountains. Livestock continued to stubble fields as available. Supplemental feeding necessary most rangeland areas. Fall calving well underway.

COLORADO: Dry and mild early week with temperatures in 70's and 80's, 60's mountains. Wednesday, cool air pushed into east with scattered light rain and drizzle lowering temperatures into 40's and 50's while western slope remained warm and dry. On Thursday, first frost locally northeast with lows from 30° to 40°. Afternoons warmed to 60's and 70's. End of week and into weekend,

sunny and warm indian summer prevailed.

Wet soils east delayed winter wheat planting. Emerged crop generally good, some replanting necessary due to crusting soils--86% planted, 66% up to stand. Winter barley 77% seeded, 51% emerged. Corn matured rapidly; 85% mature, safe from frost, 95% 1972. High moisture corn harvest began. Corn silage 84% chopped. Grain sorghum 43% ripe, 82% 1972--very limited harvest southeast. Fall potato harvest progressed rapidly, 40% dug. Dry beans 89% cut, 43% threshed. Sugar beets good to excellent. Alfalfa harvest continued. Pastures and ranges good to excellent. Livestock good to excellent.

FLORIDA: Warm and dry. Temperatures a few degrees above normal. Rainfall mostly light except a few moderate accumulations west and south. Field crop conditions good. Moisture generally adequate.

Harvest activities increased. Corn harvest continued north and central. Peanut harvest active but behind 1972. Combining soybeans increased, many fields grassy, insect damage apparent. Cotton harvest increased, gins operating. Sugarcane good, cutting plant cane continued. Small grain seeding active. Pastures good, soil moisture short to adequate. Cattle, calves good.

Citrus trees excellent--only light rain last week--general fruit color break increased. Very little irrigation. Vegetable crops seasonally fair to good, progress hampered by hot, humid weather. Sweet corn, radishes in light but increasing volume from Everglades. Early harvest of beans, cukes, peppers, eggplant, squash underway central, north but mostly marketing locally. Harvest of leaf crops, tomatoes starting during next 10 days. All commodities expected increase in volume during last half October.

GEORGIA: Temperatures near 5° above seasonal norm. Rainfall heavy northern third, moderate westcentral and southwest, very sparse central southward and southeastward. Weekend cooler but mild north and continued rather warm south. Generally dry except for brief light showers near northern border and along coast.

Soil moisture adequate north, short to mostly adequate south. Farmers harvested very actively. Corn 35% gathered, good condition. Peanuts 94% dug, 87% threshed -- many counties finished, yields very favorable. Cotton fair to mostly good, defoliation active, 15% picked. Soybeans fair to mostly good, many insects, harvest light. Pecans fair to good, harvest began south. Pastures, hay crops declined seasonally, still mostly good. Cattle good. Farmers prepared land and seeded small grains -- 25% sown. Fire ants spreading north.

HAWAII: Weather predominantly warm, humid and dry. Some scattered, light showers benefited crops and pastures. Crops generally fair to good. Vegetable supply adequate. Bananas plentiful. Papayas gradual increase. Leeward pastures very dry; windward pastures fair. Some supplemental feeding necessary. Pineapple harvesting down; planting active. Sugar harvest normal.

IDAHO: Cold, dry air midweek dropped temperatures sharply to 20's and teens in higher mountain valleys. Only very light precipitation reported north. After daytime warming trend, moisture-laden cold air moved in to bring general precipitation statewide and snow above 5,000 feet on weekend.

First general statewide frost ended potato growing season. Digging active all areas with about 40% harvested. Sugar beet harvest started. About 25% dry beans left to combine. Apple harvest past peak. Harvest neared completion for silage corn, alfalfa hay, and onions. Good moisture supplies for seeding fall grains and Austrian peas.

ILLINOIS: Heavy precipitation central Monday and Tuesday, light amounts rest of week, above normal rainfall much of State. Temperatures near normal northwest, above normal most of State, much above normal extreme south.

Farmers harvested corn despite rainfall. Nearly 10% harvested, about same as 1972, 1970-72 average 21%. Heavy rains kept activity some areas near standstill. Virtually all soybean acreage reached leaf shedding stage, about same as 1972 and average. Harvest advanced slightly, about 20% combined, 30% 1972, average 51%. Winter wheat seeding about 40% complete, slightly ahead of 1972, average 49%. Pastures 27% excellent, 58% good, 15% fair. Soil moisture 5% short, 40% adequate, 55% surplus. Averaged only 2.5 days suitable for fieldwork. Main activities: Fall plowing, winter wheat seeding, corn and soybean harvesting as weather permitted.

INDIANA: Temperatures 6° above normal ranging from 50's to low 80's. Showers frequent, weekly totals between 1.00 to 2.00 in. Relative humidity and soil temperatures above normal. Mostly cloudy week. Fieldwork averaged 3 days. Topsoil moisture mostly adequate. Subsoil moisture short to mostly adequate statewide.

Corn 10% harvested, 85% mature; both ahead of 1972 but same as average. Soybeans 25% combined, 30% is normal, 10% in 1972. Wheat land 85% plowed, ahead of 1972 and average. Wheat 45% seeded, same as average, 20% 1972. Rye 60% seeded, barley 55% seeded. Sorghum grain 20% combined. Apples 60% picked. Tobacco 85% cut. Pastures improved, rated poor to mostly fair.

IOWA: Temperatures and precipitation near normal except above normal precipitation southeast and extreme northeast. Wet week, less than 2 days favorable for work. Topsoil moisture 25% adequate and 75% surplus.

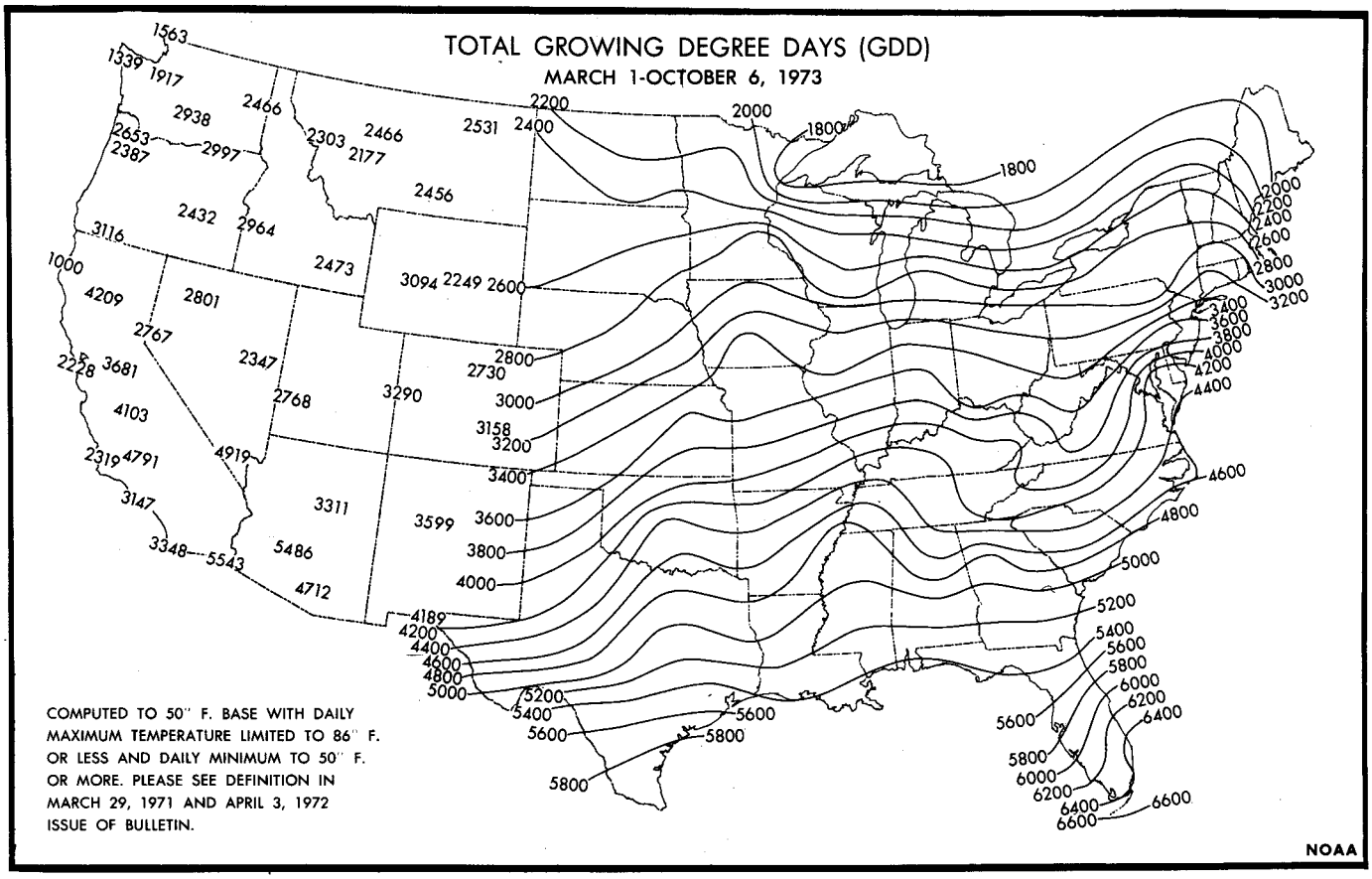
Corn 94% mature, safe from frost, average 96%. Wet weather and muddy fields hampered harvest operations. About 8% corn crop harvested, 5-year average 12%. Soybeans 90% mature, safe from frost, slightly behind 1972. Soybeans 5% harvested, 37% average. Grain sorghum 7% harvested, 5-year average 21%. Winter wheat seeding 45% complete, average 72%.

KANSAS: Temperatures near normal. Significant precipitation east. Streams were falling back into banks east and central and additional rainfall posed no problems.

Wheat seeding progressed very little--10 days behind normal. Wheat 35% seeded, 1972 85%. Some wheat will need to be replanted. Grain sorghum 60% mature, 70% average; less than 5% harvested, 1972 15%, average 20%. Corn for grain 85% matured, 90% 1972 and average. Corn for grain 10% harvested, 20% 1972, 30% average. Few soybeans harvested, 10% 1972, 20% average. Cattle held on ranges and pastures, condition excellent. Very little wheat being pastured, except for volunteer wheat.

KENTUCKY: Temperatures slightly above normal. Variable cloudiness and rainfall near 1.25 in. over State. Fieldwork, days favorable 4.8. Soil moisture 47% short, 50% adequate, 3% surplus.

Corn harvest 19% complete, 1972 16%, 26% in



1971. Yields good early fields. Soybean harvest 15% complete, 12% 1972 and 14% in 1971. Shedding leaves another 37%, yields good early beans, but reporters fear considerable reduction on late acres. Burley stripping began, curing weather has been favorable. Quality burley expected good, weight light. Fall wheat 32% seeded. Pastures benefiting from recent rains.

LOUISIANA: Temperatures 3° to 7° above normal. Extremes: 92°, Oberlin; 58°, Cotton Valley. No precipitation north, 0.10 to 2.00 in. south. Greatest 1-day rain 1.71 in. New Orleans. Soil moisture adequate to surplus. Haying, cotton defoliation, seeding winter pastures, and harvesting cotton, rice, soybeans, and sweet potatoes active. About 50% cotton open, 3% picked. Over 65% corn and sorghum harvested. Rice harvest neared completion, 90% done. Soybeans maturing rapidly, almost 10% combined, yields good. Digging sweet potatoes continued, rotting widespread in low fields. Pecans good. Haying active. Pastures average to above average. Livestock good.

MARYLAND AND DELAWARE: Warm week. Temperatures 7° above normal. Extremes in upper 80's and low 90's to lows in mid-40's except highs in low 80's Garrett County. Precipitation at nearly all stations mostly 1.00 to 2.00 in. except isolated showers totaling 4.00 in. in southern Maryland and 3.00 in. central Delmarva.

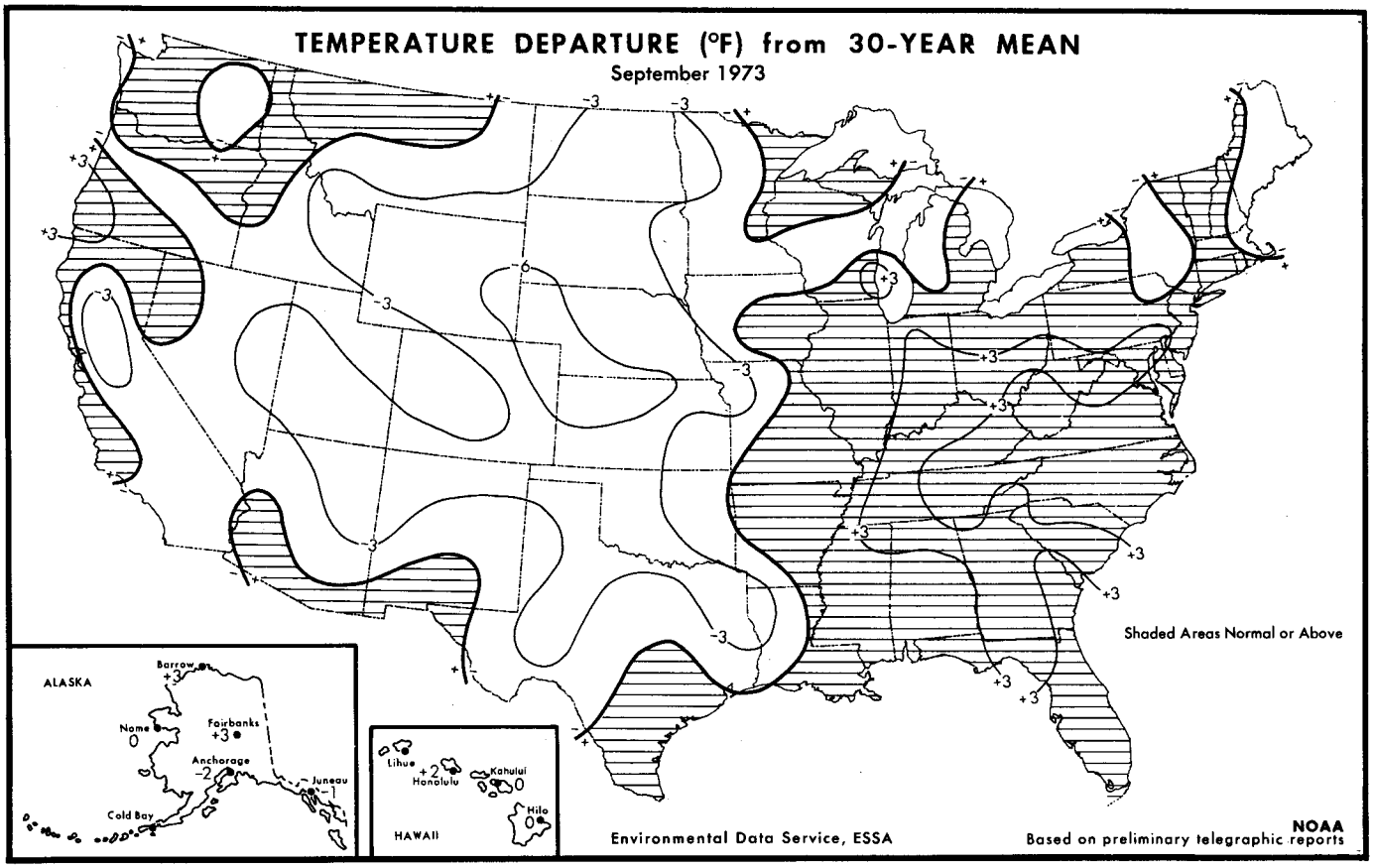
Fieldwork interrupted but progress still ahead of normal. Corn harvest 58% complete, 1972 32%, average 44%. Silo filling 93% done. Soybeans 11% combined, 1972 zero, average 6%. Small grain seeding active, early fields up to good stands. Apple harvest pushed, 25% Red and Golden Delicious still on trees.

MICHIGAN: Rainfall generally averaged 0.20 to 0.40 in. over upper southeast lower and extreme northern lower and 0.40 to 1.00 in. over remainder of lower peninsula. Most of rain southern lower fell Tuesday but some rain reported most days. Over northern lower and upper most rain fell first half week. Temperatures 1° to 4° above normal, lows generally in upper 30's or lower 40' s over northern lower and upper Monday morning, and over most of State Friday morning. Most of State in 30's Saturday morning.

Rain and wet fields slowed or halted fieldwork. Soil moisture adequate to surplus. Averaged 4.0 days suitable for fieldwork. Corn 71% mature. High moisture content delaying picking of ear corn on many farms. Grain corn 7% harvested, average 9%. Silage corn 82% harvested. About 87% soybean acreage shedding leaves or more advanced, 40% mature. Soybeans 10% harvested, average 12%. Wet weather delayed start soybean harvest many farms. Dry beans 95%, fall potatoes 59%, sugar beets 20% harvested. Wet fields delayed completion wheat planting, 91% planted. Lush growth early planted wheat. Pasture feed supplies below average. Apple harvest more advanced than usual. McIntosh harvest nearly finished, Jonathan and Red Delicious picking active. Grape harvest well along. Fall vegetable harvest continued.

MINNESOTA: Temperatures normal to 4° above, afternoon highs in 60's and low 70's and overnight lows in 30's and 40's. Precipitation sub-

(Continued on Page 11)



WEATHER - SEPTEMBER 1973

TEMPERATURE: Temperatures averaged cooler than normal during September in the west, but as is often the case, were warmer than normal over the eastern half of the United States. In the west greatest departures occurred over the Rocky Mountains and the western Plains. Goodland and Concordia, Kans., and North Platte, Nebr., all averaged 6° below normal. In the east the greatest departures occurred down through the Ohio River Valley, western Kentucky and Tennessee and southeastward through Georgia to the Atlantic and Gulf Coasts.

This same pattern was apparent as the month began with the greatest departures occurring in the Oklahoma and Texas Panhandles where temperatures were 9° below normal. At the same time temperatures in the Pacific Northwest and New England were running 3° to 6° above normal. Temperatures had been running much above normal over the east for several days and the extreme heat was finally broken by a passage of a long delayed cold front. By the end of the first decade temperatures were considerably below normal over nearly the entire Nation.

This change in temperature conditions proved to be the pattern for the next two weeks as the Nation continued to be much cooler than normal. By the end of the second decade, frost had occurred through most of the northern tier of States. Temperatures over the northern Plains averaged 6° to 9° below normal during most of this period.

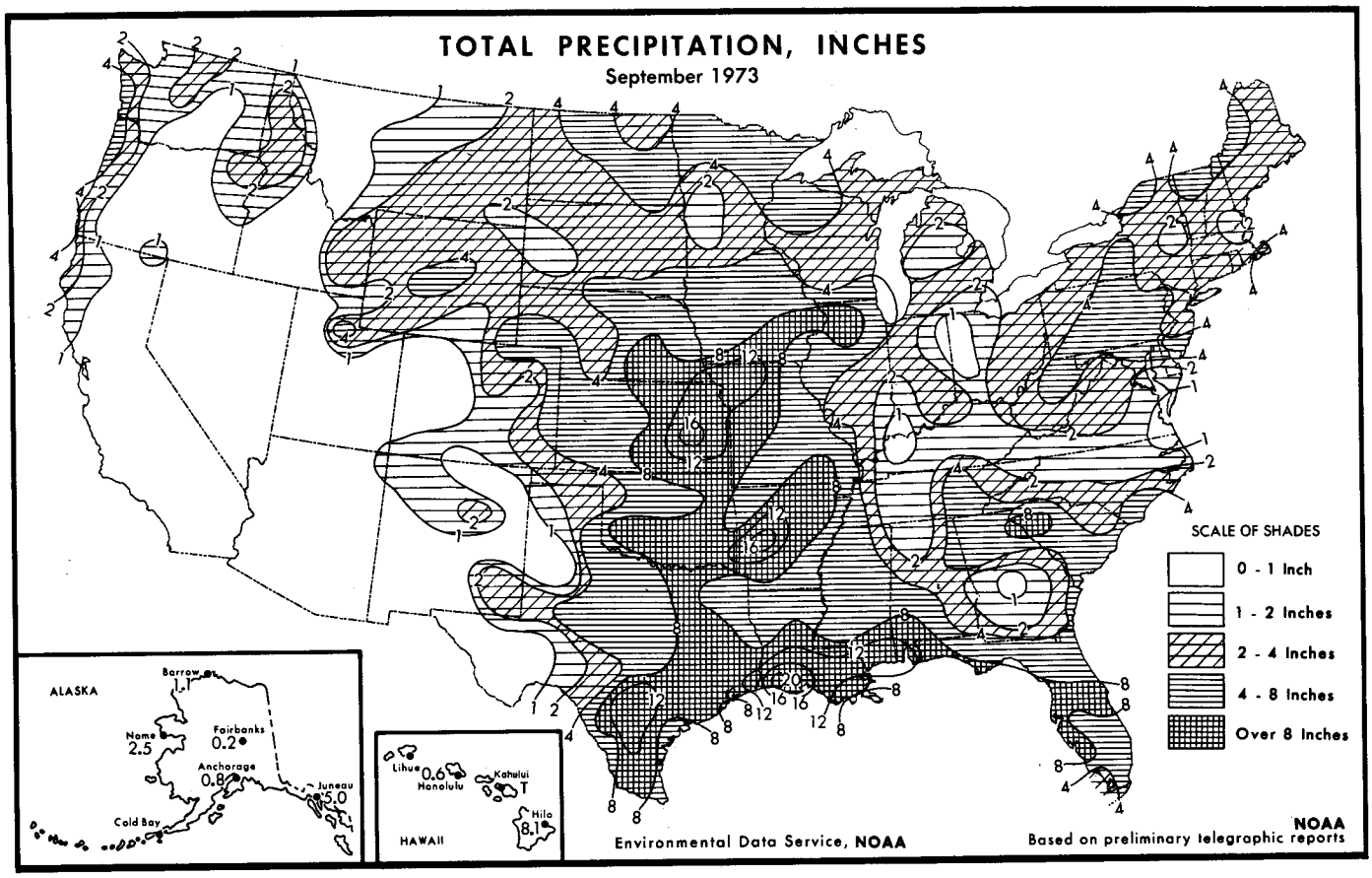
The month ended with temperatures above normal over the eastern half of the Nation, the northern Rockies and the Pacific Coast, but much below normal over New England and most western States. Temperatures were 6° to 12° above normal over the Corn Belt.

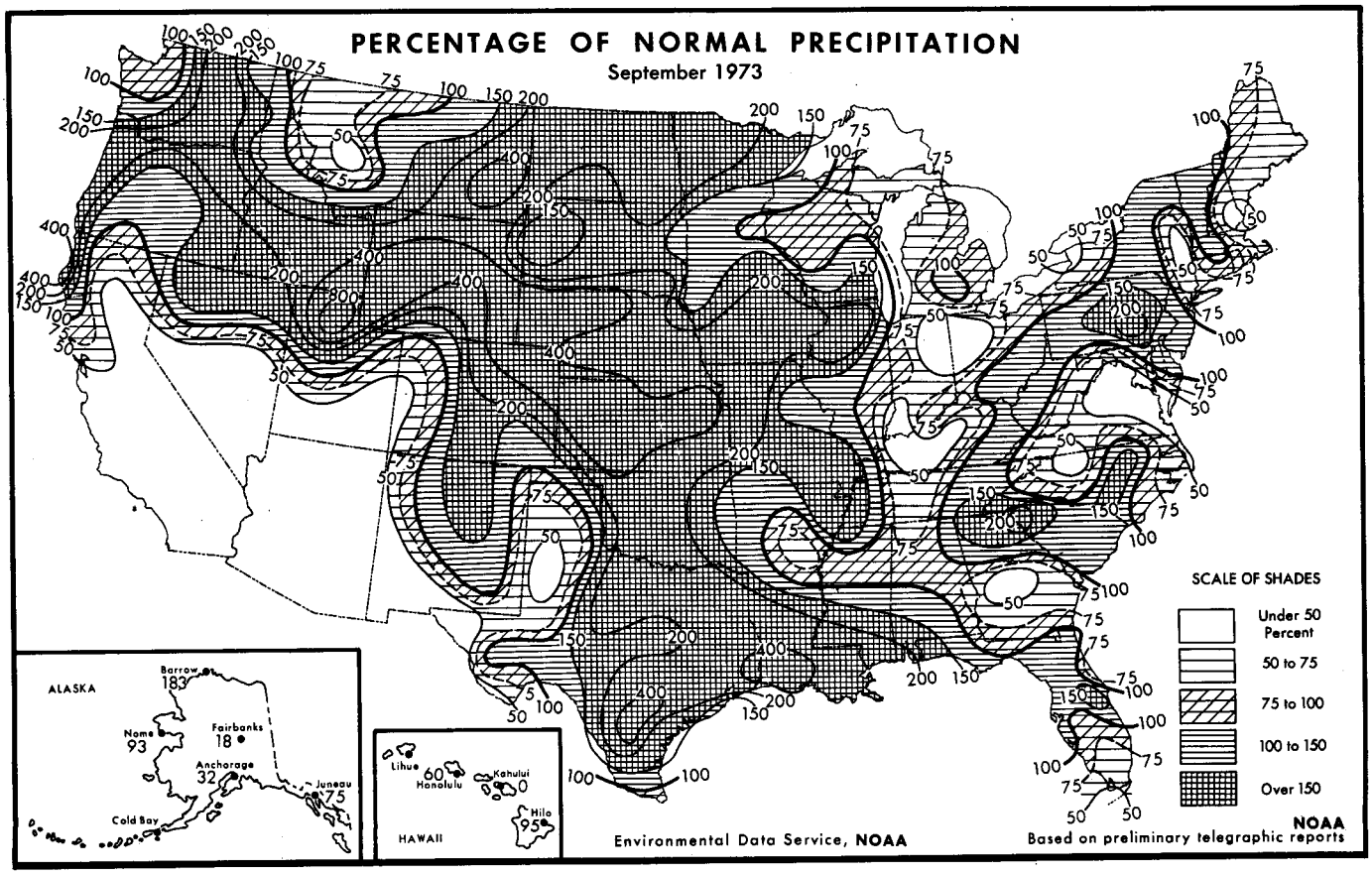
PRECIPITATION: Precipitation was considerably above normal over most of the Plains States with rainfall generally normal to below normal over the eastern third of the Nation. Much of the above normal precipitation, particularly in the southern Plains, was associated with Tropical Storm Delia, which struck near Galveston on the 3rd. Lake Charles, La., received 19.96 in.

Tropical Storm Delia came ashore near Galveston, Texas, on the 3rd, meandered in the area for several days and finally moved northward up through Missouri and Iowa before breaking up. By the time the storm cleared away, over ten inches had fallen in the Port Arthur, Texas, area and over 6.00 in. had fallen in surrounding areas.

Most significant rainfall during the remainder of the month was associated with thunderstorm activity which was very active. At midmonth two distinct storm systems brought heavy rainfall to the Gulf Coast and the Great Plains. From 2.00 to 6.00 in. fell along the Gulf Coast and upwards of 2.00 in. fell over most of the Great Plains. Heavy rains also caused flooding and some damage in the

Continued p. 16.


TOTAL PRECIPITATION, INCHES
September 1973
SCALE OF SHADES
0 - 1 Inch
1 - 2 Inches
2 - 4 Inches
4 - 8 Inches
Over 8 Inches
ALASKA
Barrow
Nome 2.5
Fairbanks 0.2
Anchorage 0.8
Juneau 5.0
Cold Bay
HAWAII
Lihue 0.6
Honolulu
Kahului T
Hilo 8.1
Environmental Data Service, NOAA
NOAA
Based on preliminary telegraphic reports


PERCENTAGE OF NORMAL PRECIPITATION
September 1973
SCALE OF SHADES
Under 50 Percent
50 to 75
75 to 100
100 to 150
Over 150
ALASKA
Barrow 183
Nome 93
Fairbanks 18
Anchorage 32
Juneau 75
Cold Bay
HAWAII
Lihue 60
Honolulu
Kahului 0
Hilo 95
Environmental Data Service, NOAA
NOAA
Based on preliminary telegraphic reports

Temperature and Precipitation Data for September 1973

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
ALA.Birmingham	77	+ 1	2.6	- .7
Mobile	80	+ 2	12.7	+6.4
Montgomery	79	+ 2	4.1	+ .1
ALASKA.Anchorage	46	- 2	.8	-1.7
Barrow	34	+ 3	1.1	+ .5
Fairbanks	47	+ 3	.2	- .9
Juneau	48	- 1	5.0	-1.7
Kodiak	46	- 4	6.6	+ .5
Nome	42	0	2.5	- .2
ARIZ.Flagstaff	58	- 1	T	-1.6
Phoenix	85	+ 2	0	- .7
Tucson	80	0	T	-1.0
Winslow	66	- 5	.1	- .8
Yuma	84	- 2	0	- .4
ARK.Fort Smith	75	0	5.2	+1.6
Little Rock	76	+ 2	9.1	+5.9
CALIF.Bakersfield	77	0	0	- .1
Eureka	57	+ 1	2.4	+1.8
Fresno	72	- 2	0	- .1
Los Angeles	70	- 2	0	- .2
Red Bluff	73	- 3	.2	- .2
San Diego	69	- 1	T	- .2
San Francisco	64	0	T	- .2
Stockton	70	- 3	.1	- .1
COLO.Denver	60	- 3	2.8	+1.7
Grand Junction	66	- 2	.3	- .6
Pueblo	65	- 2	1.2	+ .4
CONN.Bridgeport	68	+ 2	2.6	-1.4
Hartford	65	+ 2	3.7	0
D.C.Washington	74	+ 4	1.6	-2.2
FLA.Apalachicola	81	+ 2	8.9	+ .4
Daytona Beach	81	+ 2	5.1	-1.9
Ft. Myers	83	+ 2	8.4	- .1
Jacksonville	79	0	7.9	+ .3
Key West	83	+ 1	3.3	-3.4
Lakeland	81	+ 1	6.1	- .5
Miami	82	+ 1	6.6	-2.9
Orlando	81	+ 1	11.5	+4.3
Tallahassee	81	+ 3	5.3	- .2
Tampa	82	+ 1	8.9	+2.0
W.Palm Beach	82	0	7.6	-2.1
GA.Atlanta	76	+ 3	4.2	+ .9
Augusta	77	+ 2	3.0	0
Macon	80	+ 4	1.0	-1.8
Savannah	79	+ 2	3.7	-1.6
HAWAII.Hilo	76	0	8.1	- .4
Honolulu	81	+ 2	.6	- .4
Kahului	78	0	T	- .3
Lihue	--	---	---	---
IDAHO.Boise	63	0	.8	+ .4
Lewiston	65	+ 1	1.1	+ .2
Pocatello	57	- 3	2.3	+1.7
ILL.Cairo	74	+ 1	4.5	+1.5
Chicago	67	+ 1	4.2	+1.5
Moline	66	+ 1	6.7	+3.4
Peoria	67	+ 1	7.6	+4.5
Rockford	64	0	8.5	+5.0
Springfield	70	+ 2	3.3	+ .4
IND.Evansville	73	+ 3	.7	-2.2
Ft. Wayne	67	+ 2	.7	-2.0
Indianapolis	70	+ 3	2.4	- .8
South Bend	67	+ 3	2.1	-1.0
IOWA.Burlington	66	0	6.3	+3.1
Des Moines	66	+ 1	7.1	+4.2
Dubuque	63	+ 1	7.3	+2.6
Sioux City	63	- 3	4.0	+1.3
KANS.Concordia	64	- 6	8.5	+5.8
Dodge City	65	- 5	6.8	+5.3
Goodland	60	- 6	5.4	+4.2
Topeka	67	- 2	12.7	+9.7
Wichita	68	- 3	9.5	+6.3
KY.Lexington	72	+ 3	1.4	-1.4
Louisville	74	+ 4	2.3	- .3
La.Baton Rouge	80	+ 2	13.1	+ 9.6
Lake Charles	79	0	20.0	+16.0
New Orleans	80	+ 2	11.1	+ 6.1
Shreveport	75	- 4	6.4	+ 4.1
MAINE.Caribou	53	- 1	2.6	- .9
Portland	58	- 1	2.2	- 1.3
MD.Baltimore	70	+ 2	4.9	+ 1.6
MASS.Boston	64	- 1	2.0	- 1.5
Chatham	63	---	4.0	---
MICH.Alpena	57	+ 1	3.0	- .6
Detroit	65	+ 2	1.8	- .5
Flint	63	+ 1	2.8	- .1
Grand Rapids	63	+ 1	2.5	- .5
Houghton Lake	57	0	2.0	- .9
Lansing	62	0	2.8	+ .2
Marquette	59	+ 1	2.0	- 1.3
Muskegon	62	- 1	1.7	- 1.4
S. Ste. Marie	54	- 2	2.8	- 1.0
MINN.Duluth	54	0	4.3	+ 1.4
Internatl Falls	53	0	6.8	+ 3.9
Minneapolis	60	0	2.1	- .3
Rochester	59	- 2	5.8	+ 2.7
St. Cloud	57	- 2	2.8	+ .4
MISS.Jackson	78	+ 1	4.4	+ 1.9
Meridian	78	+ 2	4.5	+ 1.2
MO.Columbia	69	+ 1	5.7	+ 1.8
Kansas City	67	- 4	10.3	+ 7.0
St. Louis	70	0	3.5	+ .7
Springfield	71	+ 1	4.7	+ .8
MONT.Billings	58	- 2	2.2	+ 1.0
Glasgow	57	0	1.4	+ .4
Great Falls	58	+ 1	1.3	+ .1
Havre	57	+ 1	.9	- .1
Helena	54	- 2	.4	- .6
Kalispell	55	0	.7	- .3
Miles City	59	- 2	4.0	+ 3.0
Missoula	56	+ 1	.6	- .4
NEBR.Grand Island	62	- 3	8.4	+ 6.2
Lincoln	63	- 5	7.5	+ 4.6
Norfolk	61	- 4	5.1	+ 2.8
N.Platte	58	- 6	4.0	+ 2.3
Omaha	63	- 3	7.0	+ 4.5
Valentine	58	- 4	5.9	+ 4.6
NEV.Ely	54	- 4	.1	- .5
Las Vegas	79	- 1	T	- .3
Reno	59	0	T	- .2
Winnemucca	59	0	.5	+ .2
N.H.Concord	59	0	1.8	- 2.0
N.J.Atlantic City	67	0	4.7	+ 1.4
Trenton	69	+ 2	3.8	+ .3
N.MEX.Albuquerque	68	- 2	1.1	+ .1
Roswell	70	0	2.6	+ .8
N.Y.Albany	61	- 1	1.3	- 2.3
Binghamton	60	0	3.1	+ .1
Buffalo	62	+ 1	1.4	- 1.7
New York	69	0	2.6	- 1.3
Rochester	63	+ 1	1.4	- 1.1
Syracuse	62	0	4.6	+ 1.8
N.C.Asheville	70	+ 4	3.1	- .5
Charlotte	75	+ 2	3.2	- .3
Greensboro	72	+ 2	1.2	- 2.5
Hatteras	76	+ 2	3.0	- 2.9
Raleigh	73	+ 2	1.1	- 2.8
Wilmington	77	+ 2	5.6	- .7
N.DAK.Bismarck	55	- 4	2.3	+ 1.1
Fargo	55	- 4	5.0	+ 3.5
Williston	56	- 1	3.1	+ 2.0
OHIO.Akron-Canton	66	+ 2	2.1	- .5
Cincinnati	70	+ 3	2.6	- .2
Cleveland	66	+ 2	2.7	- .2
Columbus	69	+ 3	2.8	+ .1
Dayton	70	+ 3	.7	- 1.9
Toledo	64	+ 1	1.1	- 1.0
Youngstown	64	+ 1	3.0	+ .1
OKLA.Okla. City	71	- 3	8.0	+5.0
Tulsa	72	- 2	6.6	+2.6
OREG.Astoria	58	0	4.2	+1.1
Burns	58	- 1	.6	+ .1
Medford	67	+ 3	.6	0
Pendleton	64	0	1.3	+ .7
Portland	64	+ 2	3.3	+1.7
Salem	62	- 1	2.8	+1.4
PA.Allentown	66	+ 1	6.2	+2.4
Erie	63	+ 1	2.2	-1.4
Harrisburg	69	+ 2	5.7	+2.9
Philadelphia	71	+ 4	3.4	- .1
Pittsburgh	67	+ 3	3.6	+1.1
Scranton	62	- 1	3.6	+ .6
R.I. Providence	63	0	3.0	- .5
S.C. Charleston	80	+ 4	8.0	+2.2
Columbia	79	+ 4	4.5	+ .2
Greenville	75	+ 2	7.6	+3.7
S.D. Aberdeen	58	- 3	3.5	+2.1
Huron	58	- 4	2.7	+1.2
Rapid City	57	- 5	1.4	+ .4
Sioux Falls	60	- 2	5.6	+3.0
TENN.Chattanooga	76	+ 2	5.4	+2.3
Knoxville	74	+ 2	3.3	+ .8
Memphis	76	+ 2	5.1	+2.3
Nashville	76	+ 3	1.6	-1.3
TEX.Abilene	74	- 2	6.5	+4.4
Amarillo	69	- 3	1.2	- .7
Austin	80	+ 1	7.4	+4.0
Beaumont	78	0	11.4	+6.5
Brownsville	82	+ 1	4.6	- .4
Corpus Christi	82	+ 1	7.6	+3.2
Dallas	--	---	---	---
Del Rio	80	0	2.9	+ .3
El Paso	76	+ 1	T	-1.1
Fort Worth	76	- 2	7.2	+4.7
Galveston	81	+ 1	6.8	+1.7
Houston	78	0	9.4	+5.3
Lubbock	70	- 1	.7	-1.7
Midland	72	- 3	1.1	- .7
San Angelo	75	- 3	4.2	+1.5
San Antonio	79	0	13.1	+9.6
Victoria	81	+ 2	7.2	+3.0
Waco	79	0	5.3	+2.5
Wichita Falls	74	- 3	5.3	+3.0
UTAH.Milford	59	- 4	.2	- .2
Salt Lake City	62	- 2	4.1	+3.6
VT.Burlington	59	+ 1	5.0	+1.7
VA.Lynchburg	71	+ 2	2.5	- .9
Norfolk	75	+ 2	.9	-3.3
Richmond	72	+ 2	1.8	-1.9
Roanoke	71	+ 2	1.8	-1.5
WASH.Colville	59	0	1.3	+ .4
Omak	59	0	2.0	+1.4
Quillayute	56	- 1	3.6	-1.1
Seattle-Tacoma	62	+ 2	1.8	- .3
Spokane	60	- 1	1.4	+ .6
Walla Walla	65	- 1	1.6	+ .8
Yakima	62	+ 1	.8	+ .4
W.Va.Beckley	66	+ 2	2.3	-1.0
Charleston	70	+ 2	3.9	+1.0
Huntington	71	+ 3	2.6	+ .1
Parkersburg	69	+ 1	3.3	+ .6
WIS.Green Bay	59	- 2	2.9	0
La Crosse	62	0	3.4	- .1
Madison	61	0	3.6	+ .3
Milwaukee	64	+ 4	4.5	+1.8
WYO.Casper	55	- 5	3.3	+2.4
Cheyenne	54	- 5	4.5	+3.4
Lander	54	- 5	5.0	+4.0
Sheridan	55	- 4	2.8	+1.6
P.R.San Juan	83	+ 2	3.1	-3.6

(Continued from Page 7)
normal, only a trace to 0.10 in. recorded except for parts southcentral and southeast where locally heavy rains 1.00 to 2.00 in. fell late on the 3rd. Very light rain fell south and east on 7th.

Most late plantings soybeans, corn in southeast matured but cloudy damp weather slowed field drying across State. Harvest limited progress. Corn for grain 7% harvested, corn silage cutting completed. Soybean combining 18% completed or 1 week behind average. Potatoes 75% dug, sugar beets nearly 50% lifted, 1 week ahead of average. Dry edible beans about all combined. Sunflowers 20% harvested. Soil moisture mostly adequate except surplus some southern and northwest localities.

MISSISSIPPI: Warm, relatively wet weather, temperatures about 6° above normal. Extremes: 94° to 58°. Precipitation above normal with most districts averaging just over 1.00 in. Over weekend, rainfall caused some localized flooding northeast with 1.00 to 2.00 in. many areas, heaviest amount 5.33 in. Other sections of State generally dry over weekend.

Soil moisture short to adequate. Fieldwork averaged 5.0 days suitable. Cotton acreage 56% open, 10% harvested. Cotton fair to good. Soybean acreage 5% podding, 25% turning, 32% shedding, 28% mature, 10% harvested. Soybeans fair to good. Sorghum 45% harvested. Rice 43% harvested. Harvest of sweet potatoes 46%, peanuts 48%, corn 30%, and hay 93% complete. Pasture and livestock mostly good. Pecans fair to good.

MISSOURI: Temperatures above normal. Ranged from slightly above normal north and central zones to 7° above normal in Bootheel. Precipitation heavy from west central plains area through northeast prairie, averaged around 1.00 in. other zones. Heaviest 7.16 in. at Sedalia and 5.41 in. at Shelbina.

Fieldwork: 2 days suitable. Lowland flooding many areas. Corn 70% mature, 8% harvested, 1972 20% harvested. Sorghum 70% mature, 11% harvested, 1972 24% harvested. Soybeans fair to good, 49% mature, 5% harvested, 1972 18% harvested. Cotton fair to good, 5% harvested, 1972 19% harvested. Soil moisture supplies adequate to surplus. Motor fuel supplies for current farm work generally adequate.

MONTANA: Cool temperatures mostly subnormal except southeast. Scattered showers began and ended week, with most precipitation subnormal except north and northcentral.

Farmers have winter wheat 85% seeded. Adequate topsoil moisture far east and southcentral, short to adequate elsewhere. Potato harvesting 45% complete, flaxseed 65%, dry beans 80%, sugar beets 20%. Cattle and sheep 55% moved from summer ranges. Preconditioning of calves same as normal or above except portions northwest, northcentral and central where below normal. Cow and calf marketings mostly above average northwest, central and southwest, variable elsewhere.

NEBRASKA: Rainfall widespread east, amounts light, generally under 0.50 in. Temperatures near normal. Freezing temperatures Thursday west and northwest. Soil moisture supplies adequate to surplus. Topsoil 54% surplus, 46% adequate. Subsoil 48% surplus, 52% adequate. Fieldwork: 2.5 days. Wet fields slowed or delayed harvesting crops, planting wheat.

Most crops mature, some damage from molding and sprouting. Farmers harvested when weather and fields permitted. Corn 90% mature, same 1972, 95% average. Some stalk rot damage. Sorghum 90% mature, 85% 1972, 95% normal. Soybeans 85% mature, same 1972, 90% average. Some pods popping from wet weather. Winter wheat seeding 85% completed, complete 1972 and normal. Southeast particularly late from heavy rains. Sugar beet harvest begun. Considerable progress harvesting dry beans. Range and pasture 37% above average, 63% average. Many feedlots muddy, particularly southeast.

NEVADA: Temperatures ranged from 2° to 5° subnormal. Precipitation varied from 0.43 in. at Hawthorne to none extreme south. Alfalfa seed harvest nearly complete. Third cutting alfalfa hay continued west. Potato harvest underway Humboldt County. Nearly 67% cotton bolls open in Pahrump Valley with defoliation started. Livestock remain in good condition with movement from summer to winter ranges active.

NEW ENGLAND: Temperatures above normal. Some scattered frost. Coastal storm Tuesday-Wednesday, 0.50 to 1.00 in. rain; cold front Friday caused few tenths south, 0.25 to 0.75 in. north. Silage harvest continued, yields good. McIntosh harvest declined. Cranberry harvest 75% complete. Many Aroostook County, Maine, potato growers finished digging over weekend. Some digging left, yields below 1972, quality good. Generally dry except north Vermont.

NEW JERSEY: Temperatures 3° to 8° above normal. Precipitation mostly confined to Tuesday night and early Wednesday morning except a few widely scattered light showers north Friday morning. Heaviest amount reported 1.93 in. at Budd Lake. Soil moisture adequate most areas.

Harvest of fall crops advanced rapidly under ideal weather. No frost reported. Lettuce supplies heavy. Cabbage, "greens", and snap beans in good supply. Apple and cranberry harvest active. Field corn and soybean harvest increased. Early seeded grain grew nicely. Fall seeding continued.

NEW MEXICO: Temperatures near normal to 5° above. Extremes: 97°, Carlsbad; 26°, Cuba. Rain only toward end week with totals of near zero west half to near 0.50 in. over eastern plains.

Ranges fair. Livestock mostly good. Grain sorghum, corn for silage harvest continued. Winter wheat, barley generally good. Cotton fair to good. Bolls opening all areas, limited harvest underway. Alfalfa good, harvest continued. Apple harvest continued. Peanuts good, digging started. Lettuce harvest increased Mesilla Valley.

NEW YORK: Quite mild. Temperatures 4° to 8° above normal. Midweek readings highest: 82° New York City; 78° Poughkeepsie and Dansville. Near or below freezing temperatures occurred again across north, 28° at Saranac Lake Monday and 29° Sunday. Frost localized in colder valley areas south of Mohawk River as lows in 30's to low 40's. Rainfall generally above normal northwestern half and subnormal southeastern half.

Silage corn harvest progressing rapidly, over 70% complete. Grain corn harvest 5% complete. Third cutting alfalfa nearly 80% complete, quality good. Dry bean harvest

about 50% complete. Orange County celery harvest continued, quality good. Recent rainfall helped cabbage and beets in west. Western potato harvest in progress, movement slow. Apple harvest continued strong, McIntosh harvest complete, Cortland and Red Delicious began. Concord grape harvest neared completion in Chautauqua-Erie and Finger Lakes areas.

NORTH CAROLINA: Dry weather continued over central portion. Early week highs in upper 80's to low 90's. Scattered showers and thundershowers, some areas received little or no rain. Fieldwork averaged 4.0 days. Harvesting conditions excellent. Corn harvest well along. Flue-cured tobacco harvest complete. Selling very active with filled warehouses. Burley over 90% cut. Application of cotton defoliants still active. Peanuts 65% threshed. Cotton 12% picked. Sweet potato harvest in peak. Pastures 47% good, improved from past week. Small grains 20% planted.

NORTH DAKOTA: Good weather. Temperatures about 10° to 15° above normal. Highs in 70's and low 80's early week, cooling midweek to 50's and 60's, warming at end. Lows generally 30° to 40° statewide. Precipitation about 0.25 in. subnormal most sections, except northwest slightly above normal with midweek rain. Weekend started in mild 70's, lowered to cool 50's and 60's by end. Generally good drying weather promoted maturing and harvest of row crops. Harvest of sugar beets, potatoes, sunflowers and soybeans progressed excellently. Pastures continued to show fall growth.

OHIO: Precipitation across Ohio early week, partly cloudy skies, considerable sunshine midweek. Cold front caused numerous Thursday showers and thundershowers. Cool, drier air Friday, temperatures subnormal Friday and Saturday mornings. Warming trend later Saturday as cool air moved east and warmer, moist air moved in.

Rains slowed harvest activity, but provided much needed moisture for early seeded wheat crop. Under 4 days favorable for fieldwork. Soil moisture 25% short, 52% adequate, 23% surplus. Corn crop 85% mature, normally 90% mature; harvest equals normal progress at 15%. Soybeans 85% mature, 30% harvested; normals, 85% and 35%. Fall potatoes 75% dug. Corn silage 75% chopped, 5-year average 80%. Popcorn harvest 5% done. Wheat seeding 55% complete, same as normal.

OKLAHOMA: Temperatures normal eastcentral to 4° subnormal panhandle and northcentral. Precipitation ranged from 0.01 in. southeast to 1.02 in. southwest. Weekend temperatures mild with scattered light to moderate rains.

Seeding wheat and other small grains gained momentum as soils dried. Light rains delayed planting only short time. Seeding small grains 1 to 2 weeks behind 1972. Wheat 52% planted, 78% 1972. Oats about 40% seeded. Barley 25% seeded. Topsoil moisture 96% adequate to surplus.

OREGON: Rainfall confined to north coast, Cloverdale reported 0.15 in., Astoria 0.02 in. Temperatures near normal. Local frost reported west, lows ranging lower 30's to lower 40's. Hard freeze reported most higher valleys east of Cascades. Lowest reported 16°. Highs ranged mid-60's to lower 70's along coast, upper 70's to 80's interior. Medford highest at 91°.

Fall seeding continued. Early seeded grains emerging, looking good. Potato harvest underway central Oregon, Klamath Falls, continued elsewhere. Harvest processing vegetables continued. Filbert picking full swing, walnut harvest underway. Farmers finishing hay, silage harvest. Hay, feed supplies short. Pastures improved.

PENNSYLVANIA: Almost daily alternating sunny and cloudy conditions with measurable rain confined to early and midweek. Fine, clear fall weather with moderate temperatures Wednesday, Friday and over weekend.

Silage chopping, apple, potato and Concord grape harvesting occupied farmers. Ensilage corn harvest 75% complete. Corn for grain 8% harvested, 60% mature, 32% dented. Pastures 60% average, 25% above average, 15% below average. Potato and Concorn grape harvests should end next week. Soil moisture 60% adequate, 40% surplus. Winter wheat planting more than 50% done. Barley seeding nearly done.

PUERTO RICO: Rainfall averaged 1.89 in., about normal. Heaviest rains west, east Cordilleras with highest weekly total 4.76 in. and highest 24-hour total 3.10 in. western interior. Heavy rainshowers totaling 3.01 in. in 1 day also reported northeast. Dry area of less than 1.00 in. southcentral coast, central interior and northwest. Temperatures averaged 80° on coasts and 76° interior. Highest 94°; lowest 58°.

Crop moisture conditions too wet some western interior and northeastern zones and too dry in some southern, central and northwestern zones. Sugar cane plantations made good progress seeding and cultivating in favorable weather. Ratoons also developed well. More rain needed northwest.

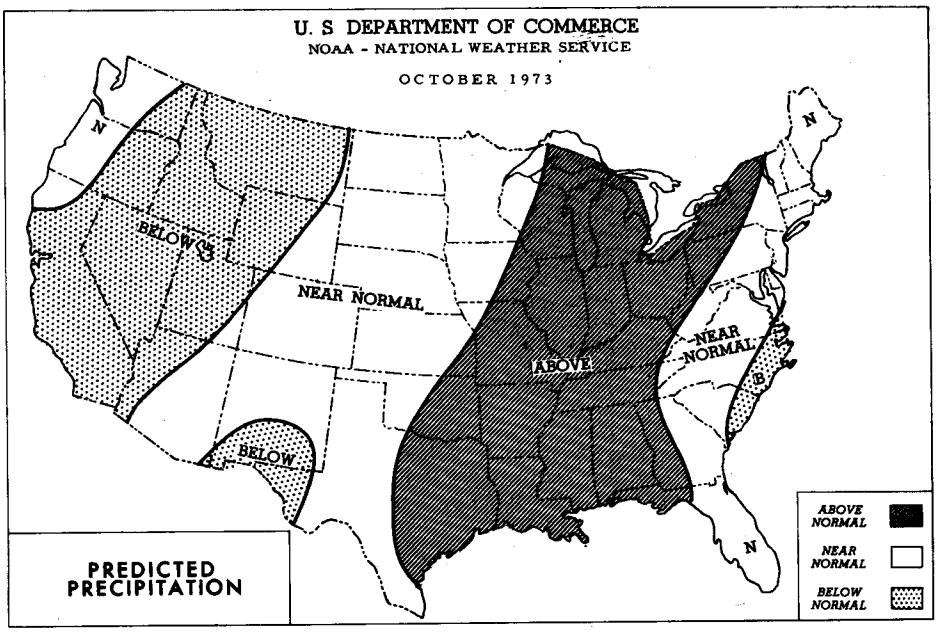
SOUTH CAROLINA: Temperatures 2° to 6° above normal throughout week, although nighttime temperatures lower last half week. Rainfall totals above average northwest, but below average south. Precipitation occurred mostly Sunday and Monday. Cold front pushed slowly southeastward Sunday and Monday preceded and accompanied by showers.

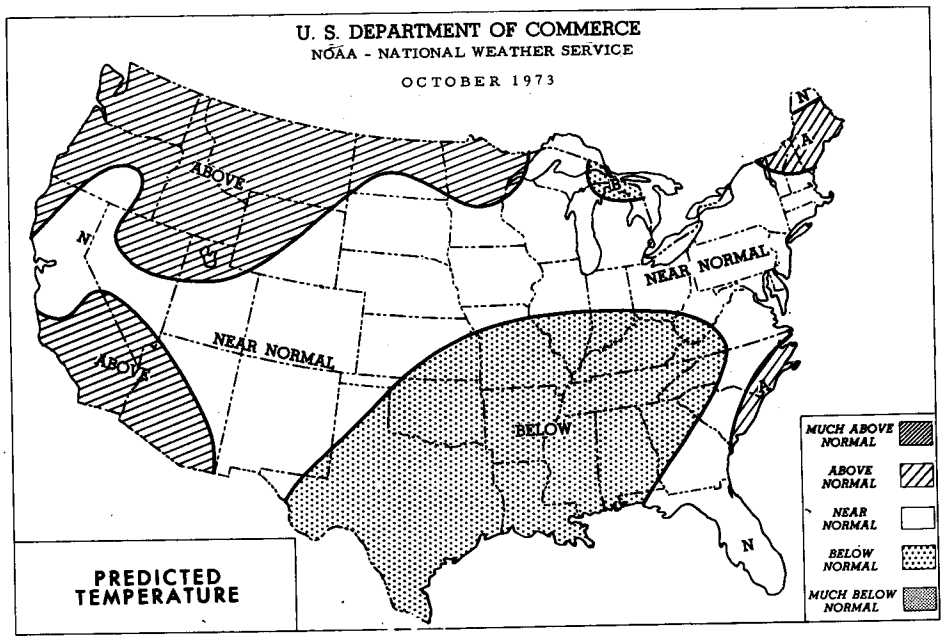
Soil moisture generally adequate, some southern counties short. Armyworms in soybeans and pastures. Cotton defoliation continued; some insecticides still being applied; 80% open bolls, 18% harvested; 1972 76% and 17%, respectively. Corn 73% harvested, 61% 1972. Soybeans fair to good, 53% leaves turning, 25% leaves shedding, 6% matured; 56%, 31%, 11%, respectively in 1972. Peanuts 80% dug, 70% 1972.

SOUTH DAKOTA: Temperatures 1° to 7° above normal, except southeast 1° to 3° subnormal. Most of State received frost -- killing type frost in north and west, but only light frost southeast. Little or no precipitation.

Row crops matured well ahead of normal, but wet weather last week of September slowed harvest. Most row crops still high in moisture. Heavy frost needed southeast to facilitate drying. Corn for grain about 12% harvested, 1972 12%, normal 15%. Soybeans 10% harvested, 1972 23%, normal 38%.

AVERAGE MONTHLY WEATHER OUTLOOK





These prognostic charts show the expected categories of average temperature and total precipitation for the period indicated. They are taken from the Weather Service's publication Average Monthly Weather Outlook which contains additional information necessary for complete interpretation.

Grain soughum 16% harvested, 1972 9%, normal 34%. Livestock good. Pastures green most areas, but short. Livestock grazing stubble fields.

TENNESSEE: Cold front first and last of week. General showers first of week. Warming trend after weekend until 5° to 12° cooler last of week. Temperatures 6° to 12° above normal. Precipitation totals ranged from near 0.25 in. to near 3.00 in. Cotton, corn harvest general but 1 to 2 weeks behind normal.

Corn 17% picked, normal 33%. Corn 67% mature, normal 90%. Some late planted corn fields damaged by blight and worms. Cotton 10% picked, normal 20% Early yields disappointed farmers--considerably below 1972. Soybeans continued rapid progress with each week without frost increasing chances of good to excellent yields. Soybeans 10% mature, only a few fields harvested, normally nearly 25% mature. Harvest of all types tobacco about completed. Seeding of oats and barley about 60% complete, slightly less than normal. Wheat seeding nearly 40% completed.

TEXAS: Warmer weather returned but rainfall remained above normal. In southcentral, rains prolonged overflowing of several rivers. Rainfall averaged 1.00 in. above normal central and east-central. Cooler air midweek spread southeastward from northwest, triggering showers and thunderstorms, but little temperature change. Heavy thunderstorms central produced flash flooding. Eagle Pass, area got 5.00 in. rain.

Wheat, oat seeding progressing on schedule with 1972. Early stands made good growth but grazing light. Adequate planting moisture available most areas. Harvest sorghum, corn, peanuts, soybeans made good progress. Harvest cotton, rice far behind schedule. Major crops percent planted: Wheat 72, 1972 74; oats 58, 1972 56. Major crops percent harvested: Cotton 13, 1972 29; corn 72, 1972 81; sorghum 58, 1972 53; soybeans 8, 1972 1; peanuts 47, 1972 46; rice 77, 1972 100.

High Plains: Carrot, lettuce, pepper and tomato harvest active. Green bean harvest continued. Trans-Pecos: Tomato harvest continued Dell City area. East Texas: Sweet potato harvest continued. Coastal Bend: Acreage of vegetables limited by wet fields. San Antonio-Winter Garden: Wet weather slowed vegetable planting and harvesting. Lower Rio Grande Valley: Vegetable planting continued as conditions permit. Citrus continued to size well, limited harvest, light supplies early season oranges available. Pecans beginning to hull most areas, walnut caterpillars continued damage.

Adequate moisture kept ranges excellent. Excellent grazing expected until late fall. Livestock excellent. Small grain pastures good to excellent growth.

UTAH: No precipitation. Temperatures ranged from near normal to 6° below west and near normal to 8° above east. Average soil temperatures at 4-in. depth ranged from upper 50's Cache Valley and Richfield to near 60° Salt Lake City and mid-70's St. George.

Good harvesting weather past week. Soil moisture adequate most areas. Irrigation water stored October 1 was 2.9 million acre-feet, record high for end-of-season.

Winter wheat 85% planted. Completion of harvest: Third crop alfalfa hay 80%, alfalfa seed 95%, silage corn 85%, grain corn 10%, northern Utah potatoes 90% and southern Utah potatoes 50%, sugar beets 8%, dry onions 25% leading Davis County, dry beans 70% San Juan County, apples 15% in leading Utah County.

VIRGINIA: Temperatures averaged 6° above normal ranging from 1° to 9° above. Extremes: 93° and 47°. Showers and thunderstorms early week, heaviest rainfall central, east.

Fieldwork averaged 4.0 days. Corn for grain harvest 36% complete, 25% 1972. Silage harvest at wrap-up, mostly in mountain and northern areas. Excellent peanut harvest progress; 52% dug, 38% combined, well ahead previous 2 years. Limited harvest early soybeans, rain benefited late acres. Tobacco harvest at wrap-up. Good progress small grain seeding: Wheat 20% sown, barley 37%, oats 38%. Sweet potato harvest progressing well. Apple harvest ahead of 1972. Pastures improved considerably. Livestock marketing active.

WASHINGTON: West: Temperatures 2° subnormal. Highs in 60's, lows cooling to 30's. Scattered showers varying from zero to 0.40 in. Harvested fourth cutting alfalfa for hay and green chop. Sweet, silage corn harvest continued. Harvest cauliflower, lettuce, celery, late carrots past midpoint. Potato harvest active. Blueberry harvest complete.

East: Temperatures 2° to 4° subnormal. No precipitation, light frost most areas. Apple harvest past midpoint. Harvest grapes, sugar beets, potatoes, late carrots continued. Sweet corn complete, silage corn near end. Spinach harvest began Walla Walla. Fourth cutting alfalfa active. Alfalfa seed harvest neared end. Land preparation, fall seeding winter wheat, barley continued.

WEST VIRGINIA: Temperatures continued above normal. Precipitation plentiful. Averaged 4 days suitable fieldwork. Farmers harvested hay and corn silage and seeded small grain. Soil moisture 10% short, 76% adequate, 14% surplus. Hay mostly good, third cutting 68% complete. Tobacco 93% harvested. Potatoes 88% dug. Corn mostly good, 28% dented, 72% mature, 26% harvested. Wheat 36% and barley 41% sown.

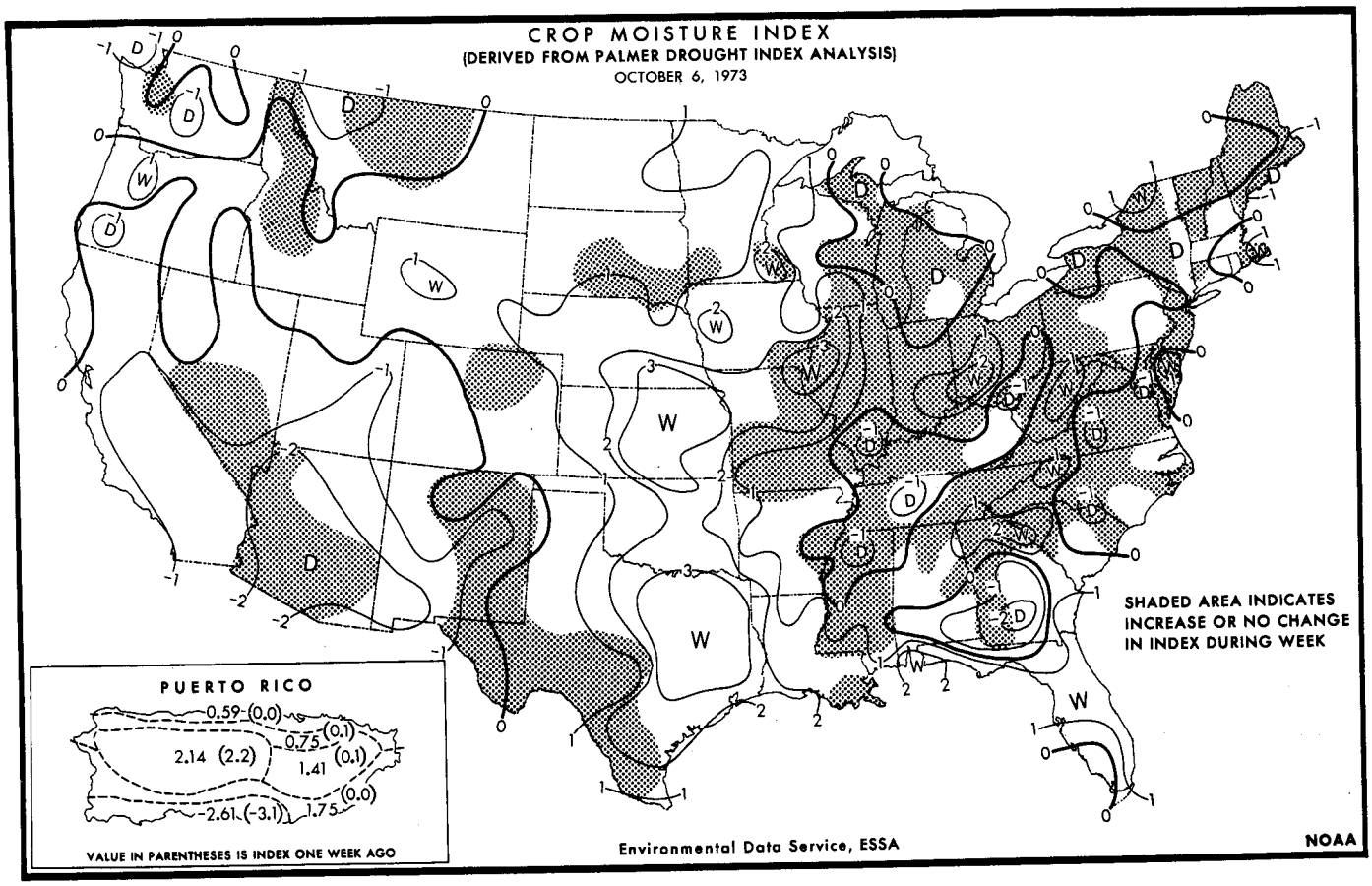
WISCONSIN: Mostly cloudy all week. Temperatures above normal all sections, particularly north where in 70's several days. Rainfall heavy south. Light rain showers statewide Saturday evening.

Silo filling 66% completed, 1972 30%, normal 70%. Very little picking of corn for cribbing completed. Farmers waiting for lower moisture content before they begin full scale picking. Sunny weather and hard frost would be helpful for drying corn. Soybeans maturing rapidly, 66% shedding leaves, 1972 50%, normal 60%. Moisture content below year ago. Harvesting to begin soon, weather permitting. Good yields expected except areas that lacked sufficient rainfall this summer.

Haying mostly complete, except for some green chopping. Hay fields being pastured where barns and silos full of hay. Pastures in better condition now than earlier, many areas. Fall plowing 20% completed, 1972 10%, normal 20%. Soil moisture 5% short, 70% adequate, 25% surplus.

WYOMING: Mild fall weather. Cloudy early week but clear later. Little precipitation except isolated showers. Horse Creek recorded most moisture with 0.62 in. early week. Temperatures near normal. Highs mostly 70's to mid-80's. Lows mostly teens to low 30's.

Harvest and haying behind normal. Corn for silage 90% harvested. Dry bean harvest 55% complete. Potatoes 50% harvested. Winter wheat prospects good. Sugar beets 15% harvested. Top soil moisture adequate. Winter grazing prospects good. Number livestock to be wintered about same as year ago. Livestock shipment normal.



SHADED AREAS: Index increased or did not change last week

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 good, 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	Drough eased, but still serious
Below	-4.0	Not enough rain, still extremely dry

UNSHADED AREAS: Index decreased last week

Index

Above	3.0	Some drying, but still excessively wet
2.0 to	3.0	More drying weather needed, work delayed
1.0 to	2.0	Favorable, except still too wet in spots
0 to	1.0	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 near ruin

The map gives a general picture of how wet or dry the Nation was last week. It shows areas where abnormal wetness or dryness have hindered crops and areas where moisture conditions have favored them.

The lines show the crop-moisture situation according to an index computed from values of temperature and precipitation by areas...350 climatological divisions, which correspond roughly to SRS's crop reporting districts. Previous weekly computations of soil moisture account for the effects of prior weather.

Shaded areas are those where precipitation increased the index last week or where soils did not dry. Unshaded areas dried last week.

The centers of wet or dry areas are marked: W=wet; D=dry. The map lines mark off crop situations. Use the legend to inter-interpret.

Local variations caused by isolated rain or by soil differences are not shown. While shallow rooted crops in poor soils may suffer more than the map shows, conditions may be better where soils are good. Also, legends apply to growing rather than mature plants. Any map interpretation must consider both the growth stage and moisture status and trend. In irrigated regions, the index values reflect only departures from ordinary irrigation requirements.

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Heating Degree Days (Base 65° F.)

September 1973

ALA.Birmingham	3	MAINE,Caribou	373	OKLA.Okla. City	37
Mobile	0	Portland	231	Tulsa	24
Montgomery	0	MD.Baltimore	24	OREG.Astoria	213
ALASKA,Anchorage	572	MASS.Boston	94	Burns U	228
Barrow	921	Chatham	---	Medford	28
Fairbanks	523	MICH.Alpena	304	Pendleton	97
Juneau	505	Detroit	98	Portland	59
Nome	679	Flint	153	Salem	106
ARIZ.Flagstaff	209	Grand Rapids	144	PA.Allentown	72
Phoenix	0	Houghton Lake	280	Erie	141
Tucson	0	Lansing	179	Harrisburg	34
Winslow	51	Marquette U	244	Philadelphia	18
Yuma	0	S. Ste. Marie	375	Pittsburgh	55
ARK.Fort Smith	9	MINN.Duluth	354	Scranton	140
Little Rock	2	Internat Falls	364	R.I.Providence	125
CALIF.Bakersfield	0	Minneapolis	185	S.C.Charleston	0
Eureka U	230	Rochester	197	Columbia	0
Fresno	0	St. Cloud	255	Greenville	1
Los Angeles U	1	MISS.Jackson	0	S.DAK.Aberdeen	239
Red Bluff	4	Meridian	0	Huron	227
Stockton	0	Vicksburg U	---	Rapid City	246
San Diego	0	MO.Columbia	42	Sioux Falls	175
San Francisco	76	Kansas City	53	TENN.Chattanooga	3
COLO.Denver	166	St. Louis	31	Knoxville	10
Grand Junction	70	Springfield	32	Memphis	8
Pueblo	84	MONT.Billings	226	Nashville	8
CONN.Bridgeport	35	Glasgow	270	TEX.Abilene	6
Hartford	102	Great Falls	226	Amarillo	56
D.C.Washington	4	Havre	238	Austin	0
FLA.Apalachicola	0	Helena	317	Beaumont	0
Ft. Myers	0	Kalispell	314	Brownsville	0
Jacksonville	0	Miles City	207	Corpus Christi	0
Key West	0	Missoula	232	Dallas	---
Lakeland U	0	NEBR.Grand Island	123	Del Rio	0
Miami	0	Lincoln	99	El Paso	7
Orlando	0	Norfolk	141	Fort Worth	0
Daytona Beach	0	North Platte	219	Galveston U	0
Tallahassee	0	Omaha	112	Houston	0
Tampa	0	Valentine	235	Lubbock	31
GA.Atlanta	1	NEV.Ely	326	Midland	15
Augusta	0	Las Vegas	0	San Angelo	1
Macon	0	Reno	193	San Antonio	0
Savannah	0	Winnemucca	200	Victoria	0
IDAHO,Boise	103	N.H.Concord	244	Waco	0
Lewiston	80	N.J.Atlantic City	64	Wichita Falls	10
Pocatello	237	Trenton U	32	UTAH, Milford	194
ILL.Cairo U	17	N.MEX.Albuquerque	43	Salt Lake City	140
Chicago	70	Roswell	27	VT.Burlington	256
Moline	78	N.Y.Albany	200	VA.Lynchburg	9
Peoria	54	Binghamton	200	Norfolk	0
Rockford	99	Buffalo	171	Richmond	5
Springfield	30	New York	29	Roanoke	12
IND.Evansville	11	Rochester	162	WASH.Colville	197
Fort Wayne	62	Syracuse	164	Omak	---
Indianapolis	20	N.C.Asheville	7	Quillayute	250
South Bend	60	Charlotte	2	Seattle-Tacoma	111
IOWA,Burlington	60	Greensboro	4	Spokane	193
Des Moines	68	Hatteras R.	0	Walla Walla U	80
Dubuque	132	Raleigh	2	Yakima	128
Sioux City	98	Wilmington	0	W.VA.Beckley	52
KANS.Concordia	95	N.DAK.Bismarck	316	Charleston	19
Dodge City	99	Fargo	309	Huntington	18
Goodland	188	Williston U	291	Parkersburg U	34
Topeka	58	OHIO.Akron-Canton	78	WIS.Green Bay	221
Wichita	58	Cincinnati U	27	Madison	180
KY.Lexington	21	Cleveland	73	Milwaukee	111
Louisville	13	Columbus	35	WYO.Casper	296
LA.Baton Rouge	0	Dayton	31	Cheyenne	323
Lake Charles	0	Toledo	144	Lander	328
New Orleans	0	Youngstown	119	Sheridan	299
Shreveport	0				

Preliminary reports from airport locations, except those marked U for urban and R for rural.
*Estimated.

Continued from p. 2.
in northern parts of the Midatlantic States. Afternoon temperatures ranged from the 50's in the Northwest and New England to around 90° along the Gulf and in southwestern deserts. Saturday and Sunday temperatures in northern California dropped as much as 25° following a front that brought snow to higher elevations.

Continued from p. 8.
Carolinas where over 6.00 in. fell in some locations. Meanwhile, snow was falling at higher elevations in the Rockies.

The month ended very wet, as a slow moving cold front dumped monsoon-like rains on the Nation's midsection. Considerable violent weather was associated with the front -- 20 tornadoes touched down in Kansas in a single afternoon. By the end of the month Topeka, Kans., had received over 46.00 in. of precipitation.

Standard copy for the Weekly Weather and Crop Bulletin is prepared by: Dr. Richard E. Felch, Agricultural Climatologist; Arlon M. Scott, Agricultural Statistician; John Carlin Ryan, Editor.