

Weekly Weather & Crop Bulletin

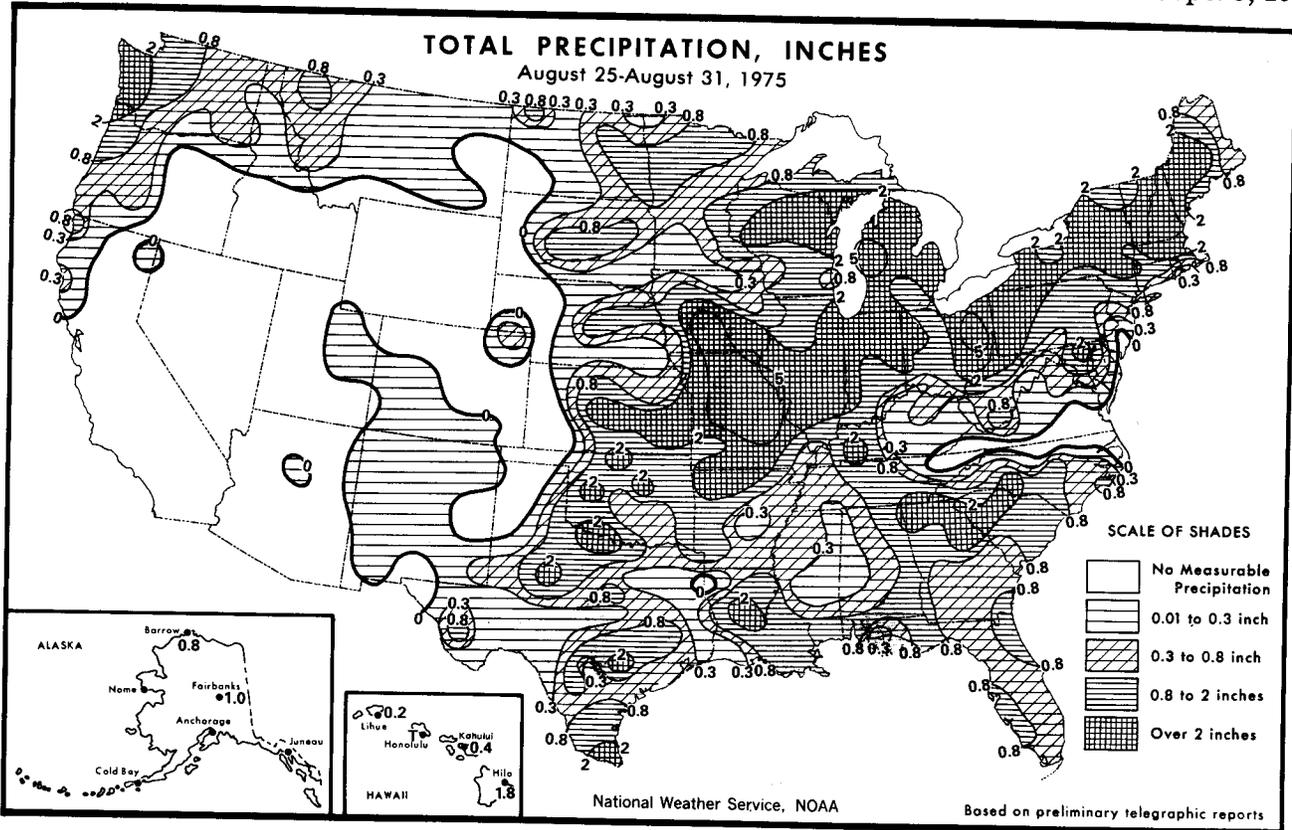
U. S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

U. S. DEPARTMENT OF AGRICULTURE
Statistical Reporting Service

Volume 62, No. 35

Washington, D. C.

Sept. 3, 1975



NATIONAL WEATHER SUMMARY

For the week of August 25-31

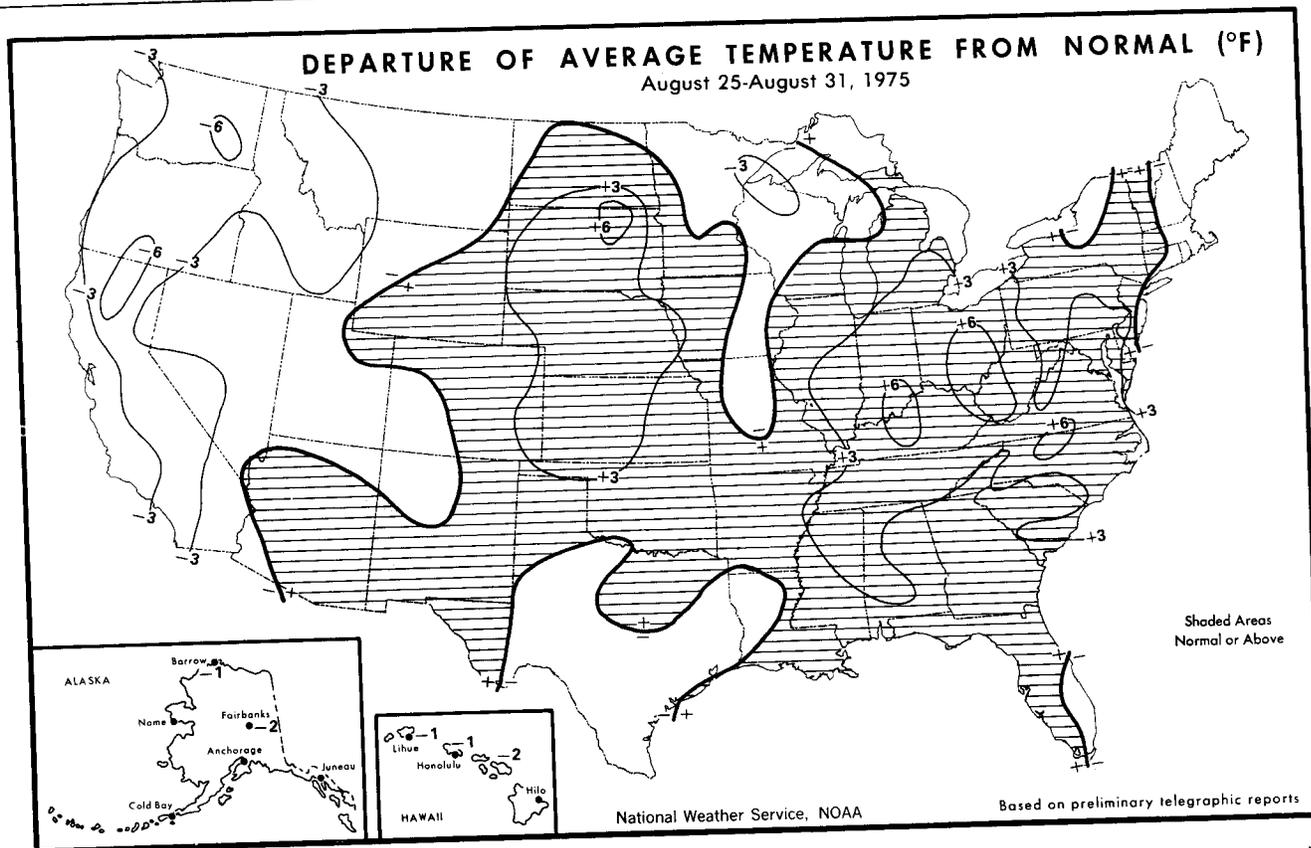
HIGHLIGHTS: Cooler temperatures and heavy rains descended on the Nation's midsection, bringing welcome relief to many dry areas, and added problems to some wet areas. The heavy rains, cooler temperatures and sometimes damaging winds were associated with the passage of two frontal systems during the week. The heavy rains reached New England over the weekend. Except for steady general rains in the Pacific Northwest, clear skies favored areas west of the Rockies.

A vigorous cold front pushing cooler air into the heat-stricken northern Plains and Midwest set the stage for a rainy week across the eastern half of the Nation. Dividing the Nation's weather, the system ran from the western Great Lakes area to southeast New Mexico. Across the Midwest it generated numerous thundershowers that caused some dam-

age. Meantime a stationary front along the northern edge of the showers and storms kept New England sunny.

Thunderstorms in the southern half of the Plains on Monday produced locally heavy rains that led to flash floods in west central Missouri and southeast Kansas. Several tornadoes associated with a line of thunderstorms extending from western Wisconsin into southeast Nebraska touched down in Wisconsin and Iowa, causing some injuries and damage. To the West fair skies favored areas from the southern and central Rockies through the Great Basin into California and Oregon.

Cloudy skies and rain held Monday's mercury in the 70's and low 80's over much of the Nation's midsection and in the 50's in some mountain spots. In the Plains temperatures dropped about 20° from previous weekend readings.



Though the rains finally came to the central Plains, for some crops it was too late. Tuesday morning precipitation totals in central Missouri, central Illinois, and northwest Indiana scored highest. In just a few hours 3 to 6 inches of rain fell near Kansas City. Extremely dry ground, however, kept flooding to a minimum.

Later in the day the thunderstorms diminished, but moving slowly eastward, the cold front gave rise to some good downpours along its length, from the Great Lakes States into northern Texas. Other thundershower activity was scattered across the central Atlantic and Gulf Coasts.

Along the eastern seaboard temperatures shot up rapidly on Tuesday and some records were broken (Richmond, Va., 99°). At the same time readings in the 70's and low 80's prevailed from the Great Lakes west into the northern Rockies.

A cold front on Wednesday delivered steady, general rains and cooler temperatures that continued throughout the week to the Pacific Northwest. Readings in the 50's and 60's settled along much of the Pacific Coast. It was even cooler, however, in parts of the North Central States, where a high pressure area kept skies mostly clear and dropped early morning temperatures into the 50's and a few 40's.

Central Iowa didn't welcome Wednesday's scattered but persistent rains. In less than 10 hours over 6 inches drenched Des Moines for its second wettest August on record. That's a sharp contrast to July--its driest ever with only .04 inches of rain.

On Thursday showers gathered strength in the

Plains States and Midwest, from Oklahoma through the upper Great Lakes. Precipitation broadened its coverage as the day progressed, taking in areas from southern Texas northward through Arkansas, Missouri, Iowa, and into lower Michigan. Locally heavy rains hit the western Great Lakes and thunderstorms covered States bordering the Mississippi River.

Friday's weather traced a pattern of thundershowers along the coasts from southern Texas through Florida to South Carolina. Triggered by a stationary front another rainy area branched northeast from central Missouri and Iowa through the Great Lakes into western New England.

Friday evening thunderstorm activity continued into the early daylight hours Saturday. In the Northeast and central sections locally heavy thunderstorms dumped 1 to 2 inches of rain. Elsewhere scattered thunderstorms lined the Gulf Coast and spread throughout the lower Mississippi Valley and parts of the south and mid-Atlantic Coast.

Readings in the 50's accompanied rains in northern New England on Saturday afternoon, making it the coolest spot in the Nation. Temperatures in the 60's covered most of southern New England, the northern Great Lakes, and Pacific Northwest.

Around noon on Sunday thunderstorms increased rapidly over eastern U.S.--from western New York and eastern Ohio to the south Atlantic and eastern Gulf Coasts. And in south Texas thunderstorms associated with tropical storm Caroline intensified. Four tornadoes swooped down in northwest Minnesota Sunday evening. One twister whirled a car off the road and caused two deaths.

NATIONAL AGRICULTURAL SUMMARY

For the Week of August 25-31

HIGHLIGHTS: Rain fell over most of the North Central States, replenishing topsoil moisture in many areas, however, shortages still exist in most States. Corn in previously dry areas benefited little from last week's rain, but soybean development continues to improve. Cotton condition declined in several States with increased dry weather and insect damage. Remaining small grain harvest was hampered by shower activity and damp conditions.

SMALL GRAINS: Small grain harvest continued at a slow pace in the Northern States where showers and damp conditions prevailed.

Winter wheat combining made slow progress in most of the remaining States; as of August 31st, over 95% of the crop had been harvested, last year it was virtually complete in all States.

Spring wheat harvest advanced to 60% complete by August 31st, much behind the 1974 and normal progress in most major States. Harvest was 51% done in North Dakota versus the usual 69%; in Minnesota 77% against 75%; in Montana 25% compared with 65%.

Oat harvest was 30% completed in Montana; 68% in North Dakota; and about complete in Michigan, Minnesota, and Wisconsin.

Heavy rains slowed seedbed preparations in the North Central States, while growers in the western Great Plains need moisture before starting to seed their crop. Seeding was 2% done in Texas, 8% in Colorado; 9% in South Dakota, and 10% in Wyoming.

CORN: Heavy rain, wind, hail, and flooding damaged the corn crop in several States during the past week. The added moisture will do little to improve conditions in the previously dry area where much of the crop was too close to maturity.

In the North Central States, above normal temperatures over most of the area continued to push development toward maturity, much ahead of 1974 and usual. In Illinois, the crop remained in good to excellent condition and 55% was mature versus only 5% in 1974 and normal 14%. Iowa corn was 66% dented, compared with 36% in 1974 and the usual 57%. In Ohio, 15% of the corn was mature and safe from frost; 10% in Indiana versus the average 5%.

Corn in Kentucky was 63% dented or beyond, while in Tennessee 22% was mature. Harvesting corn for grain was underway in Alabama and North Carolina; continued active in Florida, Georgia, Louisiana, South Carolina, and Texas.

COTTON: Insects and dryness in several States caused condition of cotton to decline, while rain delayed harvest in Southern Texas.

Harvest was 9% finished in Texas, behind both the 1974's 16% and average 12%. Defoliation continued in the Blacklands. First bales were ginned in most counties.

Cotton in the High and Low Plains was making good progress and insect problems were decreasing. Boll opening increased to 3% in Alabama and Arkansas, 4% in Mississippi, less than 10% in Tennessee, and 17% in South Carolina. Development continues near last year's pace in most States.

California cotton was fruiting well. The New Mexico crop was fair, but well advanced in boll setting. In Arizona, cotton was making good progress.

SOYBEANS: Rain and above normal temperatures over much of the major soybean producing States aided development and prospects. Soil moisture supplies are the best in several weeks in much of the northern soybean producing area.

In the North Central States, development was much ahead of 1974 and normal in most States. In Illinois, 55% of the crop was turning yellow versus 5% in 1974 and 14% normal; 20% was shedding leaves. Rain in Iowa will help pod filling and increase bean size, 22% had leaves turning against 8% in 1974. Soybeans in Ohio were 20% turning; 25% in Indiana and 41% in Minnesota. Harvest was underway in Missouri.

The Southern soybean crop was in mostly good condition, but rain is needed in several areas to assure good development. In Mississippi 74% of the crop was setting pods; in Alabama 87%, while in Kentucky 20% had leaves turning versus 16% in 1974.

OTHER CROPS: Sorghum harvesting was 56% finished in Texas, compared with 52% in 1974 and average 46%. Early fields were being combined in Oklahoma where 21% of the crop was mature. Kansas sorghum was 85% headed and 30% colored; in Nebraska, 60% had turned color, twice the 1974 pace. Sorghum also continues ahead of schedule in Missouri and South Dakota.

Flue-cured tobacco was 55% harvested in Virginia; 77% in North Carolina, and in final stages in Georgia. Harvest was 32% done in Tennessee and 15% in Ohio. In Kentucky, burley was 12% cut versus 17% in 1974 and average 13%.

Potato growers in Aroostook County, Maine were applying vine killers to seed fields; in Idaho, 10% of the vines were dying against 30% in 1974. Rains slowed digging in Michigan; in Ohio 35% was dug.

FRUITS AND NUTS: Early apple varieties were available in New York, while the fall variety harvest was beginning in New Jersey. Apple picking continued in Georgia, Indiana, Michigan, Pennsylvania, North Carolina, and South Carolina.

Concord grapes in New York were coloring well and the Aurora harvest was underway. In California, the raisin harvest started.

The citrus crop in Texas was making good progress and sizing well. In Florida, groves were in excellent condition. Shipping started for the 1975-76 grapefruit crop.

VEGETABLES: Moisture improved prospects of cabbage for kraut, snap beans, and sweet corn in New York. Harvests of Michigan cabbage and cantaloup were half done, while sweet corn and cucumber harvests were near seasonal end. Harvests continue in Texas for cucumbers, carrots, cabbage, green beans, onions, cantaloup, and watermelons.

Planting cabbages, carrots, eggplants, and peppers was making good progress in Texas, while in Florida vegetable plantings continue active and are up sharply for early September.

PASTURES AND LIVESTOCK: Rain over much of the Eastern half of the Nation brightened pasture prospects for fall grazing in many States. However, dry conditions are making cattle feeding necessary in parts of Virginia and Tennessee where marketing is increasing. Pastures and ranges also continue to decline in most Western States, except in the northern Pacific States, Idaho and Montana. Livestock continue in mostly good condition in many States.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Aug. 31, 1975

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 . . .	80	+ 2	.7	-.2	La. Baton Rouge . . .	82	+ 1	1.3	+ .4	Youngstown . . .	71	+ 4	2.4	+1.7
Mobile . . .	83	+ 2	1.4	-.2	Lake Charles . . .	81	0	.2	-.8	OKLA. Okla. City . . .	80	+ 1	.1	-.6
Montgomery . . .	83	+ 3	.8	0	New Orleans . . .	82	+ 1	1.2	0	Tulsa . . .	81	+ 2	1.0	+ .2
ALASKA. Anchorage . . .	---	---	---	---	Shreveport . . .	81	- 1	T	-.6	OREG. Astoria . . .	59	- 1	2.0	+1.6
Barrow . . .	35	- 1	.8	+ .6	MAINE. Caribou . . .	59	- 1	.2	-.6	Burns . . .	58	- 5	T	-.1
Fairbanks . . .	50	- 2	1.0	+ .6	Portland . . .	61	- 3	2.0	+1.4	Medford . . .	64	- 5	1.1	0
Juneau . . .	---	---	---	---	MD. Baltimore . . .	77	+ 4	2.2	+1.3	Pendleton . . .	65	- 4	.3	+ .2
Kodiak . . .	---	---	---	---	MASS. Boston . . .	68	- 1	2.3	+1.5	Portland . . .	62	- 3	.9	+ .7
Nome . . .	---	---	---	---	Chatham . . .	65	---	.8	---	Salem . . .	60	- 5	1.1	+ .9
ARIZ. Flagstaff . . .	61	- 1	T	-.5	MICH. Alpena . . .	64	+ 2	3.1	+2.4	PA. Allentown . . .	71	+ 1	1.5	-.4
Phoenix . . .	89	+ 1	0	-.3	Detroit . . .	72	+ 3	5.3	+4.6	Erie . . .	69	+ 3	4.6	+3.8
Tucson . . .	85	+ 2	0	-.5	Flint . . .	70	+ 4	2.7	+2.0	Harrisburg . . .	76	+ 4	.8	+ .1
Winslow . . .	76	+ 2	T	-.3	Grand Rapids . . .	69	+ 1	2.6	+2.0	Philadelphia . . .	77	+ 4	0	-.9
Yuma . . .	90	- 1	0	-.1	Houghton Lake . . .	63	0	4.0	+3.4	Pittsburgh . . .	70	+ 2	3.6	+3.0
ARK. Fort Smith . . .	80	+ 1	1.4	+ .7	Lansing . . .	70	+ 3	3.4	+2.8	Scranton . . .	70	+ 2	1.1	+ .4
Little Rock . . .	81	+ 2	T	-.7	Marquette . . .	63	0	1.2	+ .4	R.I. Providence . . .	67	- 1	.7	-.2
CALIF. Bakersfield . . .	78	- 2	0	0	Muskegon . . .	69	+ 2	5.3	+4.6	S.C. Charleston . . .	82	+ 3	1.2	-.1
Eureka . . .	57	0	.2	+ .1	S. Ste. Marie . . .	63	+ 2	.6	-.2	Columbia . . .	81	+ 2	1.7	+ .5
Fresno . . .	73	- 4	0	0	MINN. Duluth . . .	58	- 3	.5	-.3	Greenville . . .	79	+ 3	1.5	+ .6
Los Angeles . . .	71	- 3	0	0	Internat'l Falls . . .	59	- 1	1.2	+ .4	S.D. Aberdeen . . .	73	+ 6	.7	+ .3
Red Bluff . . .	72	- 6	0	-.1	Minneapolis . . .	68	+ 1	.5	-.2	Huron . . .	73	+ 5	.9	+ .5
San Diego . . .	67	- 4	0	-.1	Rochester . . .	66	0	.2	-.6	Rapid City . . .	71	+ 3	T	-.3
San Francisco . . .	63	- 1	T	0	St. Cloud . . .	64	- 1	.5	-.4	Sioux Falls . . .	70	+ 1	.3	-.4
Stockton . . .	71	- 3	0	0	MISS. Jackson . . .	81	+ 1	.2	-.6	TENN. Chattanooga . . .	79	+ 3	2.9	+2.2
COLOR. Denver . . .	69	0	T	-.3	Meridian . . .	82	+ 3	T	-.8	Knoxville . . .	81	+ 5	0	-.6
Grand Junction . . .	73	0	T	-.2	MO. Columbia . . .	72	- 2	5.2	+4.4	Memphis . . .	83	+ 4	.6	-.1
Pueblo . . .	74	+ 2	T	-.4	Kansas City . . .	75	0	4.4	+3.5	Nashville . . .	81	+ 4	1.3	+ .6
CONN. Bridgeport . . .	71	0	.5	-.3	St. Louis . . .	76	+ 1	3.3	+2.7	TEX. Abilene . . .	81	0	1.1	+ .6
Hartford . . .	68	0	1.5	+ .5	Springfield . . .	75	0	1.7	+ .9	Amarillo . . .	77	+ 2	0	-.6
D.C. Washington . . .	80	+ 5	1.6	+ .6	MONT. Billings . . .	66	0	T	-.3	Austin . . .	82	- 1	1.6	+ .9
FLA. Apalachicola . . .	81	0	1.5	-.5	Glasgow . . .	64	- 1	T	-.3	Beaumont . . .	81	- 1	.2	-1.1
Daytona Beach . . .	81	0	.8	-.8	Great Falls . . .	63	- 1	.1	-.2	Brownsville . . .	82	- 2	5.4	+4.5
Ft. Myers . . .	84	+ 2	1.3	-.6	Havre . . .	63	- 1	.2	-.1	Corpus Christi . . .	82	- 2	1.2	+ .2
Jacksonville . . .	81	0	1.3	-.6	Helena . . .	58	- 5	T	-.3	Del Rio . . .	84	- 1	.1	-.4
Key West . . .	84	0	.4	-.9	Kalispell . . .	56	- 4	1.0	+ .7	El Paso . . .	82	+ 3	T	-.3
Lakeland . . .	82	0	.3	-1.3	Miles City . . .	67	- 1	0	-.3	Fort Worth . . .	84	+ 1	.2	-.4
Miami . . .	82	- 1	.5	-1.2	Missoula . . .	57	- 5	.4	+ .2	Galveston . . .	86	+ 3	.7	-.5
Orlando . . .	83	+ 2	.7	-.9	NEBR. Grand Island . . .	76	+ 4	.1	-.5	Houston . . .	81	- 1	.3	-.8
Tallahassee . . .	82	+ 2	.6	-.9	Lincoln . . .	76	+ 4	.2	-.6	Lubbock . . .	76	0	.2	-.2
Tampa . . .	84	+ 2	1.5	-.3	Norfolk . . .	75	+ 4	1.6	+1.0	Midland . . .	79	- 1	.3	-.1
W. Palm Beach . . .	82	- 1	.5	-1.3	N. Platte . . .	73	+ 3	T	-.5	San Angelo . . .	80	- 2	.3	-.2
GA. Atlanta . . .	78	+ 2	1.7	+1.0	Omaha . . .	75	+ 4	.4	-.5	San Antonio . . .	82	- 1	T	-.7
Augusta . . .	81	+ 3	.5	-.4	Valentine . . .	73	+ 4	T	-.5	Victoria . . .	83	- 1	.3	-.6
Macon . . .	80	0	.8	0	NEV. Ely . . .	62	- 1	0	-.1	Waco . . .	85	+ 1	.2	-.4
Savannah . . .	81	+ 1	.7	-.7	Las Vegas . . .	85	0	0	0	Wichita Falls . . .	81	- 2	2.6	+2.1
HAWAII. Hilo . . .	76	0	1.8	-.4	Reno . . .	63	- 2	0	0	UTAH. Blanding . . .	66	- 2	T	-.3
Honolulu . . .	80	- 1	T	-.1	Winnemucca . . .	64	- 1	0	-.1	Salt Lake City . . .	71	0	0	-.2
Kahului . . .	77	- 2	.4	+ .3	N.H. Concord . . .	62	- 3	2.0	+1.3	VT. Burlington . . .	67	+ 2	1.3	+ .5
Lihue . . .	78	- 1	.2	-.3	N.J. Atlantic City . . .	71	- 1	T	-1.0	Norfolk . . .	77	+ 4	T	-.9
IDAHO. Boise . . .	67	- 2	0	-.1	Trenton . . .	74	+ 2	.3	-.6	Richmond . . .	79	+ 3	0	-1.2
Lewiston . . .	65	- 4	.3	+ .1	N.MEX. Albuquerque . . .	74	- 1	.1	-.2	Roanoke . . .	79	+ 4	0	-1.0
Pocatello . . .	62	- 4	0	-.2	Roswell . . .	78	+ 2	.1	-.2	WASH. Colville . . .	59	- 5	.7	+ .5
ILL. Cairo . . .	79	+ 2	.6	-.2	N.Y. Albany . . .	68	+ 1	2.0	+1.3	Omak . . .	62	- 5	.5	+ .4
Chicago . . .	74	+ 2	2.1	+1.4	Binghamton . . .	67	+ 2	1.1	+ .3	Quillayute . . .	56	- 2	4.7	+4.0
Moline . . .	72	+ 2	1.7	+ .9	Buffalo . . .	68	+ 2	4.4	+3.6	Seattle-Tacoma . . .	61	- 2	2.0	+1.7
Peoria . . .	73	+ 2	1.3	+ .5	New York . . .	72	- 1	.9	0	Spokane . . .	60	- 5	.3	+ .2
Rockford . . .	71	+ 2	1.4	+ .5	Rochester . . .	69	+ 2	.9	+ .3	Walla Walla . . .	65	- 6	.4	+ .3
Springfield . . .	75	+ 3	2.6	+2.0	Syracuse . . .	67	- 1	3.7	+2.9	Yakima . . .	62	- 4	.6	+ .5
IND. Evansville . . .	78	+ 4	1.7	+1.1	N.C. Asheville . . .	73	+ 2	.6	-.3	W. Va. Beckley . . .	73	+ 6	.9	+ .1
Ft. Wayne . . .	73	+ 4	2.1	+1.5	Charlotte . . .	79	+ 3	3.1	+2.3	Charleston . . .	78	+ 6	.6	-.1
Indianapolis . . .	76	+ 5	1.4	+ .8	Greensboro . . .	80	+ 6	0	-.9	Huntington . . .	80	+ 8	.1	+ .6
South Bend . . .	73	+ 4	2.2	+1.5	Hatteras . . .	81	+ 4	0	-1.5	Parkersburg . . .	78	+ 6	1.6	+ .9
IOWA. Burlington . . .	72	+ 1	2.9	+2.1	Raleigh . . .	78	+ 3	.9	-.2	WIS. Green Bay . . .	65	0	4.9	+4.2
Des Moines . . .	71	0	7.2	+6.4	Wilmington . . .	81	+ 3	.4	-1.0	La Crosse . . .	68	- 1	.5	-.2
Dubuque . . .	68	0	1.5	+ .5	N.DAK. Bismarck . . .	67	+ 2	.1	-.3	Madison . . .	68	+ 2	1.3	+ .5
Sioux City . . .	73	+ 3	.4	-.3	Fargo . . .	68	+ 2	1.2	+ .6	Milwaukee . . .	69	+ 2	.7	+ .1
KANS. Concordia . . .	77	+ 3	.3	-.5	Williston . . .	64	- 1	.2	-.2	WYO. Casper . . .	67	+ 1	0	-.1
Dodge City . . .	79	+ 4	T	-.5	OHIO. Akron-Canton . . .	68	0	5.3	+4.7	Cheyenne . . .	65	0	0	-.3
Goodland . . .	76	+ 5	0	-.4	Cincinnati . . .	77	+ 4	T	-.6	Lander . . .	66	0	0	-.1
Topeka . . .	77	+ 2	.7	-.2	Cleveland . . .	71	+ 3	4.2	+3.6	Sheridan . . .	63	- 3	0	-.3
Wichita . . .	80	+ 3	1.3	+ .6	Columbus . . .	77	+ 7	1.4	+ .8	P.R. San Juan . . .	82	0	.9	-.8
KY. Lexington . . .	78	+ 5	.5	-.2	Dayton . . .	74	+ 3	1.2	+ .6					
Louisville . . .	80	+ 6	.2	-.5	Toledo . . .	72	+ 3	1.2	+ .5					

Based on 1941-70 Normals

The Weekly Weather and Crop Bulletin is published by the National Weather Service, NOAA, and Statistical Reporting Service, USDA.
Standard copy for the Bulletin is

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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, NOAA.

ALABAMA: Showers and thundershowers scattered with rainfall under 1.00 in. Temperature 3° above normal. Average temperature in mid-90's.

Primary activities included: Haying, spraying for insects and diseases, repairing machinery, and preparing land for fall crops. Some crop damage from insects and scattered dryness. Corn in good to excellent condition 92% dented, 100% in 1974; matured 62%, 1974 74%; southern counties harvesting; statewide 10% harvested. Soybeans 93% blooming, 100% 1974; 87% setting pods. Cotton in fair to good condition; 98% setting bolls; 3% bolls open, 5% in 1974. Peanuts remain in good condition despite diseases; began harvesting a few fields in southeast counties. Pasture condition remains good.

ALASKA: Tanana Valley: Locally hard frost low lying areas 29th. Temperatures slightly below average and precipitation above average. Matanuska Valley: Light frost most areas with hard frost butte area on 28th and 29th. Precipitation early and midweek. Kenai Peninsula: Locally hard frost. Dry week.

Intermittent rain showers slowed haying and silage harvest throughout Railbelt. Grain maturity has been lingering due to generally cool temperatures. Light frost occurred in scattered areas on 28th. Grain harvest not yet general. Ground moisture supply was adequate throughout most of Railbelt.

ARIZONA: Near normal temperatures. Dry, except isolated light showers mountains and southeast.

Cotton good progress. Grain sorghum nearing maturity west, central. Sugarbeets good growth, Cochise County. Safflower harvest winding down. Alfalfa hay cutting seasonal progress. Vegetable activity varied. Early kale being thinned. Green onions, early carrots, cucumbers being planted. Planting continues early lettuce, some being thinned. Fall cantaloups good progress. Green chili harvest full swing Cochise County. No commercial citrus picking. Ranges dry. Stock water extremely short. Cattle, sheep fair to good condition.

ARKANSAS: Temperatures continued near normal ranging from 75 to 81°. Extremes: 100 and 63°. Precipitation spotty with heaviest amounts north. Greatest amount 2.96 in.

Soil moisture short in Delta, other areas adequate to short. Fieldwork: 5 days favorable, included baling hay, harvesting rice and sorghum, preparing small grain seedbeds. Cotton fair to good condition, 3% bolls open; fruiting slowed. Dry weather caused small boll drop, slowed insect hatch. Moisture needed to size bolls. Most growers on 5-day spray schedule. Rice 4% harvested; all fields good to excellent condition; maturing rapidly; draining continued. Volume harvest in 10 days. Soybeans good condition; early beans setting heavy pods; midseason and late soybeans need another rain. Early sorghum harvest nearly complete; overall combining 25% complete. Another hay cutting expected if rain promotes growth. Grasslands, meadows producing adequate grazing. Cattle in good condition making slight gains. Heavy culling in dry areas.

CALIFORNIA: Light precipitation north coast, northern mountains 24th, otherwise fair except

night, morning coastal low clouds. Cooling inland areas midweek. Central valley highs lowered from 90's to 80's and lows from 60's to 50's. Averages near normal all areas except about 5° below Sierra Nevada, northern mountains and north Sacramento Valley.

Rains caused some damage late small grain, cut hay. Cotton fruiting well. Rice harvest 10 days off. Planting new crop sugarbeets Imperial Valley. Safflower harvest increasing. Peach, plum, nectarine harvests continue late varieties. Pear harvest north coast, prune harvest gaining, some splitting, limb breakage due heavy fruit. Raisin harvest begun, sugar low. Valencia, grapefruit harvest continuing. Fig, pomegranate harvests beginning, date pack continues. Broccoli, cauliflower moderate, brussels sprouts full swing, cantaloup volume down. Carrots returning normal Salinas. Celery increasing, sweet corn full swing. Honeydews full swing, lettuce increasing. Potatoes underway Shasta. Fresh market tomatoes and canning tomatoes continue. Watermelon harvest heavy. Range and pastures declining, however cooler weather lessened fire hazards. Cattle and sheep being moved into valley pastures and stubble. Supplemental feeding started. Stock water supplies generally adequate. Range cattle good condition. Many moved directly to market.

COLORADO: Temperature 1 to 4° above normal east, 1 to 5° below normal mountains. Warm and dry most of week. Scattered showers and thunderstorms midweek. Average precipitation 0.05 in., except San Luis Valley 0.10 in.

Corn 65% dough stage, dented 30%. Dry beans flowered 98%. Sorghum headed 83%, 79% 1974. Winter wheat seeded 8%, 3% 1974, 7% average. Row crops good to excellent condition. Second cutting alfalfa virtually complete lower elevations, good progress higher elevations. Spring barley 39% harvested. Summer potatoes 42% harvested. Ranges and pastures good condition except southeast fair. Livestock good condition. Topsoil moisture short.

FLORIDA: Partly cloudy skies, near normal temperatures. Widely scattered thundershowers. Light to moderate rainfall most of State.

Soil moisture adequate to surplus. Crop condition good. Corn harvest active, yields good. Peanut harvest underway most areas. Soybeans improving, some grass and weed problems. Tobacco marketings continue. Haymaking in full swing, quality good. Sugarcane making good progress. Pastures are in mostly good condition. Cattle and calves are in good condition. Citrus grove condition excellent; surface soil moisture short in sandy soils, some irrigation started. Shipping started for the 1975-76 grapefruit crop. Vegetable plantings continue active, up sharply for first half of September. Seeded acreage germinating, good stands. Seedbeds progressing well, all crops. Transplanted acreage growing well. Minimum replanting expected.

GEORGIA: Hot weather, temperatures 1 to 2° above normal. Afternoon or evening thundershowers, but amounts extremely variable. Largest amount 3.34 in. Temperatures not as hot over weekend with thundershowers more numerous over south.

Soil moisture extremely varied, no pattern, but mostly short to adequate. Fieldwork very active with 5 days suitable. Peanut harvest increasing, 8% dug, 3% picked, 1974 6% and 2%, average 25% and 17%; condition good. Corn good, 12% harvested, 1974 7% and average 6%. Cotton fair to mostly good, insect battle continues. Soybeans weakened, condition fair to mostly good, insects and heat main problems. Tobacco harvest in final stage; much marketing remains. Haying and silage harvest at very high levels. Pecan condition declining, mostly fair to good. Pastures fair to good, declining. Cattle and hogs good. Midstate apple harvest continued.

HAWAII: Growing conditions favorable for crop growth. Showers generally light. Beneficial rains continued in Hilo, Puna and Volcano areas of Hawaii. Heavy irrigation required some areas.

Vegetable supplies adequate. Melon supplies light. Banana supplies moderate to heavy. Papaya harvesting light to moderate. Pastures poor Koolau Area of Kauai, more moisture needed. Pine-apple harvest declining. Sugar harvest steady.

IDAHO: Temperatures averaged 3 to 7° below normal. Maxima 80's with few highs low 90's southwest. Frost higher valleys east and south central. Minima ranged from upper 20's to mid 30's east to mostly 40's north. Showers mainly early week. Precipitation little above normal southwest to near or below normal over south central and east.

Cool temperatures hampered crop development. Grain harvest continued although slowed rain north and southwest. Frost scattered areas east, locally severe damage reported. Winter wheat 50% harvested, 90% 1974. Spring wheat 30% harvested, 65% 1974. Barley and oats both 40% harvested, 70% and 60% 1974. Mixed grain 75% harvested, 70% 1974. Potatoes 10% vines dying, 30% 1974. Range grasses benefiting recent rains, good to excellent condition. Livestock good flesh.

ILLINOIS: Temperatures up to 4° above normal, warmest southeast. Precipitation less 1.00 to over 3.00 in., heaviest weekend.

Corn dent 90%, 50% 1974, average 62%; 55% mature, 5% 1974, average 14%; condition mostly excellent to good. Soybeans turning yellow 55%, 5% 1974, average 14%; 20% shedding leaves, ahead of 1974 and average; condition mostly good to excellent. Third crop alfalfa hay 59% cut, 62% 1974, average 53%; condition good. Plowing 1976 winter wheat 68% complete, 74% 1974, average 69%. Pasture condition improved, mostly good. Soil moisture supplies improved, 13% surplus, 72% adequate, 15% short. Fieldwork: 5 days suitable.

INDIANA: Cloudy, rainy, humid week. Heavy showers central, 6.00 in. locally, causing some flash flooding. Temperatures and growing degrees above normal during week and for season. Rainfall past 4 weeks 2.00 to 3.00 in. above normal central and north, near normal southeast.

Fieldwork averaged 6 days. Topsoil and subsoil moisture mostly adequate. Corn 65% dented, 1974 25%, average 55%; 10% mature, 1974 and average 5%. Soybeans 90% setting pods, 1974 80%, 1973 85%; 25% turning yellow, 5% shedding leaves. Wheat land 45% plowed, 1974 50%, average 55%. Apples 30% picked. Pastures mostly fair.

IOWA: Temperatures averaged 2 to 3° above normal, west was warmer than east. Des Moines had 6.18 in. of rain on 27th, was most in 24-hour of records back to 1878. Most of south

received more than 2.00 in., while north third was a few tenths of inch below normal. Extensive urban flooding in Des Moines metropolitan area on the 27th.

General rains little benefit to corn. Wind and hail damage general due to poor braceroot system and weakened stalks. Growing condition of corn improved slightly mostly fair to good; 88% in or past dough stage, 83% 1974, average 70%; 66% in or past dent stage, 36% 1974, average 57%. Rains aided soybean development, moisture helped fill pods, increase bean size; 22% leaves turning, 8% 1974, average 20%. Growing condition of soybeans mostly fair to good. Third cutting alfalfa 48% harvested, second cutting red clover 82% harvested; hay crops improved, mostly fair to good. Pasture improved, mostly poor to fair. Topsoil moisture 14% short, 77% adequate, 9% surplus. Subsoil 51% short, 48% adequate, 1% surplus. Fieldwork: 4 days suitable.

KANSAS: Temperatures averaged from 1° above normal northeast to 6° above in northwest. Frequent rains east and central amounts east to over 4.00 in.

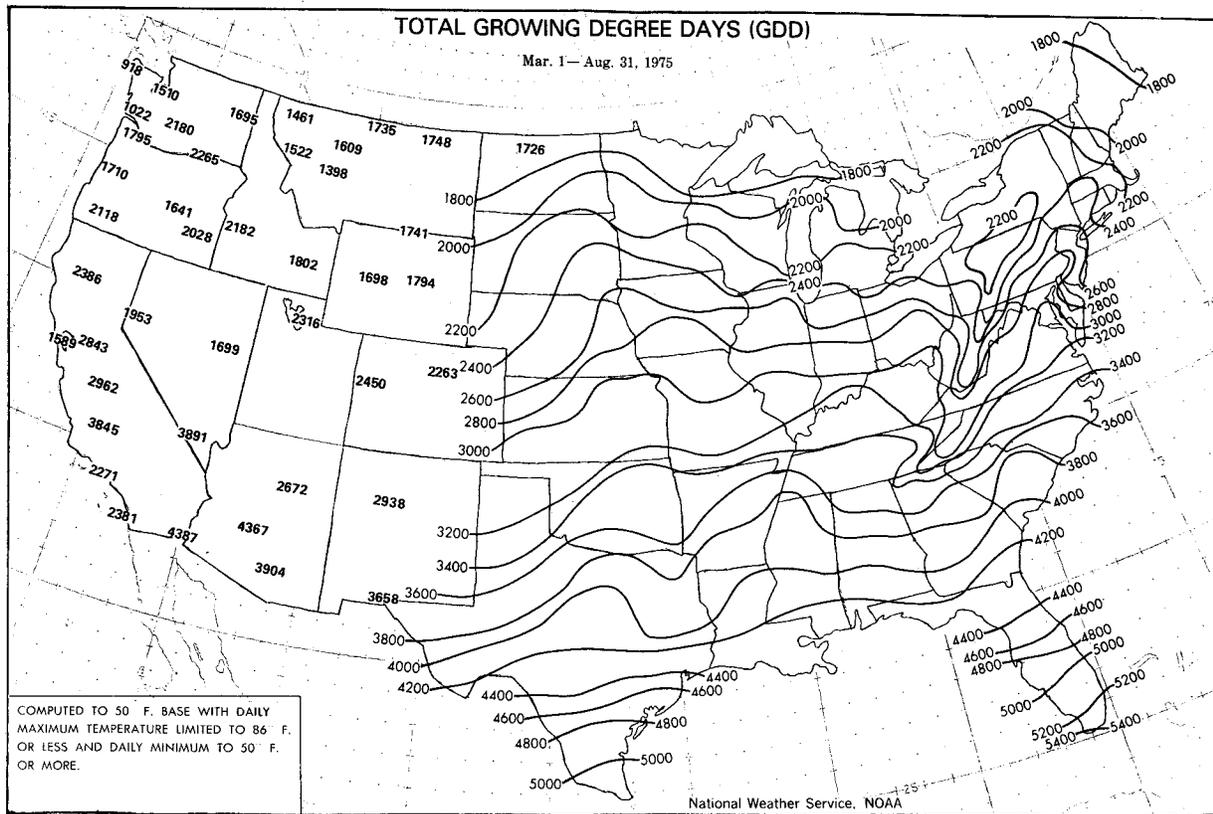
Western third, north central and south central generally dry. Corn 60% dented, same as 1974 and average; 25% mature, same as 1974, average 30%. Some corn and grain sorghum harvested east. Sorghum grain 85% headed, 75% 1974, 85% average; grain colored 30%, 20% 1974, 30% average. Soybeans setting pods 90%, 85% 1974 and average. Third cutting alfalfa, 75% complete, same as 1974, 80% average.

KENTUCKY: Warm and humid with scattered thunder-showers. Temperatures above normal, highs upper 80's to low 90's and lows mid-60's to low 70's. Scattered precipitation averaged 0.25 to 1.25 in.

Soil moisture mostly short. Ideal weather for outside work with 6 days favorable. Activities centered around tobacco topping and cutting, haying, beginning corn harvest, and land preparation for fall seeded crops. Burley tobacco 12% cut, 17% 1974, 13% average. Dark tobacs 15% cut, 30% 1974, 18% average. Corn 63% dented or mature, 44% 1974, 55% average. Soybeans developing well, 20% leaves turning yellow, 16% 1974. Pastures deteriorating from dry soils, but providing grazing. Fall plowing underway.

LOUISIANA: Temperatures normal. Scattered thundershowers mostly near Gulf Coast. Measurable rain 2 to 5 days south, 1 to 3 days north. Greatest 1-day rainfall, 2.76 in., Morgan City on 28th. Temperature extremes: 97° Alexandria, 66° Rosepine.

Soil moisture short to adequate north third, adequate to surplus elsewhere. Fieldwork possible 4.2 days. Main activities: Insect control in cotton and soybeans, harvesting rice and sweetpotatoes, planting sugarcane, land preparation and making hay. Soybeans fair to good; early beans maturing; late beans fruiting. Spraying insecticides increased, damage moderate. Cotton mostly fair; applying insecticides; boll worms more numerous; lower bolls opening. Rice good; over 60% harvested, 75% 1974, 53% average. Corn and sorghum fair to good; over 40% corn harvested; 20% sorghum harvested. Worm damage increased. Sugarcane mostly good, growing rapidly; borer infestation moderate to heavy; 1976 crop 10% planted. Sweetpotatoes good, 25% harvested. Peanut harvest began. Watermelons virtually complete. Showers delaying hay harvest, quality deteriorating. Pastures average. Cattle mostly good.



MARYLAND AND DELAWARE: Temperatures averaged 2 to 5° above normal. Highs ranged from mid 80's to low 100's. Lows ranged from low 50's to high 60's. Precipitation ranged from a trace to 5.27 in. Heaviest amounts occurred in western Maryland and caused local flooding.

Corn 65% dent stage, 17% mature; 56%, 3% 1974. Corn for silage 18% harvested, 7% 1974. Soybeans 77% podded, 9% yellowed; 62%, 1% 1974. Mexican bean beetle causing some damage. Tobacco 51% harvested. Fourth cut alfalfa 47% completed. Peak peach harvest early in week. Peak apple harvest expected end of September when fall apples are ready.

MICHIGAN: Temperatures 5° above to 2° below normal. Precipitation: 0.43 to 6.93 in.; averaged 4.00 in. lower, 1.00 in. upper.

Rains damaged dry beans and vegetables. Corn 50% dented, 13% 1974, 28% average. Silos 5% filled. Soybeans 25% turning, 13% average. Dry beans harvest delayed; 45% shedding leaves; 5% harvested. Potato digging slowed bay area, and south; early fall starting Upper Peninsula. Oats and second cutting hay harvest virtually complete. Plowing and alfalfa seedings. Pasture feed supplies average. Peach harvest 65%; summer apples 80%; pears 30% southwest; plums over 15%; over half cantaloup and cabbage harvested. Sweet corn and cucumber seasons end. Soil moisture surplus. Fieldwork: 3 days favorable.

MINNESOTA: Temperatures averaged 2° below normal northeast to 1° above west and south. Extremes: 96 and 33°. Precipitation averages

0.40 in. north third to lower southeast 1.60 in.

Soybeans, sugarbeets and late fall potatoes aided by recent rains, corn too mature for substantial improvement. Small grain harvest important north slowed from continued damp conditions. Corn 7-10 days ahead average progress with 55% dented and beyond, 1974 25%, average 37%; crop mostly fair to poor condition. Soybeans 41% turning yellow, 25% 1974, average 37%; in fair to good. Oats, barley harvesting about complete slightly ahead average. Spring wheat combining 77% complete, 1974 50%, average 75%. Flaxseed 44% combined, 1974 49%, average 46%. Sweet corn for processing 54% harvested, picking to continue several weeks. Topsoil moisture adequate except north. Subsoil moisture mostly short.

MISSISSIPPI: Temperatures near normal. Extremes: 97 and 64°. Greatest 24-hour rainfall was 1.60 in. at Picayune on 24th.

Soil moisture mostly adequate except short to adequate north central. Fieldwork: 5.4 days suitable. Cotton: 97% setting bolls, 98% 1974; 4% open bolls, 6% 1974, 8% average. Soybeans 92% blooming, 91% average; 74% podding, 70% 1974, 85% average. Corn: 61% dented, 34% mature. Rice: 68% headed, 28% mature. Sorghum: 79% headed, 33% mature, 17% harvested. Sweetpotatoes 39%, corn silage 62%, sorghum silage 38%, watermelons 93%, peanuts 37%, and hay crop 64% harvested. Cotton in poor to fair condition. Other crops in mostly good condition.

MISSOURI: Temperatures averaged several degrees above normal. Greatest departure 5° above Bootheel. Precipitation heavy, averaging 2.00 in. or more except Bootheel averaged 0.60 in. Nevada-Osceola area received 6.00 to 8.00 in., considerable flash flooding.

Corn and soybean condition improved while cotton moderately declined. Soil moisture generally improved throughout. Fieldwork: 4 days. Corn 82% dented, 56% 1974, 70% average; poor to fair. Soybeans 87% setting pods; 16% turning color; 3% mature; 1% harvested; condition mostly fair. Cotton 5% open bolls, 2% 1974; condition mostly fair. Grain sorghum 91% headed, 24% mature; 1974 82% headed and average 89%. Pastures in mostly poor condition, 54% poor, 34% fair, third cutting alfalfa 72% complete.

MONTANA: Cool week except warm spell 27th and 28th. Temperatures averaged normal north central and northeast to 5° below west and central. Precipitation mostly below normal due scattered light showers, west precipitation more frequent with amounts near 1.00 in. Scattered light frost midweek west.

Harvest progress slow. About 60% winter wheat combined, 100% in 1974, 90% average. Spring wheat 25% harvested, 55% 1974, 65% normal. Barley 20% harvested, 65% in 1974, and 30% oats combined, 1974 65%. Spring wheat 45% ripe, not harvested, oats 40% and barley 45% ripe. Winter wheat average start of seeding September 7th. Pasture and ranges providing adequate forage. Grasshopper damage light to moderate. Projected hay supplies adequate. Second cutting alfalfa 40% complete.

NEBRASKA: Temperatures below normal early week, above normal remainder.

Topsoil moisture supplies 96% short, 4% adequate. Subsoil moisture supplies 93% short, 7% adequate. A year ago topsoil 63% short, subsoil 87% short. Irrigated corn condition mostly good; dryland corn condition fair to poor; 70% corn in the dent stage. Sorghum condition mostly fair; 60% turned, 30% 1974. Soybean condition fair to good; almost all podded, 90% in 1974. Alfalfa hay fair, over 70% 3d cutting harvested. Some dry beans harvested northwest. Pasture and range feed supplies 88% short and 12% adequate.

NEVADA: Mostly dry, mild and windy. A few freezing temperatures northern valleys. Some thundershowers, light precipitation in few localities. Temperatures ranged from normal to 5° below normal. Extremes: 104° Las Vegas, 26° Mountain City.

Second crop alfalfa hay nearing completion. Fifth and sixth cuttings well along extreme south. Soil moisture supplies mostly adequate.

NEW ENGLAND: Cloudy, wet over New England on 24th, 25th, 29th and 30th. North Massachusetts, south Vermont, New Hampshire received 2.00 to 3.00 in. rain. Temperatures below normal except midweek. Night lows in 40's north, 60's south.

Drought persists in Vermont and Maine reducing crop yields and pastures. Aroostook County, Maine potato growers are applying vine killers to seed fields. Cool weather promoting good color on apples and pears. Good cranberry crop expected. Silage cutting all areas, corn maturing ahead of normal.

NEW JERSEY: Temperatures averaged near normal. Extremes: 47° at Newton and 98° at Bridgeton.

Weekly rainfall averaged 0.98 in. north, 0.09 in. central and 0.11 in. south. Heaviest 24-hour total was 1.38 in. at Charlotteburg. Estimated soil moisture, in percent of field capacity averaged 83% north, 52% central and 37% south.

Planting of fall vegetables complete. Early plantings growing well. Harvest of summer crops tapering off. White potato digging about 50% complete. Sweetpotato growth heavy. Harvest to begin midmonth. Fall variety apple harvest beginning. Harvest of Jersey Queen, Monroe, Red Skin and Rio-050-Gem peaches active. Cranberries sizing nicely, rot still a problem. Soil preparations continue for fall grains. Corn silage making general. Some third cutting hay being made.

NEW MEXICO: Scattered showers, mostly light first half of week and dry thereafter. Gradual daytime warming last half of week with temperatures mostly averaging a little above normal. Chill nights mountains with numerous readings in 30's.

Scattered light rain. Moisture adequate north-west and southeast, short elsewhere. Cotton fair, well advanced boll setting. Alfalfa good, 3d cut north, 4th cut south. Grain sorghum good, near completion of heading. Corn good, near completion tasseling, few in dough stage. Apples fair, summer apples being harvested. Peanuts and sunflowers good. Onions good, harvest near completion. Ranges good north, fair south. Livestock good.

NEW YORK: Temperatures near normal southeast, above elsewhere. Rainfall near to below normal extreme southeast, above normal elsewhere. General rain statewide 29th and 30th and again west on 31st.

Soil moisture deficiency in northeast since late June continues. Weather delayed hay harvest. Second cutting alfalfa 90% complete, 3d 30%. Corn in good to excellent condition; harvesting for silage has begun most areas. Dry bean prospects improved with needed moisture. Most oats harvested, fields remaining are lodged. Moisture has improved yield prospects of cabbage for kraut, snap beans and sweet corn. Harvest on schedule. Tomato harvest active. Early variety apples available. Bartlett pear harvest underway. Concord grapes coloring well, Aurora harvest has begun.

NORTH CAROLINA: Temperatures averaged 5 to 8° above normal with readings well into the 90's east of the mountains through midweek. Precipitation was spotty occurring in widely scattered afternoon and evening thundershowers.

Fieldwork: 4.8 days suitable. Soil moisture 32% very short, 45% short, 23% adequate. Flue-cured and burley tobacco mostly fair to good. Flue-cured harvest 77% complete, 1974 78%, average 71%. Burley tobacco harvest getting underway. Corn harvest begun in coastal counties. Cotton, soybeans, and peanuts condition declined. Apples 30% picked, 1974 28%, average 30%. Sweetpotatoes 13% dug. Pastures mostly fair, need rain.

NORTH DAKOTA: Temperatures above normal. Extremes: 97° at Beulah, 37° at Upham, Watford City and Dickinson. Precipitation above normal central, north central, northeast and east central, below normal elsewhere. Most precipitation for week 2.23 in. at Rugby, of which 2.11 in. fell in 24-hour period. Weekend near normal temperatures with thunder showers northeast and east, scattered showers to sunshine rest of State.

Small grain harvest hampered by showers. Hard spring wheat about 51% combined, 51% 1974, 69% average. Durum 33% combined, 25% 1974, 51%

average. Oats about 68% combined, 65% 1974, 81% average. Barley 84% combined, 51% 1974, 81% average. Rye and winter wheat virtually complete. Rains gave limited relief to row crops and pastures. Livestock good condition.

OHIO: Warm entire week south. Cloudiness and precipitation late week held highs in 70's north. Extremes: 94 and 54°. Heavy rains caused urban and small stream flooding northeast and east central. Very light rainfall south. Range: 4.95 in. northeast, 0.03 in. southwest.

Corn 75% dented, 60% 1974 and normal; 15% mature and safe from frost, 15% 1974 and normal. Soybeans, 20% leaves turning yellow, 20% 1974 and normal. Corn silage 10% harvested, 10% 1974 and 15% normal. Potato digging 35% completed, 40% 1974 and 35% normal. Alfalfa hay third cutting 45% complete, 35% 1974 and normal. Tobacco 15% cut, 5% 1974 and 20% normal. Plowing for winter wheat 45% done, 30% 1974 and 45% normal. Soil moisture supplies 24% short, 47% adequate, and 29% surplus. Fieldwork: 4 days favorable.

OKLAHOMA: Temperatures averaged from 2° below normal to 4° above normal. Precipitation averaged from a trace in Panhandle to 1.05 in. central. Weekend hot and dry.

Fertilizing and tilling wheat ground active, but general rains needed north and Panhandle areas before planting becomes general. Condition row crops improved with exception of cotton. Cotton condition spotted with plants in some areas looking good, others only few bolls. Insect infestation heavy; 85% setting bolls, 92% 1974. Some early sorghums combined, 21% mature, 25% average. Peanuts spiking, some disease problems. Soybeans 66% setting pods, near same 1974. Corn being cut for silage. Panhandle acreage being irrigated. Fourth cutting alfalfa 33% complete, mostly good yields. Ranges and cattle holding high condition levels.

OREGON: Temperatures 2 to 5° below normal interior, normal along coast. Maximums averaged in 80's, minimums in 40's. Precipitation along coast ranged from 1.04 to 2.24 in., Willamette Valley 0.75 to 1.25 east, trace to 1.26 in.

Precipitation causing kernels to sprout in unharvested fall grain. Fall grain 90% harvested. Spring grain 50% harvested. Harvest activities slowed by rain. Red clover, bentgrass harvests delayed. Mint, hops continue to be harvested. Haying continues, some rain damage. Bartlett pear, Gravenstein apple, late prune, peach harvest are continuing. Filberts, walnuts look good. Evergreen blackberry harvest continuing, some rot problems. Sweet corn, green bean, broccoli, beets, cauliflower, cabbage, lettuce, cucumbers, onions being harvested. Potatoes look good. Ranges, pastures in good to excellent condition. Forage greener than normal. Feed, water adequate. Cattle, sheep in good condition.

PENNSYLVANIA: Week of contrasting weather. Temperatures normal to 5° above normal. Extremes: 97 and 41°. Showers and thunderstorms with heavy rain, isolated hail and strong gusty winds; 3.00 to 4.00 in. west, 1.00 to 2.00 in. central, and negligible amounts extreme southeast. Wettest week since early June in central and west.

Soil moisture adequate, surplus south. Major activities: harvest of apples, tomatoes, peaches, potatoes, pears, hay making, baling straw, fall plowing, cutting tobacco. Oats harvest 91%, 1974 90%. Tobacco 15% cut, 4 days behind 1974. Potatoes 21% dug, 1974 23%. Corn for grain 32% dent, 57%

dough, 9 days ahead of 1974. Corn needs rain. Fall plowing 27%, 2 days behind 1974. Alfalfa hay 2d cut 88%, 3d cut 40%, 4th cut 12%. Clo-Tim 2d cut 70%. Hay quality fair to good. Limited fall seeding barley and wheat underway.

PUERTO RICO: Island average rainfall 1.55 in. Highest weekly total 5.17 in. at Isabela. Highest 24-hour total 4.50 in. at Arecibo. Temperatures averaged 80° on coasts and 75° interior. Extremes: 94 and 59°.

Intense cultivation sugarcane taking place due recent rains, although more rains needed south coastal areas for good development. Coffee maturing well and harvest started. Rain showers affected roads hindering field operations. Most work concentrated on soil preparation for tobacco seedbeds. Recuperation and development of pastures noted most areas. Pastures suffering aphid attacks some areas. Fieldwork limited to food crop planting and fertilizing under favorable weather.

SOUTH CAROLINA: Near record level temperatures occurred; averaged 5 to 8° above normal early period, returned to near normal late week. Rainfall averaged 1.50 to 2.50 in. midweek, 3.50 in. northwest and central. Except for this brief heavy rainfall, state basically continued dry for most of week.

Crop condition generally fair to good. All growing crops badly need additional rainfall, especially cotton, soybeans. Insects still badly infesting cotton, also some soybean damage. Cotton 97% setting bolls, 17% open bolls. Soybeans in pod development stage. Harvest of corn for grain 18% 1975, 13% 1974, 11% average. Apple harvest 27% 1975, 30% 1974, 31% average. Grape harvest 81% 1975, 65% 1974, 79% average. Peanut harvest 35% 1975, 28% 1974, 30% average.

SOUTH DAKOTA: Temperatures averaged from 4° below to 5° above normal. Extremes: 105° Philip 31st, 40° several locations early week. Precipitation varied considerably, most rainfall of 1.00 in. or more fell in East River area.

Flaxseed 75% harvested, 1974 86%, normal 78%. Corn 90% in or past dough stage, 1974 82%, normal 87%; 48% dented, 1974 37%, normal 59%; 15% mature, safe from frost which is normal. Sorghum 48% showing head color, 1974 33%, normal 42%. Winter wheat 9% seeded, same as 1974 and normal. A large portion of winter wheat belt is still too dry for germination, farmers are waiting for moisture before seeding. Rye 21% seeded, 1974 10%, normal 13%. Fall plowing 41% complete, 1974 44%, normal 38%. Livestock in generally fair to good condition. Pastures generally adequate except for west central and central, where getting short.

TENNESSEE: Near end of week significant rainfall fell in all areas except northeast. Temperatures averaged 3 to 5° above normal.

Rain badly needed for development of crops and pasture. Short moisture supplies on 83% of farms. Soybeans 71% setting pods, 1974 55%, average 70%. Corn 22% mature, 1974 18%, average 27%; 83% dented, 1974 65%, average 83%. Boll weevils and boll worms causing serious damage. Less than 10% cotton bolls open. Tobacco harvested 32%, 1974 33%, average 38%. Pastures extremely poor condition.

TEXAS: Temperatures near normal. Cool temperatures following cold front early week offset by hot afternoon temperatures late week. Precipitation variable, but near or slightly above normal. Rains induced by hurricane Caroline dumped 1.20 to 6.00 in. Lower Rio Grande Valley, Coastal Plains.

Rains delayed completion of cotton harvest Coastal Bend, Rio Grande Valley, but harvest making satisfactory progress south central, Upper Gulf Coast. Defoliation underway Blacklands. First bales ginned most counties. High and Low Plains cotton making good progress and insect problems decreasing. Corn harvest making good progress Blacklands, East and southern areas, on High and Low Plains rapidly reaching maturity. Sorghum harvest rapidly nearing completion southern half, making excellent progress southern Low Plains, Cross-Timbers. Crop potential on High and Low Plains excellent. Peanut harvest started Cross Timbers and east areas. Digging early crop south and south central continues. Major crops percent harvested: Cotton 9, 1974 16, average 12; corn 22, 1974 38, average 38; sorghum 56, 1974 52, average 46; peanuts 13, 1974 17, average 16; rice 89, 1974 84, average 75. Major crops percent planted: Wheat 2, 1974 4, average 15; oats 1, 1974 2, average 2.

High Plains: Onion harvest near complete. Potato digging still active, cucumbers, carrots, cabbage available, canner carrots harvest soon. Watermelon harvest begun. Green beans good progress Gaines County. Trans-Pecos: Cabbage, onion harvest complete El Paso, chili, tomato harvest underway. East: Watermelon harvest continues. Sweetpotato digging underway. Central: Late watermelons available; late peas harvested; early fall plantings made. San Antonio-Winter Garden: Cabbage, carrot planting active, early fields good growth. Eggplants, peppers, cucumbers good progress. Harvest early cucumbers underway. Coastal Bend: Fall cucumber planting full swing. Early plantings cucumbers, squash up, excellent stands. Lower Rio Grande Valley: Planting fall vegetables. Replanting tomato fields damaged by rain. Pecan crop central, east threatened by scab. Aphids webworms damaging crop south central, Cross-Timbers. Citrus crop good progress, good sizing, insect and disease control good results. Good grazing available most areas though short moisture, high temperatures causing concern some localities. Livestock good flesh, early culling insure adequate grazing early fall. Hay baling proceeding rapid rate, many areas expecting one more cutting.

UTAH: Widely scattered showers and thundershowers early week. Amounts generally insignificant except isolated near 0.50 in. north central. Average temperatures ranged from 3 to 6° below normal.

Production prospects for silage corn fair to good except in counties of higher elevations. Corn for grain rated poor. Potatoes and sugarbeets fair to good. Dry onions good. Sweet corn harvest in full swing. Snap bean harvest nearly complete. Cattle and sheep in good condition. Very little marketing.

VIRGINIA: Temperatures averaged 5° above normal. Extremes: 100 and 50°. Rainfall light, averaging less than 0.25 in., except excess of 2.00 in. extreme north.

Fieldwork: 5.7 days suitable. Topsoil moisture 73% short, 27% adequate. Corn grain harvest 1% complete, 1974 1%. Soybean condition down, needs moisture, insects heavy some areas, spraying required. Tobacco harvest progress: Flue-cured 55%, 1974 47%; fire-cured 36%, 1974 30%; burley 19%, 1974 13%; sun-cured 34%, 1974 23%. Peanuts need rain; insects heavier. Much hay saved. Pasture condition decreased, particularly southwest. Cattle feeding necessary, many marketed. Sweetpotatoes good condition, harvest early stages.

Cabbage, cucumbers harvest full operation. Apples 9% harvest, 1974 13%. Small acreage fall grain seeded.

WASHINGTON: West: Temperatures 1 to 3° subnormal except 10° subnormal in Vancouver area. Precipitation heavy, ranging from 0.50 to 3.50 in. above normal.

Rain halted berry picking, but helped corn, cabbage seed, pasture, hay fields. Harvesting: Cauliflower, broccoli, corn, cucumbers and bush beans. Green pea and raspberry harvest ended. Digging seed and commercial potatoes. Warm temperatures needed for sweet and silage corn. Haying delayed. Recently cut fields of poor quality. East: Readings 3 to 6° subnormal. Precipitation 0.40 in. above normal central and northeast and 1.50 in. above normal southeast.

Harvesting: Pears, Hale peaches, plums, dry beans, alfalfa seed, potatoes. Heavy rains interrupted harvest of wheat, barley, and lentils. Some erosion in summerfallow. Fall seeding underway beside uncut wheat fields. Ranges doing well but haying at standstill.

WEST VIRGINIA: Temperatures well above normal. Highest 97° Romney, lowest 40° Webster Springs. Heavy rainfall northwest and northeast, widely scattered showers elsewhere.

Favorable workdays 5.2. Soil moisture 60% short, 40% adequate. Main fieldwork activities: Haying, clipping pasture and harvesting vegetables. Oats 92% harvested. Potatoes 46% dug. Second cutting hay 65% complete. Tobacco 71% topped. Corn in good to fair condition; 3% pre-silked, 26% silked, 48% dough, 23% dented. Some pastures turning brown. Second cutting of hay short. Livestock experiencing above normal pink eye.

WISCONSIN: Temperatures below normal north and central, above west and south. Highs 60's and 70's north, 70's and 80's south. Rainfall heavy with weekly totals varying from 1.00 to 4.00 in. Locally heavy rainfall on 28th with 24-hour totals of 4.00 to 5.00 in.

Corn development remains ahead of 1974 and normal; 45% in dent, 1974 10%, normal 20%; some lodged by wind and rain storms; early corn nearly safe from frost damage. Corn being chopped for silage where hurt by dry weather. Soybeans helped by rains except on light soils. Pastures, new seedings, 3d crop hay boosted by rains. Most 2d crop hay harvested, 3d crop being harvested south. Small amount of oats remaining to be combined, lodged extensively by storms. Tobacco being harvested, some storm damage. Sweet corn harvest continues. Yield potential of late vegetable crops improved by rains. A good early apple crop being picked. Soil moisture 15% short, 65% adequate, 20% surplus.

WYOMING: Generally dry weather and below seasonal temperatures. Few locations received small amounts of precipitation but amounts below 0.10 in.

Topsoil moisture short. Spring wheat 95% mature, 75% harvested. Oats 80% mature, 55% harvested. Barley 95% mature, 65% harvested. Dry bean windrowing underway. Winter wheat 10% planted. Alfalfa second cutting 65% complete, third cutting started. Other hay 85% harvested. Corn for grain 10% silked, 42% milk stage, 56% dough stage, 7% denting. Prospects fair to good for corn, dry beans, sugarbeets; good for potatoes. Ranchers and farmers expect to winter 5% fewer sheep and cattle than last year. Supplies of hay, feed grains about average. Ranges dry, fire danger extreme.

AVERAGE MONTHLY WEATHER OUTLOOK

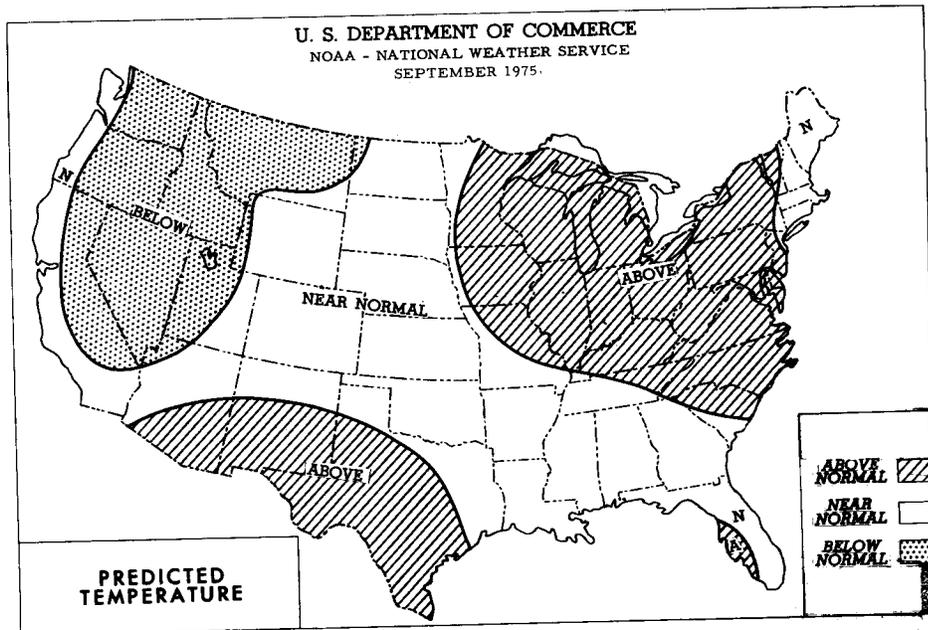
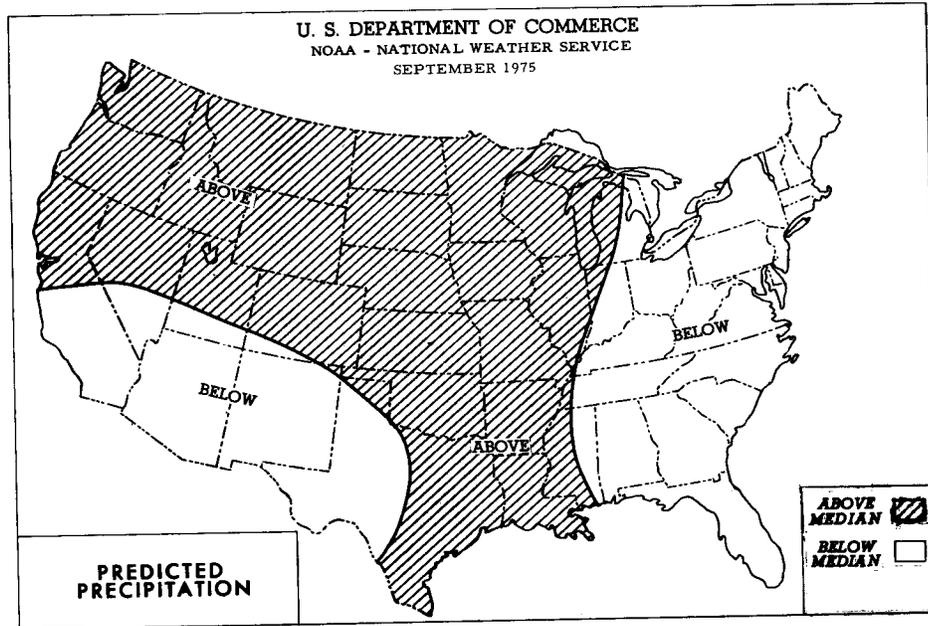
AGRICULTURAL IMPLICATIONS: Above normal temperatures should continue to push development of corn and soybeans to maturity. However, above normal precipitation in the western Corn Belt would slow development, particularly of soybeans.

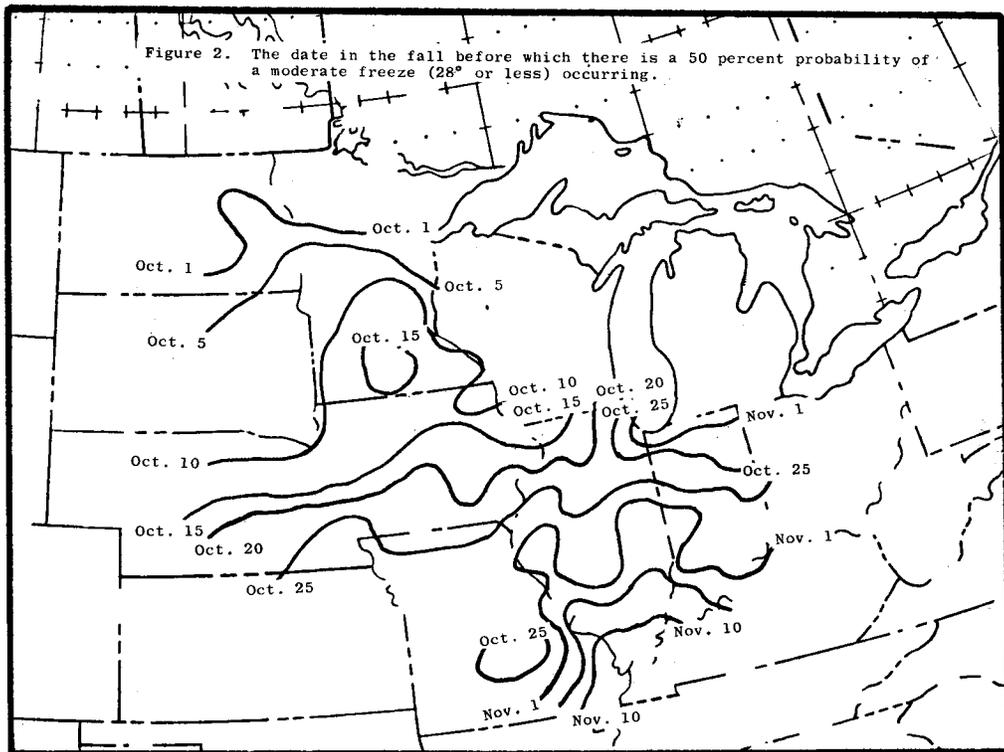
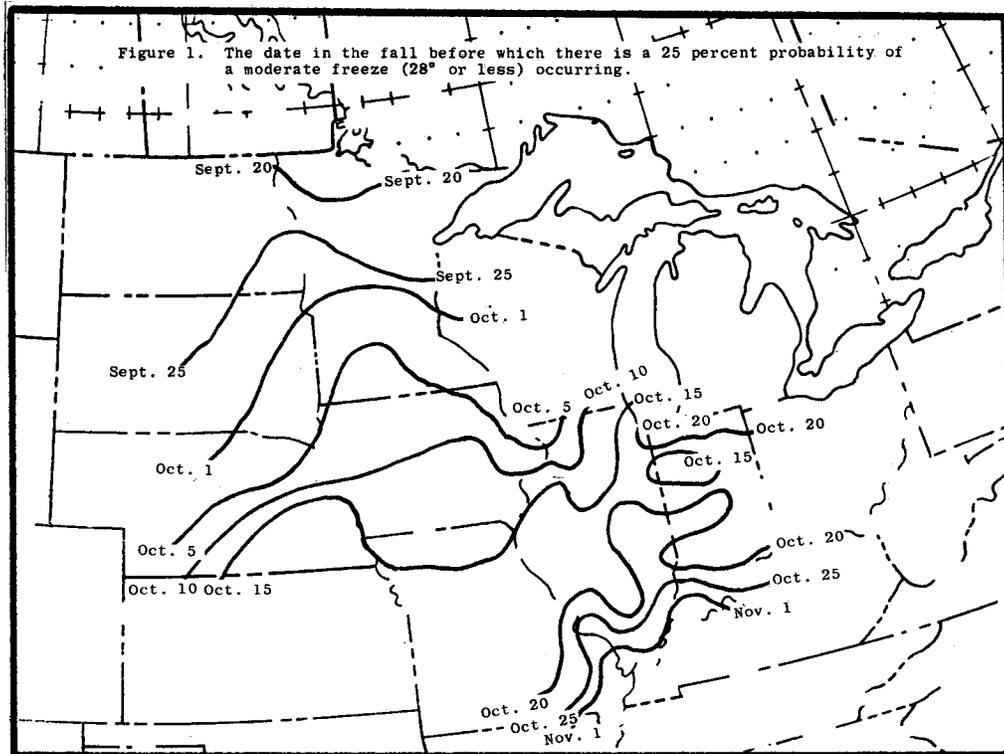
Above normal precipitation across the Great Plains would have mixed effects. In northern areas harvest of remaining small grains would be further delayed. However, above normal moisture is needed to replenish low soil moisture levels in many parts of the central Plains. Wheat seeding will

be active in the southern Plains. Good moisture with clear weather for planting would be ideal.

Much of the Deep South and Southeast is expected to receive below normal precipitation and near normal temperatures which would aid crop development. Above normal precipitation in Arkansas, Louisiana, and Mississippi would extend current problems.

Continued cool, wet weather in the Pacific Northwest would further delay harvest of many crops and damage others.





Data used to prepare these maps were taken from various individual State publications on frost probabilities.

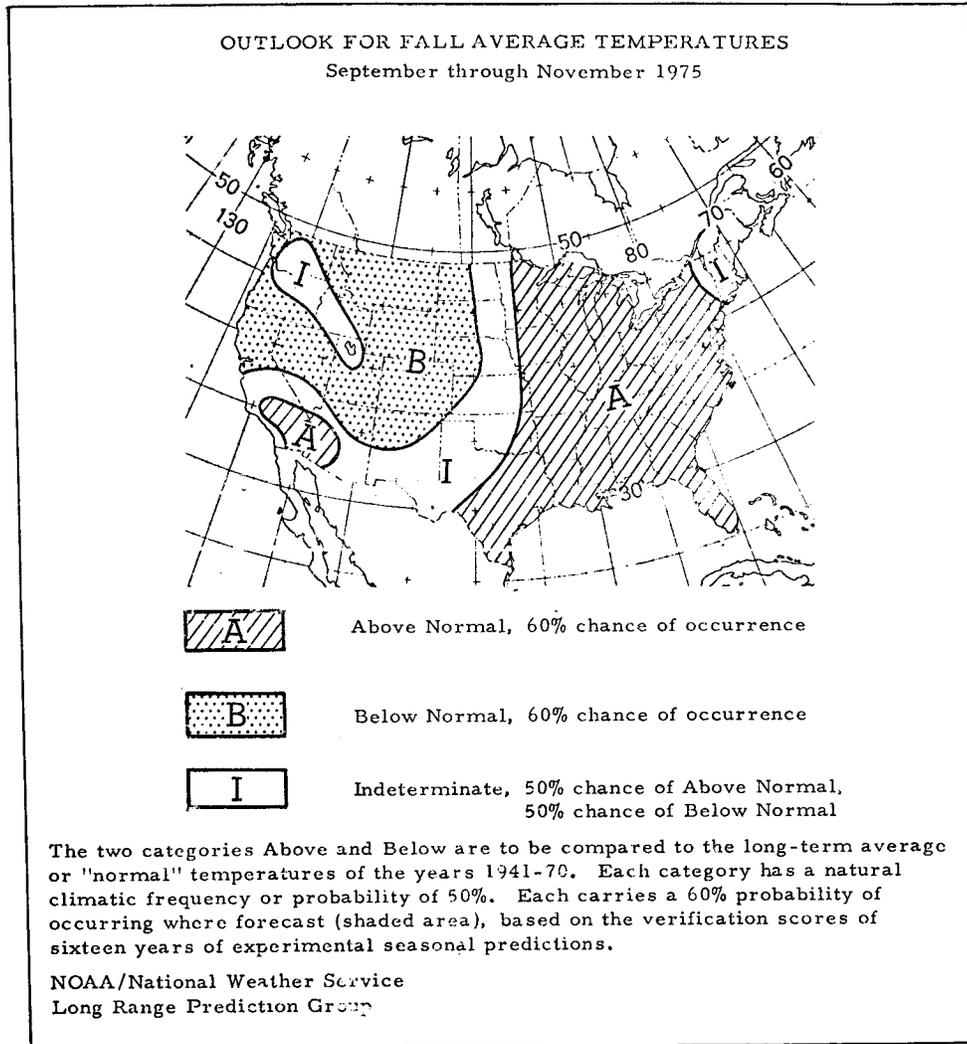
FROST PROBABILITIES IN THE CORN BELT

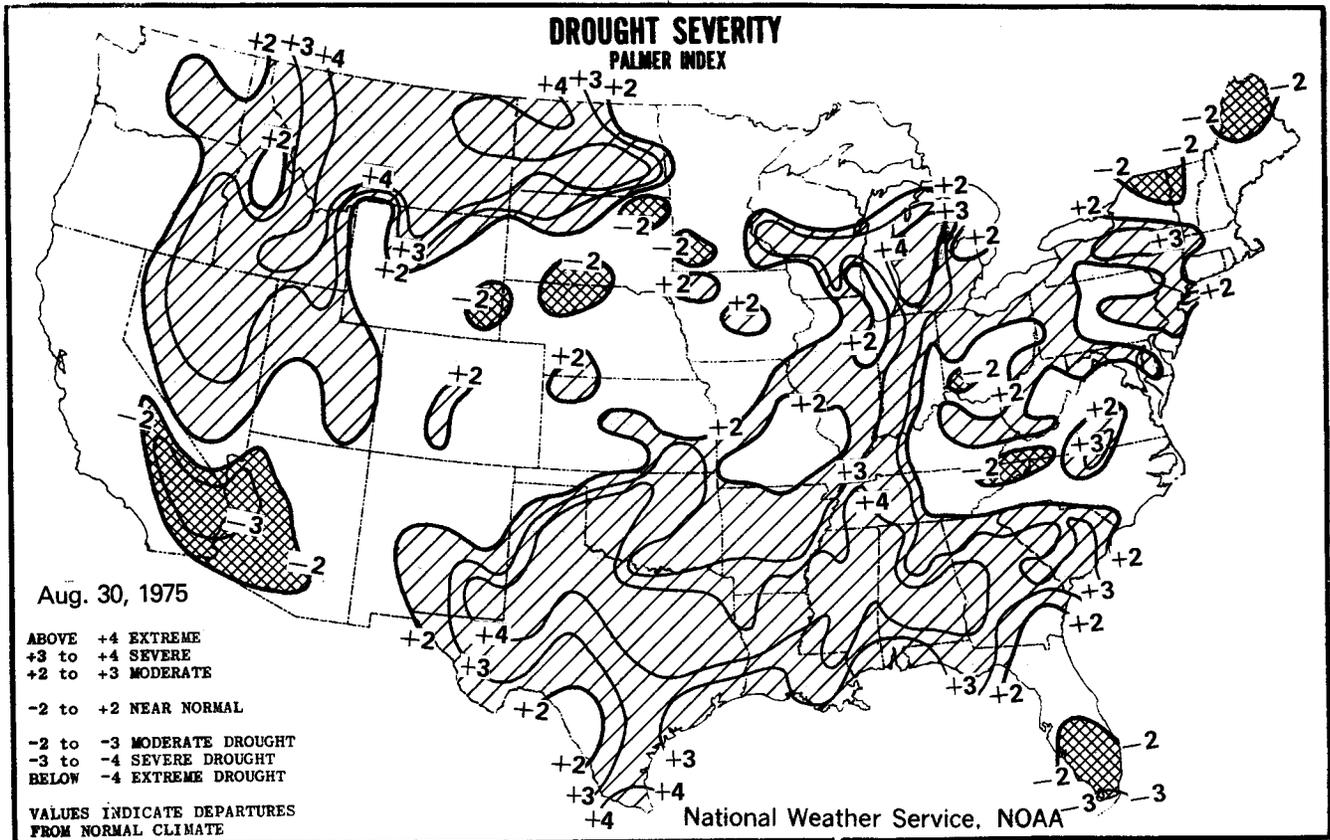
While it is not possible to forecast when a frost may occur, climatological analyses can be used to evaluate the potential for frost at a particular time. The maps on the opposite page show the dates on which a frost with temperatures of 28° or below will have occurred in 1 year out of 4 and 2 years out of 4. The 28° temperature was selected because with corn and soybeans, this is the point at which serious damage may occur.

Data used to prepare the maps came from individual State publications. The analysis is rather

broad and general. In a given area, topography and drainage (air) must be considered. Colder air can collect in low lying areas or depressions in large fields. This often can be seen dramatically on nights when the air is very still.

On still nights when skies are clear, radiative frosts can develop. Plants radiate energy upward, cooling the plant and the air close to the surface. If there is considerable soil warmth, lower layers of the plant may not be seriously affected, but the upper leaves can be damaged.





THE PALMER AND CROP MOISTURE INDICES

The Palmer Index was designed to evaluate the scope, severity, and frequency of prolonged periods of abnormally wet or dry weather. For this purpose it works reasonably well. However, it does not provide a measure of the current status of agricultural drought; i.e. the effects of short periods of very dry weather. For this reason the Crop Moisture Index was developed to respond rapidly to changes in the soil moisture situation and take into account only those moisture aspects which affect vegetation and field operations.

If one is interested in the overall soil moisture situation, which will integrate the effects of the past weather over weeks and even months, the Palmer Index provides the best evaluation. However, if one is interested in the availability of moisture to meet current demands, the Crop Moisture Index is the most useful. For example, a recent rain might have replenished the soil sufficiently to meet the current demands. However if the Palmer Index is highly negative, one can interpret this to mean that the overall soil moisture situation is very poor.

A negative CMI value means that the demand for moisture, or the potential evapotranspiration, has been greater than available supplies so that actual transpiration has been reduced. On the other hand, positive CMI values mean that either actual evapotranspiration exceeded the expected amount, or

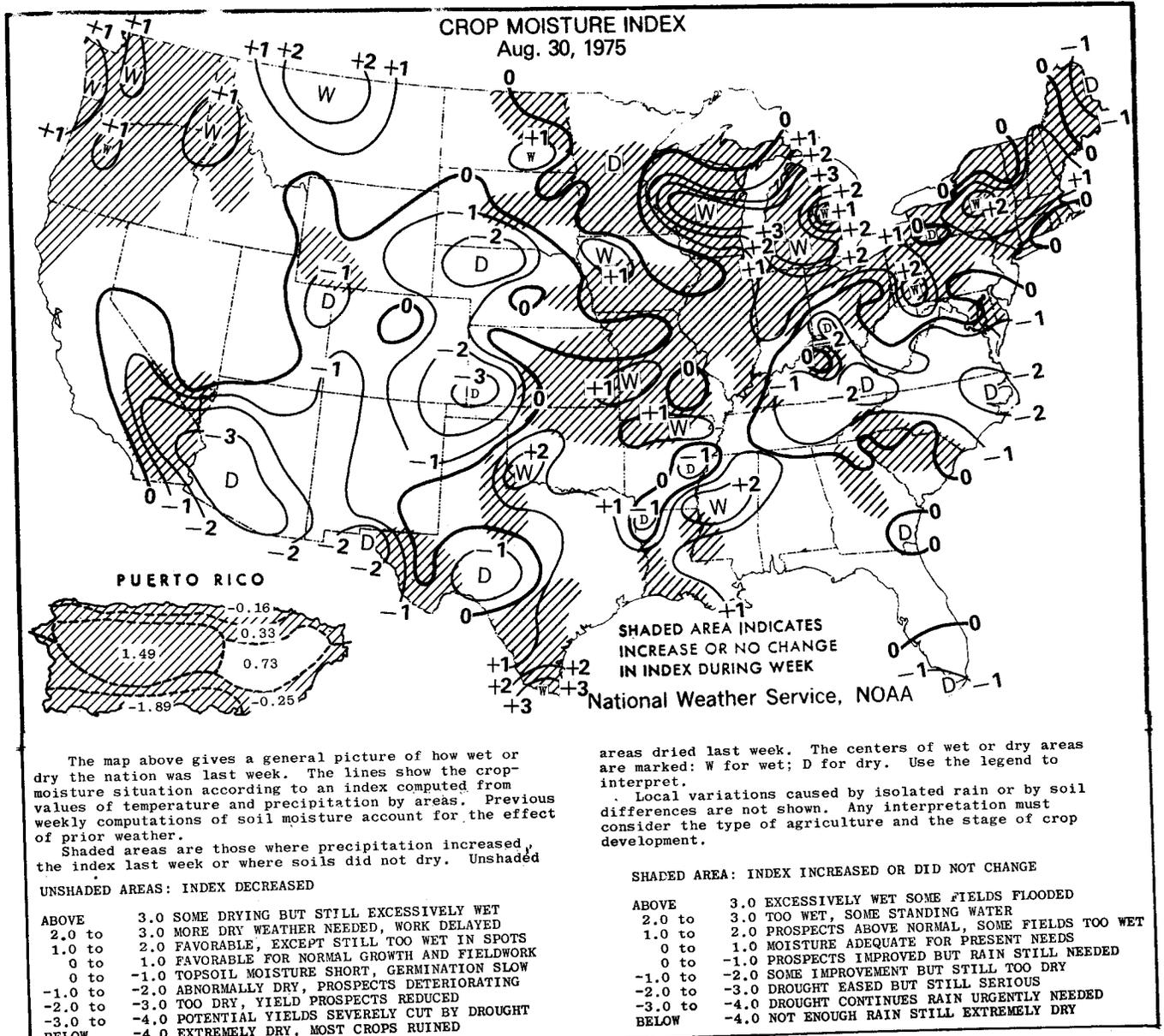
recent rainfall exceeded the moisture requirements of the crops and the additional moisture was added to the soil or was regarded as runoff.

Negative Palmer Index values imply negative abnormalities of either evapotranspiration, the amount of moisture stored in or added to the soil, or of runoff, or a combination of all these types of moisture shortages. In other words, negative PI values simply indicate that the weather has been abnormally dry, and do not specify the exact nature of the effects of the dry weather.

However, positive PI values indicate that the moisture supply either from current or antecedent rainfall exceeded the amount required to sustain soil moisture levels that would be considered as normal and appropriate for the climate of the area.

In brief summary, Palmer Index values are based on all aspects of the moisture situation, but the Crop Moisture values refer only to the crop moisture situation. In addition, the PI values are highly dependent on antecedent moisture conditions, whereas CMI values are much more responsive to weekly or current rainfall, or the lack of it.

The CMI map will appear each week in the Bulletin during the season from now through October. The Palmer Index will be published only in the first issue of each month during the same period.



The map above gives a general picture of how wet or dry the nation was last week. The lines show the crop-moisture situation according to an index computed from values of temperature and precipitation by areas. Previous weekly computations of soil moisture account for the effect 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 for wet; D for dry. Use the legend to interpret.

Local variations caused by isolated rain or by soil differences are not shown. Any interpretation must consider the type of agriculture and the stage of crop development.

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