

# Weekly Weather & Crop Bulletin

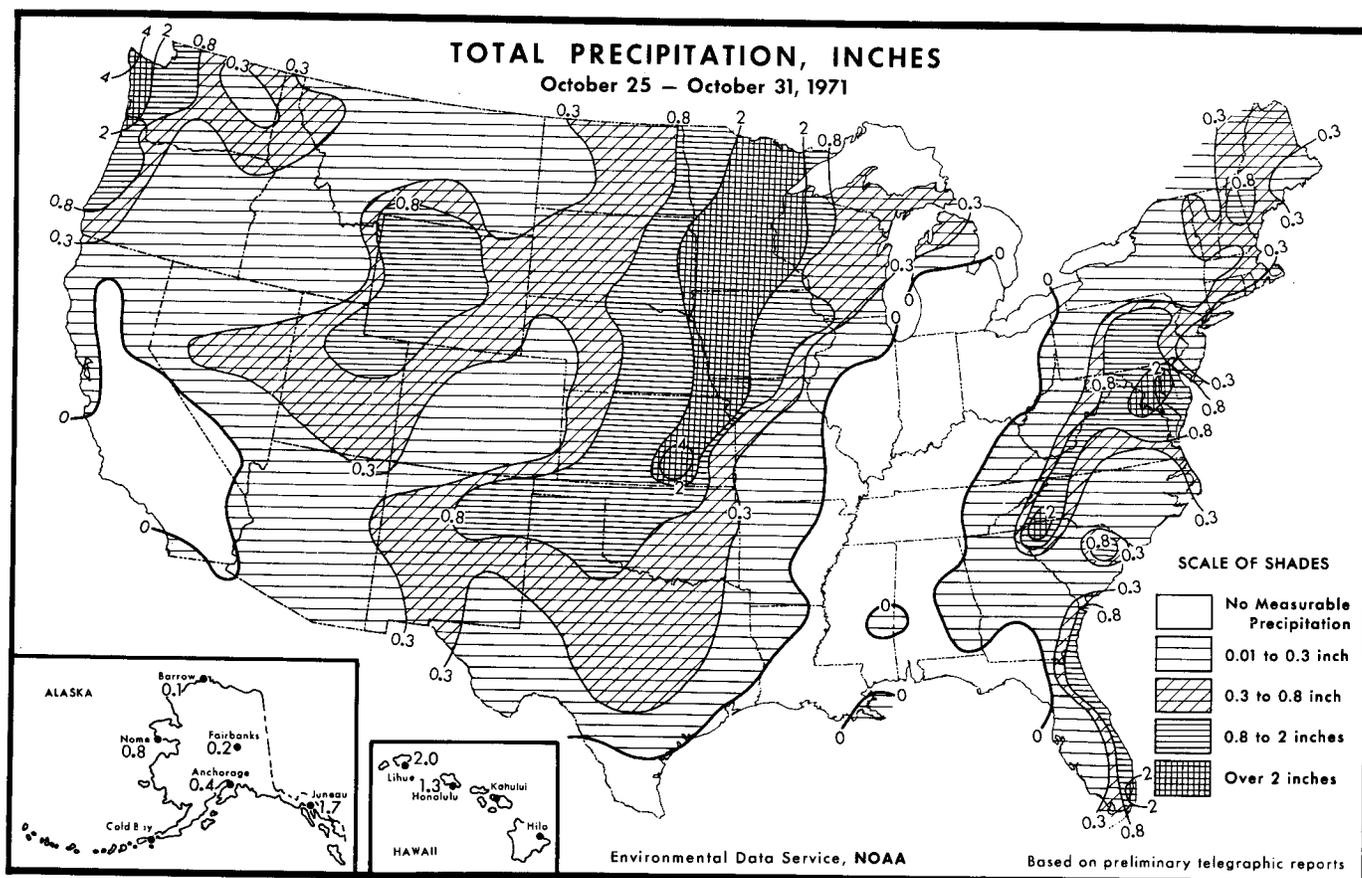
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Edited by Lucius W. Dye

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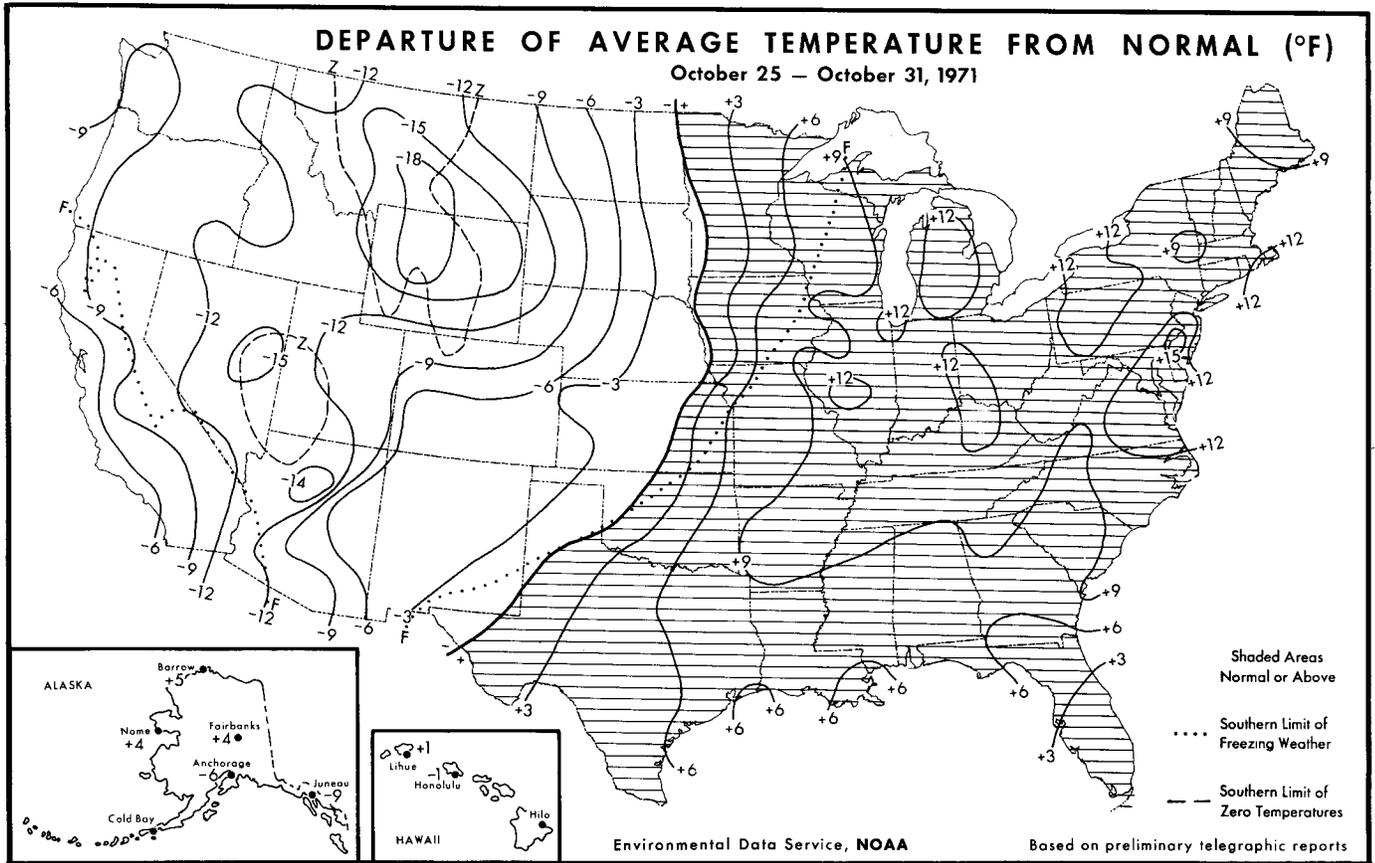


**HIGHLIGHTS:** Record cold occurred in Montana while the Deep South continued to enjoy balmy weather. Heavy snow in Wyoming whipped by howling winds reduced the visibility and clogged roads. Freezing rain and freezing drizzle made highway travel risky in parts of Nebraska and Kansas.

**PRECIPITATION:** Early morning fog greeted early risers over much of the eastern half of the Nation last week. Soaking rains fell over the Atlantic Coastal States from New York and southern New England to Georgia on Monday afternoon. Some localities in the Far Northwest received generous rains early in the week. Cold rain and snow fell in the northern Rocky Mountains and the northern Great Plains.

By Thursday evening the snow had accumulated

to 16 inches at Lander, with 10- to 12-inch depths at some other locations in Wyoming. Gusty winds, peaking to 40 to 50 m.p.h. or more, accompanied the snow. The visibility at some locations was reduced to near zero. Roads and schools in some areas were closed. The snow spread eastward and by Friday morning Hastings, Nebr., lay in the snow belt. The blizzard continued in Wyoming and spread to the Dakotas late Friday and Saturday. Snow accumulated to 21 inches at Rawlins, Wyo. By late Saturday the big storm was moving across northern Minnesota into Canada after whitening all or portions of more than a dozen States from eastern Washington to Minnesota and as far south as Arizona. Warm rain and drizzle fell Wednesday along a front that stretched from Wisconsin to Louisiana.



**TEMPERATURE:** Southerly winds warmed the Great Plains early last week. Rapid City, S. Dak., warmed to 72° Tuesday afternoon. An outbreak of cold air chilled the Great Basin, the northern and central Great Plains. Temperatures over much of that area remained below freezing all day Thursday. The temperature at Rapid City plunged to 21° Thursday morning and climbed to no higher than 24° in the afternoon.

On Thursday the temperatures at Cut Bank, Mont., near the Canadian border, ranged from 3° in the morning to 15° in the warmest part of the day. Never before has the temperature at Cut Bank plunged so low in October. Missoula, Mont., established a new October low-temperature record Thursday morning with a 4° reading. On the same day, the temperature at Monroe, La., soared to 90°. Much of the sunny south basked in 80° temperatures Thursday afternoon. A sharp contrast existed across the cold front which lay near the Nebraska-Kansas boundary. Lincoln,

Nebr., in the cold air registered 43° Thursday afternoon when Topeka, Kans., recorded 80°.

The weekend brought sharper temperature contrasts between the West and East than had occurred earlier. Numerous stations in the central Rocky Mountains registered subzero temperatures Saturday morning. The temperature plunged to -15° at Big Piney, Wyo., and to 4° below zero at Cedar City, Utah. The lowest temperature at Washington, D.C., Sunday morning was 67°. That is 4° warmer than the normal maximum for the last day of October. To further illustrate the contrast, the northern Rocky Mountains and the Great Basin averaged 12° to 20° colder than normal and the Great Lakes region and Ohio River Valley averaged 10° to 13° warmer than normal. Some eastern localities saw the warmest October in the 20th Century.

L. W. Dye

## NATIONAL AGRICULTURAL SUMMARY

**AGRICULTURAL HIGHLIGHTS:** Early winter snowstorm halts harvesting in northern Great Plains and West. \* Freeze hits California damaging fruit and vegetable crops. \* Harvesting made exceptional headway eastern Corn Belt.

**SMALL GRAINS:** Fall-seeded grains continue to benefit from good moisture on the Great Plains. Rain and snow brought moisture to the region for the 3rd straight week. Plant emergence and growth is good to excellent. Ground cover is good and bare spots are scarce. Rains are promoting growth in Texas, but seeding is far from finished due to wet fields. Seeding is still active in California and Nevada, but wheat and barley seeding is ending in Oregon. Cold weather stopped plant growth in Washington.

Wheat seeding entered the wrapup stages in the Corn Belt. Rains are needed to promote seeding and growth from Arkansas to Alabama. The early harvesting of crops will allow a lot of late grain seeding in Arkansas. Seeding is extremely slow along the Atlantic Coast. Some North Carolina producers tried aerial seeding in an effort to get their crop in.

**CORN:** Snow and rain curtailed corn harvesting in the western Corn Belt. Very little headway was made west of a line from northern Wisconsin to Kansas. However, beautiful Indian summer weather existed east of this line and farmers were extremely busy getting in this year's crop. Only a trace of rain fell over much of this area. High winds ripped through the Great Lake States causing corn to lodge. Corn inflicted by stalk rot damage was the most severely downed. Illinois farmers have 3/4 of their crop in storage, but storage space is at a premium as some elevators are closing down. The shipping strike is forcing the elevators to close. Some Indiana elevators are also flooded by the heavy volume of corn. Only Minnesota and Wisconsin of the Corn Belt States have less than half their crop picked. Wet fields and poor drying conditions are responsible for the slowdown in these two States.

Harvesting advanced at a rapid pace in Kentucky and Tennessee as warm temperatures kept farmers working long hours. Harvest also moved along steadily from Louisiana to South Carolina. The North Carolina crop continues to deteriorate as daily rains halted picking. Picking made slow headway in the Virginia, Maryland, New Jersey, Pennsylvania area as wet fields stopped progress.

**SOYBEANS:** Snow and rain on the Great Plains did not hamper soybean harvesting -- as most of the crop was already combined. Nebraska harvest is in the final stages, but the freezing rain may damage some late fields. Very few beans were picked in Minnesota and Wisconsin. Soybean combines rattled across the fields under clear skies from eastern Missouri to Ohio. Another good week of weather will see most of the beans in storage in this region.

Soybeans continue to mold and sprout in North Carolina's Coastal Plain area and started to mold in Virginia. However, combining fared well in the other Southern States. Fields matured rapidly and growers stepped up harvest activity. Alabama growers are forced to use farm storages as the shipping strike is tying up commercial storage facilities. Combining was at a near standstill in Maryland and New Jersey.

**COTTON:** Cotton picking carried top priority with farmers in the Deep South. It was a dry week as only a few drops of rain fell. Temperatures were warm and late bolls matured rapidly in the absence of frost. Picking moved along steadily under favorable conditions and despite this fall's slow start is now ahead of last season in States bordering the Mississippi River. Picking is still late from Alabama to North Carolina. Wet weather stopped Texas cotton picking. Only scant headway was made and the amount ginned so far this year fell farther behind schedule. Clear weather aided picking in California's San Joaquin Valley. Scattered rains and strong winds hampered operations in Arizona. Pahrump Valley Nevada growers are delaying harvest to allow the crop to mature fully.

**OTHER CROPS:** Heavy frosts speeded drying of late sorghum fields in Kansas, but the high moisture content of grain continues to slow harvesting in the High Plains of Texas. Combining is nearing completion in Nebraska and is well along through the South. High humidity continues to cause houseburn to the tobacco crop in Kentucky and Tennessee. Some losses are occurring. Potato digging is winding up in New York and Pennsylvania, but the cold and snow halted cleanup operations in Idaho. The snowstorm curtailed sugar beet digging in Idaho, Montana, and Wyoming. Progress was also slow in North Dakota and Minnesota. Damp weather is causing field losses to the peanut crop in North Carolina and Virginia. Digging is moving at a snail's pace as fields are too wet to enter.

**Fruits and Nuts:** Freezing temperatures hit California's San Joaquin Valley damaging grapes, olives and citrus. Unharvested grapes suffered the heaviest losses, but some were salvaged and sent to wineries. The bulk of this year's apple crop is in storage. Strong winds shook unpicked apples from the trees in Wisconsin. Pecans are falling rapidly and gathering nuts is increasing in all States. Limited lemon picking continued in Arizona, while more Texas grapefruit was picked. Very little irrigation was needed in Florida citrus groves as tree condition remains excellent. Picking increased.

**Vegetables:** Fall vegetable harvesting was seasonal. Michigan growers were busy harvesting cabbage, carrots, and cauliflower. Good volumes of cabbage and cauliflower were coming from Long Island, New York. Supplies of New Jersey crops were also moving to market. Florida vegetables had a week of good growing weather. The first shipments of celery and tomatoes moved from Florida during the week. Cold wet weather interrupted harvesting on the Texas High Plains. South Texas growers were able to harvest fall vegetables as fields dried from early fall rains. Cold temperatures hampered growth and restricted tender vegetable harvesting in California.

**PASTURES AND LIVESTOCK:** Many pastures in the Northwestern quarter of the Nation were snow-covered for the 1st time this fall. Snow and ice caused additional livestock chores. Herds in the Great Plains and Corn Belt are foraging in harvested corn and sorghum fields. Grazing in fall-seeded grain fields is becoming more commonplace. Fall marketing of livestock was heavy and should continue strong through November. Turkey processing is active in preparation for Thanksgiving.

Steve J. Pscodna  
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., October 31, 1971

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure*	Total	Departure*		Average	Departure*	Total	Departure*		Average	Departure*	Total	Departure*
ALA.Birmingham . . .	66	+ 5	T	-.7	New Orleans . . .	70	+ 4	0	-.6	OKLA.Okla. City . . .	60	+ 3	.6	+ .1
Mobile . . .	72	+ 7	T	-.6	Shreveport . . .	70	+ 7	T	-.7	Tulsa . . .	63	+ 5	.4	+ .3
Montgomery . . .	69	+ 7	T	-.5	MAINE.Caribou . . .	46	+ 8	.7	-.1	OREG.Astoria . . .	40	- 9	2.0	-.3
ALASKA.Anchorage . . .	24	- 6	.4	0	Portland . . .	54	+10	.6	-.1	Burns . . .	32	-12	.2	0
Barrow . . .	15	+ 5	.1	0	MD.Baltimore . . .	65	+12	2.2	+1.5	Medford . . .	39	-10	.3	-.2
Fairbanks . . .	21	+ 4	1.2	0	MASS.Boston . . .	61	+11	.3	-.5	Pendleton . . .	38	-10	.3	0
Juneau . . .	30	- 9	.7	-.1	Chatham . . .	58	---	T	---	Portland . . .	42	- 8	.6	-.3
Nome . . .	29	+ 4	.8	+ .5	MICH.Alpena . . .	53	+11	.1	-.4	Salem . . .	41	- 9	.9	-.3
ARIZ.Flagstaff . . .	28	-14	.9	+ .6	Detroit . . .	58	+ 9	T	-.6	PA.Allentown . . .	60	+11	.4	-.2
Phoenix . . .	57	- 8	.1	0	Flint . . .	58	+12	T	-.5	Erie . . .	59	+11	T	-.7
Tucson . . .	53	-11	.1	0	Grand Rapids . . .	60	+13	T	-.5	Harrisburg . . .	63	+11	1.2	+ .5
Winslow . . .	46	- 5	.2	+ .1	Houghton Lake . . .	56	+13	.1	-.5	Philadelphia . . .	66	+15	.2	+ .4
Yuma . . .	56	-13	T	-.1	Lansing . . .	59	+13	T	-.6	Pittsburgh . . .	61	+12	T	-.5
ARK.Fort Smith . . .	68	+ 9	.2	-.5	Marquette . . .	53	+10	.7	+ .3	Scranton . . .	58	+11	1.0	+ .2
Little Rock . . .	68	+10	T	-.7	Muskegon . . .	59	+11	T	-.5	R.I.Providence . . .	61	+12	T	-.7
CALIF.Bakersfield . . .	51	- 8	0	-.1	S.Ste.Marie . . .	51	+ 9	.4	-.2	S.C.Charleston . . .	71	+ 9	.2	-.3
Eureka . . .	45	- 8	.2	-.8	MINN.Duluth . . .	44	+ 6	3.8	+3.3	Columbia . . .	70	+10	.2	-.2
Fresno . . .	50	-10	0	-.1	Internatl Falls . . .	41	+ 5	2.4	+2.1	Greenville . . .	66	+ 7	2.5	+1.7
Los Angeles . . .	57	- 4	0	-.1	Minneapolis . . .	47	+ 3	3.8	+3.5	S.DAK.Aberdeen . . .	39	- 2	1.0	+ .8
Red Bluff . . .	51	-10	0	-.4	Rochester . . .	49	+ 5	2.1	+1.7	Huron . . .	40	- 3	1.7	+1.5
San Diego . . .	58	- 7	.3	+ .2	St. Cloud . . .	44	+ 3	3.1	+2.7	Rapid City . . .	32	-13	.6	+ .5
San Francisco . . .	52	- 6	T	-.2	MISS.Jackson . . .	70	+ 8	0	-.6	Sioux Falls . . .	43	- 2	2.2	+2.0
Stockton . . .	53	- 7	T	-.2	Meridian . . .	69	+ 8	T	-.6	TENN.Chattanooga . . .	66	+ 9	T	-.7
COLO.Denver . . .	39	- 8	.3	+ .1	MO.Columbia . . .	61	+ 8	T	-.6	Knoxville . . .	65	+10	T	-.6
Grand Junction . . .	43	- 6	.3	+ .2	Kansas City . . .	60	+ 6	.6	0	Memphis . . .	68	+10	0	-.8
Pueblo . . .	46	- 3	.2	0	St. Louis . . .	63	+10	T	-.6	Nashville . . .	67	+10	T	-.6
CONN.Bridgeport . . .	61	+10	.2	-.5	Springfield . . .	61	+ 7	.1	-.7	TEX.Abilene . . .	65	+ 3	.4	-.1
Hartford . . .	60	+11	.5	-.1	MONT.Billings . . .	25	-20	.3	+ .1	Amarillo . . .	52	- 4	.4	+ .1
D.C.Washington . . .	67	+12	2.6	+1.9	Glasgow . . .	30	-10	.1	0	Austin . . .	72	+ 5	.7	+ .1
FLA.Apalachicola . . .	75	+ 8	T	-.5	Great Falls . . .	27	-16	.1	0	Beaumont . . .	71	+ 5	0	-.7
Ft. Myers . . .	76	+ 2	.1	-.4	Havre . . .	27	-14	.1	-.1	Brownsville . . .	77	+ 4	0	-.6
Jacksonville . . .	72	+ 5	1.0	+ .2	Helena . . .	27	-14	T	-.2	Corpus Christi . . .	77	+ 6	0	-.5
Key West . . .	79	+ 2	.3	-.8	Kalispell . . .	27	-11	.5	+ .2	Dallas . . .	71	+ 8	.3	-.3
Lakeland . . .	75	+ 3	.2	-.3	Miles City . . .	31	-13	.1	0	Del Rio . . .	72	+ 5	.3	0
Miami . . .	76	0	2.1	+1.2	Missoula . . .	27	-12	.1	-.1	El Paso . . .	58	- 1	.5	+ .4
Orlando . . .	72	+ 1	.2	-.3	NEBR.Grand Island . . .	46	- 2	1.4	+1.2	Fort Worth . . .	70	+ 7	.3	-.2
Tallahassee . . .	69	+ 4	0	-.4	Lincoln . . .	50	- 1	2.9	+2.6	Galveston . . .	76	+ 6	0	-.7
Tampa . . .	75	+ 3	T	-.3	Norfolk . . .	45	- 2	1.7	+1.5	Houston . . .	72	+ 6	T	-.9
GA.Atlanta . . .	67	+ 9	T	-.6	North Platte . . .	39	- 6	.7	+ .6	Lubbock . . .	59	+ 3	.6	+ .3
Augusta . . .	69	+ 8	T	-.4	Omaha . . .	48	- 1	3.7	+3.4	Midland . . .	63	+ 2	.3	0
Macon . . .	70	+ 8	T	-.4	Valentine . . .	36	- 8	.8	+ .7	San Angelo . . .	67	+ 4	.8	+ .5
Savannah . . .	72	+ 9	1.9	+1.4	NEV.Ely . . .	25	-16	.5	+ .4	San Antonio . . .	76	+10	.2	-.3
HAWAII.Hilo . . .	---	---	---	---	Las Vegas . . .	49	-12	0	-.1	Victoria . . .	75	+ 6	T	-.7
Honolulu . . .	76	- 1	1.3	+ .8	Reno . . .	34	-11	.1	0	Waco . . .	71	+ 6	.3	-.3
Kahului . . .	---	---	---	---	Winnemucca . . .	31	-12	.1	-.1	Wichita Falls . . .	66	+ 4	.6	+ .1
Lihue . . .	77	+ 1	2.0	+ .8	N.H.Concord . . .	54	+ 9	.5	-.1	UTAH.Blanding . . .	36	-11	.9	+ .7
IDAHO.Boise . . .	36	-11	.2	-.1	N.J.Atlantic City . . .	64	+11	.3	-.4	Salt Lake City . . .	34	-12	1.8	+1.5
Lewiston . . .	35	-12	.4	+ .1	Trenton . . .	65	+13	.1	-.6	VT.Burlington . . .	54	+11	.4	-.3
Pocatello . . .	31	-13	.1	-.2	N.MEX.Albuquerque . . .	47	- 5	.4	+ .2	VA.Lynchburg . . .	66	+12	.4	-.2
ILL.Cairo . . .	66	+ 9	0	-.7	Roswell . . .	58	+ 4	.2	0	Norfolk . . .	69	+11	.6	-.1
Chicago . . .	61	+12	T	-.7	N.Y.Albany . . .	55	+ 8	.2	-.4	Richmond . . .	68	+14	1.7	+1.0
Moline . . .	58	+ 8	.2	-.3	Binghamton . . .	57	+12	.1	-.6	Roanoke . . .	62	+ 8	.6	-.1
Peoria . . .	59	+ 9	T	-.6	Buffalo . . .	60	+14	T	-.6	WASH.Colville . . .	37	- 4	.4	-.1
Rockford . . .	57	+10	.1	-.5	New York . . .	65	+11	.1	-.6	Omak . . .	33	-10	.1	-.2
Springfield . . .	63	+12	T	-.6	Rochester . . .	60	+12	0	-.6	Quillayute . . .	39	- 9	4.9	+2.1
IND.Evansville . . .	64	+10	T	-.6	Syracuse . . .	57	+10	.2	-.5	Seattle-Tacoma . . .	42	- 7	.9	-.2
Fort Wayne . . .	60	+12	T	-.6	N.C.Asheville . . .	63	+10	.8	+ .2	Spokane . . .	30	-14	.3	-.1
Indianapolis . . .	61	+11	T	-.6	Charlotte . . .	65	+ 7	.3	-.3	Walla Walla . . .	38	-12	.6	+ .2
South Bend . . .	60	+11	0	-.7	Greensboro . . .	65	+10	T	-.6	Yakima . . .	34	-11	.1	-.1
IOWA.Burlington . . .	60	+10	.1	-.4	Hatteras . . .	72	+10	.5	-.4	W.VA.Beckley . . .	59	+10	.8	+ .2
Des Moines . . .	54	+ 6	1.7	+1.3	Raleigh . . .	67	+11	T	-.5	Charleston . . .	64	+11	.1	-.5
Dubuque . . .	55	+10	1.1	+ .5	Wilmington . . .	72	+11	T	-.6	Huntington . . .	63	+10	T	-.4
Sioux City . . .	48	0	2.2	+1.9	N.DAK.Bismarck . . .	34	- 7	.3	+ .2	Parkersburg . . .	64	+11	0	-.4
KANS.Concordia . . .	50	- 2	1.5	+1.2	Fargo . . .	41	0	1.3	+1.1	WIS.Green Bay . . .	53	+ 9	.8	+ .4
Dodge City . . .	49	- 3	1.3	+1.0	Williston . . .	31	- 9	.1	0	La Crosse . . .	53	+ 8	.3	-.2
Goodland . . .	44	- 2	.4	+ .2	OHIO.Akron-Canton . . .	59	+11	T	-.5	Madison . . .	53	+ 8	.4	0
Topeka . . .	57	+ 4	2.5	+2.1	Cincinnati . . .	65	+12	0	-.4	Milwaukee . . .	54	+ 9	.1	-.4
Wichita . . .	55	0	4.7	+4.2	Cleveland . . .	60	+11	T	-.6	WYO.Casper . . .	29	-14	.9	+ .7
KY.Lexington . . .	66	+13	T	-.5	Columbus . . .	59	+10	0	-.5	Cheyenne . . .	32	-11	.3	+ .2
Louisville . . .	64	+11	0	-.6	Dayton . . .	64	+13	0	-.4	Lander . . .	24	-18	1.9	+1.6
LA.Baton Rouge . . .	72	+ 7	0	-1.1	Toledo . . .	58	+11	T	-.5	Sheridan . . .	27	-16	.9	+ .7
Lake Charles . . .	74	+ 8	0	-.7	Youngstown . . .	59	+12	T	-.6	P.R. San Juan . . .	82	+ 2	1.0	-.2

\* Departures are from 30-year means (1931-60). Based on preliminary reports

## CONDENSED STATE SUMMARIES

These summaries provide brief descriptions of condition and activities important on a national scale. Detailed reports of crop and weather conditions during the growing season are contained in State issues of Weekly Weather and Crop Bulletins published by field offices of the Statistical Reporting Service, U.S.D.A. in cooperation with NOAA Climatologists

**ALABAMA:** Unseasonably warm weather throughout week with average temperatures to 13° above normal each day. Mostly fair first of period becoming cloudy with considerable fog, drizzle, and some light rain over weekend. No rain of consequence during the period. Generally open weather permitted good progress with harvest. Cotton harvest carried top priority. Almost 1/2 harvested, compared 3/5 year ago. Slightly over 1/2 corn harvested, 2/3 year ago. Soybean harvest made fair progress. About 1/4 harvested--1/5 year ago. Storage and commercial facilities near capacity, reflecting strike at Port of Mobile, farmers using farm storage where available. Seeding small grains 65% complete. Crops need rain. Pecans falling rapidly southern counties. Pastures supplying adequate grazing, but need rain, especially south. Few farmers feeding cattle.

**ARIZONA:** Temperatures this week were much below normal over most of State. Showers during week were widespread but light and widely scattered in irrigated valleys in south. Greatest precipitation amounts were in mountains in northern, central, and eastern sections with snow above about 4,000 feet. Maximum water totals were mostly under 1.00 inch. Cotton harvest active. Scattered rains and locally strong winds hampered operations, 26% picked and ginned. Yuma fields with late bolls show pink bollworm damage. Harvest central area good progress. Cotton southeast very slow opening. Sorghum harvest full swing Yuma, active central. Harvest southeast increasing. Spring-planted sugar beet harvest continues. Land preparation small grains active. Land preparation and seeding alfalfa hay continues. Fall lettuce harvest to start this week Salt River Valley. Harvest continued Pima and Pinal Counties and nearing completion Cochise County. Squash, chili, tomatoes, and pumpkins being harvested, Graham and Greenlee Counties. Planting, thinning, and cultivation lettuce, other winter vegetables. Limited lemon harvesting Yuma, Salt River Valley areas. Early tangerine harvest to start Salt River Valley. Ranges remained fair to good. Moisture received higher elevations will add minimal new growth.

**ARKANSAS:** Warm and dry with weekly mean temperatures 10° above normal, from mid- to upper 60's. Daily extremes: 40° to 88°. Precipitation limited to sparse light showers, mostly northwest early in week. Weekly totals less than 0.10 inch with most stations dry. Heaviest amount, 0.30 inch at Fayetteville. Rapid progress with harvest. Progress normal or better and far ahead last year. Cotton good and picking about 2/3 finished. No freeze to date and late bolls maturing to improve yields. Very few rice fields remain to be combined. Combining soybeans 55% complete, most fields ready for harvest. Fair to good grain sorghum and corn crops nearly gathered. Haying complete. Roughage supply adequate, except northwest and north-central counties. Most areas need rain for growth and seeding wheat and oats. Early harvest other crops will permit much seeding when moisture received. Pastures short north and also some central areas. Generally

adequate grazing elsewhere with no killing frost to date. Farmers feeding hay driest areas, but livestock situation mostly satisfactory.

**CALIFORNIA:** Moderately cold first of week, sharply colder Thursday with very strong northerly winds. Recordbreaking October cold snap 29th, 30th most of State. Minimums in San Joaquin Valley in low 20's several hours each morning. Below freezing minimums Los Angeles Basin, low Desert Saturday, Sunday. Average temperatures 6° to 10° below normal, 12° below normal mountains, Desert. Light precipitation northern 1/3; locally heavy amounts southern California mountains. Field preparation small grains active, Central Valley planting. Harvesting milo Central Valley. Sacramento Valley, harvest field corn nearly complete; San Joaquin Valley past peak. Sacramento Valley rice harvest 80% in. Digging sugar beets central coast, Central Valley. Cotton harvest virtually complete Desert; throughout San Joaquin picking very active. Freezing temperatures hit many areas late week. Damage primarily grapes, olives, citrus San Joaquin Valley. Unharvested grapes suffered heavy damage--ending harvesting fresh use. Substantial field loss, some diversion to wineries. Citrus damage confined unprotected growth. Olives suffered damage; fruit discolored. Walnut harvesting active, good yields, some sunburn damage. Ranges dry, supplemental feeding increasing. Calving, lambing, well underway. Turkeys to processors for holidays. Cold temperatures hampered growth and restricted harvesting tender vegetable crops. Broccoli-cauliflower moderately light Salinas, Santa Maria. Central coast carrots moderate. Celery Santa Maria, Salinas moderate volume. Brentwood lettuce declining, Fresno good volume, Bakersfield increasing. Onions San Joaquin Valley declining. Remaining bell pepper production reduced by low temperatures. Digging potatoes Tule Lake delayed. Merced sweetpotatoes moderate. Remaining market tomato production San Diego, Stockton reduced, cold weather.

**COLORADO:** Warm first of week with mostly light rain or snow mountains and west. Much colder with general storm starting Thursday. Light to moderately heavy rain, freezing rain, and snow; heaviest in the mountains and west. High winds caused heavy drifting snow some areas. Minimums after storm below 20° most areas, below 10° to near zero mountains. Field activities progressed rapidly early in week. Harvest interrupted most areas by rain and snow midweek. Winter wheat good to excellent statewide. Surface and subsoil moisture supply improved. Corn harvest 42% complete. Sorghum grain 53% harvested. Sugar beets 77% dug. Potato harvest complete, except few scattered fields. Range and pastures providing forage most areas. Livestock movement to beet tops and stubble fields active. Livestock good to excellent.

**FLORIDA:** Continued warm and humid. Temperatures averaged 3° above normal southern sections. Daytime highs were in upper 80's. Rainfalls averaged 0.40 to 0.70 inch in most sections except over 1.50 inches along lower east coast due to heavy

rains latter part of week. Some high rainfall totals for week were 3.03 inches Pompano, 2.14 inches at Moorehaven, and 1.70 inches at Avon Park. Highest rainfall total reported in north Florida was 0.81 inch at Crescent City. Drought western panhandle delaying planting small grains. Peanut digging practically complete. Harvest soybeans and cotton active. First grinding sugarcane expected 2d week November. Pastures and livestock fair to mostly good. Inadequate rainfall north delayed progress temporary pasture grasses. Citrus tree condition excellent. Moisture generally adequate. Very little irrigation. Harvest increasing. Good growing conditions prevailed all vegetable-producing areas. Sweet corn, cucumbers, squash, and radishes good volume. Supplies snap beans, eggplant, escarole, and lettuce light, but increasing. First shipments celery and tomatoes moved. Planting winter vegetables and potatoes active. Strawberries near completion.

GEORGIA: Rainfall mostly light to moderate but locally heavy in a few widely scattered areas. Several places in dry west-central section had no rain during week. Metter in east-central division had over 3.00 inches. Temperatures continued unseasonably warm. Lows were in 40's and 50's at midweek but increased to 60's by weekend. Highs were mostly in 70's but reached to 80's on 1 or more days at several places. Averages ranged from 8° to 12° above normal. Soil moisture mostly adequate, except west-central region where shortage remains. Crop harvest major activity when weather conditions favorable. Corn harvest 64% complete, cotton 57% complete and soybeans 13%. Wet weather effecting quality early-matured soybeans. Planting small grains still active and 65% in. Livestock mostly good.

HAWAII: Weather generally favorable with increased shower activity. Soil moisture adequate, but low temperatures retarding crop growth. Harvesting sugarcane normal; production to date up from same period 1970. Pineapple harvesting light; field preparation and plantings main operation. Supplies vegetables and fruits continued adequate. Pastures improving with additional moisture. Cattle fair to good.

IDAHO: Temperatures dropped below normal at end of week to average 5° to 10° below normal. New record-low temperatures for October were set on 29th at all reporting stations north and most stations southwest and south-central. In east, record temperatures were nearly equalled or equalled. Precipitation ranged from light to locally heavy. Greatest totals were recorded north where Grangeville recorded 0.80 inch and Lewiston 0.56 inch. Snow fell above 2,500 to 3,500 feet last half of week. Sugar beet harvest active until curtailed by freezing temperatures at close of week. Cold weather also halted windup potato digging. Care and feeding livestock important activities, particularly southeast areas which experienced early winter storm.

ILLINOIS: Very warm week. Temperatures averaged 10° above normal. Precipitation slight in south and east. Few 10ths inch extreme north and west. Generally high winds Wednesday. Corn crop 75% harvested, last year 65%. Harvest continues 1 week ahead normal. Storage space problems slowing harvest momentum. Elevators some areas closing periodically because shipping problems. Winds early week caused corn to lodge. Corn quality and yields good to excellent, moisture 15% to 25%. Soybean harvest nearly complete,

quality and yields good to excellent most late soybeans. Winter wheat 95% sown, stands good to excellent. Some moisture shortage problems southern Illinois wheat. Slightly over 30% intended corn and soybean acreage plowed, last year 25%. Plowing 1 week ahead normal. Pastures supplying 65% livestock roughage requirements, last year 75%. Pastures 5% excellent, 51% good, 35% fair and 9% poor. Soil moisture short 39%, adequate 61%. Subsoil moisture shortage persists some areas. Average 6 days fieldwork. Activities include harvesting corn and soybeans, plowing, sowing wheat, and spreading fertilizer.

INDIANA: Very warm week. Temperatures averaged 60°, 12° above normal. Some 80's in south on 29th. Some frost in northeast on 1st. Most prolonged frost-free fall of many years in central and south. Precipitation slight. General high winds 27th blew some corn with stalk rot to the ground. Days suitable fieldwork 5. Topsoil and subsoil moisture fully adequate. Corn 50% harvested, 30% average, some elevators flooded with heavy volume. Some lodging from winds. Soybeans 75% combined, 80% average. Sorghum grain 45% combined, 50% last year. Wheat 90% seeded, 80% emerged. Stands mostly good to excellent.

IOWA: Warm wet week. Rainfall ranged from 3.00 inches west to 1.00 inch east-central and south-east. Corn and soybean harvest ahead of schedule. Corn over 60% harvested, about equal to last year, but well ahead 30% for 5-year average. Little change in soybean harvest which is over 90% complete. Grain sorghum harvest 80% in, little ahead last year. Topsoil moisture 17% short, 73% adequate, 10% surplus. Subsoil 75% short, 24% adequate, and 1% surplus. Days suitable fieldwork 4 1/2.

KANSAS: Moderate to heavy precipitation most of State. Totals generally 0.50 to 1.25 inches western 1/3 and 1.75 inches elsewhere. Portions extreme southeast and parts east-central had 0.10 to 0.50 inch. First significant snow of season northwest, 1 to 2 inches much of that area. Freezing weather most northern and western Kansas 31st, minima locally mid-20's northwest. Harvest fall crops continued most areas though slowed by rains. Grain sorghum harvest 72% complete, 55% last year, 1960 to 1969 average 57%. Freezes west and north should speed drying late fields. Corn 74% harvested, 70% last year, average 53%. Soybeans 73% harvested, 51% year earlier. Sugar beet harvest continued northwest, resumed southwest. Farmers fenced for pasturing or plowed harvested crop fields. Wheat benefited from additional moisture with stands and growth mostly good. Cattle moving off pastures, but much supplemental grazing on wheat and harvested stalk and stubble fields. Shipping fever problem some cattle replacements. Fall calving increasing. Some ewes lambing and sows fall farrowing.

KENTUCKY: Continued unseasonably mild to warm, temperatures averaging 9° to 13° above normal. Little or no rain. Maximum temperatures in 70's or low 80's on 5 days. One of the warmer Octobers of record and in at least one area, the Bluegrass, one of the warmest and drier Octobers of record. Warm fall weather favorable for fieldwork, averaging 5.2 days. Soil moisture mostly adequate. Corn 2/3 harvested, progress behind last year and 1969. Soybeans nearly 1/2 harvested, last year 39%, but 78% 1969. Burley tobacco 12% stripped with another 43% ready for stripping. Serious

houseburn some areas cut tobacco, otherwise quality good. Fall-seeded grains making rapid growth. Pastures excellent, livestock very good.

**LOUISIANA:** Third straight week with above normal temperatures. Weekly averages 4° to 10° above normal. High temperatures in 80's. Lows mostly 60's south and 50's north and central. Extremes: 90° at Monroe 28th, 48° at Ashland 25th and Winnfield 26th. Rainfall confined to a few very light showers. Greatest daily amount measured 0.08 Boothville Sunday morning. Crops matured rapidly and harvest full swing. High humidity and early morning fog slowed harvest some, but generally good progress made. Disking cotton and soybean fields after harvest active. Seeding winter pastures near completion. Soil moisture mostly adequate, but short southeast and other scattered areas. Cotton 85% open, 40% picked. Soybeans 55% harvested, sugarcane 12%, sorghum grain and sweetpotatoes 85%. Gathering pecans active central and south. Strawberry transplanting underway. Pasture feed above average. Livestock good.

**MARYLAND AND DELAWARE:** Wet and very warm. Temperatures averaged 11° to 14° above normal as unusually high overnight temperatures continued. Rainfall heavy from 23d to 26th and mostly drizzle or light rain 30th and 31st. Totals for this period mostly between 1.50 and 8.00 inches. October 1971 record or near-record warm month for all areas and also record to near-record for wet month for many stations except in west. Corn and soybean harvest near standstill due wet fields and slow drying grain. Picking late applies pushed. Tobacco stripping continues. Pastures continue to growth with no frost to date.

**MICHIGAN:** Continued unseasonably warm; intermittent light rain northern 1/3 Michigan, sunny south with some new daily maximum temperature records late in week until turning cooler as period ended. Temperature averages 10° to 12° above normal Upper Peninsula, 10° to 15° above normal Lower Peninsula. Precipitation 0.50 to 0.75 inch Upper Peninsula, 0.50 inch north diminishing rapidly to a trace over most Lower Peninsula. Warm dry weather dried wet fields and favored harvest late maturing crops. Soil moisture adequate to surplus most areas, but short west-central. State averaged 4.9 days suitable fieldwork. Harvest progress as follows: Corn for grain 54%, soybeans 48%, sugar beets 60%, fall potatoes 92% harvested. Pasture feed supplies average to above. Winter wheat has made lush growth. Apple harvest nearing completion. Grape harvest finished. Harvest late cabbage, carrots, and cauliflower continues active; celery harvest finished.

**MINNESOTA:** Temperatures varied from normal in west to 8° above normal in east. Extremes: 75°, 17°. Exceptionally wet week. Rainfalls of more than 2.00 inches fell across State except in northwest and several counties in southeast. An area 150 miles wide northeast through State averaged more than 3.00 inches of rainfall during week. Greatest weekly amount was 4.11 inches at Alexandria. Strong surface winds on 27th and again on 30th caused some crop damage, damaged some farm buildings, and blew down many small trees along north shore Arrowhead country. Harvesting very slow, less than 2 days fieldwork during period. Corn picked 46%, normal 46%, moisture 26%. Soybeans combined 70%, normal 85%, moisture 15%. Sugar beets 80% harvested, normal 95%.

**MISSISSIPPI:** Continued above-normal temperatures with range in northern 1/3 of State and lower

Delta divisions 7° to 9° above normal, elsewhere 4° to 6° above normal. Extremes: 47° and 89°. Rainfall mostly on 1 day averaged less than 0.50 inch with no rain at some scattered locations. On 24th, Ofahoma reported 1.67 inches for greatest 1-day amount. Over weekend: Mostly sunny and fair except for a few sprinkles Sunday near central Mississippi. Fall harvest moved along steadily under favorable weather conditions. Despite slow start, this year's pace now ahead last year's and about average when compared with other recent years. Cotton harvest 47% completed by weekend, while 69% corn, 42% soybeans and 84% sorghum acreages harvested. Nearly 75% acreage intended for fall-seeded oats in and 60% winter wheat seeded.

**MISSOURI:** A strong surge of cold air crossed the State Friday and Saturday, October 29 and 30, ending 2 weeks of above-normal temperatures. For week, temperatures averaged from 4° to 8° above normal. Rainfall heavy in northwest, but light and scattered elsewhere. Farmers able to work average 5 days. Corn 71%, soybeans 69%, grain sorghum 77%, and cotton 65% harvested. Fall plowing 42% and fall seeding 73% completed. Pasture conditions improved. Soil moisture mostly adequate northern 2/3, short southern 1/3.

**MONTANA:** Very cold for season, temperatures averaging up to 20° colder than normal with several points 29th observing the coldest on record for so early in season. West Yellowstone 20°, several other subzero minimums. Precipitation light to moderate, but heavy snow fell southern mountains midweek. Topsoil moisture generally adequate, except western portions and border counties. Potatoes virtually dug, good quality. Sugarbeets 70% lifted, very good yield and sugar content, lifting slowed by heavy rain southeast. Winter wheat 5% excellent, 55% good, 35% fair and 5% poor. Winter wheat stands generally good. Range livestock 95% moved from summer ranges, nearly all moved mountainous western part.

**NEBRASKA:** Warm Monday and Tuesday. Cold and wet remainder of week. Precipitation ranged from heavy rain in east to moderate freezing rain mixed with snow in central and light to locally heavy snow in west. Wet condition halted harvesting operations many areas. Corn harvest 64% complete, 38% normally harvested. Sorghum and soybeans harvesting nearing completion. Freezing rain may cause some additional field losses in unharvested fields. Wheat mostly good to excellent, except few eastern counties. Small amount green bug activity noted. Livestock grazing stalk fields, but snow and ice western areas caused additional livestock chores.

**NEVADA:** Very cold week. October minimum records broken at several locations throughout State. Temperatures averaged 12° to 14° below normal over State. Light to moderate precipitation, mostly as snow over northern half of State. Snowfall 1 to 3 inches midweek. Harvest field crops complete except southern Nevada. Cotton harvest Pahrump Valley delayed in order to get maximum maturity. Alfalfa hay 6th cutting nearly complete southern valleys. Planting winter wheat and barley continues some areas. Cattle and sheep remain good condition with movement to winter ranges nearly complete.

**NEW ENGLAND:** With mean temperatures mostly 10° to 14° above normal, this was the 2d week unseasonably warm in a row. Freezing limited to colder areas in north and to only 1 or 2 mornings. Many areas in south still have had no damaging freeze this fall. Rainfall quite variable, mostly from 0.10 to 1.00

inch, occurring at beginning at end of week. Largest totals in north. Sunshine abundant. Potato harvest for fall storage active Connecticut Valley of Massachusetts and Connecticut. Some late apples still being picked.

**NEW JERSEY:** Very warm week with temperatures averaging from 9° to 15° above normal. Readings varied from the upper 30's to the low 80's. Rain-fall was spotty at the beginning and end of the week averaging 0.50 inch over most of State except about 0.20 inch along the coast. Station totals ranged from less than 0.10 inch at several localities to 1.60 inches at Hammonton. Harvest continues for late fall vegetables. Volume mostly light for cabbage, lettuce, spinach, peppers, eggplant, escarole, endive, and squash. Potato harvest over 80% complete central Jersey. Sweetpotato harvest nearing completion south. Apple and cranberry harvest nearing completion. Field corn and soybean harvest advancing slowly and progress continues well behind schedule due wet weather. Land preparation and seeding fall grains and cover crops active and nearing completion. Pastures and early-planted fall grains and cover crops made good growth because above normal temperatures and rainfall.

**NEW MEXICO:** General showers early in week became scattered and cleared on weekend. Total precipitation of more than 1.00 inch in northern and central mountains and extreme southwest. Cooler temperatures except in extreme southeast where temperatures averaged much above normal. Warmest Thursday, coldest Saturday but freezing minimum temperatures general except for extreme southeast. Much below normal average temperatures northwest. Moisture mostly adequate, but short scattered areas. No crop damage. Cotton harvest south active, north slow. Sorghum, alfalfa harvest active. Limited pecan harvest beginning. Peanuts, broomcorn, lettuce, chili harvest continuing. Ranges poor southwest, good elsewhere. Livestock fair to good.

**NEW YORK:** Abnormally warm week ended one of warmest Octobers of record. Maximums after 26th in low to mid-70's several days in west with 65° to low 70's elsewhere. Rochester 80° on 31st. Coldest minimums mid-30's to low 40's interior Upstate on 29th and 30th. Precipitation previous weekend continued through 25th, then dry remainder of week. Totals 1.25 inches coastal sections decreasing to 0.30 to 0.60 inch northern half with 0.50 to 1.00 inch southern Upstate. Weather very favorable for harvesting and fieldwork. Dry bean harvest nearly complete. Continue harvest corn for grain. Fall wheat seeding making excellent growth. Potato harvest progressing rapidly and near completion. Harvest storage cabbage and Brussels sprouts continued. Long Island cabbage and cauliflower harvest remains active. Apple harvest continues with later varieties being picked. Grape harvest nearly complete.

**NORTH CAROLINA:** A very cloudy humid week with morning fog and temperatures averaging above normal. Highs mostly in 70's and lows in 50's. Some light rain or drizzle every day but heavy amounts mostly on weekends. Total amounts 25th through 31st, 0.50 inch to 3.00 inches averaging 1.00 inch. Soil moisture mostly surplus. Crop deterioration and losses continue all areas, especially Coastal Plain. Eastern counties declared disaster area. Overall condition corn, cotton, soybeans, sweetpotatoes, and hay mostly good to fair; peanuts mostly poor to fair. Har-

vests lag, little progress during week - persistent rains, and wet fields. Corn harvest 50% complete, 82% last year; cotton 31%; 67% last year; peanuts 67% dug, 52% threshed - 98% and 93% year ago. Soybeans molding and sprouting Coastal Plain, particularly early beans. Fallen corn rotting, sprouting, mostly Coastal Plain. Small grain seeding lags, 38% complete, 66% last year. Some aerial seeding. Apple harvest continues.

**NORTH DAKOTA:** Temperatures averaged 1° to 5° below normal over State except northeast which reported 4° above normal. Precipitation ranged from 0.20 inch in west, 0.30 to 0.50 inch in central, and up to 1.25 inch east. Snow, freezing temperatures, and wet fields continued delay late combining and sugar beet lifting. Livestock good. Grazing livestock continues most areas, however some supplemental feeding being done.

**OHIO:** Warm spell which began on 13th continued. Temperatures averaged 9° to 12° above normal. No significant rainfall fell during week. Days favorable fieldwork 5. Soil moisture supplies 10% short, 80% adequate, 10% surplus. Harvested completion; corn for grain 70%, last year 75%, 1965 to 1969 average 40%; soybeans 85%, equal last year; usual 80%; apples over 75%; sugar beets 50% equal to last year and normal; popcorn 75%. Winter wheat 95% seeded.

**OKLAHOMA:** Rainfall varied from 0.30 inch southeast to over 2.00 inches in west-central and north-central. Some light snow fell in western Panhandle Thursday. Temperatures averaged 2° below normal Panhandle and 2° to 8° above normal elsewhere. Freezing temperatures Panhandle Friday morning. Wet fields continue delay harvest activities, but harvest progress still equal or ahead year earlier most areas, exception cotton. Some cotton damaged and some locally heavy grade and production losses peanuts from wet weather. Small grains making good growth and grazing becoming more prevalent. Surface moisture adequate to surplus entire State. Wheat and barley 9/10, oats 4/5 up to acceptable stand. Corn nearly 4/5 picked, sorghum grain slightly over 1/2 combined, both about same year ago. Only 75% cotton bolls open compared 95% year ago. Peanut harvest 44% completed, 26%. Slightly over 1/3 soybeans harvested. Livestock good to excellent, strong demand for stocker cattle. Pecan harvest starting.

**OREGON:** Cooling trend during week aided by clear nights at close. Temperatures averaged mostly 4° to 7° below normal west, 8° to 12° below normal east. Minima mostly on 26th set many new records for October, minus 3° to 24° east, 20° to 29° west side. Maxima 57° to 66°. Rains on 2 to 5 days totaled 0.10 to 0.40 inch east side and southwestern valleys, 0.70 to 1.00 inch Willamette Valley and south coast, 1.50 to 2.70 inches Cascades and north coast. Traces of snow most valleys 27th with 6 to 10 inches mountains and passes. Filbert harvest slowed by wet weather. Walnut harvest underway. Potato and sugar beet digging continues. Corn silage making nearly complete. Fall seeding wheat and barley nearly complete.

**PENNSYLVANIA:** Unseasonably warm week. Temperatures 10° to 15° above normal. Maxima frequently in 70's, highest 81°. Minima mostly 40's and 50's, lowest 34°. Rainfall less than 0.10 inch extreme west and north, 0.25 to 0.50 inch southeast, over 1.00 inch southwest through central mountains into Poconos. No general killing frost to date. Wet foggy weather hinders fall harvest. Corn 2/3

finished. Barley seeding finished, winter wheat 98% in. Potato harvest winding up. Apples near completion, grapes expected to end early November. Pastures and hay exceptional.

**PUERTO RICO:** Rainfall averaged 2.30 inches or about 0.50 inch above normal. Heavy showers and thundershowers middle of week in eastern and western mountains with up to 5.00 inches in 1 day and some flooding along west coast. Soil moisture much improved due recent rains. Temperatures averaged 79° coast and 74° interior divisions with mean departure of 0.2° below normal. Highest maximum 93°, lowest minimum 57°. Sugarcane developing well all zones. Coffee plantations early harvest stage with some delays due rains. Pastures good to excellent islandwide with much improvement northwest coastal area. Minor crops active seeding and fertilizing, with good yields bananas, plantains, and vegetables.

**SOUTH CAROLINA:** Rain at beginning of week averaged a little over 1.00 in northwest and northeast and a little less than 1.00 in west-central and southern divisions. Unseasonably warm with weekly average temperature 5° above normal. Extremes: 50° and 84°. Rain, soggy fields limited field activity. Rain hurt cotton quality, delayed harvest. Practically all bolls opening. Harvest 55% completed. Soybeans 61% mature, 5% harvested. Sorghum 58% harvested. Peanut harvest practically through. Corn harvest 74% completed. Pecans fair to good. Apple picking virtually completed. Pastures good. Winter grazing 77% seeded, 70% emerged. Winter wheat 14% planted, 9% emerged. Winter oats 25% planted, 20% emerged. Hay harvest 93% completed. Fall vegetables fair to good.

**SOUTH DAKOTA:** Wet cool week. Weekly temperatures averaged from near normal portions of the east to 11° below normal in west. Extremes ranged from 10° at Lemmon on 31st to 80° at Vermillion on 26th. The first widespread hard freeze of season occurred during week. Precipitation fell as widespread rain and snow middle and end of week. This was the first widespread snow of season. Precipitation amounts generally ranged from about 1.00 to 3.00 inches in east and from about 0.25 to 1.00 inch in west. Snow fall ranged from a trace in east to 10 inches in lower elevations of the southwest and up to about 2 feet in Black Hills. Corn harvest slowed by rain and snow. Several areas from 90% to 100% complete. However wet weather and high humidity during harvest season slowed progress some major producing areas. Harvest corn 84% complete. Condition winter wheat and rye generally good to excellent. Topsoil moisture supplies mostly adequate, with surpluses northeast and northwest. Marketing calves well underway and expected to pick up during November. Stubble fields still being utilized for pasture. Winter feed supplies adequate. Many pastures snow covered, particularly West River areas.

**TENNESSEE:** Unseasonably warm week, averaging 8° to 10° above normal across State. Only trace of precipitation in mountains; none elsewhere. Harvest advancing at rapid pace with clear, warm weather. Cotton gins, grain handlers working long hours to keep abreast of harvest. Combining good soybean crop over 1/4 complete. Cotton 55% picked, slightly ahead year earlier. Corn picking 65% complete, running slightly behind last year. Tobacco stripping 45% done. Some losses occurring tobacco in barns, due continuing high humidity. Greens, turnips, and pumpkins being harvested. Freezing greens underway west. Days favorable

fieldwork averaged 4.7. Moisture supplies 72% adequate, 18% short and 10% surplus.

**TEXAS:** Light to moderate showers fell in the Hill Country and north central Texas Tuesday and in northwest Texas Thursday and Friday. Local heavy showers fell near Del Rio and in the lower Rio Bend area Thursday. Temperatures were considerably cooler Panhandle Friday and Saturday. Wet weather interferes with seeding small grain and harvest cotton, corn, sorghum, peanuts. Early planted wheat, oats making excellent growth and providing good grazing. High moisture content problem with sorghum harvest High Plains. Percent harvested major crops; cotton 25, 36 last year; corn 95, 99 last year; sorghum 67, 94 last year; peanuts 56, 62 last year; soybeans 37, 54 last year; sugar beets 10, 31 last year. Percent planted; wheat 87, 91 last year; oats 74, 89 last year, flaxseed 1, 27 last year. High Plains vegetable harvest interrupted by cold wet weather. Lettuce harvest nearly complete. Carrot digging expected to peak next several weeks. Late potatoes being dug. East Texas sweetpotato digging continues active. Open weather south allowed harvest fall vegetables and planting winter vegetables to resume normal activity as fields drying from heavy rains September, early October. Cucumber harvest continues Winter Garden, Coastal Bend, with harvest underway Lower Valley. Pepper harvest getting underway Lower Valley. Cabbage harvest beginning Winter Garden. Seeding winter vegetables spring onions becoming active lower valley as acreage early winter vegetables substantially below normal. Citrus harvest becoming active, grapefruit, early oranges being picked. Pecan 27% picked, 21% last year.

**UTAH:** Recurring periods of rain and snow over most of State. Accumulated amounts moisture generally very heavy, but only traces extreme northwest. Tooele 2.85 inches largest accumulation reported, followed by Bryce Canyon 2.63 inches. Snowfall very heavy for so early in season. 24 inches on ground Friday morning at Manilla, 20 inches at Tooele, and 12 inches at Fillmore. Temperatures continued well below normal, averaging 2° to 9° below. Cold and snowcover halted field operations for several days. Sugar beet harvest only 67% completed. At least 8,200 acres still in ground, perhaps 300 acres or less potatoes still unharvested southern Utah. Some corn for grain still standing. Care and feeding beef cattle, dairy cattle and poultry major activity. Turkey processing at peak.

**VIRGINIA:** Temperatures above normal with minor daily changes. Heavy rain at beginning and light rain over weekend. Rain and mud stopped fieldwork. Flooding and wet weather damaged unharvested crops. Topsoil moisture surplus 2/3 State. Few peanuts harvested. Crop only 60% dug and 40% combined. Small grain seeding slow. Some soybeans lodged. Warm humid weather caused some molding and sprouting. Soybean and corn harvest at standstill. Marketing flue-cured tobacco. Stripping burley. Pastures lush. Marketing feeders.

**WASHINGTON:** Western Washington: Mild and wet weather beginning of period, turned cold with local snow near end of week. Grass growth slowed or stopped with some dairy herds on winter feeding schedules. Pumpkin harvest full swing with cranberry harvest nearly completed. Christmas tree harvest to begin soon. Eastern Washington: Cooling trend with rain or snow near end of week. Low temperatures associated with arctic air mass

may have caused freeze damaged young fruit trees. Harvest sugar beets and grapes continues. Nearly all plant growth stopped by cold temperatures. Livestock going into supplemental winter feed and some herds being moved to harvested fields.

**WEST VIRGINIA:** Six-day rainy spell ended October 26 with totals near 1.00 inch. Sunny and warm balance of period. Temperatures in high 70's or low 80's, warmest in over 40 years for so late in season at several stations. Rain slowed apple picking and corn harvesting. About 2 weeks apple harvest remains. Considerable amount corn remaining for harvest. Part of week had good weather for fieldwork. Pastures remain green with some grazing possible.

**WISCONSIN:** Another very mild autumn week. A turn to colder at end of period. Heavy rains extreme northwest counties on Wednesday and Saturday as deep low pressure systems passed northward through region. Little rain most other areas. Strong wind accompanying these lows caused widespread light damage throughout State. Many apples shook down where harvest not completed. Also some corn down. Corn 40% harvested, last year 70%. Not much picked due poor drying conditions. Yields

quite heavy most areas and storage space remains at premium. Soybeans 30% combined, last year 50%. Fall plowing 40% completed against last year's 50%. Soil moisture 15% short, 55% adequate, and 30% surplus. In summary, crop season very productive, except for few dry areas southeast and southwest. Harvesting conditions often difficult north as frequent showers interfered.

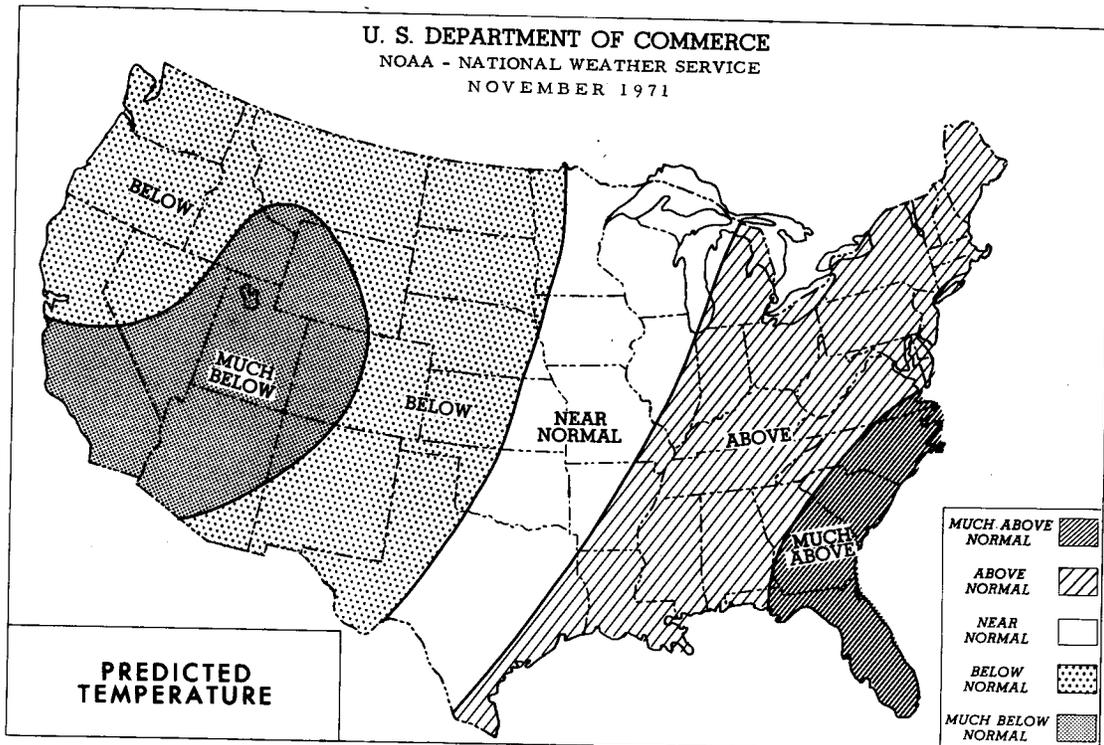
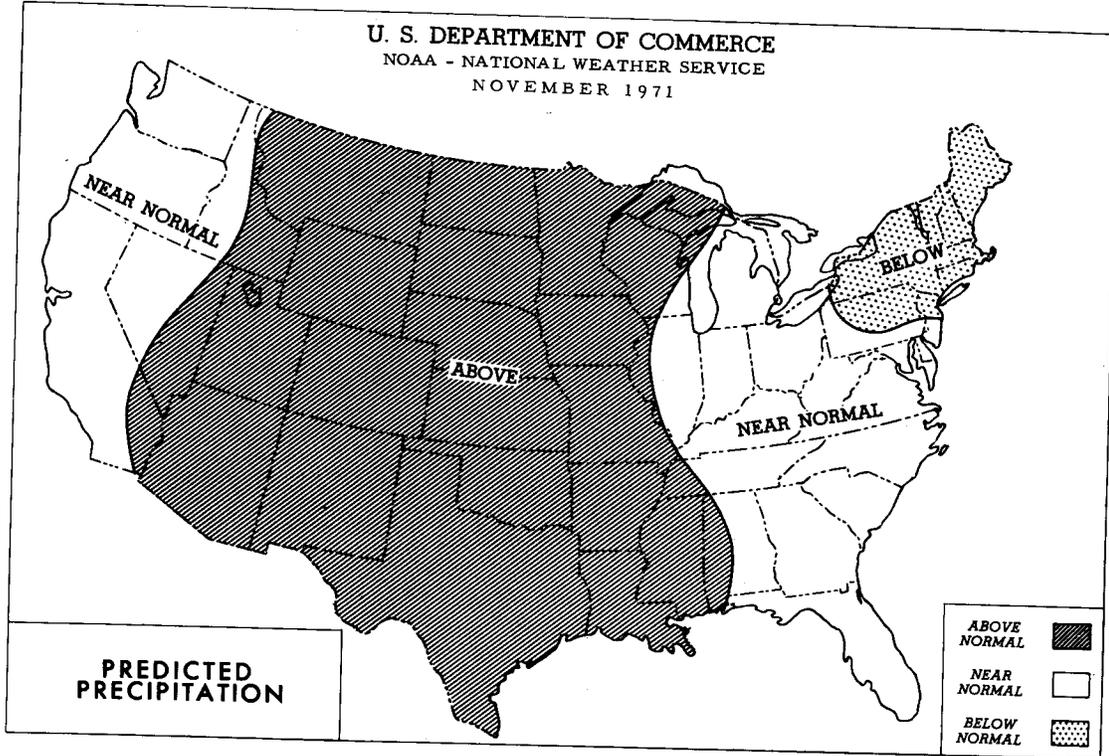
**WYOMING:** Heavy snow storm covered State Wednesday through Friday, with blizzard conditions over central and south. Road traffic halted most of 3 days. Temperatures dropped 40° to 50° and averaged 3° to 10° below normal statewide. Clearing and moderating by weekend. Rawlins reported the most moisture with 2.34 inches. Maxima mostly around 60's west of Divide and Upper Platte Drainage, 60's to low 70's elsewhere. Minima were mostly 0° to 10° west of Divide and Upper Platte Drainage, 5 to 15 elsewhere. Temperature extremes were 72° at Carpenter and -15° at Big Piney. Main agricultural activities sugar beet harvest and caring for livestock. Snow storm halted nearly all fieldwork. Nearly 70% sugar beets harvested and cold, wet weather threatened damage to remainder. Approximately 1/3 grain corn harvested. Surface soil moisture supplies adequate to surplus.

## Heating Degree Days (Base 65° F.)

OCTOBER 1971

ALA. Birmingham . . . . .	28	MAINE, Caribou . . . . .	569	OKLA. Okla. City . . . . .	88
Mobile . . . . .	8	Portland . . . . .	381	Tulsa . . . . .	60
Montgomery . . . . .	18	MD. Baltimore . . . . .	96	OREG. Astoria . . . . .	420
ALASKA, Anchorage . . . . .	999	MASS. Boston . . . . .	169	Burns U. . . . .	647
Barrow . . . . .	1568	Chatham . . . . .	225	Medford . . . . .	424
Fairbanks . . . . .	1143	MICH. Alpena . . . . .	353	Pendleton . . . . .	428
Juneau . . . . .	811	Detroit . . . . .	213	Portland . . . . .	388
Nome . . . . .	1140	Flint . . . . .	248	Salem . . . . .	-
ARIZ. Flagstaff . . . . .	810	Grand Rapids . . . . .	233	PA. Allentown . . . . .	191
Phoenix . . . . .	79	Houghton Lake . . . . .	327	Erie . . . . .	242
Tucson . . . . .	120	Lansing . . . . .	234	Harrisburg . . . . .	146
Winslow . . . . .	342	Marquette . . . . .	350	Philadelphia . . . . .	79
Yuma . . . . .	76	S. Ste. Marie . . . . .	435	Pittsburgh . . . . .	184
ARK. Fort Smith . . . . .	26	MINN. Duluth . . . . .	531	Scranton . . . . .	263
Little Rock . . . . .	6	Internatl Falls . . . . .	609	R. I. Providence . . . . .	181
CALIF. Bakersfield . . . . .	163	Minneapolis . . . . .	413	S. C. Charleston . . . . .	13
Eureka . . . . .	440	Rochester . . . . .	361	Columbia . . . . .	13
Fresno . . . . .	209	St. Cloud . . . . .	466	Greenville . . . . .	74
Los Angeles . . . . .	94	MISS. Jackson . . . . .	19	S. DAK. Aberdeen . . . . .	504
Red Bluff . . . . .	210	Meridian . . . . .	17	Huron . . . . .	478
Stockton . . . . .	174	Vicksburg . . . . .	-	Rapid City . . . . .	578
San Diego . . . . .	78	MO. Columbia . . . . .	114	Sioux Falls . . . . .	409
San Francisco . . . . .	252	Kansas City . . . . .	87	TENN. Chattanooga . . . . .	45
COLO. Denver . . . . .	479	St. Louis . . . . .	96	Knoxville . . . . .	48
Grand Junction . . . . .	389	Springfield . . . . .	117	Memphis . . . . .	13
Pueblo . . . . .	369	MONT. Billings . . . . .	659	Nashville . . . . .	39
CONN. Bridgeport . . . . .	150	Glasgow . . . . .	635	TEX. Abilene . . . . .	40
Hartford . . . . .	214	Great Falls . . . . .	628	Amarillo . . . . .	245
D. C. Washington . . . . .	61	Havre . . . . .	654	Austin . . . . .	0
FLA. Apalachicola . . . . .	1	Helena . . . . .	707	Beaumont . . . . .	6
Ft. Myers . . . . .	-	Kalispell . . . . .	768	Brownsville . . . . .	0
Jacksonville . . . . .	6	Miles City . . . . .	621	Corpus Christi . . . . .	0
Key West . . . . .	0	Missoula . . . . .	695	Dallas . . . . .	5
Lakeland . . . . .	0	NEBR. Grand Island . . . . .	284	Del Rio . . . . .	6
Miami . . . . .	0	Lincoln . . . . .	223	El Paso . . . . .	112
Orlando . . . . .	0	Norfolk . . . . .	326	Fort Worth . . . . .	7
Pensacola . . . . .	9	North Platte . . . . .	472	Galveston . . . . .	0
Tallahassee . . . . .	8	Omaha . . . . .	276	Houston . . . . .	6
Tampa . . . . .	0	Valentine . . . . .	492	Lubbock . . . . .	124
GA. Atlanta . . . . .	36	NEV. Ely . . . . .	760	Midland . . . . .	71
Augusta . . . . .	18	Las Vegas . . . . .	207	San Angelo . . . . .	33
Macon . . . . .	9	Reno . . . . .	588	San Antonio . . . . .	0
Savannah . . . . .	101	Winnemucca . . . . .	625	Victoria . . . . .	0
IDAHO, Boise . . . . .	492	N. H. Concord . . . . .	396	Waco . . . . .	5
Lewiston . . . . .	499	N. J. Atlantic City . . . . .	143	Wichita Falls . . . . .	25
Pocatello . . . . .	684	Trenton . . . . .	109	UTAH, Blanding . . . . .	-
ILL. Cairo . . . . .	25	N. MEX. Albuquerque . . . . .	341	Salt Lake City . . . . .	535
Chicago . . . . .	146	Roswell . . . . .	183	VT. Burlington . . . . .	344
Moline . . . . .	195	N. Y. Albany . . . . .	311	VA. Lynchburg . . . . .	110
Peoria . . . . .	186	Binghamton . . . . .	296	Norfolk . . . . .	27
Rockford . . . . .	209	Buffalo . . . . .	203	Richmond . . . . .	69
Springfield . . . . .	130	New York . . . . .	108	Roanoke . . . . .	-
IND. Evansville . . . . .	85	Rochester . . . . .	194	WASH. Colville . . . . .	653
Fort Wayne . . . . .	181	Syracuse . . . . .	256	Omak . . . . .	M
Indianapolis . . . . .	147	N. C. Asheville . . . . .	129	Quillayute . . . . .	497
South Bend . . . . .	171	Charlotte . . . . .	72	Seattle-Tacoma . . . . .	429
IOWA, Burlington . . . . .	173	Greensboro . . . . .	101	Spokane . . . . .	641
Des Moines . . . . .	184	Hatteras . . . . .	6	Walla Walla . . . . .	383
Dubuque . . . . .	436	Raleigh . . . . .	62	Yakima . . . . .	549
Sioux City . . . . .	283	Wilmington . . . . .	11	W. VA. Beckley . . . . .	212
KANS. Concordia . . . . .	227	N. DAK. Bismarck . . . . .	608	Charleston . . . . .	78
Dodge City . . . . .	238	Fargo . . . . .	540	Huntington . . . . .	84
Goodland . . . . .	388	Williston . . . . .	674	Parkersburg . . . . .	96
Topeka . . . . .	143	OHIO. Akron-Canton . . . . .	202	WIS. Green Bay . . . . .	328
Wichita . . . . .	165	Cincinnati . . . . .	80	Madison . . . . .	294
KY. Lexington . . . . .	69	Cleveland . . . . .	168	Milwaukee . . . . .	308
Louisville . . . . .	65	Columbus . . . . .	181	WYO. Casper . . . . .	681
LA. Baton Rouge . . . . .	11	Dayton . . . . .	97	Cheyenne . . . . .	633
Lake Charles . . . . .	3	Toledo . . . . .	197	Lander . . . . .	738
New Orleans . . . . .	10	Youngstown . . . . .	221	Sheridan . . . . .	883
Shreveport . . . . .	7				

**AVERAGE MONTHLY WEATHER OUTLOOK**



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

## NEW WEATHER SERVICE FOR STOCKMEN

Stockmen in Wyoming or the Dakotas may now telephone at any time of day to get forecasts and warnings of severe winter weather. Stockmen in North Dakota will call 701-567-2203 in Hettinger; in South Dakota, call 605-892-2511 in Belle Fourche; and in Wyoming, call 307-235-6269 in Casper. The forecasts are updated three times daily or, if necessary, more often. The service is provided by the National Weather Service.

L. W. Dye

## BLIZZARDS

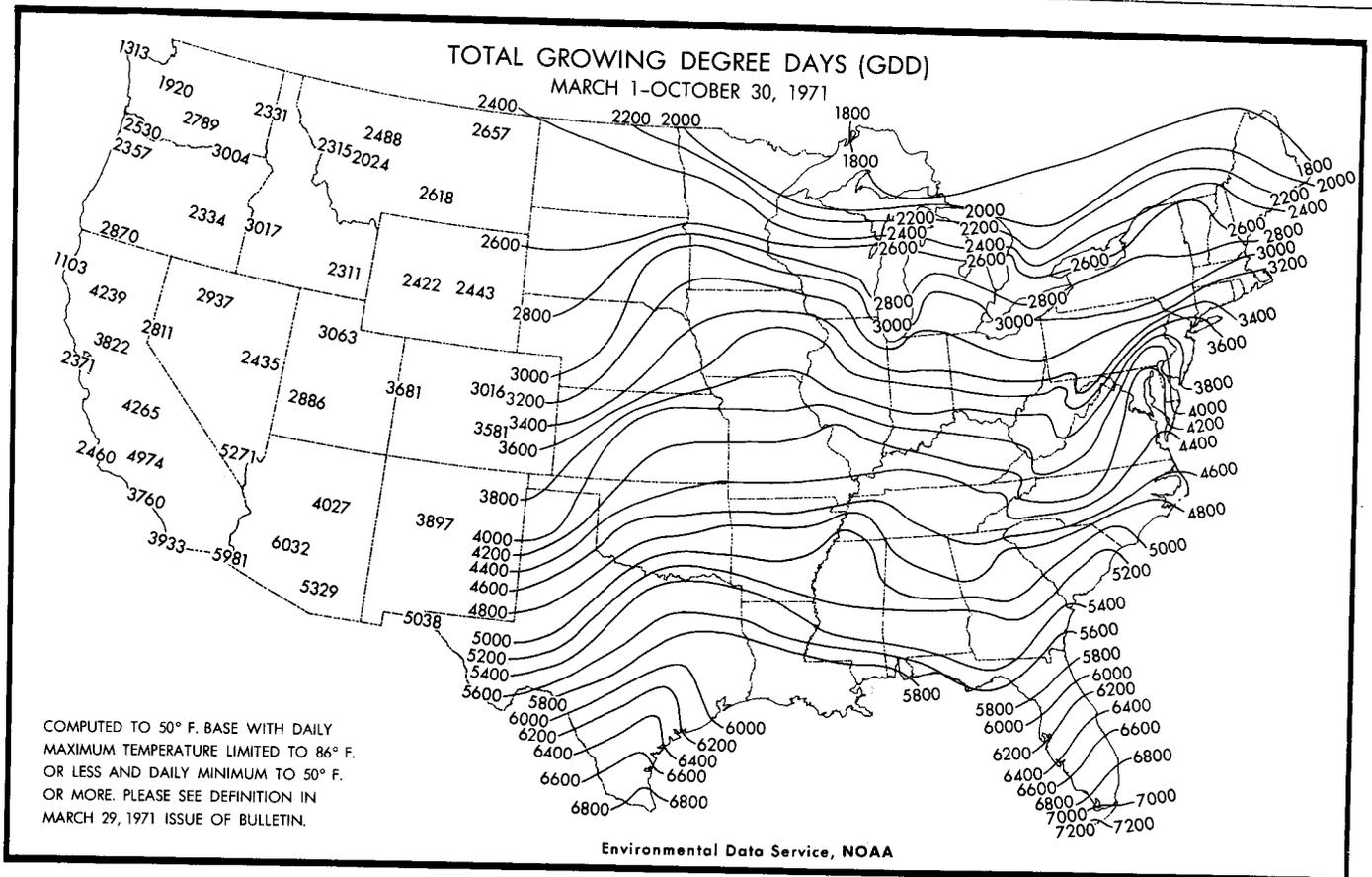
Blizzards take a terrible toll in livestock. For both humane and economic reasons, stockmen should take necessary precautions in advance of severe winter storms.

Move livestock, especially young livestock, into sheltered areas. Shelter belts, properly oriented and laid out, provide better protection for range cattle than shed type shelters, which may cause cattle to overcrowd, with consequent overheating and respiratory disorders.

Haul extra feed to feeding areas before the storm arrives. Storm duration is the largest determinant of livestock losses; if the storm lasts more than 48 hours, emergency feed methods are required. Range cattle are hardy and can survive extreme winter weather providing they have some non-confining type of shelter from the wind and are able to feed at frequent intervals.

Autopsies of cattle killed by winter storms have show the cause of death to be dehydration, not cold or suffocation. Because cattle cannot lick enough snow to satisfy their thirst, stockmen are advised to use heaters in water tanks to provide livestock with water and feed after prolonged exposure to winter storm conditions.

Extracted from WINTER STORMS. Office of Public Affairs, NOAA.

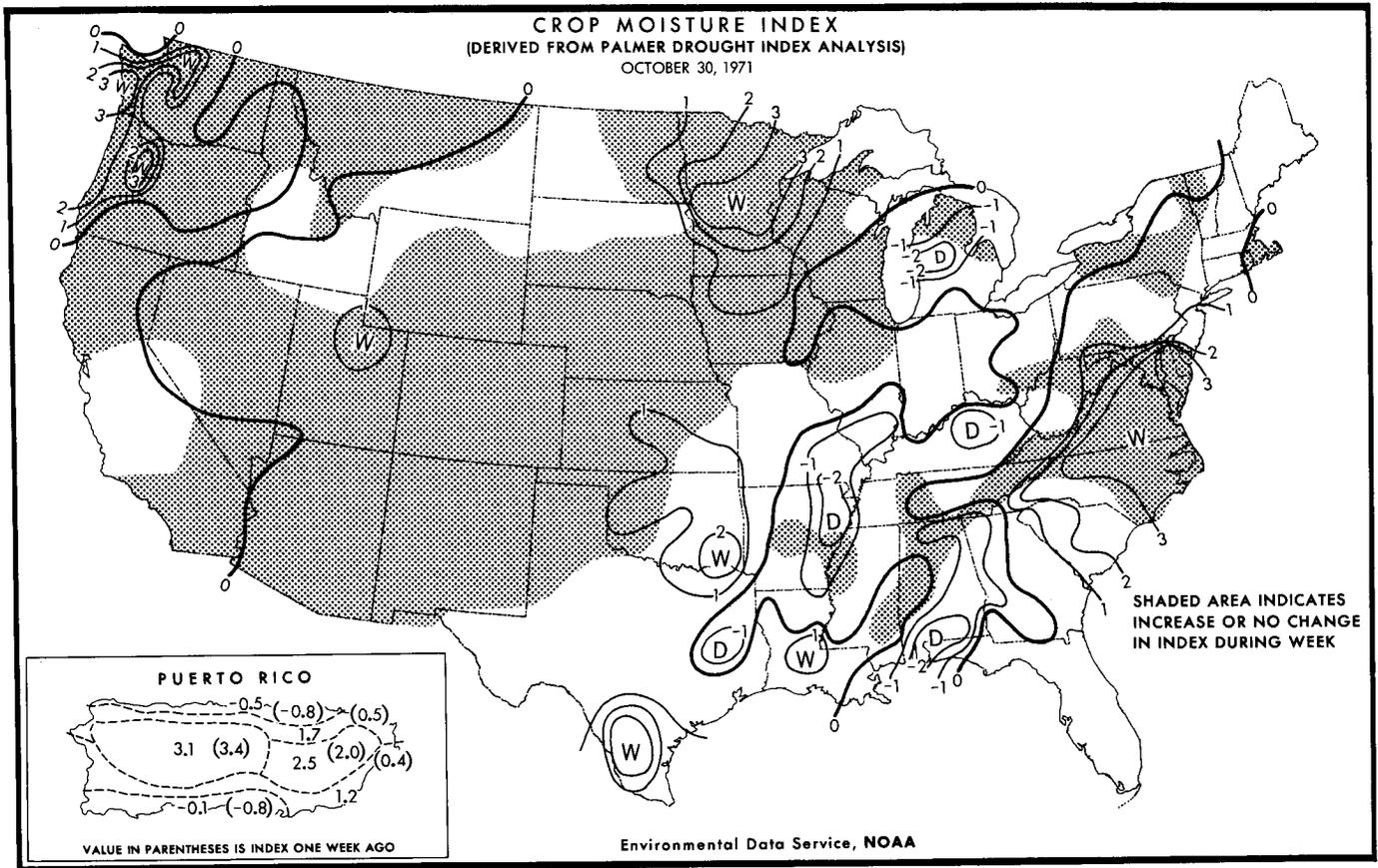


#### FINAL GROWING DEGREE DAY MAP FOR 1971

The growing degree day map for the period March 1 to October 31 is the last one in our 1971 series. The first accumulation map was published in the April 12 issue. A description of the growing degree day system and the normal accumulations on a weekly basis for 47 stations appeared in the March 29 issue of the Weekly Weather and Crop Bulletin (Rahn, 1971). A summary of the growing degree day accumulations during the 1971 growing season will appear in the forthcoming issue of the Bulletin.

This issue completes two years of presenting the growing degree day information. Comments from users concerning any aspect of our presentation are welcomed and encouraged. The winter season provides the necessary time to fully consider and implement suggested changes in our material. If you have comments please write to us.

R.E. Felch



INDEX DECREASED DURING WEEK  
(Unshaded Areas)

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

**INDEX**

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

**INDEX**

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

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

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

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

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

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Questions and comments are invited; please send to Editor in Agricultural Climatology Service Office, address above.