

WEEKLY WEATHER AND CROP BULLETIN

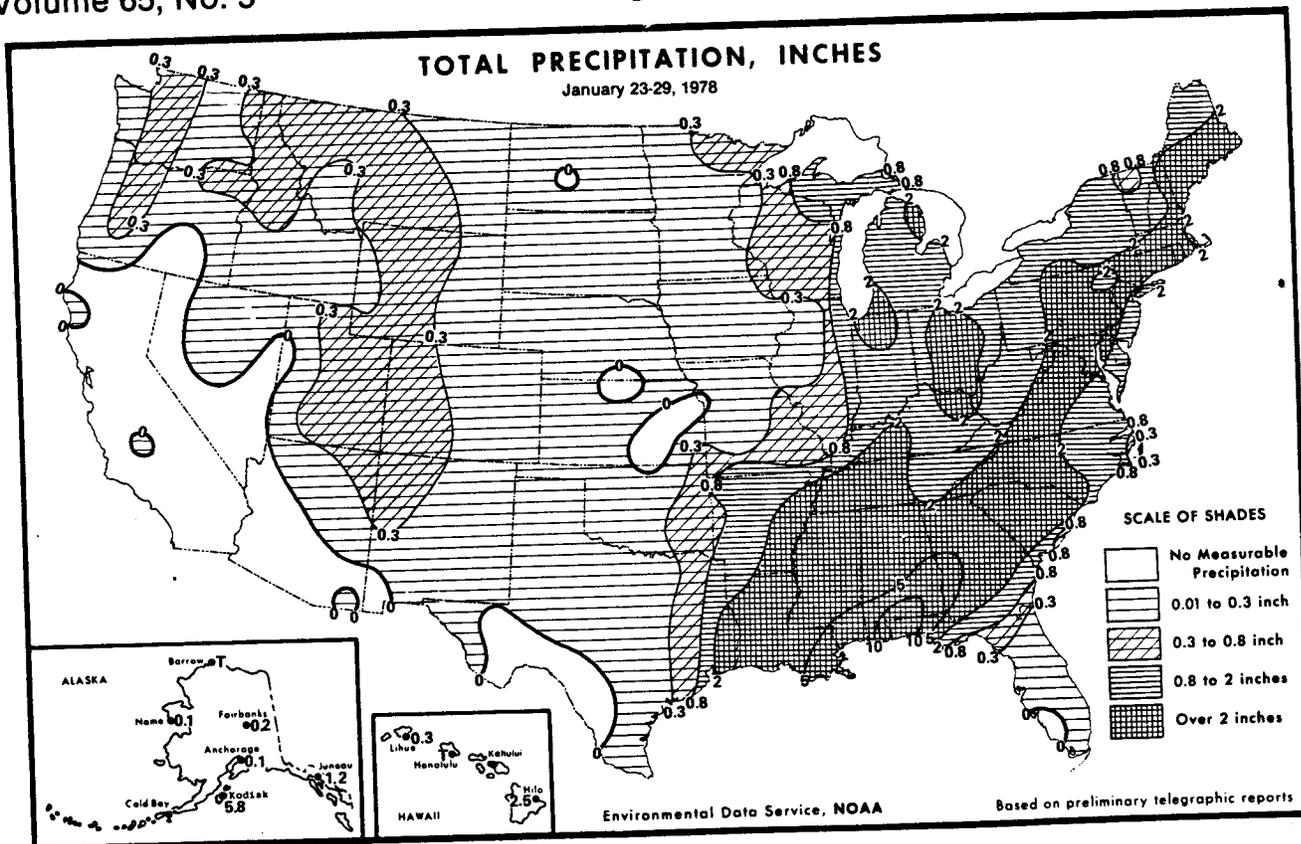
U.S. DEPARTMENT OF COMMERCE
Environmental Data Service, NOAA

U.S. DEPARTMENT OF AGRICULTURE
Economics, Statistics, and Cooperatives Service

Volume 65, No. 5

Washington, D.C.

Jan. 31, 1978



National Weather Summary January 23 - 29

HIGHLIGHTS: One of the most intense U.S. storms on record blitzed the Great Lakes region and Ohio Valley bringing blizzard conditions. Elsewhere east of the Mississippi River heavy snow and/or rain triggered some flooding. Much rain fell in the mid-South; Pensacola was drenched by 10 inches. In the West, precipitation amounted to little or none.

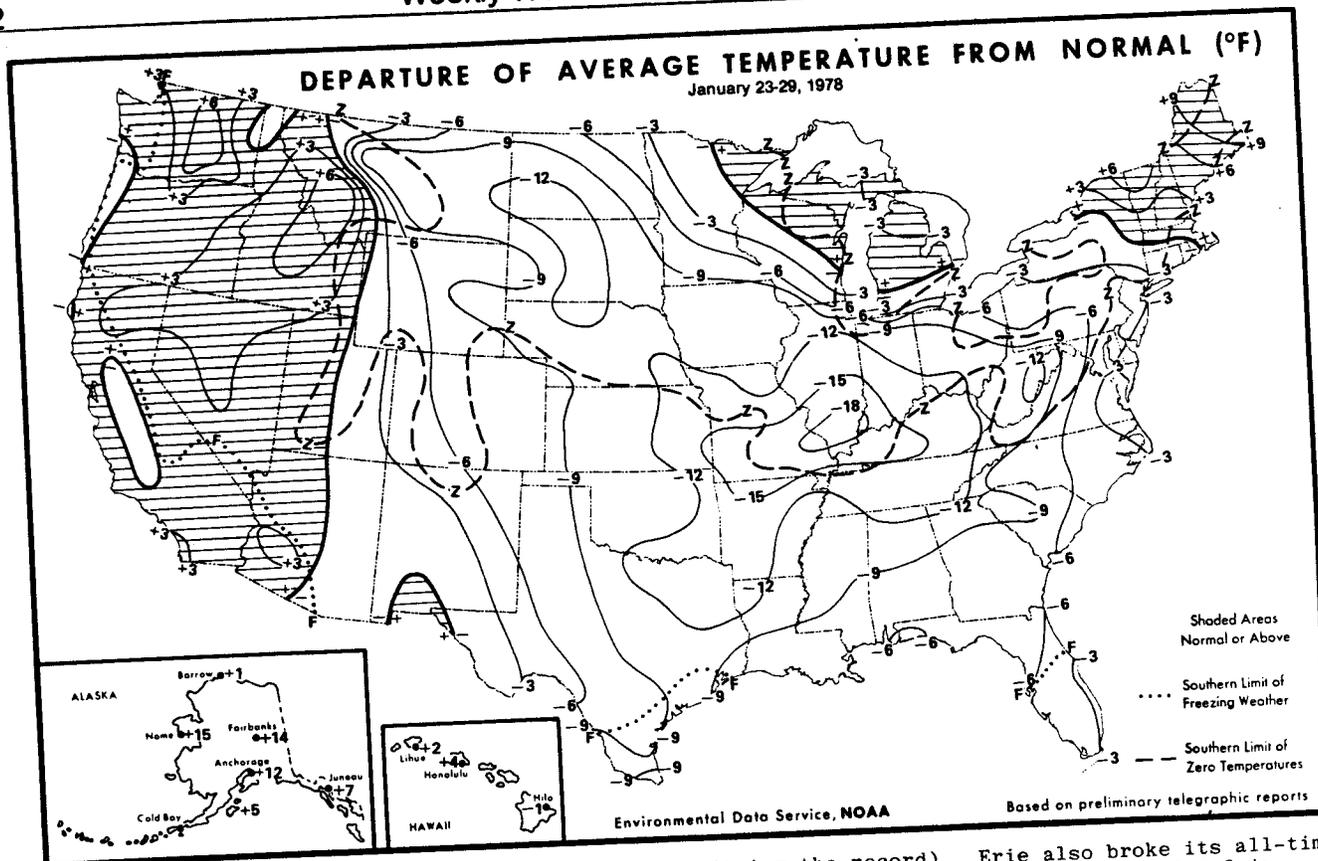
Polar air laid siege to all the Nation east of the Rockies by week's end. It was 12 to 18° below normal in the middle Mississippi and lower Ohio Valleys. From the Rockies to the West Coast, readings were near or only slightly above what is expected this time of year; however, it did reach 5 to 6° above normal in portions of eastern Washington and Idaho.

A low pressure system moved through the central Rockies on Monday carrying fresh snow from Idaho to New Mexico. By evening, snow and freezing rain

had reached into the western sections of the lower Great Plains. Locally heavy snow accumulated up to 8 inches. Light rain fell in the Delta States where New Orleans picked up about a half inch. The Nation's low temperature was -17° at Elkins, W. Va.

The storm over the Midlands extended to the Ohio Valley by late Tuesday. Heavy rain and snow fell from the Rockies to Pennsylvania and as far south as Florida. Five inches of rain in Mobile, Ala., triggered flash flooding; 6.66 in. drenched Milton, Fla.; and 13 inches of snow blanketed northern New Mexico.

One of the worst winter storms in years continued to batter much of the Nation east of the Rockies on Wednesday. Milton, Fla., added more rain to run the total to 9 inches while Pensacola, Fla., soggly noted 9.59 in. New Orleans measured 5 inches of rain and St. Louis counted up to 11 inches of snow---4 inches of that fell in just one



hour. Heavy thunderstorms raked the lower half of the Atlantic Coast as the system gathered steam northeastward. Georgia and the Carolinas reeled under 3 inches of rain while the Appalachians saw streams top their banks from the rain and snow-melt. Adding to the discomfort was a chilling blast of Arctic air that dropped temperatures in the center of the country. Accompanying winds, sometimes with gusts up to 90 mph, drifted snow.

Blustery weather persisted into Thursday pummeling the Nation with snow, rain, and winds. New England scored more than 3 inches of rain at some stations. Snow deepened and drifted under blizzard conditions in the Midwest, Ohio Valley, and Great Lakes regions. Local flooding was still a hazard in lower Appalachia. Snow covers mounted---27 inches in Muskegon, Mich; 16 in Chicago; and 31 inches in South Bend for a grand total of 134 inches this winter in the northwestern Indiana town. Records for the lowest barometric pressure were commonplace east of the Mississippi River---it was below 29.00 at Detroit, Columbus, Erie, and Scranton. The Northwest wasn't spared as Idaho and eastern Washington were blanketed by snow; Spokane gathered 4 inches.

Although precipitation lessened in the eastern sections of the country on Friday, new problems cropped up. High winds whipped some States causing drifts up to 16 feet high; plunging temperatures gave little hope for any melting; and rivers from the Midwest to the Atlantic Coast and as far south as Alabama reached dangerously high levels because of ice floes and excessive rain and snow. Record snowfalls for one month were established in Erie, 56.7 in., and Indianapolis, 30.4 in.

(tying the record). Erie also broke its all-time snowfall record for one winter with 120.8 in.

A large high pressure system over the Plains thrust cold Canadian air from the Rockies eastward on Saturday. Readings were sub-zero in the North and below freezing in northern Florida.

Flooding was common south of the Mason-Dixon Line. It was minor to moderate in Kentucky, Virginia, and North Carolina, but became worse in South Carolina and Georgia.

Precipitation was light and widely scattered except around the Great Lakes. An inch or two of snow fell on South Bend, Ind., Akron, and Buffalo. However, it was heavy at Oswego, N.Y., where 15 inches fell to make it 149 inches of snow for January, and 214 for the season, neither one a record.

Though snow was confined to small areas on Sunday, the biting cold still made for an uncomfortable day. Temperatures dipped to the 30's as far south as central Florida and the 40's in Brownsville, Tex. Snow fell lightly over the upper half of the Plains at day's end, but earlier the white stuff fell heavily in the upper Ohio Valley and eastern Great Lakes. Just east of Cleveland 6 to 12 inches were measured, and the Pennsylvania towns of Butler and New Castle notched 4 inches.

South Bend added 4 more inches. The winter has been especially harsh in this city where nearly 150 inches has far exceeded the former record of 129 for an entire winter. The previous maximum January snowfall was 45.3 in.---this year, 85.7 in. The normal first-month measurement is 16 inches.

National Agricultural Summary

January 23-29

HIGHLIGHTS: A severe blizzard rampaged through the Midwest piling huge banks of snow across the countryside and dropping temperatures as much as 18° below normal. Stormy weather held most farm activity to the essential minimum, but snow made livestock care and feeding a significantly more difficult chore than usual. Farmers fed heavy rations to help cattle hold condition. Dairymen who ran out of storage facilities dumped milk when trucks could not venture onto the snow-clogged highways. Winter wheat rated fair to good lying under a protective snow blanket in most of the Nation, particularly where winter unleashed its worst stormy display. Pastures provided very little grazing; low temperatures limited growth. The West enjoyed above normal temperatures which favored cattle and also pasture growth.

SMALL GRAINS: Winter wheat rated fair to good throughout most of the Nation; poor ratings cropped up in parts of the cold South and on dryland stands in the southern Great Plains. Most of the crop enjoyed some degree of snow cover. Fortunately areas which bore the brunt of the week's nastiest weather usually had the most snow cover.

In Kansas wheat rated generally good where snow cover was adequate. Some stress was noted in unprotected fields. Oklahoma soil moisture was short in the west but adequate elsewhere. Previous snowfalls remedied some of the dry conditions and wheat rated fair to good. Texas wheat was nearly dormant in most areas because of low temperatures. Irrigated stands on the High Plains rated fair to good. Dryland stands remained in a drought stressed condition. A light snow covered the Plains area but not enough to provide moisture relief to dryland fields. South central and East Texas got enough moisture for growth when temperatures rise. New Mexico-irrigated stands rated fair to good; dryland only poor to fair. Only irrigated fields provided some grazing. Growers began seeding durum wheat. Arizona growers also planted other small grains; earlier planted grains were growing well. The Wyoming wheat crop rated fair to good. Montana's wheat rated good with an adequate to excellent snow cover. The Washington crop had a protective snow cover. Oregon's wheat rated fair to good. California's warm temperatures helped new small grain plantings; weed control programs were active. In the Southeast, low temperatures limited growth in Alabama and wheat rated only poor to fair in Mississippi. Snow protected Kentucky small grains, but in some areas an ice covering concerned farmers. Low temperatures also slowed Florida's wheat growth. Along the Atlantic Coast, Georgia's wheat rated good, North Carolina's fair to good, and Virginia's scored good to excellent. In the north central States, Illinois wheat rated good.

OTHER CROPS: Cotton growers in Arkansas and Arizona had some scrapping to do. Ginning was almost complete in Texas although a few gins operated on the southern High Plains and the northern Low Plains. California producers plowed down cotton residue.

Sugarcane harvest proceeded on schedule in Florida, but rains interrupted cutting in the lower Rio Grande Valley.

Tobacco growers graded and marketed leaf in Virginia. Florida tobacco seeds germinated in plant beds. Georgia producers almost finished preparing plant beds.

FRUITS AND NUTS: Savage storms and precipitation sent most eastern deciduous fruit growers seeking shelter. Wind damaged some trees in the Northeast. More favorable weather in the Northwest saw growers remove trees and prune trees and grapevines. Washington trees were hardy and dormant. In California deciduous tree buds swelled; early almonds bloomed. Texas peach growers pruned trees and prepared land for additional plantings.

Florida citrus groves had adequate moisture and were in very good condition. Temperatures dropped near or below freezing in citrus areas but did not remain low enough to cause appreciable damage. Fruit drop was light while orange harvest was very active. Texas citrus was harvested in the better drained groves. Arizona growers picked lemons, grapefruit, and tangerines; Navel and sweet orange harvests were almost complete.

VEGETABLES: Florida vegetables rated fair to mostly good; cold weather slowed plant maturity and seed germination; fruit set was light. Shipments increased 5% from the previous week. Volume of most crops increased or held steady; cucumbers, eggplant, and peppers declined in supply. Spring plantings continued as weather permitted.

Cold, wet conditions in the lower Rio Grande Valley and East Texas delayed harvests and land preparations of later season plantings. Low temperatures damaged some crops and slowed growth of others. Texas producers harvested broccoli, cabbage, carrots, cauliflower, spinach, and beets. Growers in other Texas production areas planted potatoes and melons. Arizona growers harvested lettuce. California vegetable fields had a chance to dry but soil preparations were quite limited. Drier conditions allowed celery and lettuce harvests to get back to normal. Broccoli and cauliflower harvests were light.

PASTURES AND LIVESTOCK: The severe weather and subnormal temperatures throughout the Nation's eastern areas kept livestock producers digging deeper into feed bins to help animals maintain condition and fight the cold. The blizzard caused some deaths of both mature and new-born animals but no overall assessment was made. Few pastures provided any roughage; pastures grew well only in the Far West under the influence of mild temperatures and early rains.

Florida grasslands rated poor to fair. Crop-land pastures grew slowly and permanent pastures were brown. Low Texas temperatures retarded winter pasture growth. Soil moisture was adequate in the south central, east, and Coastal Bend area but short elsewhere in Texas. Arizona stock water supplies were good and increased soil moisture promoted browse growth. California ranges and pastures improved from the mild weather.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Jan. 29, 1978

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 . . .	34	-11	2.1	+ 1.0	LA. Baton Rouge . . .	44	- 7	2.6	+ 1.6	Youngstown . . .	20	- 5	1.2	+ .5
Mobile . . .	44	- 8	6.6	+ 5.6	Lake Charles . . .	45	- 8	2.9	+ 2.0	OKLA. Okla. City . . .	26	-11	.1	- .2
Montgomery . . .	41	- 7	4.0	+ 3.1	New Orleans . . .	45	- 8	7.3	+ 6.2	Tulsa . . .	26	-11	.1	- .3
ALASKA Anchorage . . .	25	+12	.1	- .1	Shreveport . . .	34	-14	1.6	+ .7	OREG. Astoria . . .	40	- 1	.3	+ 1.8
Barrow . . .	-15	+ 1	T	- .1	MAINE. Caribou . . .	21	+11	1.2	+ .7	Burns . . .	28	+ 2	T	- .4
Fairbanks . . .	9	+19	.2	+ .1	Portland . . .	25	+ 4	2.2	+ 1.4	Medford . . .	39	+ 1	T	- .7
Juneau . . .	31	+ 7	1.2	+ .4	MD. Baltimore . . .	29	- 5	2.2	+ 1.6	Pendleton . . .	35	+ 2	.3	- .1
Kodiak . . .	36	+ 5	5.8	+ 4.6	MASS. Boston . . .	31	+ 2	1.9	+ 1.1	Portland . . .	39	+ 0	.3	- .9
Nome . . .	22	+15	.1	- .1	Chatham . . .	40	- .9	.9	- .9	Salem . . .	39	- 1	.2	- 1.3
ARIZ. Flagstaff . . .	28	0	T	- .4	MICH. Alpena . . .	22	+ 5	2.9	+ 2.5	PA. Allentown . . .	24	- 3	2.1	+ 1.5
Phoenix . . .	55	+ 3	T	- .1	Detroit . . .	22	- 2	1.9	+ 1.5	Erie . . .	21	- 4	.8	+ .2
Tucson . . .	50	- 1	T	- .1	Flint . . .	22	0	1.1	+ .7	Harrisburg . . .	24	- 6	2.1	+ 1.5
Winslow . . .	34	0	T	- .1	Grand Rapids . . .	24	+ 1	1.4	+ 1.0	Philadelphia . . .	28	- 4	1.9	+ 1.3
Yuma . . .	56	0	0	- .1	Houghton Lake . . .	20	+ 3	1.1	+ .8	Pittsburgh . . .	22	- 6	1.2	+ .6
ARK. Fort Smith . . .	28	-12	2.4	- .2	Lansing . . .	22	0	1.7	+ 1.3	Scranton . . .	22	- 4	1.4	+ .9
Little Rock . . .	28	-12	4.0	+ 1.0	Marquette . . .	20	+ 2	1.0	+ .6	R.I. Providence . . .	27	- 1	2.1	+ 1.3
CALIF. Bakersfield . . .	48	- 1	0	- .2	Muskegon . . .	24	+ 1	2.0	+ 1.5	S.C. Charleston . . .	44	- 5	.3	- .4
Eureka . . .	48	0	T	- 1.6	S. Ste. Marie . . .	18	+ 5	.4	0	Columbia . . .	37	- 9	2.9	+ 2.1
Fresno . . .	46	0	T	- .4	MINN. Duluth . . .	9	+ 1	.2	0	Greenville . . .	34	- 9	2.9	+ 2.0
Los Angeles . . .	59	+ 2	0	- .7	Interntl Falls . . .	2	0	.4	+ .2	S.D. Aberdeen . . .	0	-10	.1	0
Red Bluff . . .	50	+ 4	0	- 1.0	Minneapolis . . .	8	- 4	.2	+ .1	Huron . . .	2	-11	T	- .1
San Diego . . .	60	+ 4	0	- .4	Rochester . . .	5	- 8	.3	+ .2	Rapid City . . .	14	- 8	T	- .1
San Francisco . . .	50	+ 1	0	- .9	St. Cloud . . .	6	- 3	.1	- .1	Sioux Falls . . .	4	-10	.2	+ .1
Stockton . . .	45	- 1	0	- .6	MISS. Jackson . . .	37	-10	2.3	+ 1.3	TENN. Chattanooga . . .	29	-12	1.9	+ .6
COLO. Denver . . .	22	- 8	.1	0	Meridian . . .	39	- 8	3.0	+ 2.0	Knoxville . . .	28	-13	1.2	+ .1
Grand Junction . . .	23	- 5	.5	+ .4	MO. Columbia . . .	15	-13	T	- .3	Memphis . . .	31	-10	3.2	+ 2.1
Pueblo . . .	24	- 7	0	- .1	Kansas City . . .	16	-16	.4	0	Nashville . . .	25	-14	2.1	+ 1.0
CONN. Bridgeport . . .	27	- 3	2.8	+ 2.2	St. Louis . . .	17	-16	.2	- .2	TEX. Abilene . . .	35	- 9	T	- .3
Hartford . . .	24	- 1	2.5	+ 1.8	Springfield . . .	17	-16	.5	+ .4	Amarillo . . .	29	- 7	.1	0
D.C. Washington . . .	32	- 4	2.3	+ 1.7	MONT. Billings . . .	13	-10	.8	- .1	Austin . . .	40	-10	T	- .5
FLA. Apalachicola . . .	46	- 9	.4	- .3	Glasgow . . .	0	- 9	T	- .1	Beaumont . . .	45	- 7	3.2	+ 2.3
Daytona Beach . . .	55	- 4	.1	- .4	Great Falls . . .	11	-10	.8	+ .6	Brownsville . . .	54	- 7	T	- .4
Ft. Myers . . .	60	- 4	T	- .4	Havre . . .	9	- 3	.3	+ .2	Corpus Christi . . .	48	- 9	T	- .4
Jacksonville . . .	49	- 6	.1	- .6	Helena . . .	25	+ 6	.1	0	Dallas . . .	48	- 4	0	- .2
Key West . . .	64	- 7	T	- .4	Kalispell . . .	22	+ 2	.4	+ .1	Del Rio . . .	46	+ 1	T	- .1
Lakeland . . .	56	- 5	.1	- .5	Miles City . . .	5	-11	.2	+ .1	El Paso . . .	33	-12	.1	- .4
Miami . . .	64	- 3	.2	- .3	Missoula . . .	27	+ 5	.3	+ .1	Fort Worth . . .	46	- 8	1.2	+ .6
Orlando . . .	58	- 3	.1	- .5	NEBR. Grand Island . . .	14	- 9	T	- .1	Galveston . . .	41	-11	.6	- .2
Tallahassee . . .	46	- 7	1.4	+ .5	Lincoln . . .	11	-12	T	- .1	Houston . . .	32	- 7	.1	0
Tampa . . .	55	- 6	.1	- .5	Norfolk . . .	10	- 9	T	- .1	Lubbock . . .	38	- 6	.1	0
W. Palm Beach . . .	62	- 3	T	- .6	N. Platte . . .	13	-11	.1	0	Midland . . .	40	- 7	T	- .2
GA. Atlanta . . .	34	- 9	3.0	+ 2.0	Omaha . . .	10	-10	T	- .2	San Angelo . . .	43	- 8	T	- .4
Augusta . . .	39	- 7	3.0	+ 2.2	Valentine . . .	7	-14	.1	0	San Antonio . . .	46	- 8	.2	- .3
Macon . . .	41	- 7	4.4	+ 3.5	NEV. Ely . . .	24	0	T	- .1	Victoria . . .	37	-10	.1	- .4
Savannah . . .	43	- 7	.9	+ .3	Las Vegas . . .	47	+ 2	0	- .1	Waco . . .	30	-12	T	- .3
HAWAII. Hilo . . .	71	- 1	2.5	+ .4	Reno . . .	35	+ 2	0	- .3	Wichita Falls . . .	27	- 2	.5	+ .3
Honolulu . . .	76	+ 4	T	- .9	Winnemucca . . .	32	+ 3	.1	- .1	UTAH. Blanding . . .	30	+ 1	.4	+ .1
Kahului . . .	73	+ 2	.3	- 1.0	N.H. Concord . . .	21	+ 1	1.8	+ 1.2	Salt Lake City . . .	23	+ 7	.6	+ .2
Lihue . . .	35	+ 5	.1	- .2	N.J. Atlantic City . . .	31	- 1	1.6	+ .8	VT. Burlington . . .	29	- 8	2.4	+ 1.8
IDAHO. Boise . . .	34	+ 2	.3	0	Trenton . . .	28	- 4	1.7	+ 1.1	VA. Lynchburg . . .	38	- 2	.8	0
Lewiston . . .	34	+ 2	.3	0	N.MEX. Albuquerque . . .	35	- 1	.2	+ .1	Norfolk . . .	35	- 3	1.5	+ .8
Pocatello . . .	28	+ 4	.1	- .1	Roswell . . .	35	- 4	T	- .1	Richmond . . .	28	- 9	2.2	+ 1.6
ILL. Cairo . . .	21	-16	.6	- .3	N.Y. Albany . . .	23	+ 2	1.4	+ .9	Roanoke . . .	27	+ 2	.1	- .3
Chicago . . .	15	- 9	1.3	+ .9	Binghamton . . .	19	- 3	1.7	+ 1.2	WASH. Colville . . .	29	+ 6	T	- .3
Moline . . .	11	-11	.1	- .3	Buffalo . . .	22	- 1	1.6	+ .9	Omak . . .	41	+ 2	.2	- 3.0
Peoria . . .	11	-13	.2	- .2	New York . . .	29	- 3	2.0	+ 1.4	Quillayute . . .	41	+ 2	.3	- 1.0
Rockford . . .	11	- 9	.3	- .1	Rochester . . .	24	0	1.1	+ .5	Seattle-Tacoma . . .	26	0	.5	- .1
Springfield . . .	13	-14	.2	- .2	Syracuse . . .	21	- 2	1.2	+ .6	Spokane . . .	38	+ 4	.4	0
IND. Evansville . . .	15	-18	1.1	+ .3	N.C. Asheville . . .	30	- 8	3.2	+ 2.4	Walla Walla . . .	35	+ 6	T	- .3
Ft. Wayne . . .	15	-10	1.0	+ .4	Charlotte . . .	36	- 7	2.7	+ 1.9	Yakima . . .	22	-10	1.4	+ .6
Indianapolis . . .	14	-14	1.8	+ 1.2	Greensboro . . .	32	- 7	2.8	+ 2.0	W.Va. Beckley . . .	25	-10	1.5	+ .7
South Bend . . .	21	- 3	2.2	+ 1.7	Hatteras . . .	42	- 3	.3	- .7	Charleston . . .	25	-10	2.0	+ 1.3
IOWA. Burlington . . .	12	-11	T	- .4	Raleigh . . .	36	- 5	1.4	+ .6	Huntington . . .	23	-10	1.1	+ .4
Des Moines . . .	10	-10	T	- .2	Wilmington . . .	42	- 5	1.9	+ 1.1	Parkersburg . . .	16	+ 1	.7	+ .5
Dubuque . . .	8	-10	.3	- .1	N.DAK. Bismarck . . .	- 4	-12	T	- .1	La Crosse . . .	10	- 6	.4	+ .2
Sioux City . . .	7	-11	T	- .2	Fargo . . .	0	- 6	T	- .1	Madison . . .	12	- 5	.7	+ .4
KANS. Concordia . . .	16	-11	T	- .2	Williston . . .	- 3	-11	.1	+ .3	Milwaukee . . .	17	- 2	1.0	+ .7
Dodge City . . .	22	-10	.1	0	OHIO. Akron-Canton . . .	19	- 7	.9	+ .6	WYO. Casper . . .	15	- 9	.2	+ .1
Goodland . . .	19	- 9	T	- .1	Cincinnati . . .	17	-14	1.4	+ .6	Cheyenne . . .	20	- 7	.1	0
Topeka . . .	17	-12	0	- .2	Cleveland . . .	22	- 5	1.2	+ .6	Lander . . .	15	- 5	.3	+ .2
Wichita . . .	20	-12	T	- .2	Columbus . . .	18	-11	2.2	+ 1.6	Sheridan . . .	14	- 8	.5	+ .3
KY. Lexington . . .	19	-14	1.7	+ .8	Dayton . . .	18	-10	1.9	+ 1.3	P.R. San Juan . . .	79	+ 4	.1	- .7
Louisville . . .	20	-14	1.5	+ .7	Toledo . . .	17	- 8	1.8	+ 1.4					

Based on 1941-70 normals

Publication of the Weekly Weather and Crop Bulletin began in 1872 as the Weekly Weather Chronicle. It is issued under general authority of the Act of January 12, 1895 (44USC 213), 53d Congress, 3d Session. Contents of the Bulletin may be reprinted freely, with proper credit. Standard copy for the Bulletin is prepared by Donald J. Haddock, Lyle Denny, and O. W. Byrd, Environmental Data Service, National Oceanic and

Atmospheric Administration; Harry DeLong and Jim Carlin, Economics, Statistics, and Cooperative Service, U.S. Department of Agriculture. Yearly subscription rate: \$5.00 domestic and \$11.25 foreign airmail. Order from the Weekly Weather and Crop Bulletin, South Building Mail Unit, Room 1248, USDA, Washington, D.C. 20250. Make checks payable to Department of Commerce, NOAA.

State Summaries of Weather and Agriculture

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

ALABAMA: Heavy rain and flooding south. Cold in north. Temperatures 10° below normal. Rainfall in excess of 2.00 in.

Fieldwork minimal. Outdoor activity limited to care and feeding of livestock and poultry. Small grains made limited growth. Increasing amounts of stored roughage being fed.

ARIZONA: Temperatures near normal. Warming trend weekend; temperatures 7 to 12° above normal. Scattered light precipitation 23d, 24th.

Conditions vastly improved. Cotton harvest resumed late week. Only scrapping many areas. Field preparations, planting small grains resumed. Earlier planted grains growing well. Sugarbeets making good development. Alfalfa hay activity seasonally limited. New, renovated fields growing well. Lettuce, mixed vegetable harvest resumed. Later planted vegetables growing well. Harvest lemons, grapefruit, tangerines underway. Navel, sweet orange harvest virtually complete. Range condition continued improvement. Stock water supplies generally good. Increased soil moisture promoting browse. Cattle, calves generally good condition.

ARKANSAS: Highest normal 46°, lowest 37°; highest mean 36°, lowest 25°. Extremes: 51 and 3°. Departures 9 to 14° below normal. Most precipitation 2.82 in.; least 0.12 in. Precipitation mostly snow but some rain.

Fieldwork activity nil due to snow cover. Cattle herds remain on supplemental feed. Still some cotton scrapping to do when weather allows.

CALIFORNIA: Stationary high pressure area kept storms well north. Only northwest section received several hundreds of an inch of precipitation while elsewhere remained dry. Temperatures cooled a bit but generally remained near or slightly above normal. Southeast interior reported temperatures of 2 to 5° below normal.

Rainfall, warm temperatures beneficial new plantings hay, small grains. Weed control active. Cotton plowdown continued. Sugarbeet planting well along southern San Joaquin Valley. Cultural practices in full swing with drying conditions. Buds swelling in most tree fruits. Early almond blooms apparent. Vegetable fields drying but ground preparation quite limited. Harvest broccoli, cauliflower increasing Santa Maria-Oceano; light other areas. Harvest celery, lettuce back to normal south. Range, pasture improving. Calving, lambing continue. Moving beehives into almonds.

COLORADO: Snowfall general, 1 to 3 in. lower elevations, 6 to 24 in. mountains. Ground blizzards over northeast 25th. Dense fog east during nights and mornings late week. Arctic air resulted in temperatures 4 to 8° below normal eastern plains; elsewhere readings 1 to 7° above normal.

FLORIDA: Partly cloudy and mild early week with showers and thunderstorms 25th, turning colder end of week. Freezing or near freezing temperatures mornings of 28th, 29th. Rainfall mostly light over Peninsula, averaging near 0.25 in. north. Panhandle areas received average of 1.00 to 2.00 in. except western Panhandle, 10.00 in. Temperatures averaged slightly below normal.

Soil moisture adequate south, north central areas, excessive, northeast, east central, west central, and western Panhandle. Sugarcane harvest continues on schedule. Land preparation limited because of wet soils. Small grains making very little growth because of cold weather. Tobacco seeds are coming up in plant beds. Peach and nectarine trees are in good condition. Overall grazing conditions poor to fair. Permanent pasture grasses brown, short due to cold weather. Growth small grain pastures slow. Condition temporary pastures mostly fair. Cattle condition mostly good. Supplemental feeding active. Citrus very good condition, moisture adequate all areas, temperatures late week near or below freezing, but of short duration and no appreciable damage. Fruit droppage generally low. Orange harvest very active, more labor could be used. Vegetable crops in fair to mostly good condition. Cold weather slowing plant maturity, seed germination. Shipments up 5% from previous week. Fruit set continues light. Volume increased most crops. Crops increasing are snap beans, cabbage, carrots, celery, chinese cabbage, escarole, strawberries, lettuce, okra. Sweet corn, potatoes, radishes, squash, tomatoes held steady. Cucumbers, eggplant, peppers declined in supply. Spring plantings continue weather permitting.

GEORGIA: Temperatures ranged 5 to 10° below normal. Extremes: 29 and 49°. Heavy rain fell 24th and 25th with flooding on many major streams.

Cold and wet conditions continue to limit field activities. Soil moisture excessive. Harvest of corn, cotton, pecans, and soybeans virtually complete. Some lime spreading in southwest. Tobacco bed preparation nearing completion. Small grains good condition. Pastures, cattle fair condition.

HAWAII: Weather favorable crop growth. Beneficial rains some areas of Hawaii and Kauai.

Most sections dry on Oahu and Maui. Continued dry condition Kona. Forage growth Kau sections Hawaii Island worsen. Some pastures parched. Heavy supplemental feeding livestock. Some cattle death losses reported. Vegetable supplies: Cabbage remaining heavy; others light to moderate. Banana supplies seasonal decline. Papaya, pineapple harvesting light. Sugar slack. Windward pastures Hawaii Island received beneficial rains.

IDAHO: Temperatures 1 to 14° above normal. Extremes: 53 and -21°. Precipitation generally below normal except parts of Magic Valley and southeast valleys. Precipitation 0.56 in. to trace.

Caring for livestock. Livestock holding areas muddy. Calving and lambing continue. Livestock generally good condition. Feed supplies adequate.

ILLINOIS: Temperatures 2° below normal northern third, 9° below normal south. Precipitation more than 1.00 in. northeast; 0.25 to 0.50 in. elsewhere. Blizzard 24th through 27th; up to 12 in. snow.

Winter wheat mostly good. Livestock doing well most areas; reduced weight gains. Soil moisture mostly adequate.

INDIANA: Blizzard beginning 25th; snow fall of 18 to 36 in. with winds to 60 mph. Road plowing

futile 26th and 27th because of winds. Interstate roads not open until 29th. Many snowfall records broken. Fieldwork nil. Snow removal, caring for livestock and chores.

IOWA: Cold with light snowfall. Temperatures 10° subnormal. Snow cover varies from 1 to 2 in. over south and 7 to 10 in. over northeast.

KANSAS: Unseasonably cold with intermittent light snows. Generally less than 0.10 in. moisture. Temperatures averaged from 17° north central to 23° southwest or 8 to 11° below normal.

Cold, gusty winds, snow many parts placed heavy burden on cattle on pastures. Increased amounts supplemental feeding. Wheat crop rated generally good with adequate cover; some stress noted fields without snow cover. Principal farm activities caring for livestock, breaking ice, general farm chores.

KENTUCKY: Temperatures 15 to 20° below normal. Precipitation about 2.00 in. Blizzard on 25th and 26th; snow accumulation 2 to 4 in.

Severe winter storm caused many hardships for farmers. Extent of livestock losses unknown; livestock without shelter were vulnerable. Snow cover should help protect small grains and forage crops from extreme cold. Ice cover concern some areas.

LOUISIANA: Temperatures 8 to 14° below normal. Extremes: 65 and 19°. Rain heaviest 24th and 25th. Farm activities: Care and feeding of livestock.

MARYLAND & DELAWARE: Temperatures 5° below normal. Highs in upper 30's to 40° and lows in 20's except western Maryland where highs in 30's and lows in single numbers. Precipitation between 1.50 and 2.50 in. and for weekend, fair, breezy and cold.

Farmers limited to normal winter chores. Livestock in good condition.

MICHIGAN: Temperatures normal over southern Lower and 1 to 5° above normal over northern Lower and Upper Peninsula. Over Lower maximum temperatures generally ranged from low 20's to low 30's. Precipitation over Lower Peninsula generally totaled 1.00 to 2.00 in. locally up to 3.00 in. Over Upper amounts ranged from 0.70 to 1.00 in. west near Lake Superior to less than 0.20 in. interior. Most precipitation occurred as heavy snow associated with a blizzard 26th and 27th. Snow depth increases as result of blizzard ranged from near 10 in. extreme southeast to 10 to around 20 in. over the remainder of Lower Peninsula.

Due to blizzard only essential farm chores performed. Blocked roads necessitated milk dumping by some farmers who ran out of storage facilities.

MINNESOTA: Temperatures 2 to 10° below normal southwest and normal to 6° above normal northeast. Extremes: 32 and -20°. Precipitation averaged 0.10 to 0.25 in. above normal extreme south, 0.10 to 0.50 in. above normal extreme northeast and near normal elsewhere. Precipitation totals less than 0.20 in. except 0.20 to 0.40 in. extreme south and 0.20 to 0.70 in. extreme northeast. New snowfall less than 2 in. except 2 to 4 in. south and 2 to 10 in. northeast. Snow depth 4 to 8 in. south half and 8 to 20 in. north half except over 25 in. extreme northeast.

MISSISSIPPI: Temperatures 11° below normal. Extremes: 10 and 63°.

Soil moisture surplus to excessive. Fieldwork: 0.2 days suitable. Winter wheat and oats in poor to fair condition. Livestock in fair condition. Hay, roughage and feed supplies adequate to short.

MISSOURI: Temperatures ranged from 9° below normal in northwest prairie to 13° below normal southeast. Snow fell several days. Snow heaviest 24th and 25th. Snow cover averaged 1 to 3 in. in north and 3 to 10 in. south.

Farm activities limited by weather conditions.

MONTANA: Beginning of week arctic air pushed along line east of Cut Bank, Great Falls and Billings. Temperatures as much as 11° below normal. West of Divide and southwest, temperatures 5° above normal. Precipitation above normal.

Winter wheat condition good with adequate to excellent snow cover. Hay supplies adequate west, short to adequate elsewhere. Grazing closed or difficult in all areas. Livestock losses average. Calving and lambing starting.

NEBRASKA: Very light snow; generally less than 0.10 in. Temperatures 10 to 15° below normal.

NEVADA: Dry conditions prevailed. Precipitation light and mainly snow. Temperatures slightly above normal except a few areas northeast and south central. Extremes: -12 and 63°.

Livestock favored by above normal temperatures. Feed supplies adequate.

NEW ENGLAND: Intense storms 25th and 26th. Southerly winds pushed temperatures into 40's and 50's. Rain of 2.00 to 3.00 in. was absorbed by heavy snow cover. Remainder of week's weather rather placid with high pressure and below normal temperatures predominating.

NEW JERSEY: Temperatures 4 to 8° below normal, averaging 24° north, 25° south and 30° coastal areas. Extremes: -4 and 63°. Precipitation 1.00 in. above normal, averaging 1.65 in. north, 1.77 in. south and 1.76 in. coastal sections.

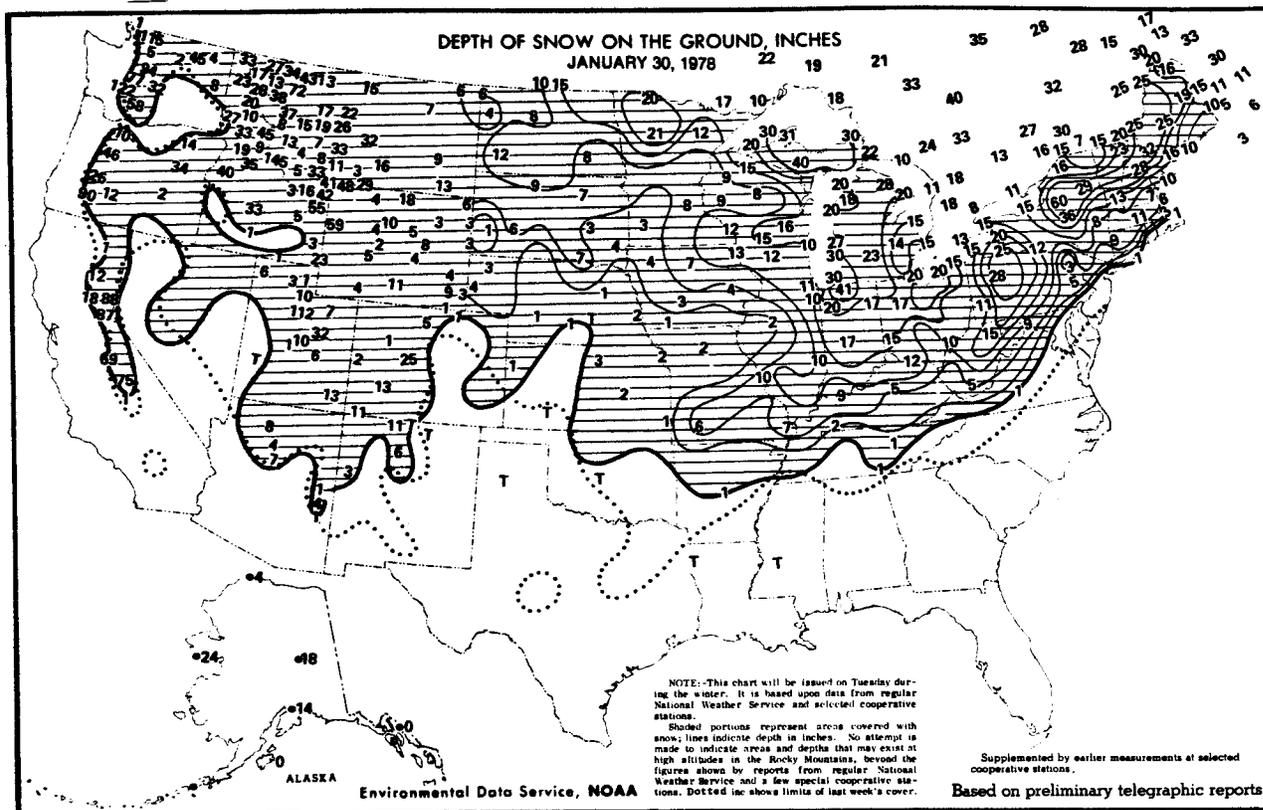
Farmers tending livestock. Snow and rainfall continue to sharply curtail outdoor farm chores.

NEW MEXICO: Snow extreme west 23d and nearly statewide 24th along with much colder temperatures. Gradual clearing 25th and dry and warming last half of week. Precipitation totals ranged from traces to more than 0.50 in.

Planting of spring lettuce and midseason onions continued in Mesilla Valley with seeding of durum wheat getting underway. Irrigated winter wheat, barley, fair to good condition with moderate grazing. Dryland winter wheat, poor to fair with very limited grazing. Ranges, fair with supplemental feeding increasing. Livestock good with calving and lambing reported.

NEW YORK: Storm 25th and 26th with rain and damaging winds. Near record warmth accompanied storm but colder weather that followed prevented serious flooding. Blizzard conditions followed storm in west. The storm settled snow pack somewhat but up to 5 feet was still reported east of Lake Ontario with substantial amounts elsewhere. Temperatures averaged near or slightly above normal and precipitation well above.

NORTH CAROLINA: Precipitation 1.50 to 3.00 in. Temperature 5° below normal east; 10° below normal west.



Fieldwork: Less than 1 day suitable. Soil moisture surplus. Condition small grains fair to good; pastures poor to mostly fair. Hay, roughage and feed grain supplies short to mostly adequate.

NORTH DAKOTA: Week began with mild temperatures, but quickly changed at midweek as blizzard struck. By weekend temperatures dropped to much below normal. Extremes: 34 and -33°. Less than 0.02 in. of precipitation. Snowfall ranged from trace to 3 in. Snow depth near 12 in. with up to 36 in. some areas.

Farm activity: Feeding and caring livestock; made continually difficult by blowing and drifting snow.

OHIO: Fair and cold 23d; rain, temperatures above freezing 24th, 25th. Most severe blizzard since records began hit early 26th, wind gusts 60 to 80 mph, temperatures falling to near zero. Severe drifting snow continued to 27th. Cold light snow through 29th except locally heavy snow in snowbelt east of Cleveland. Temperatures averaged below normal. Precipitation above normal.

Blizzard paralyzed upper two-thirds of state. Many farmers without electricity for 48 hours. Considerable milk dumped as roads were closed through weekend. Livestock losses but too early to assess. Large numbers isolated without feed or water. High winds damaged orchards and farm buildings. Some greenhouses collapsed.

OKLAHOMA: Temperatures much below normal, ranging from 16° below normal north central to 8° below normal Panhandle. Precipitation ranging from 0.49 in. southeast to 0.03 in. Panhandle.

Topsoil moisture and subsoil moisture short in west, adequate elsewhere. Winter wheat crop good

to fair condition. Previous snowfalls helped dry conditions somewhat. Livestock fair condition. Many pastures remain covered with snow. No shortages of hay so far, however, bitter cold weather kept most producers busy caring for livestock.

OREGON: Weather turned dry after wet weekend. Rainfall was light. Rainfall averaged 0.50 in. Willamette Valley and mostly less than 0.25 in. southwestern valleys and east. Southeast reported no measurable rain. Temperatures mild and generally 2 to 5° above normal. Extremes: Low 60's, high 20's west; low 50's, low teens east.

Soil moisture supply adequate. All crops look fair to good. Spraying continues as weather permits. Fruit and berry activity is minimal. Livestock in fair to good shape. Feeding heavy but supplies adequate. Calving and lambing normal.

PENNSYLVANIA: Fair, breeze and cold beginning and end of period; considerable warming with major storm developing 25th and 26th. Midweek storm brought sleet, freezing rain and finally rain which was heavy at times. Storm precipitation from 0.50 to 1.00 in. northwest to 1.00 to 2.00 in. eastern two-thirds and 2.50 to nearly 3.00 in. parts of southeast and northeast. Excessive local flooding from rain and snow melt. Weekly temperatures 2 to 6° below normal with extremes -14 and 60°.

Normal chores hindered by excessive snow accumulation and unusually high winds. Some reports of milk dumping as pick-up not possible. Numerous barn roof cave-ins from heavy snow with some loss of poultry and cattle reported.

PUERTO RICO: Island rainfall 0.16 in. or 0.57 in. below normal. Temperatures averaged about 76° on coasts and 70° interior. Extremes: 91 and 54°

SOUTH CAROLINA: Temperatures well below normal, lowest temperature 10° near weekend. Heavy rainfall up to 4.00 in. higher elevations 24th and 25th. Unusually windy weather 24th and 25th, wind gusting 60 to 70 mph. Widespread damage evident throughout state with some loss of lives.

Field activities limited by adverse weather. General maintenance and cleanup from windstorm effects to trees, property.

SOUTH DAKOTA: Temperatures 6 to 16° below normal. Extremes: -25 and 38°. Precipitation below normal; totals generally less than 0.25 in. Greatest amount was 0.42 in. North and east received 1 in. of new snow 29th.

TENNESSEE: Late 25th and early 26th rain and up to 4 in. of snow fell. Temperatures in 20's; 10 to 15° below normal. Precipitation averaged from near 1 in. in the east to over 3 in. west.

Farm activities limited by weather to general care of livestock and miscellaneous chores.

TEXAS: Cold air, cloudy skies caused below normal temperatures. Cold front midweek produced snow over northern sections, rain elsewhere. Temperatures averaged 6 to 8° below normal. Precipitation below normal most areas. Only Panhandle, eastern third near normal.

Cold temperatures, varying amounts snow, sleet, rain limited fieldwork. Wheat most areas nearly dormant due cold weather. Irrigated stands High Plains fair to good condition; light snow cover many fields. Dryland stands Plains received some snow, sleet; total moisture not enough to relieve moisture stress. Fields south central, east received enough moisture for growth when weather warms. Oat stands making limited growth due cold temperatures; some fields in East Texas, Edwards Plateau may have some freeze damage. Stands Cross-Timbers, Blacklands received varying amounts moisture; more needed. Oat fields East Texas, Coastal Bend little growth but recent moisture should boost growth when weather warms. Ginning of 1977 cotton crop nearly completed, although few gins still operating on southern High Plains, northern Low Plains. Flax growth slowed by cold weather but recent rains south central, Coastal Bend should boost growth with warmer weather. Fields South Texas developing well; need additional rain. Sugarcane harvest again interrupted by rain lower Rio Grande Valley.

Lower Rio Grande Valley wet conditions delayed vegetable harvest and field activities. Onions continued good progress although blight present in some fields. Citrus harvest active in better drained groves. Early orange harvest near completion, Valencia movement increases. San Antonio-Winter Garden area, potato, melon planting active. Recent cold temperatures caused damage to cauliflower. Spinach, onion growth slowed by cold weather. Harvest broccoli, cabbage, carrots, cauliflower, spinach active. Laredo, onions making good progress. Movement cabbage and carrots continues. Eagle Pass, broccoli, cauliflower, spinach, beet harvest continues. East Texas, inclement weather has land preparation at standstill. Central Texas, land breaking, seedbed preparation active on limited bases as cold, wet weather prevailed over area. Peach growers in central Texas pruning trees and preparing land for additional plantings.

Cold weather coupled with sleet, snow some localities causing livestock to lose weight. Ranchers feeding heavily; most livestock generally fair condition but number of herds becoming thin. Available grazing short. Soil moisture increased

substantially south central, East Texas, Coastal Bend area, but cold weather retarded growth winter pastures. Calving continuing; number of newborn deaths localized areas attributed to cold weather, ice storms.

UTAH: Moderate to heavy accumulation of snow or rain changing to snow with few isolated light showers northwest about midweek. Temperatures very variable ranging from 7° below to 8° above normal.

Moisture accumulation improved soil moisture. Farm and ranch activities slowed some due to wet and cold weather. Activities: Livestock chores; apples, potatoes and onions graded, sorted, and marketed.

VIRGINIA: Rainfall averaged 2.00 in. Temperatures 7° lower than normal. Extremes: 69 and -4°. Rain 25th and 26th 2.00 in., otherwise cold and dry. Minor flooding 26th through weekend.

High winds felled trees on power lines and fences. Power outages caused problems for many, especially dairymen and pork producers. Cold weather froze newborn calves, lambs, pigs. Supplies of feed and hay about one-third short of usual. Winter grains, grazing crops good to excellent. Pastures snow-covered north and west, but still providing forage in the east. Activities: Tobacco grading, marketing; feeding and caring for livestock.

WASHINGTON: West: Temperatures 3° above normal. Precipitation below normal coastal 1.20 in., east Cascade foothills 0.40 in., Puget Sound area 0.20 in., and San Juans 0.10 in.

Little field activity. Farmers doing chores. Hay shipped from east.

East: Temperatures 6° above normal central basin, 5° above elsewhere. Precipitation 0.30 in. below normal Palouse/Blue Mountains, 0.20 in. elsewhere.

Tree removal, grape and orchard pruning active. Trees remain hardy and dormant. Wheat under protective snow cover. Lambing and early calving continue. Mud a problem in barnlots and feedyards. Supply of hay and grain adequate.

WEST VIRGINIA: Temperatures well below normal. Precipitation 1.50 to 2.00 in. 24th and 25th, combined with melting snow produced serious flooding of most streams.

Most bottom-land under water. Soil moisture mostly surplus. Main activity feeding livestock. Hay supply short to adequate. Grain supply mostly adequate.

WISCONSIN: Temperatures below normal. Highs 20's and 30's to midweek, but not reaching teens through weekend. Lows mostly single digits until falling below zero weekend as skies were clear. Light snow 23d to 24th. Heavier snow developed evening 25th southeast. Blizzard conditions 26th with heaviest snow of 6 to 12 in. southeast and 1 to 3 in. northwest half. Strong winds caused poor visibility and created huge drifts. Many vehicles stranded. Snow depths averaged 6 to 12 in. northwest half, 13 to 16 in. south and east. Frost depths less than normal except where protective snow cover blown away.

WYOMING: Temperatures generally below normal. Highest temperatures in upper 30's to lower 40's in southeast. Lowest temperatures to -20° in west. Precipitation varied from 0.54 in. to 0. Snow depths varied from 59 to 2 in. Most drainages above normal precipitation. Livestock mostly good condition. Feed supplies remain adequate. Winter wheat fair to good.

World Weather and Crop Update

January 23 - 29

USSR. The cold snap which began in the previous reporting period continued, but temperatures moderated during the latter half. Temperatures were not critical in most winter grain areas except in parts of the eastern Ukraine; Zaporozhe, for example, recorded -23° C. with only a light snow cover to protect dormant wheat plants. Soviet media again have indicated that winter grains wintered satisfactorily as of January 20.

ASIA. Moderate to heavy rains fell in southeastern Queensland and the northeastern section of New South Wales; precipitation was light in other grain areas in these states as well as in southern and western Australia. In the People's Republic of China, moderate to heavy amounts of rain fell on the south central provinces of Hunan, Kiangsi, and Chekiang, extending into southern Anhwei and Kiangsu. Light precipitation was recorded in the southeast, but it was seasonally dry over other parts of China. India received little significant moisture.

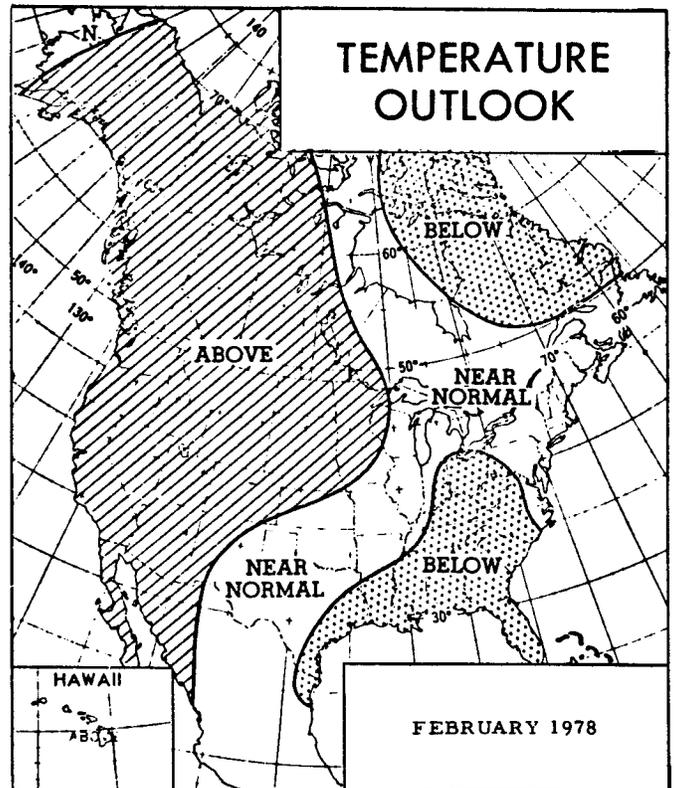
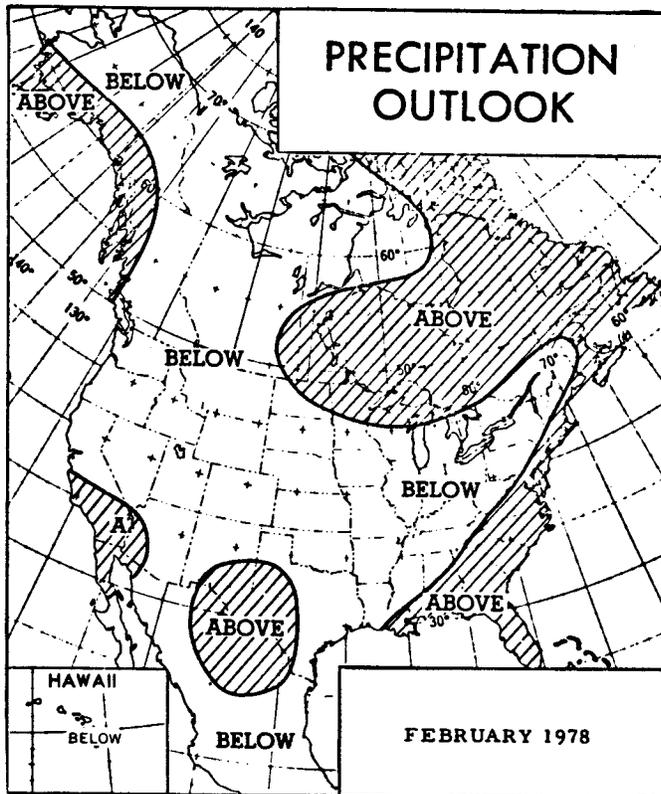
AFRICA. Light to moderate showers moistened the wheat areas of North Africa. Tunisia, which received generous rains in the previous week, recorded 7 to 10 mm. In South Africa, heavy to

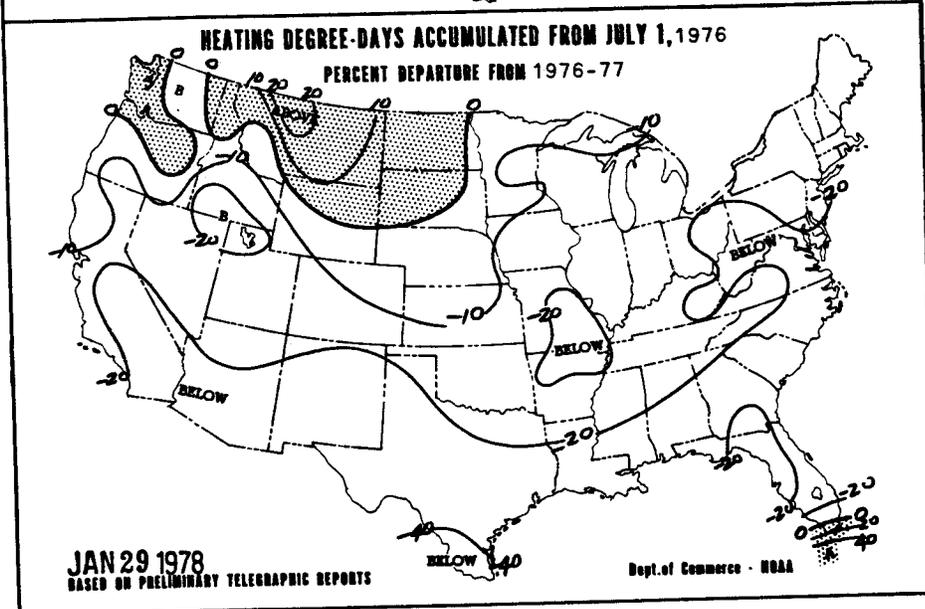
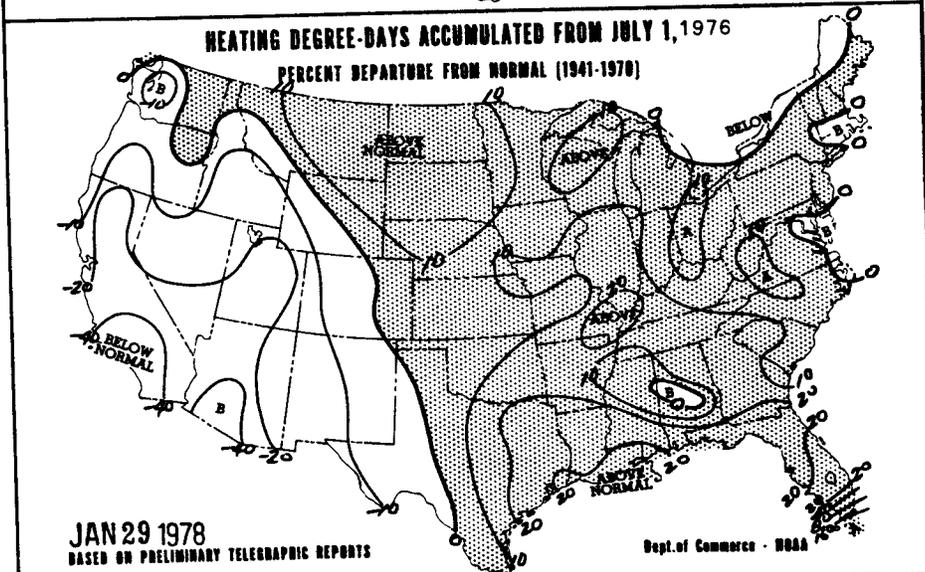
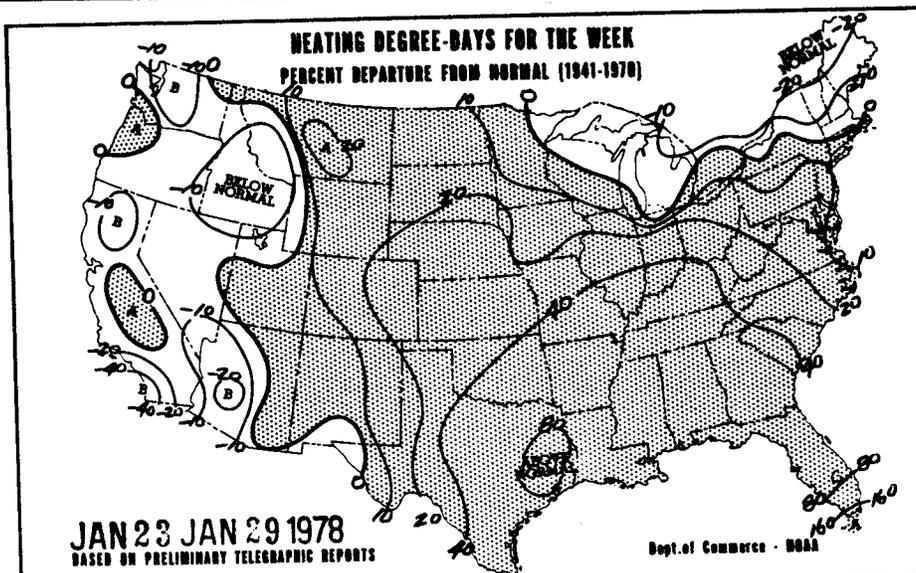
locally excessive rains fell over the Transvaal. Timely rains continues to aid crops and pastures in the Orange Free State.

SOUTH AMERICA. Heavy showers drenched most of the grain areas of Argentina; however, excessive downpours have caused some localized problems. Heavy rains also invaded southern Brazil, causing some local flooding conditions in Rio Grande do Sul. Moderate to heavy precipitation helped crops in central and eastern Santa Catarina, but the western part of this state received little moisture. With the exception of eastern Parana, which recorded moisture amounts of 10 to 20 mm, the remaining southeastern and eastern agricultural areas in Brazil received only scattered light showers.

EUROPE. Freakish winter storms brought blizzards to parts of the United Kingdom and some light snow to the Italian Riviera. Most of western Europe, however, was wet; heavy downpours in northern Italy created some local flooding problems. Eastern Europe, except for Romania and Bulgaria, received light to moderate amounts of moisture as seasonal temperatures prevailed. Moderate to heavy precipitation fell over most of Turkey.

Average Monthly Weather Outlook





HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING JAN. 29, 1978.

STATES AND STATIONS	WEEKLY			SEASONAL ACCUMULATION *			STATES AND STATIONS	WEEKLY			SEASONAL ACCUMULATION *			STATES AND STATIONS	WEEKLY			SEASONAL ACCUMULATION *		
	TOTAL	DEPARTURE*	DEPARTURE FROM 1976-77	TOTAL	DEPARTURE*	DEPARTURE FROM 1976-77		TOTAL	DEPARTURE*	DEPARTURE FROM 1976-77	TOTAL	DEPARTURE*	DEPARTURE FROM 1976-77		TOTAL	DEPARTURE*	DEPARTURE FROM 1976-77			
ALA. BIRMINGHAM...	215	46	201	252	496	496	MAINE CARIBOU...	503	81	521	74	845	YOUNGSTOWN.....	314	34	368	152	1015		
MOBILE...	149	49	149	149	149	149	PORTLAND...	287	31	412	83	594	OKLA. OKLAHOMA CITY	271	78	242	242	458		
MONTGOMERY...	169	49	169	169	169	169	MD. BALTIMORE...	253	31	270	20	637	TULSA...	271	78	242	242	458		
ARIZ. FLAGSTAFF...	236	2	3101	840	67	733	MASS. BOSTON...	236	16	292	80	515	OREG. ASTORIA...	73	6	2768	78	166		
PHOENIX...	236	2	3101	840	67	733	MICH. ALPENA...	304	32	451	39	684	BURNS...	255	6	2768	78	166		
PUEBLO...	236	2	3101	840	67	733	DETROIT...	304	32	451	39	684	MEDFORD...	255	6	2768	78	166		
TUCSON...	236	2	3101	840	67	733	GRAND RAPIDS...	304	32	451	39	684	PENDELTON...	255	6	2768	78	166		
WINSLON...	236	2	3101	840	67	733	FLINT...	304	32	451	39	684	PORTLAND...	255	6	2768	78	166		
YUMA...	236	2	3101	840	67	733	HOUGHTON LAKE...	304	32	451	39	684	SALEM...	255	6	2768	78	166		
ARK. FORT SMITH...	259	81	2363	304	605	605	LANSING...	304	32	451	39	684	PA. ALLENTOWN...	99	9	99	40	40		
LITTLE ROCK...	259	81	2363	304	605	605	MARQUETTE...	304	32	451	39	684	FRIDELAND...	99	9	99	40	40		
CALIF. BAKERSFIELD	420	6	220	220	144	144	MUSKOGEE...	304	32	451	39	684	HARRISBURG...	99	9	99	40	40		
EUREKA...	420	6	220	220	144	144	ST. CLOUD...	304	32	451	39	684	HARRISBURG...	99	9	99	40	40		
FRESNO...	420	6	220	220	144	144	S. STE. MARIE...	304	32	451	39	684	HARRISBURG...	99	9	99	40	40		
LOS ANGELES...	420	6	220	220	144	144	MINN. DULUTH...	89	8	576	340	617	PHILADELPHIA...	99	9	99	40	40		
RED BLUFF...	420	6	220	220	144	144	INTERNATL FALLS...	89	8	576	340	617	PHILADELPHIA...	99	9	99	40	40		
SAN DIEGO...	420	6	220	220	144	144	HYMNAPOLIS...	89	8	576	340	617	PHILADELPHIA...	99	9	99	40	40		
SAN FRANCISCO...	420	6	220	220	144	144	ROCHESTER...	89	8	576	340	617	PHILADELPHIA...	99	9	99	40	40		
STOCKTON...	420	6	220	220	144	144	ST. CLOUD...	89	8	576	340	617	PHILADELPHIA...	99	9	99	40	40		
COLO. DENVER...	396	52	3183	137	185	185	MISS. JACKSON...	91	9	1738	309	445	R.I. PROVIDENCE...	68	9	3241	37	696		
GRAND JUNCTION...	396	52	3183	137	185	185	MERIDIAN...	91	9	1738	309	445	S.C. CHARLESTON...	52	37	1364	43	462		
PUEBLO...	396	52	3183	137	185	185	MO. COLUMBIA...	91	9	1738	309	445	COLUMBIA...	52	37	1364	43	462		
CONN. BRIDGEPORT...	273	28	2854	5	500	500	KANSAS CITY...	91	9	1738	309	445	GREENVILLE...	52	37	1364	43	462		
HARTFORD...	273	28	2854	5	500	500	ST. LOUIS...	91	9	1738	309	445	DAK. ABERDEEN...	53	65	5537	619	138		
DEL. WILMINGTON...	254	23	2903	142	578	578	SPRINGFIELD...	91	9	1738	309	445	HURON...	53	65	5537	619	138		
D.C. WASHINGTON...	228	25	2375	48	640	640	MONT. BILLINGS...	91	9	1738	309	445	RAPID CITY...	53	65	5537	619	138		
FLA. APALACHICOLA...	131	49	1050	206	317	317	GLASGOW...	91	9	1738	309	445	SIoux FALLS...	53	65	5537	619	138		
DAYTONA BEACH...	131	49	1050	206	317	317	GREAT FALLS...	91	9	1738	309	445	TENN. CHATTANOOGA...	53	65	5537	619	138		
FORT MYERS...	131	49	1050	206	317	317	HAVER...	91	9	1738	309	445	KNOXVILLE...	53	65	5537	619	138		
JACKSONVILLE...	131	49	1050	206	317	317	HELENA...	91	9	1738	309	445	MEMPHIS...	53	65	5537	619	138		
KEY WEST...	131	49	1050	206	317	317	KALISPELL...	91	9	1738	309	445	NASHVILLE...	53	65	5537	619	138		
MIAMI...	131	49	1050	206	317	317	KANSAS CITY...	91	9	1738	309	445	TEXAS. ABILENE...	53	65	5537	619	138		
MARIETTA...	131	49	1050	206	317	317	MISSOULA...	91	9	1738	309	445	AMARILLO...	53	65	5537	619	138		
TALLAHASSEE...	131	49	1050	206	317	317	NEBR. GRAND ISLAND...	91	9	1738	309	445	AUSTIN...	53	65	5537	619	138		
TAMPA...	131	49	1050	206	317	317	LINCOLN...	91	9	1738	309	445	BIRMINGHAM...	53	65	5537	619	138		
WEST PALM BEACH...	131	49	1050	206	317	317	NORFOLK...	91	9	1738	309	445	BIRMINGHAM...	53	65	5537	619	138		
GA. ATLANTA...	216	62	2104	227	600	600	NORTH PLATTE...	91	9	1738	309	445	CORPUS CHRISTI...	53	65	5537	619	138		
AUGUSTA...	216	62	2104	227	600	600	OWA. VALENTINE...	91	9	1738	309	445	BEL RICH...	53	65	5537	619	138		
Macon...	216	62	2104	227	600	600	VAL. ELY...	91	9	1738	309	445	FORT PASKO...	53	65	5537	619	138		
SAVANNAH...	216	62	2104	227	600	600	LA. LAS VEGAS...	91	9	1738	309	445	FORT WORTH...	53	65	5537	619	138		
IDAHO. BOISE...	110	34	2954	41	740	740	RENO...	91	9	1738	309	445	GALVESTON...	53	65	5537	619	138		
LEWISTON...	110	34	2954	41	740	740	MINNEAPOLIS...	91	9	1738	309	445	HOUSTON...	53	65	5537	619	138		
POCATELLO...	110	34	2954	41	740	740	WINNEBUCCA...	91	9	1738	309	445	LUBBOCK...	53	65	5537	619	138		
ILL. CAIRO...	111	2807	501	350	350	N. H. CONCORD...	91	9	1738	309	445	SAN ANGELO...	53	65	5537	619	138			
CHICAGO...	111	2807	501	350	350	N. J. ATLANTIC CITY...	91	9	1738	309	445	SAN ANTONIO...	53	65	5537	619	138			
MOBILE...	111	2807	501	350	350	TRENTON...	91	9	1738	309	445	VICTORIA...	53	65	5537	619	138			
PEDRIA...	111	2807	501	350	350	N. MEX. ALBUQUERQUE...	91	9	1738	309	445	HACO...	53	65	5537	619	138			
ROCKFORD...	111	2807	501	350	350	ROSWELL...	91	9	1738	309	445	NICHITA FALLS...	53	65	5537	619	138			
SPRINGFIELD...	111	2807	501	350	350	N. Y. ALBANY...	91	9	1738	309	445	UTAH SALT LAKE CITY...	239	13	2683	759	670			
IND. EVANSVILLE...	115	3027	293	634	634	BINGHAMTON...	91	9	1738	309	445	VT. BURLINGTON...	297	46	4367	55	642			
FORT WAYNE...	115	3027	293	634	634	BUFFALO...	91	9	1738	309	445	VA. LYNCHBURG...	297	46	4367	55	642			
INDIANAPOLIS...	115	3027	293	634	634	NEW YORK...	91	9	1738	309	445	NORFOLK...	297	46	4367	55	642			
SOUTH BEND...	115	3027	293	634	634	ROCHESTER...	91	9	1738	309	445	RICHMOND...	297	46	4367	55	642			
IOWA. BURLINGTON...	103	3973	437	593	593	SYRACUSE...	91	9	1738	309	445	ROANOKE...	297	46	4367	55	642			
BES MOINES...	103	3973	437	593	593	N. C. ASHEVILLE...	91	9	1738	309	445	WASH. QUILLAVUTE...	66	15	232	232	418			
DUBUQUE...	103	3973	437	593	593	CHARLOTTE...	91	9	1738	309	445	SEATTLE-TACOMA...	66	15	232	232	418			
SIoux CITY...	103	3973	437	593	593	GREENSBORO...	91	9	1738	309	445	SPOKANE...	66	15	232	232	418			
KANS. CONCORDIA...	74	3536	281	225	225	HATTERAS...	91	9	1738	309	445	WALLA WALLA...	66	15	232	232	418			
DODGE CITY...	74	3536	281	225	225	RALEIGH...	91	9	1738	309	445	WAKINA...	66	15	232	232	418			
GOODLAND...	74	3536	281	225	225	WILMINGTON...	91	9	1738	309	445	W. VA. BECKLEY...	66	15	232	232	418			
TOPEKA...	74	3536	281	225	225	N. DAK. BISHARCK...	461	64	616	175	513	CHARLESTON...	66	15	232	232	418			
NICHITA...	74	3536	281	225	225	FARGO...	461	64	616	175	513	HUNTINGTON...	66	15	232	232	418			
WILLISTON...	74	3536	281	225	225	HILLISTON...	461	64	616	175	513	PARKERSBURG...	66	15	232	232	418			
OHIO. AKRON-CANTON...	319	114	768	261	555	OHIO. AKRON-CANTON...	319	114	768	261	555	WIS. GREEN BAY...	443	7	4723	23	938			
CINCINNATI...	319	114	768	261	555	CINCINNATI...	319	114	768	261	555	LACROSSE...	443	7	4723	23	938			
CLEVELAND...	319	114	768	261	555	CLEVELAND...	319	114	768	261	555	MADISON...	443	7	4723	23	938			
COLUMBUS...	319	114	768	261	555	COLUMBUS...	319	114	768	261	555	MILWAUKEE...	443	7	4723	23	938			
DAYTON...	319	114	768	261	555	DAYTON...	319	114	768	261	555	WYO. CASPER...	443	7	4723	23	938			
TOLEDO...	319	114	768	261	555	TOLEDO...	319	114												

Agricultural Climatology Service Office
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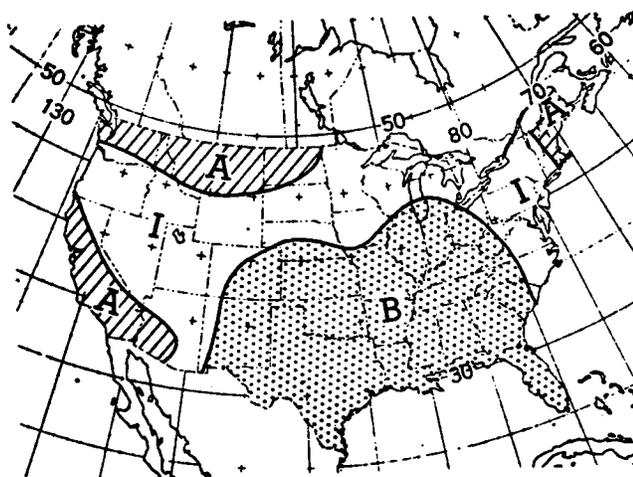
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OUTLOOK FOR 90-DAY AVERAGE TEMPERATURES

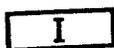
February through April 1978



Above Normal, favored by 3 to 2 odds



Below Normal, favored by 3 to 2 odds



Indeterminate, equal odds for warm or cold

"Normal" refers to the average temperature of the years 1941-70. The odds cited in this experimental outlook have been shortened slightly from those that can be quoted for our regular calendar season outlooks.

NOAA, National Weather Service
Long Range Prediction Group