

WEEKLY WEATHER AND CROP BULLETIN

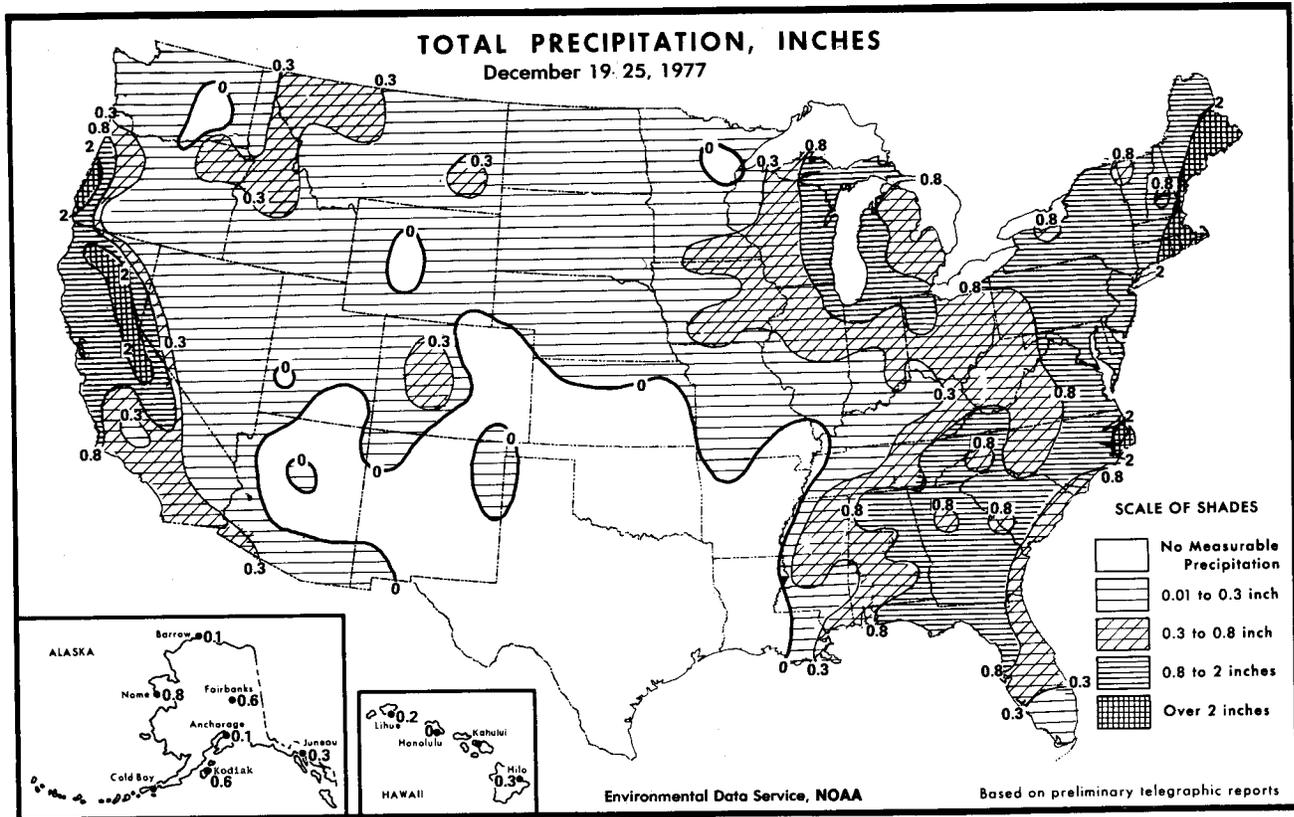
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National Weather Summary

December 19 - 25

HIGHLIGHTS: A large low pressure system off the West Coast was a mixed blessing. It triggered much-needed rain and snow from Oregon through California and Nevada into western Arizona. It also caused high winds blowing off the Sierras westward. Winds exceeded hurricane force in some areas of central and southern California and caused extensive damage to **avocados** and **citrus**. A cold outbreak from Canada into central U.S. engulfed most of eastern U.S. by the end of the week. Thunderstorms and tornadoes occurred in the South and rain or snow covered most of the area east of the Mississippi River.

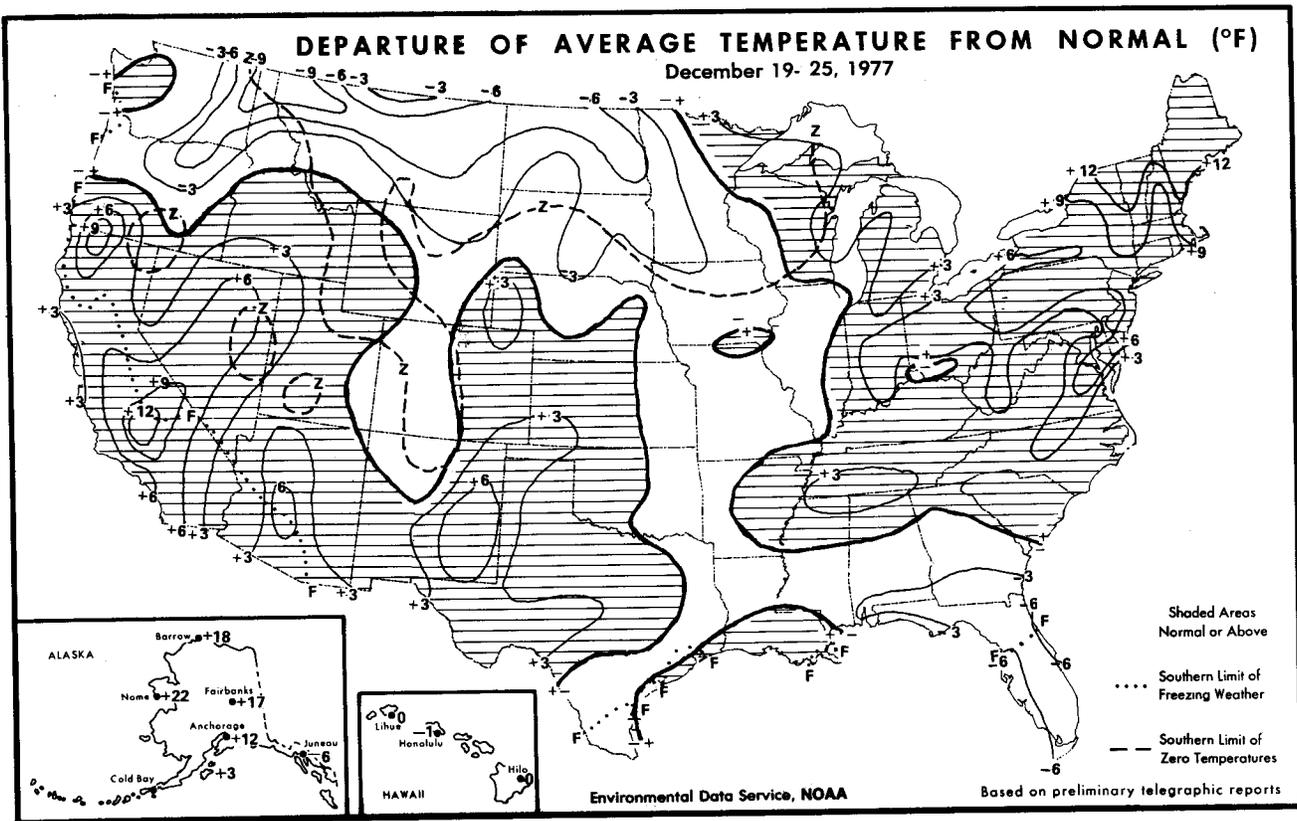
Low pressure triggered snow over sections of the Plains and the upper half of the Mississippi Valley on Monday; up to 4 inches fell on parts of Illinois and Wisconsin. Another storm off the East

Coast dumped heavy rains on the middle Atlantic States northward to southern New England.

Record high temperatures included 81° at San Antonio and Del Rio in Texas, 80° at Shreveport, La., and 75° at Jackson, Miss.

Heavy snows continued in the Midwest on Tuesday. Some points in northern Illinois counted 7 inches. Meantime cold air was pushing across the Plains and reached as far southwest as Arizona. Rain persisted from the middle Atlantic States to New England and another low pressure system formed in the **Southeast**. Heavy rains also soaked Florida and sections of the Deep South. High winds buffeted large portions of California causing damage to property and some crops.

Downpours along the East Coast moved northeastward and became snow and freezing rain in New England. In the storm's wake, minor flooding occurred in North Carolina, New York State, and



New Jersey. Snowfall lessened in the Midwest and crept into New York State where 5 inches blanketed Syracuse and 3 inches covered Rochester. Local flooding also plagued parts of Illinois and Indiana. A cold front marched through California--winds declined and rain fell; Ukiah recorded 1.17 in. and Oakland .70 in.

As the storm system moved northward along the East Coast, winter's cold air moved into the South from Texas to northern Florida on Thursday. Temperatures dipped to the low 30's and 20's. Jacksonville, Fla., marked 31° while Houston set a record for the date with 22°. Other unusual low temperatures were: Corpus Christi, Tex., 27°; Brownsville, 33°; and Lake Charles, La., 27°. Rain continued over Maine and snow flurries reached from Vermont to western New York through the eastern Great Lakes. Some flooding was reported on the lower Wabash in Indiana. Light rain extended from central California into Oregon.

Temperatures remained in the low 30's over northern Florida and the central Gulf Coast on Friday but warming began in Texas. The coldest temperatures in the nation were recorded in the northern Plains where below zero readings were seen. International Falls, Minn., reached 5° below zero. Rain continued in Oregon and northern California with snow in the mountains. Avalanche warnings were issued for the east slopes of the central Sierras. A deep low pressure system was centered off the Oregon Coast but seemed to be weakening. Snow fell over the northern Rockies

and Intermountain Region. Wind gusts of 85 mph were clocked at Boulder, Colo. Flooding continued along the lower Ohio and Wabash Rivers.

Showers continued in Oregon and northern California on Saturday and spread into southern California and parts of the Southwest. More snow fell in the mountains. Some freezing rain fell early in the day in North Dakota and the snow cover increased in Minnesota and the western Lakes area. The mass of cold air already over the northern Rockies and Plains pushed into the central Plains and middle Mississippi Valley. Thunderstorms developed Saturday afternoon over portions of the Southeast--two tornadoes touched down near Tupelo, Miss. Some injuries and property damage were reported. Showers began late in the day along the Coast from Georgia to Virginia. Mid-afternoon temperatures around the Nation ranged from 3° below zero at Cutbank, Mont., to 81° at Corpus Christi, Tex.

Sunday got off to a cold start with below zero temperatures from the northern Rockies through the Dakotas into Wisconsin and Upper Michigan. Freezing weather reached into Arizona, New Mexico, and northwest Texas. Biting winds added to the discomfort of the cold. The cold air was moving relentlessly southward and eastward and by day's end had reached the East Coast. Rain showers extended over portions of central and southern Florida and continued in the Southwest and central California. Snow was scattered from the Ohio Valley across the lower Lakes into Upper Michigan.

National Agricultural Summary

December 19 - 25

HIGHLIGHTS: Subnormal temperatures reached into the South as far as the Everglades. Low temperatures affected Florida's vegetable crops but not the citrus. Rains poured into California bringing relief to pastures and stock ponds, but winds sandblasted fruit, particularly avocados. Soil moisture was adequate to surplus except in the southern Great Plains and some of the Mountain States. Southern pastures generally rated fair to good with some grazing available as far north as Kentucky. Fields froze to support harvest equipment in several northern States. Soybean harvest in the South passed the 90% mark. Cotton picking moved sluggishly toward completion in the Delta and Southeast but far ahead of normal in the Texas-Oklahoma area.

SMALL GRAINS: Winter wheat rated good throughout most of the Nation, however, winds and dry soils deteriorated dryland stands on the southern Great Plains. High winds affected stands in Oklahoma, Texas, and Colorado. Very little snow cover was reported in the major growing areas.

Kansas wheat generally rated good, a decline from the good to excellent conditions in earlier weeks. Moisture supplies remain adequate except in the southwest and south central areas. Cattle grazed 15% of the Kansas wheat equalling the average and more than 1976's 5%. Oklahoma's soil moisture reserves declined with no significant precipitation falling on the winter wheat. The crop rated fair to good, but showed signs of moisture stress in the driest areas and where wind blew soils. Greenbugs remain a threat but were less active. Very little growth was available for grazing. Dry soils limited Texas wheat growth although recent moisture improved wheat in the south central and east. Irrigated stands on the Texas High Plains rated fair with good growth; dryland fields were moisture-stressed and growing very poorly. High winds further depleted soil moisture and blowing sand damaged some stands. Colorado's eastern plains sustained 40 mph winds. Topsoil moisture improved in the Pacific Northwest, but subsoil strata must be replenished too. Rain and wind delayed planting in California.

COTTON: Picking moved into the final stages with progress ranging from over 90% to completed in the Delta and Southeast. Georgia harvest stood at 92% and Alabama 93%. Oklahoma picking made moderate progress--reaching 95%. In Texas harvest was practically complete with only scattered fields in the plains and Trans-Pecos area to pick. Usually harvest extends well into January. Many Texas gins were operating and some ricks and modules were in the fields on the High Plains. New Mexico and Arizona growers harvested some of the last fields. Rains delayed California's plow-down activities.

OTHER CROPS: Row crop harvest dragged on for growers in some States. Frozen soils helped producers in some northern States, notably Ohio, to harvest some corn and soybeans. Missouri farmers kept chipping away at their remaining corn, sorghum, and soybeans.

Soybean harvest in the south central States and the Southeast dragged toward the finish line. North Carolina reached 87%, about average, Georgia advanced to 93%. Field conditions dictated where

growers could run their combines in South Carolina and Arkansas. Alabama growers advanced to 89% and Mississippi 94%, short of 1976's 99% and the 95% average.

Sugarcane harvest was active in Florida and Texas but almost complete in Louisiana.

FRUITS AND NUTS: Fruit growers pruned deciduous trees and grapevines and removed dead trees. Pecan harvest ranged from 93% in Georgia, 96% in Mississippi to 85% in Oklahoma. Florida citrus groves rated excellent with rainfall slightly above normal. Most trees were dormant and fruit was excellent with harvest active in all areas. Low temperatures did not damage Texas citrus; the holidays slowed picking though. Arizona citrus groves rated good with no wind damage. Harvests of Navels, sweets, tangerines, lemons, and grapefruit were in progress.

California's citrus and avocado crops sustained some injury from unusually high winds. The avocado loss is estimated at 12 to 15%, but some of this should be salvagable. Navel orange losses were light. Valencia losses should be less than 5%, but significant downgrading may result from wind-scattered fruit. Some fruit could be diverted from fresh to process uses. Wind defoliated some Kern and Ventura County citrus trees. Deciduous fruit and nut trees suffered some uprooting and broken limbs.

VEGETABLES: Low temperatures in Florida frosted foliage of tender crops causing minor burn damage and delaying vegetable maturity; shipments declined 20% from a week earlier. Crop quality generally was good. Supplies of all crops dropped except carrots and sweet corn which held steady and cabbage which increased. Strawberry harvest was underway with good volume now expected in mid-January. Growers began seeding watermelon acreage. In Texas low temperatures pushed a chilling wedge through the east along the Coastal Bend and into the lower Rio Grande Valley. Tomatoes were severely damaged in the Coastal Bend area, but the low readings also reduced insect populations; no other crops were reported damaged. Texas growers harvested bell peppers, spinach, broccoli, and cauliflower. California growers harvested good volumes of broccoli, cauliflower, carrots, celery and lettuce. Asparagus picking began in the desert. Arizona producers also harvested cabbage, cauliflower, broccoli, and lettuce.

PASTURES AND LIVESTOCK: Southern pastures rated fair to good with cattle getting some forage as far north as Kentucky. Cattle grazed crop stubble in Nebraska and Kansas, these areas had no snow cover. Cattle producers in most areas supplemented pastures with additional feed. Florida's permanent grasslands rated only poor to fair, but temporary pastures were growing well. Texas ranges deteriorated from the dry weather and heavy grazing pressure resulting from limited small grain growth. Only eastern areas of Texas had good small grain and grass growth. The possibility of range fires threaten drier areas along with reduced stock water supplies. California grasslands got a boost of more rain and snow although low temperatures slowed growth in some areas. Rains replenished some stock ponds, but supplemental feeding and water hauling continued.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Dec. 25, 1977

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
ALA. Birmingham . . .	44	-0	.1	-1.1	La. Baton Rouge . . .	52	0	T	-1.1	Youngstown . . .	34	+7	.5	- .1
Mobile . . .	49	-3	.4	-1.0	Lake Charles . . .	53	0	0	-1.3	OKLA. Okla. City . . .	40	+1	0	- .3
Montgomery . . .	48	0	.4	- .7	New Orleans . . .	54	0	.3	- .9	Tulsa . . .	37	-1	0	- .4
ALASKA. Anchorage . . .	24	+12	.1	+ .1	Shreveport . . .	47	-13	0	-1.0	OREG. Astoria . . .	42	0	.2	-2.2
Barrow . . .	4	+18	.1	+ .1	MAINE. Caribou . . .	26	+13	1.2	+ .6	Burns . . .	25	-2	.2	- .2
Fairbanks . . .	5	+17	.8	+ .5	Portland . . .	36	+12	2.2	+1.3	Medford . . .	46	+9	.1	- .7
Juneau . . .	20	-6	.3	- .7	MD. Baltimore . . .	35	+1	1.1	+ .4	Pendleton . . .	27	-8	.5	+ .1
Kodiak . . .	32	+3	.6	- .5	MASS. Boston . . .	42	+11	2.3	+1.4	Portland . . .	38	-2	.3	-1.0
Nome . . .	25	+22	.8	+ .7	Chatham . . .	41	---	2.9	---	Salem . . .	39	-1	.4	-1.1
ARIZ. Flagstaff . . .	33	+4	.1	- .2	MICH. Alpena . . .	29	+8	.3	- .1	PA. Allentown . . .	35	+6	1.8	+1.0
Phoenix . . .	59	+7	T	- .4	Detroit . . .	29	+2	.7	+ .2	Erie . . .	33	+6	.8	+ .2
Tucson . . .	54	+3	.2	0	Flint . . .	29	+4	.3	- .1	Harrisburg . . .	34	+3	1.8	+1.1
Winslow . . .	34	+2	0	- .1	Grand Rapids . . .	29	+3	.8	+ .3	Philadelphia . . .	38	+5	1.4	+ .7
Yuma . . .	56	+1	.4	+ .3	Houghton Lake . . .	24	+3	.5	+ .1	Pittsburgh . . .	36	+7	.5	+ .1
ARK. Fort Smith . . .	39	-1	T	- .6	Lansing . . .	29	+4	.6	+ .2	Scranton . . .	35	+8	1.0	+ .5
Little Rock . . .	42	+2	T	- .9	Marquette . . .	24	+2	1.0	+ .6	R.I. Providence . . .	39	+9	2.3	+1.4
CALIF. Bakersfield . . .	60	+13	.1	- .1	Muskegon . . .	29	+2	1.5	+1.0	S.C. Charleston . . .	49	+1	.4	+ .2
Eureka . . .	52	+4	1.5	0	S. Ste. Marie . . .	27	+9	1.1	+ .6	Columbia . . .	45	0	1.0	+ .2
Fresno . . .	52	+7	.8	+ .4	MINN. Duluth . . .	13	+1	T	- .3	Greenville . . .	43	+1	1.2	+ .0
Los Angeles . . .	61	+4	.4	- .1	Internat'l Falls . . .	9	+3	.1	- .1	S.D. Aberdeen . . .	10	-4	T	- .0
Red Bluff . . .	49	+4	1.6	+ .7	Minneapolis . . .	15	-1	T	- .2	Huron . . .	14	-3	.1	- .1
San Diego . . .	64	+8	.6	+ .2	Rochester . . .	15	-2	.5	+ .4	Rapid City . . .	22	-3	.2	+ .1
San Francisco . . .	52	+3	1.4	+ .4	St. Cloud . . .	11	-2	.2	0	Sioux Falls . . .	43	+3	.8	- .4
Stockton . . .	51	+6	.8	+ .2	MISS. Jackson . . .	47	-1	.7	- .4	TENN. Chattanooga . . .	42	+1	1.2	+ .1
COLO. Denver . . .	33	+1	0	- .1	Meridian . . .	47	0	.2	-1.1	Knoxville . . .	44	+3	T	-1.1
Grand Junction . . .	26	-2	T	- .1	MO. Columbia . . .	30	-1	.1	- .3	Memphis . . .	41	+2	.2	- .8
Pueblo . . .	32	0	0	- .1	Kansas City . . .	28	-2	T	- .4	Nashville . . .	47	+2	.2	- .3
CONN. Bridgeport . . .	38	+6	1.6	+ .9	St. Louis . . .	31	-2	T	- .4	TEX. Abilene . . .	39	+2	T	- .5
Hartford . . .	35	+9	1.9	+1.0	Springfield . . .	34	-1	T	- .6	Amarillo . . .	53	+2	0	- .5
D.C. Washington . . .	41	+5	.8	+ .1	MONT. Billings . . .	21	-4	.2	+ .1	Austin . . .	54	+1	0	-1.1
FLA. Apalachicola . . .	52	-2	.9	+ .2	Glasgow . . .	7	-8	.1	0	Beaumont . . .	61	-1	0	- .3
Daytona Beach . . .	53	-6	.5	0	Great Falls . . .	17	-8	.4	+ .3	Brownsville . . .	58	0	0	- .4
Ft. Myers . . .	58	-6	.2	- .1	Havre . . .	13	-3	.2	+ .1	Corpus Christi . . .	---	---	---	---
Jacksonville . . .	50	-5	.6	0	Helena . . .	21	-1	.2	+ .1	Dallas . . .	54	+3	0	- .1
Key West . . .	65	-6	.2	- .1	Kalispell . . .	13	-10	.3	- .1	Del Rio . . .	45	+2	T	- .1
Lakeland . . .	56	-5	.8	+ .3	Miles City . . .	14	-6	.5	+ .4	El Paso . . .	48	+1	0	- .4
Miami . . .	63	-5	.1	- .3	Missoula . . .	20	-3	.2	- .0	Fort Worth . . .	58	+2	0	- .8
Orlando . . .	56	-5	.7	+ .2	NEBR. Grand Island . . .	25	0	.1	- .0	Houston . . .	52	-2	0	- .9
Tallahassee . . .	48	-5	1.7	+ .7	Lincoln . . .	24	-0	.2	+ .1	Lubbock . . .	42	+2	T	- .1
Tampa . . .	53	-8	.7	+ .2	Norfolk . . .	22	-1	.3	+ .2	Midland . . .	47	+2	T	- .1
W. Palm Beach . . .	61	-5	.2	- .4	N. Platte . . .	22	-2	.1	0	San Angelo . . .	50	+3	0	- .2
GA. Atlanta . . .	42	0	.5	- .5	Omaha . . .	22	-3	.1	0	San Antonio . . .	51	-1	0	- .3
Augusta . . .	46	+1	.4	- .4	Valentine . . .	20	+3	.1	0	Victoria . . .	55	0	0	- .4
Macon . . .	47	0	.9	- .1	NEV. Ely . . .	31	+6	T	- .1	Waco . . .	51	+2	0	- .4
Savannah . . .	49	-1	.7	- .1	Las Vegas . . .	34	+2	.8	+ .5	Wichita Falls . . .	43	0	0	- .3
HAWAII. Hilo . . .	71	0	.3	-3.2	Reno . . .	34	+5	.2	0	UTAH. Blanding . . .	28	-1	0	- .3
Honolulu . . .	72	-1	0	- .9	Winnemucca . . .	30	+7	.8	+ .1	Salt Lake City . . .	31	+2	T	- .3
Kahului . . .	72	0	.2	-1.3	N.H. Concord . . .	41	+8	1.3	+ .4	VT. Burlington . . .	33	+13	.6	+ .1
Lihue . . .	72	0	.2	-1.3	N.J. Atlantic City . . .	39	+6	1.8	+1.1	VA. Lynchburg . . .	37	0	.4	- .3
IDAHO. Boise . . .	33	+2	.3	0	Trenton . . .	41	+8	1.3	+ .4	Norfolk . . .	42	+1	.8	+ .1
Lewiston . . .	31	-3	.1	- .2	N.MEX. Albuquerque . . .	48	+10	0	- .1	Richmond . . .	46	+8	1.2	+ .5
Pocatello . . .	26	+1	.1	- .2	Roswell . . .	34	-1	T	- .1	Roanoke . . .	38	+2	.6	- .1
ILL. Cairo . . .	38	0	T	- .9	N.Y. Albany . . .	29	+6	1.0	+ .4	WASH. Colville . . .	19	-7	T	- .5
Chicago . . .	26	-1	.9	+ .4	Binghamton . . .	33	+7	1.3	+ .7	Omak . . .	23	-2	T	- .4
Moline . . .	23	-2	.6	+ .2	Buffalo . . .	41	+7	1.2	+ .4	Quillayute . . .	39	-1	T	-3.6
Peoria . . .	24	-2	.6	+ .2	New York . . .	34	+8	.5	0	Seattle-Tacoma . . .	41	+1	T	-1.3
Rockford . . .	22	-1	.7	+ .3	Rochester . . .	33	+7	.8	+ .1	Spokane . . .	18	-10	.1	- .5
Springfield . . .	28	-1	.7	+ .3	Syracuse . . .	33	+7	.8	+ .1	Walla Walla . . .	30	-6	.5	0
IND. Evansville . . .	30	+3	.3	- .2	N.C. Asheville . . .	38	0	.3	- .5	Yakima . . .	29	-1	T	- .3
Ft. Wayne . . .	33	+4	.3	- .3	Charlotte . . .	43	+2	.6	- .2	W.Va. Beckley . . .	35	+4	.5	- .3
Indianapolis . . .	30	+4	1.7	+1.1	Greensboro . . .	41	+3	.4	- .4	Charleston . . .	38	+3	.4	- .3
South Bend . . .	26	0	1	- .3	Hatteras . . .	48	+2	2.4	+1.4	Huntington . . .	36	+1	.3	- .4
IOWA. Burlington . . .	22	-1	.5	+ .3	Raleigh . . .	43	+3	1.1	+ .4	Parkersburg . . .	37	+2	.4	- .2
Des Moines . . .	19	-2	.8	+ .4	Wilmington . . .	48	+2	.7	- .1	WIS. Green Bay . . .	24	+5	1.0	+ .7
Dubuque . . .	21	0	.1	0	N.DAK. Bismarck . . .	12	-1	.1	0	La Crosse . . .	18	-2	.5	+ .3
Sioux City . . .	29	0	T	- .2	Fargo . . .	4	-6	T	- .1	Madison . . .	22	+2	.6	+ .3
KANS. Concordia . . .	35	+3	0	- .1	Williston . . .	7	-6	.1	0	Milwaukee . . .	25	+3	1.7	+1.3
Dodge City . . .	30	+1	T	- .1	OHIO. Akron-Canton . . .	36	+8	.5	- .1	WYO. Casper . . .	23	-2	T	- .1
Goodland . . .	39	+1	T	- .1	Cincinnati . . .	31	-1	.1	- .5	Cheyenne . . .	27	-1	T	- .1
Topeka . . .	29	-1	0	- .4	Cleveland . . .	34	+5	.5	0	Lander . . .	23	+1	0	- .1
Wichita . . .	33	0	T	- .3	Columbus . . .	34	+5	.4	- .1	Sheridan . . .	19	-5	.1	0
KY. Lexington . . .	36	+2	.1	- .7	Dayton . . .	33	+4	.7	+ .2	P.R. San Juan . . .	79	+2	1.2	+ .1
Louisville . . .	37	+3	T	- .7	Toledo . . .	29	+3	.8	+ .3					

Based on 1941-70 normals

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State Summaries of Weather and Agriculture

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

ALABAMA: Temperatures 1° below normal. General rains 24th. Snow flurries north 21st.

Fieldwork: 3.6 days suitable. Soil moisture adequate to surplus. Cotton 93% harvested. Soybeans 89% harvested. Small grains good condition. Pastures, livestock fair condition.

ARIZONA: Temperatures slightly above normal; below normal in northwest. Light precipitation late week.

Late cotton harvesting continues. Clean-up activity for later crops. Small grain planting, stand establishment well underway. Early development satisfactory. Sugarbeets central, west good growth. Cooler temperatures may reduce growth. Alfalfa hay normal. Western areas early cuttings. Some fields weedy. Lettuce harvest full swing Yuma. Loose heads problem, cooler weather should help. Harvest early cabbage, cauliflower, broccoli continues. Harvest navels, sweets, early tangerines, lemons, grapefruit underway. Groves good condition, no wind damage. Range conditions poor; good higher elevations. Stock water supplies short to adequate. Desert ranges continue very dry, poor condition. Livestock fair to good condition, supplemental feeding some areas.

ARKANSAS: Mostly dry, cold. Traces of precipitation at several stations. Some snow flurries. Mean temperatures ranged from 1° above to 4° below normal. Extremes: 77 and 12°.

Cotton harvest complete. Some soybean acreage to harvest. Major activities: Equipment maintenance, livestock feeding, field preparation.

CALIFORNIA: Warm moist air from southwest Pacific combining with a deep low developing off the coast brought precipitation. With exception of mountain areas, where temperatures averaged several degrees below normal, temperatures above normal.

Small grain planting delayed by rains and wind. Cotton plowdown also delayed. Avocado wind loss estimated at 12 to 15% of crop. San Diego County hit hardest. Navel orange losses very light with no losses in Tulare and Fresno Counties. Downgrading of Valencia and lemon crop expected due to high winds; overall losses less than 5%. Moderate defoliation of citrus trees Kern and Ventura Counties. Grapevine damage reported in Kern County. Deciduous fruit and nut trees suffered some uprooting and broken limbs. Broccoli, cauliflower, carrot, celery, lettuce volume good. Artichokes light, asparagus beginning desert. Rains, snow beginning to improve pasture. Cold weather slowed growth. Supplemental feeding, water hauling continue. Rains filling stock ponds. Lambing and calving continues.

COLORADO: Drier and colder. Precipitation confined to mountains and some western valleys. Amounts 0.05 to 0.25 in. lower elevations, over 1.00 in. higher mountains. High winds 22d and 23d descended onto eastern foothills. Winds in excess of 100 mph in Ft. Collins-Loveland area; up to 40 mph over eastern plains. Temperatures 1 to 7° below normal in mountains and western valleys.

FLORIDA: Showers midweek and again at end with amounts ranging from very light to moderate. Coldest temperatures 24th with freezing and frost into Everglades.

Soil moisture mostly adequate, few wet areas upper east coast. More moisture beneficial in several central localities. Soybean harvest nearly complete. Sugarcane harvest continues full swing; crop good condition. Cotton picking continues. Small grains good to excellent condition. Land preparation underway. Permanent pastures poor to fair. Most oats, rye pastures for winter grazing planted and progressing well. Supplemental feeding increasing. Cattle condition good. Citrus groves excellent condition, rainfall slightly above normal, most trees dormant. General fruit condition excellent, harvest very active all areas. Adverse weather interrupted vegetable harvest. Shipments dropped 20% from previous week. Quality most crops generally good. Light frost caused minor foliage burn on tender crops. Crops declining in supply: Snap beans, celery, chinese cabbage, cucumbers, eggplant, escarole, lettuce, okra, green peppers, radishes, squash, tomatoes. Crops holding steady: Carrots, sweet corn. Cabbage shipments increased. Strawberry harvest underway. Good volume expected mid-January. First potato digging expected this week. Seeding watermelons starting.

GEORGIA: Temperatures slightly above normal central and north. Slightly below normal south. Normals ranged from 41° northeast to 53° extreme southeast. Warm through midweek; cooler later. Rainfall mainly first and midweek. Amounts 0.25 to 0.75 in.; heaviest 1.70 in.

Soil moisture adequate to surplus. Fieldwork: 3 days suitable. Wet conditions limited fieldwork. Corn poor; harvest 99% complete. Cotton mostly poor; 92% harvested. Soybeans mostly fair; 93% harvested. Pastures fair to good. Cattle fair to good. Hogs mostly good. Pecans mostly fair; harvest 93% complete. Wheat, rye and other small grains 98%, 99%, 99% seeded respectively; no comparisons for 1976.

HAWAII: Weather cool and generally unfavorable. Winds gusty. Skies overcast. Rainfall light.

Damage to crops and banana orchards exposed areas. Yields and quality affected. Vegetable supplies: Chinese and head cabbage heavy, others light to moderate. Banana supplies heavy. Papaya supplies declining seasonally. Pineapple harvesting light. Sugar harvesting down. Pasture leeward areas poor; need more moisture. Forage growth fair to good windward area. Moisture still adequate.

IDAHO: Temperatures 4° below normal. Extremes: 45 and -26°. Precipitation generally above normal. Farm activity confined to tending livestock and marketing. Feed supplies adequate.

ILLINOIS: Temperatures 1° above normal to 2° below normal. Precipitation 0.75 in. north, none extreme south.

Winter wheat mostly good. Soil moisture adequate to surplus.

INDIANA: Rapid and wide temperature fluctuation. Averages near normal but ranged from upper 50's to single digits. Up to 0.50 in. rain fell northern half. Snow fell late week but accumulations heavy only near lake.

Soils frozen deeply enough to support equipment on all but extremely wet fields. Fieldwork nil. Major activities: Chores, caring for livestock, cleaning bunkers, equipment repair.

IOWA: Light to moderate snowfalls and slightly subnormal temperatures. The 19th and 20th snow and blowing snow followed by warm and some thawing 22d and 24th, turning much colder weekend. Snow cover decreased to 3 or 4 in. northeast to little or none southwest.

KANSAS: Little or no precipitation. Temperatures 30 to 33° north, 34 to 36° south; 1 to 2° above normal north central and east central, 3 to 5° above normal elsewhere.

Wheat condition generally good. Moisture supplies adequate with exception of southwest and west central. Cattle continue to graze stubble fields; 15% of wheat pastured, equal to average, 5% last year.

KENTUCKY: Temperatures above normal early week, near normal midweek, normal end of week. Precipitation less than 0.25 in.

Farmwork normal chores and caring for livestock. Pastures providing some grazing but supplemental feeding generally necessary. Tobacco markets closed until after holidays.

LOUISIANA: Temperatures normal to 2° below. Extremes: 80 and 18°. Showers 19th and 20th southeast.

Sugarcane harvest near complete most areas. Farm activities: Feeding and care of livestock.

MARYLAND & DELAWARE: Temperatures 4° above normal. Highs in upper 40's, lows in 30's. Western areas colder. Precipitation heavy early week; 2.00 to 4.00 in. Weekend fair and cold with light rain 25th.

Farmwork limited to normal winter chores and inside work.

MICHIGAN: Temperatures 4 to 9° above normal over most of Upper and extreme northern Lower and 1 to 4° above normal over Lower Peninsula. Mild most of week, then cold 25th. Extremes: 43 and -8°. Precipitation ranged from 1.00 to 1.60 in. extreme southwest and extreme northern Lower; 0.20 to 0.50 in. northeast Lower. Over Upper amounts ranged from 0.80 in. western interior to near 1.00 in. elsewhere. Most of precipitation fell first half; snow showers weekend. Snow depths over Lower ranged from trace southeast to 4 to 10 in. over most of northwest and 10 to 15 in. extreme north.

Farm activities: Feeding livestock and farm chores.

MINNESOTA: Temperatures 2 to 5° below normal west and south and 1 to 4° above normal northeast. Extremes: 39 and -18°. Precipitation 0.30 in. above normal southeast and 0.10 to 0.20 in. below normal north and east central and less than 0.10 in. below normal southwest. Precipitation ranged from 0.50 in. southeast to 0.10 to 0.20 in. northeast thru central to southwest and less than 0.10 in. northwest. Snowfall 5 in. southeast to 1 to 3 in. elsewhere. Snow on ground ranged from 17 in. north central to 1 in. or less southwest.

MISSISSIPPI: Temperatures near normal; lowest reading 17°.

Soil moisture adequate to surplus south, surplus elsewhere. Fieldwork: 3.1 days suitable. Soybeans 94% harvested, 99% 1976, 95% average. Pecans 96% harvested, 98% 1976, 94% average. Winter wheat, oats, pasture and livestock good to fair condition. Hay and roughage supplies adequate. Feed grain supplies adequate to short.

MISSOURI: Temperatures 1 to 4° above normal with warmest departure from normal in Bootheel. Precipitation light; mostly less than 0.05 in. with no rain extreme southwest.

Farmers still in process of trying to finish harvest of corn, soybeans and sorghum.

MONTANA: Cold with frequent snows. Temperatures well below normal east of Divide. Southwest near normal. Precipitation generally above normal central and southeast, near or below normal elsewhere. Frequent temperature fluctuations due to invasion of Arctic air.

Livestock condition good; most livestock on supplemental feed. Grazing difficult in most areas.

NEBRASKA: Temperatures below normal first and last of period and up to 5 to 10° above normal 21st and 22d. Precipitation below normal.

Open weather allowed grazing of crop stubble.

NEVADA: Mild, wet. Significant precipitation early; midweek fair and cool. End of week stormy. Precipitation 0.50 in. north to 0.20 south and near zero extreme south. Temperatures 5° above to 5° below normal. Extremes: -20 and 65°.

Cotton harvest completed. Caring for livestock.

NEW ENGLAND: Occasional light snow or rain southern New England with generally fair weather to the north 19th and 20th, 3 to 6 in. of snow fell early 19th near Boston. Rainstorm southern New England 21st while snow to the north mixed with or changed to rain most areas. Fair weather 23d and 24th followed by widespread showery weather 25th. Above normal temperatures. Relatively mild weather reached climax 25th.

NEW JERSEY: Temperatures 3 to 5° above normal, averaging 34° north, 39° south and 41° coastal areas. Extremes: 20 and 56°. Precipitation above normal, averaging 1.84 in. north, 1.55 in. south and 1.24 in. coastal sections.

Farm activities limited to routine seasonal maintenance, livestock care and tree pruning. Subfreezing would help finish corn and soybean harvests.

NEW MEXICO: Mostly dry with light snow mountains. Temperatures near to slightly below normal except 6 to 7° higher than normal southeast.

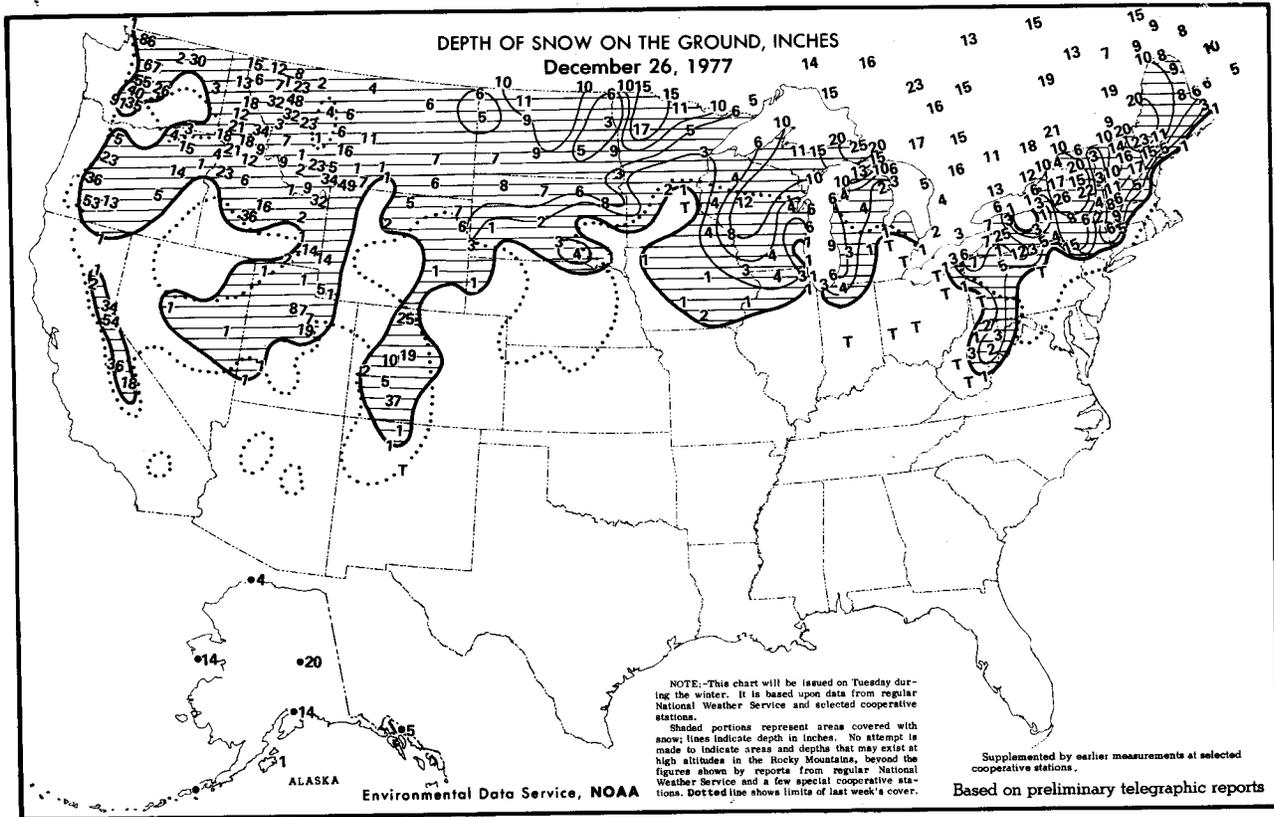
Surface and subsoil moisture continues very short to short most areas. Light mountain snows little benefit. Major activities: Clean-up cotton and pecan harvest; tending livestock and equipment maintenance.

NEW YORK: Temperatures 20 to 25% warmer than the normal. Warming trend continued throughout week with temperatures climbing into 40's. Precipitation as rain or snow changing to rain also above normal with weekly totals near 1.25 in.

NORTH CAROLINA: Temperatures 2 to 6° above normal. Precipitation 0.25 to 1.50 in.

Fieldwork: 2.3 days suitable. Soil moisture adequate to surplus. Conditions: Small grains good; pastures fair to good. Harvested: Soybeans 87%; about normal.

NORTH DAKOTA: Temperatures and precipitation normal. Moisture around 0.10 in. with exception of northeast where 0.25 in. occurred. Extremes: 35 to -10°. Severe ice storm knocked down rural power lines many areas, causing outages of few hours to nearly a week. Travel off main highways hazardous.



OHIO: Mild weather 19th and 20th. Above normal temperatures 23rd, 24th. Below normal temperature 25th. Snow flurries 21st, 22d, 25th. Greatest snow depth 4 to 5 in. northeast 25th.

Frozen ground allowed soybean and corn harvest to resume in northwest on weekend. Limited corn picking continues northeast.

OKLAHOMA: Temperatures near normal northern third; from 1 to 4° above normal central third and southwest; and 1° below normal south central and southeast. High temperatures reached low 70's weekend; low temperatures in mid-teens 21st and 22d. No precipitation.

Dry week further dropped available soil moisture supplies; most areas short of topsoil moisture. Wheat fair to good condition showing signs of stress in driest areas or where winds blew soil. Greenbugs a threat but less active than earlier. Quantity of growth for grazing down. Sorghum harvest nearly complete except few wetter areas east. Cotton picking made moderate progress and now near 95% complete. Soybean combining nearing windup stage as fields dry in east. Pecans 85% picked. Dry weather contributed to drop in range condition. Supplemental feeding necessary most areas. Cattle marketing active as range and wheat grazing became short.

OREGON: Significant precipitation fell along south coast with lighter amounts west of Cascades. Rainfall along coast ranged from 0.80 to 4.53 in. In west precipitation ranged from 0.58 to 1.73 in. East of Cascades, rainfall ranged from 0.06 to 0.66 in. Temperatures near to slightly above normal west of Cascades and from 1 to 4° below normal east of Cascades. Extremes: Upper 60's, 20's west; lower 40's, below zero, east.

General farm activity light. Chores and up-keep major activity. Soil moisture continues to improve. Fall grain crops look good. Some concern over deep soil moisture on summerfallow lands. Livestock in good shape. Feeding continues. Feed supplies good.

PENNSYLVANIA: Temperatures near normal first half mild 23d and 24th, very cold weekend. Heavy precipitation east and central midweek. Mostly rain but 6 in. snow north central mountains. Light rain weekend. No snow south to foot in isolated sections north; most areas under 6 in. Extremes: 52 to -4°.

Normal winter chores.

PUERTO RICO: Island rainfall 0.31 in. or 0.69 in. below normal. Temperatures about 77° on coasts and 71° interior. Extremes: 91 and 55°.

SOUTH CAROLINA: Cold 21st dropped temperatures below normal. Relatively heavy rainfall in west. Cotton harvesting over 90% complete. Mill buying increased. Grower offerings light with most farmers holding. Soybean harvest continues when weather conditions permit. Pruning grape vines, apple and peach trees. Otherwise general farm maintenance, routine chores.

SOUTH DAKOTA: Temperature normal to 8° below normal. Extremes: -12 and 49°. Precipitation less than 0.25 in. except southeast where 0.25 to 0.50 in. recorded.

TENNESSEE: Temperatures at or slightly above normal. Precipitation much below normal. Activities: Care of livestock, and farm chores.

TEXAS: Cold fronts early, late week; warming trend midweek. Temperatures above normal, air generally dry. Rainfall below normal.

High winds on plains caused some erosion, further depleted soil moisture. Continued dry weather limited growth small grains, winter annuals. Growers many areas preparing land, applying fertilizer. Soils plains dry; hard to work. Cotton harvest generally complete; only scattered fields left plains, Trans-Pecos. Well ahead average completion late January. Some ricks, modules still in fields on plains; many gins still operating. Sugarcane harvest continues Lower Rio Grande Valley. Wheat growth limited due continued dry weather; some improvement south central, east from recent moisture. Irrigated stands High Plains fair, good growth; dryland fields moisture stressed, poor progress. Also, high winds further depleted soil moisture; blowing sand damaged some stands. Oats south central, east improved; furnishing increased grazing. Growth most areas limited by continued dry weather. Flax planting nearly completed. Stands, growth south central generally good; growth south slow. Cotton harvested 100%, 94% 1976, 90% average. Peanuts harvested 100%, 100% 1976, 99% average. Soybeans harvested 100%, 100% 1976, 99% average. Pecans harvested 93%, 96% 1976, 89% average. Wheat planted 100%, 100% 1976, 100% average. Flax planted 97%, 64% 1976, 94% average.

Citrus harvest continues, movement slowed by holidays. Cold temperatures caused no damage to citrus or vegetable crops Lower Valley. Coastal Bend tomatoes severely damaged by freezing weather. Insect levels in cabbage, spinach and carrot fields reduced because of cold weather. Harvest spinach, pepper, broccoli and cauliflower continues. Pecan harvest continues active.

Pasture, range conditions continuing to deteriorate most areas due continued dry weather; heavy grazing pressure resulting from limited growth small grains. Small grains, rye grass, clovers some growth east, south central, along coast, but growth other areas limited. Possibility of range fires exist drier areas with decreasing stockwater also problem. Livestock condition generally fair but ranges from poor to good depending upon amount grazing available or amount feed received.

UTAH: Widely scattered rain valleys and in mountains early week and again middle. Accumulated moisture generally light except locally moderate

higher elevations in northwest. Temperatures generally below normal.

Limited farm activities: Caring and feeding livestock, maintaining and repairing equipment. Continued sorting and marketing of potatoes, onions, and apples.

VIRGINIA: Temperatures near normal with extremes of 66 and 15°. Rainfall mostly first half averaging 1.00 to 2.00 in. except 0.25 to 0.50 in. southwest. Some light snow in west midweek.

WASHINGTON: West: Temperatures 2 to 3° below normal. Precipitation 0.80 to 3.20 in. below normal.

Little activity other than routine chores. East: Temperatures 1 to 3° below normal. Precipitation 0.10 to 0.40 in. below normal. Pruning and tree removal; also some pruning in vineyards. Early lambing activity started and fall calving continues.

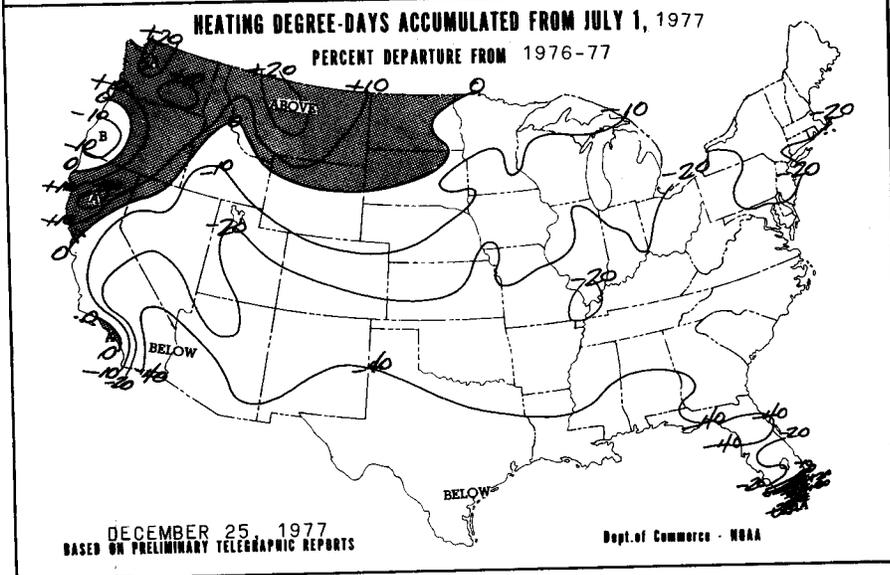
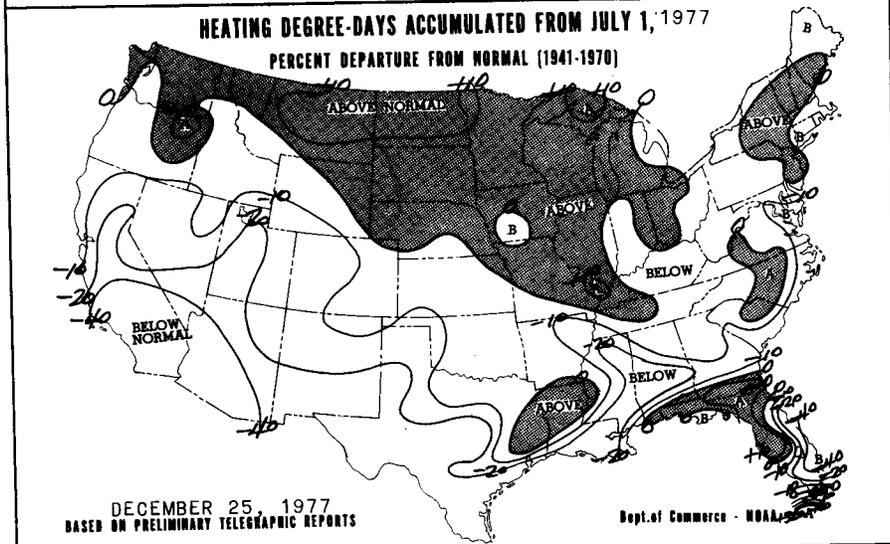
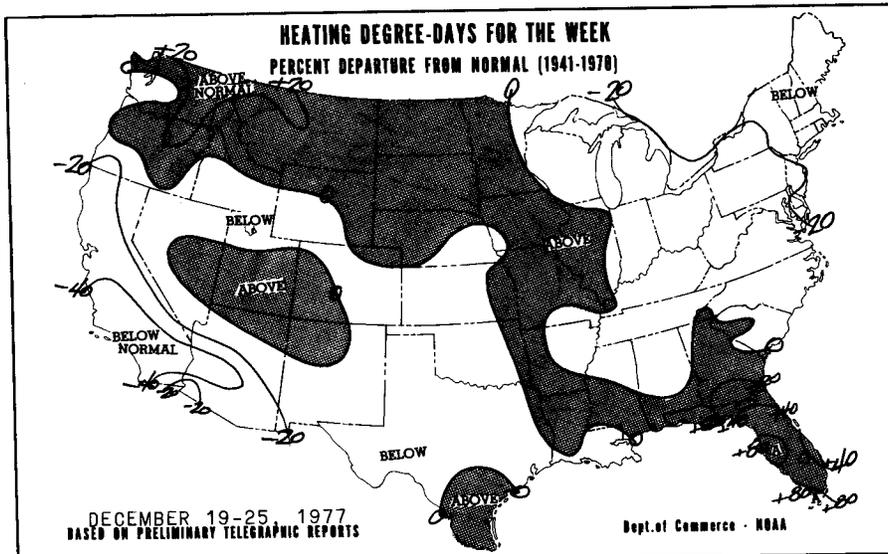
WEST VIRGINIA: Temperatures 5 to 7° above normal. Precipitation well below normal southern half, near normal north central, well above normal northeast.

Fieldwork: 2.7 days suitable. Soil moisture mostly adequate. Hay and grain supplies adequate.

WISCONSIN: Snowstorm 19th and 20th. Snow wet and heavy mixed with rain east. Heaviest amounts central and south central; 5 to 12 in. Southeast and east central recorded 3 to 6 in.; elsewhere 2 to 4 in. Moderate winds 21st created drifting and blowing. Snowstorm affected central and north 24th with 2 to 7 in. Light snow elsewhere. Temperatures ranged from 30 to 39° 19th and 20th; 1 to 32° 21st to 23d and mid-30's 24th. Temperatures plunged 25th ranging from -11 to 7°.

WYOMING: Temperatures slightly above normal. Highest temperatures upper 40's to low 50's in Lower Platte drainage. Green and Bear drainage temperatures below normal. Lowest temperatures 10 to 20° below zero. Precipitation below normal. Powder, Little Missouri, and Tongue drainage had greatest variations.

Lighter than normal feeding of livestock in some areas due to lack of heavy snow cover and warm temperatures.



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World Weather and Crop Update

December 19 - 25

USSR. After a brief period of moderate temperatures, bitter cold enveloped the winter grain areas of European USSR for the second time in two weeks. The dormant wheat plants in the southern and eastern Ukraine, lower Volga Valley, and the North Caucasus have been exposed to temperatures of -15 to -21 degrees C. A -20 degree reading was recorded as far south as Krasnodar in the North Caucasus. With little or no snow cover throughout most of these regions, crops may have been damaged in some areas.

ASIA. Hot, summer weather with little significant rainfall prevailed over the main grain areas in Australia--favorable for the wheat harvest, but nonirrigated summer crops and parched pastures need rain badly. Light rain fell over wheat-growing areas in northern India, but the remainder of the subcontinent was without significant moisture. The first major cold spell of the year in The People's Republic of China (PRC) brought nighttime frosts as far south as Hunan province. The cold front generated moderate to heavy precipitation in the south central provinces of Hunan, Hupeh, and Kiangsi and Chekiang on the eastern coast. The PRC officially announced that 1977 grain production was at about the 1976 level, however, no production figures were reported.

AFRICA. In South Africa, moderate to locally heavy rains were widespread over the Transvaal, but scattered light to moderate showers brought little relief to the Orange Free State where crops and pastures are in need of good soaking rains. There was little significant precipitation in North Africa.

SOUTH AMERICA. Weather was favorable for the wheat harvest in Argentina although heavy rains over the weekend temporarily interrupted harvest operations in some areas. The widespread rains, however, helped summer crops and forage, especially in western Buenos Aires province and eastern La Pampa. In Brazil light to moderate showers moistened summer crops in Rio Grande do Sul and Santa Catarina, but heavy showers, excessive in places, drenched the southeastern states. Moderate rains provided some needed moisture along the northeastern coast.

EUROPE. Above-normal temperatures and light rain, drizzle, or fog dominated the weather over the central and northern parts of western Europe, including the United Kingdom and northern Spain. Other areas were without significant precipitation. Most of eastern Europe experienced light precipitation with near normal temperatures. Winter grains in most areas are essentially without snow cover. Heavy precipitation occurred in part of Turkey's winter grain area.

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