

Weekly Weather & Crop Bulletin

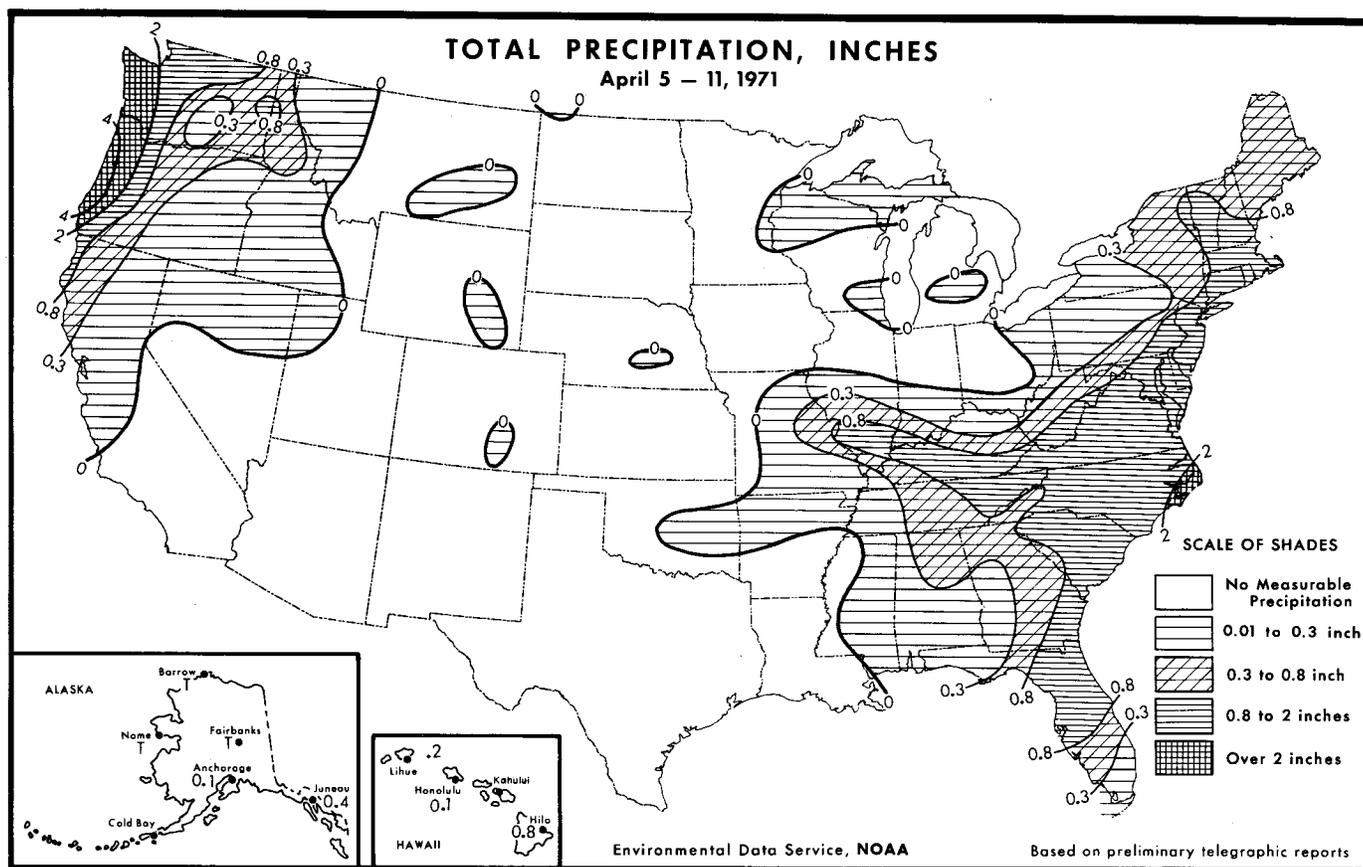
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Edited by Lucius W. Dye

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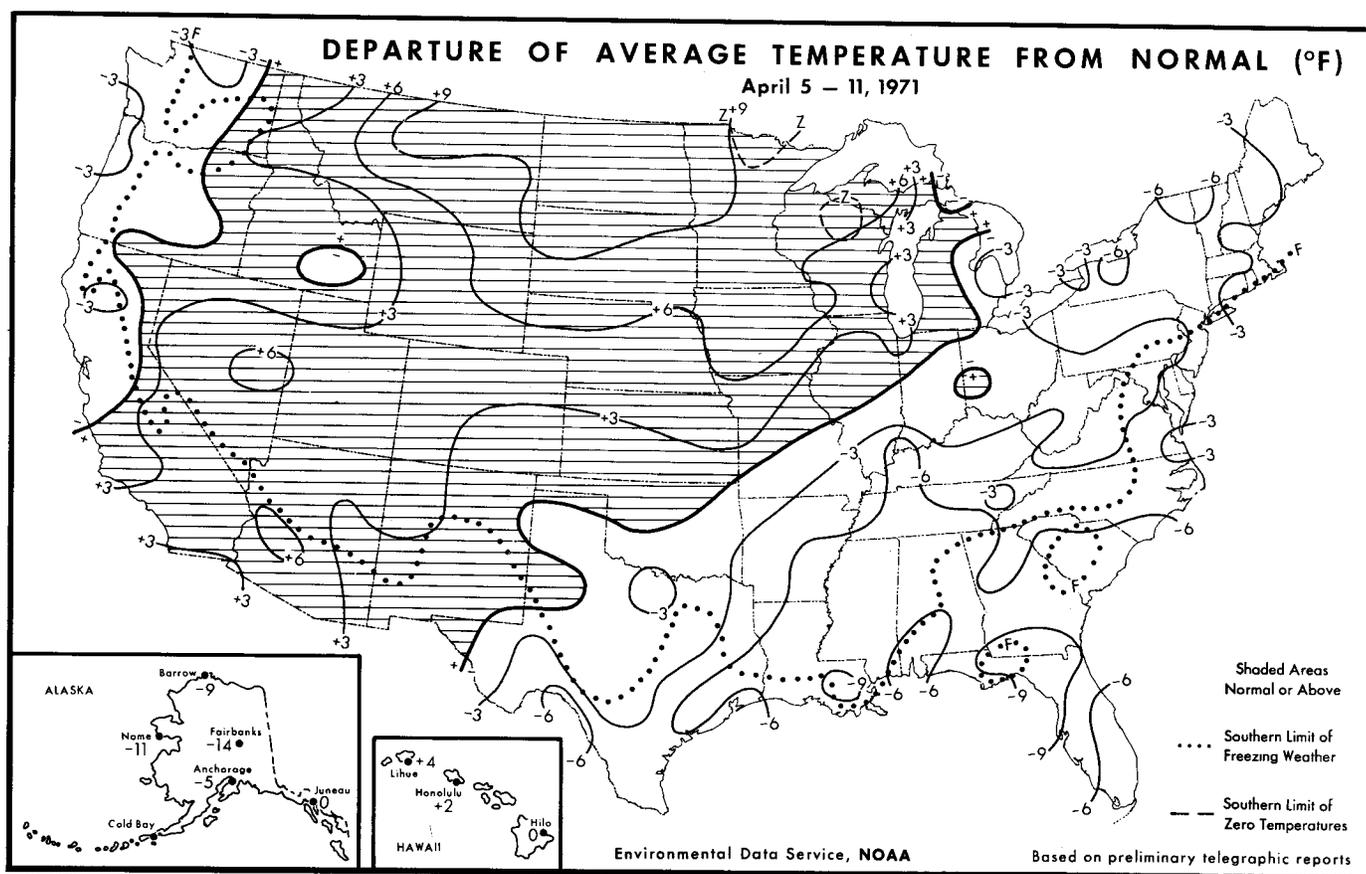
NATIONAL WEATHER SUMMARY

HIGHLIGHTS: Temperatures averaged above normal over the West and north-central parts of the Nation and cooler than normal over the East and Deep South. Little or no rain fell in the Southwest and over the Great Plains. The drought intensified in the southern Great Plains and in southern Florida.

PRECIPITATION: Sunny cloudless skies prevailed over most of the Nation last week. Rainfall totals exceeded 4.00 inches along portions of the Oregon coast. Light precipitation fell elsewhere in the Pacific Northwest. Significant rain fell from the Mississippi River to the Atlantic coast with totals exceeding 1.00 inch along the coast from southern New England to central Florida. A large area from Montana to California and eastward to the Mississippi River received no rain or only widely scattered light sprinkles. Much of this area is becoming very dry. The drought in south-

ern Florida is also intensifying.

A low pressure system over the eastern portion of the Gulf of Mexico on Monday crossed the Florida Peninsula and moved northward along the Atlantic coast during the week. Rain fell and a few thunderstorms occurred from Mississippi to Florida and the Carolinas on Monday. Strong gusty winds blew along the coast. Rain fell from the Lower Ohio River Valley to the middle and southern Atlantic coastal States and heavy snow blanketed portions of Missouri and Illinois. Snow accumulated to 13 inches at Belleville, Ill., a short distance east of St. Louis. The heavy wet snow stalled traffic, closed schools, and broke trees and power lines. Snow fell from the Ozark Mountains to Tennessee and northeastward to New England. High winds and rain occurred along the northern and middle Atlantic coast. The winds gusted to 50 to 60 m.p.h. at Cape Hatteras, N.C., Tuesday



and to 78 m.p.h. at Martha's Vineyard, Mass., Wednesday. Two feet of snow covered the ground at Doughton Park, Va., and 1.5 feet had fallen at Montebello, Va., by noon Wednesday before the storm moved out of the Country late Wednesday.

A large high pressure area moved southward over mid-America during the early part of the week. On Monday it was centered over southern Minnesota. By late Wednesday it had moved to the western part of the Gulf of Mexico. It caused fair skies over wide areas.

Rains fell at midweek along the northern Pacific coast in connection with a storm in that area. Snow fell in the mountains. Austin, Nev., received 6 inches of new snow Wednesday forenoon. Heavy rains along the Oregon coast Friday accompanied by strong winds. High winds accompanied and followed a cold front passage across the northern and central Great Plains Saturday. Sunny weather prevailed over almost the entire Nation Sunday.

TEMPERATURE: A large high pressure area moved southward across the middle of the Nation in the first half of the week. It brought mostly clear skies and some chilly temperatures. Eagle River, Wis., registered 5° below zero Monday morning.

Freezing temperatures occurred in the Deep South at midweek. New Orleans, La., registered 32° Thursday morning. Never before had the mercury plunged to the freezing mark at New Orleans so late in the spring. In contrast to the cold temperatures in the East, the Southwest was hot and southerly breezes brought a warming trend to the central Great Plains. Temperatures reached the 90's in spots in the southwestern deserts on Monday and Tuesday afternoons and the 80's in South Dakota and Nebraska on Wednesday. Pierre and Aberdeen, S. Dak., registered 85° Wednesday afternoon. Thursday and Friday were slightly cooler but southerly winds Saturday pushed the temperature at Pierre, S. Dak., to 86° before a cold front passage. By Sunday morning the mercury at Pierre had tumbled to 41° and it rose higher than 56° in the afternoon.

Temperatures averaged warmer than normal northwest of a line from western Texas to northern Lower Michigan and cooler than normal southeast of that line. The Dakota and portions of nearby States averaged 6° to 10° or more warmer than normal. Parts of the Deep South averaged more than 6° cooler than normal.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: : Fieldwork continued active and is ahead of schedule in the Corn Belt. * Winter wheat made good growth on the Central Plains, but dry winds reduced moisture. * Drought conditions became worse in the Southwest.

SMALL GRAINS: Winter wheat made rapid growth in the Central Great Plains. High winds continued to cause light damage throughout the area and reduce topsoil moisture. Dry windy weather further depleted the already-short moisture supply in the Southern Plains. Wheat crop prospects look dim in Oklahoma as 96% of the acreage is in poor to fair condition. Dryland small grains prospects remain poor in Texas. Jointing of wheat in Oklahoma is 71% complete with jointing underway in southern Kansas.

On the northern Great Plains winds caused light to severe damage to fall-sown grains but most fields are in fair to good conditions. Wheat greening started in Montana where winds continue to cause light damage. Winter-kill is minimal in northern States.

Fall-seeded grains look good in the Pacific Northwest but warm weather is needed to stimulate growth. Moisture is plentiful. Dryland grain acreage is in critical need of rain in New Mexico. Irrigated acreage is fair. In California and Arizona grains are heading out with some fields starting to ripen.

In the South moisture is abundant, but warm temperatures would aid development. Some heading started. Considerable greening occurred in the Corn Belt but northern fields are still dormant.

Seeding of spring grains made rapid progress throughout the Nation. Oat and barley seeding is well ahead of last year and average in the Corn Belt. Planting on the Great Plains made good headway but is behind schedule.

OTHER CROPS: Dry sunny weather was ideal for land preparation and planting activities in most regions. The only exceptions were in the Pacific Northwest and along the Atlantic Coast where fields were too wet. In the Corn Belt plowing made excellent headway as farmers worked long hours. Southern farmers were slowed by wet conditions early in the week but by the weekend were working around the clock as weather conditions were perfect. Seedbed preparation for dryland row crops was at a near standstill in the drought ridden Southern Plains. Activity has ceased until moisture is received.

Cotton stands are up and looking good in Southern California. Arizona acreage is emerging with satisfactory stands. Planting has fallen behind last year in Texas. Good weekend weather increased seeding in the South.

Corn planting was active in Southern areas. Corn Belt growers were busy plowing however some

corn acreage was planted as growers attempt to get the crop off to a fast start.

Planting of tobacco was slowed in South Carolina by wet soil conditions. Georgia acreage is 67% in. Moving into Florida, shade tobacco setting was completed. Rice planting is well ahead of last year in Texas and Louisiana. Peanut planting is underway. Emerged sorghum stands are satisfactory in Arizona. Some potatoes were planted in Colorado, Ohio, and Pennsylvania, with planting nearly complete on the High Plains of Texas.

Fruits and Nuts: Florida citrus trees are in excellent condition but more moisture is needed for the fruit setting period. Picking of the 1970-71 crop is declining. Peaches in Northern Texas were damaged by a frost April 6 and 7. Blooming of Arizona citrus is complete with new fruit starting to develop. Fruit set looks good in California, but some frost damage occurred to early peach, apricot and plum varieties. California grapes made vigorous growth. Peach prospects are mostly fair to good throughout the South. Cold weather damage is not expected to be excessive. Cherries and peaches are blooming in Oregon with the peach bloom expected to start this week in Maryland.

Vegetables: Texas onion harvest was active and quality good. Dryland watermelon prospects are poor. Vegetable shipments from Florida showed a moderate increase with cabbage, celery, and tomatoes leading in volume. Cool weather caused light damage to tender crops in northern areas. Lettuce harvest remains active in Arizona. Good supplies of celery are available from Southern California. Cutting of lettuce started in the Salinas Valley; supplies should increase in late April. Vegetable crops are mostly fair in the South, but warm weather would benefit growth and development.

PASTURES AND LIVESTOCK: Pastures and ranges are greening slowly in most U. S. regions. Grass growth is most advanced in the South but some farmers continue to need hay. Supplemental feed remains heavy in the dry Southwest as pastures are unable to supply adequate feed. Some ranchers are forced to sell cattle. Pastures are also late in the cold Northwest with hay supplies short. Ranges are turning green in Nevada and movement of herds to spring pastures has started. The unseasonably high temperatures and lack of rainfall made for good calving and lambing conditions in the West.

Grazing of winter grains is about over except for fall-seeded grain fields in the Southwest where growers must decide whether to graze out the fields or chance harvesting a grain crop.

S. Pscodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., April 11, 1971

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure*	Total	Departure*		Average	Departure*	Total	Departure*		Average	Departure*	Total	Departure*
ALA. Birmingham . . .	54	-7	.3	-.9	New Orleans . . .	57	-9	T	-1.1	OKLA. Okla. City . . .	57	0	T	-.7
Mobile . . .	61	-5	.1	-1.5	Shreveport . . .	58	-5	T	-1.1	Tulsa . . .	56	0	T	-.9
Montgomery . . .	56	-6	.2	-1.1	MAINE. Caribou . . .	31	-2	.5	-.1	OREG. Astoria . . .	44	-4	3.0	+1.7
ALASKA. Anchorage . . .	28	-5	.1	0	Portland . . .	36	-4	.8	-.1	Burns . . .	42	-1	1.1	-.1
Barrow . . .	-14	-9	T	0	MD. Baltimore . . .	49	-3	1.3	+ .5	Medford . . .	49	0	.6	+ .3
Fairbanks . . .	10	-14	T	-.1	MASS. Boston . . .	42	-3	1.4	+ .5	Pendleton . . .	50	+1	.3	0
Juneau . . .	36	0	.4	-.3	Chatham . . .	40	0	.9	0	Portland . . .	48	-2	2.2	+1.7
Nome . . .	6	-11	T	-.2	MICH. Alpena . . .	37	+1	T	-.6	Salem . . .	46	-3	3.6	+3.0
ARIZ. Flagstaff . . .	45	+4	0	-.3	Detroit . . .	45	-2	0	-.7	PA. Allentown . . .	44	-2	1.0	+ .1
Phoenix . . .	71	+6	0	-.1	Flint . . .	38	-3	.1	-.5	Erie . . .	37	-5	.2	-.6
Tucson . . .	68	+4	0	-.1	Grand Rapids . . .	44	+2	T	-.7	Harrisburg . . .	47	-2	.4	-.3
Winslow . . .	55	+2	0	-.1	Houghton Lake . . .	38	0	T	-.5	Philadelphia . . .	48	-1	1.4	+ .6
Yuma . . .	72	+3	0	0	Lansing . . .	44	+1	.1	-.5	Pittsburgh . . .	43	-3	1.1	-.6
ARK. Fort Smith . . .	56	-3	.1	-.8	Marquette . . .	43	+7	.1	-.5	Scranton . . .	41	-5	1.2	-.6
Little Rock . . .	54	-6	T	-1.2	Muskegon . . .	43	+1	T	-.6	R. I. Providence . . .	43	-2	1.0	+ .1
CALIF. Bakersfield . . .	63	+2	0	-.2	S. Ste. Marie . . .	53	-1	T	-.5	S. C. Charleston . . .	56	+7	.9	+ .2
Eureka . . .	49	-1	1.1	+ .4	MINN. Duluth . . .	40	+7	T	-.5	Columbia . . .	55	-7	1.0	+ .1
Fresno . . .	63	+3	T	-.3	Internat'l Falls . . .	41	+8	T	-.4	Greenville . . .	54	-6	1.2	+ .3
Los Angeles . . .	65	+4	0	-.3	Minneapolis . . .	48	+7	T	-.4	S. DAK. Aberdeen . . .	50	+9	T	-.4
Red Bluff . . .	55	-4	.2	-.3	Rochester . . .	47	+7	T	-.5	Huron . . .	47	+6	0	-.4
San Diego . . .	64	+3	0	-.2	St. Cloud . . .	47	+8	T	-.4	Rapid City . . .	50	+9	T	-.3
San Francisco . . .	53	-2	.1	-.3	MISS. Jackson . . .	54	-8	T	-1.1	Sioux Falls . . .	49	+7	T	-.5
Stockton . . .	57	-1	.2	-.1	Meridian . . .	55	-7	T	-1.3	TENN. Chattanooga . . .	52	-7	.6	-.5
COLO. Denver . . .	49	+5	T	-.5	MO. Columbia . . .	53	+1	.3	-.4	Knoxville . . .	53	-3	1.8	+ .9
Grand Junction . . .	55	+5	0	-.2	Kansas City . . .	58	+5	0	-.8	Memphis . . .	53	-6	T	-1.2
Pueblo . . .	48	0	T	-.3	St. Louis . . .	51	-1	.9	0	Nashville . . .	51	-6	.4	-.5
CONN. Bridgeport . . .	43	-3	1.1	+ .2	Springfield . . .	52	-1	0	-.9	TEX. Abilene . . .	61	-1	T	-.4
Hartford . . .	43	-3	.9	+ .1	MONT. Billings . . .	48	+6	T	-.3	Amarillo . . .	54	-1	T	-.3
D. C. Washington . . .	51	-2	1.5	+ .8	Glasgow . . .	50	+11	T	-.2	Austin . . .	63	-3	0	-.7
FLA. Apalachicola . . .	59	-7	.4	-.7	Great Falls . . .	49	+9	T	-.2	Beaumont . . .	61	-5	0	-.9
Ft. Myers . . .	65	-7	.4	-.2	Havre . . .	48	+9	T	-.2	Brownsville . . .	68	-5	T	-.3
Jacksonville . . .	58	-9	1.0	+ .2	Helena . . .	41	+1	T	-.2	Corpus Christi . . .	65	-5	0	-.5
Key West . . .	71	-4	.2	-.4	Kalispell . . .	43	+3	T	-.2	Dallas . . .	62	-1	T	-.9
Lakeland . . .	63	-7	.3	-.6	Miles City . . .	50	+8	.1	-.1	Del Rio . . .	64	-6	T	-.3
Miami . . .	70	-4	T	-.8	Missoula . . .	45	+4	.1	-.1	El Paso . . .	62	+1	T	-.1
Orlando . . .	64	-6	1.1	+ .3	NEBR. Grand Island . . .	51	+5	T	-.5	Fort Worth . . .	60	-3	0	-.7
Tallahassee . . .	56	-10	.3	+1.1	Lincoln . . .	54	+5	0	-.5	Galveston . . .	62	-5	0	-.7
Tampa . . .	61	-9	1.0	+ .3	Norfolk . . .	50	+5	0	-.5	Houston . . .	59	-7	0	-.7
GA. Atlanta . . .	55	-3	.3	-.9	North Platte . . .	49	+5	0	-.4	Lubbock . . .	58	+1	T	-.2
Augusta . . .	55	-6	.5	-.4	Omaha . . .	52	+6	0	-.6	Midland . . .	59	-3	0	-.2
Macon . . .	57	-7	.3	-.7	Valentine . . .	49	+7	0	-.4	San Angelo . . .	63	-2	0	-.3
Savannah . . .	58	-6	1.2	+ .3	NEV. Elly . . .	46	+6	T	-.2	San Antonio . . .	64	-2	0	-.6
HAWAII. Hilo . . .	72	0	.8	-2.2	Las Vegas . . .	67	+5	0	-.1	Victoria . . .	62	-6	0	-.5
Honolulu . . .	76	+2	.1	-.3	Reno . . .	49	+3	T	-.2	Waco . . .	63	-1	T	-.7
Kahului . . .	-	-	-	-	Winnemucca . . .	46	+3	.4	+ .2	Wichita Falls . . .	59	-3	0	-.5
Lihue . . .	76	+4	.2	-.6	N. H. Concord . . .	39	-2	1.0	+ .2	UTAH. Blanding . . .	51	+5	0	-.2
IDAHO. Boise . . .	50	+2	.1	-.2	N. J. Atlantic City . . .	44	-4	.6	-.2	Salt Lake City . . .	50	+3	T	-.4
Lewiston . . .	52	+4	.4	+ .1	Trenton . . .	46	-3	2.0	+1.2	VT. Burlington . . .	32	-6	1.0	+ .4
Pocatello . . .	43	-1	T	-.3	N. MEX. Albuquerque . . .	56	+3	0	-.1	VA. Lynchburg . . .	51	-2	1.8	+1.0
ILL. Cairo . . .	53	-4	.2	-.8	Roswell . . .	58	+1	0	-.1	Norfolk . . .	52	-3	1.2	+ .5
Chicago . . .	51	+5	T	-.7	N. Y. Albany . . .	39	-4	.6	0	Richmond . . .	51	-5	1.5	+ .8
Moline . . .	50	+3	T	-.7	Binghamton . . .	36	-4	.2	-.5	Roanoke . . .	52	-2	2.0	+1.2
Peoria . . .	50	+2	0	-.9	Buffalo . . .	38	-2	.2	-.5	WASH. Colville . . .	45	0	.8	+ .6
Rockford . . .	47	+2	T	-.7	New York . . .	45	-4	1.6	+ .7	Omak . . .	43	-5	1.2	+1.0
Springfield . . .	51	+1	.3	-.5	Rochester . . .	36	-6	.1	-.5	Quillayute . . .	44	-2	3.6	+1.6
IND. Evansville . . .	48	-7	1.0	0	Syracuse . . .	39	-4	.4	-.4	Seattle-Tacoma . . .	46	-2	2.0	+1.4
Fort Wayne . . .	45	-1	T	-.7	N. C. Asheville . . .	50	-4	.6	-.2	Spokane . . .	46	+1	1.1	+ .9
Indianapolis . . .	47	-1	T	-.7	Charlotte . . .	53	-5	1.3	+ .5	Walla Walla . . .	52	0	.6	+ .3
South Bend . . .	46	+2	T	-.8	Greensboro . . .	50	-5	1.2	+ .4	Yakima . . .	46	-2	.2	+ .1
IOWA. Burlington . . .	51	+3	0	-.8	Hatteras . . .	53	-4	3.0	+2.5	W. VA. Beckley . . .	46	-2	1.5	+ .6
Des Moines . . .	53	+7	0	-.6	Raleigh . . .	52	-5	1.2	+ .4	Charleston . . .	49	-4	.4	-.5
Dubuque . . .	49	+6	T	-.7	Wilmington . . .	54	-7	1.8	+1.1	Huntington . . .	51	-3	.2	-.7
Sioux City . . .	51	+6	0	-.5	N. DAK. Bismarck . . .	49	+10	0	-.2	Parkersburg . . .	49	-2	T	-.8
KANS. Concordia . . .	54	+4	T	-.4	Fargo . . .	49	+11	T	-.3	WIS. Green Bay . . .	44	+4	T	-.5
Dodge City . . .	52	+1	T	-.4	Williston . . .	48	+10	T	-.2	La Crosse . . .	48	+5	T	-.6
Goodland . . .	49	+3	T	-.4	OHIO. Akron-Canton . . .	44	-2	T	-.7	Madison . . .	47	+6	T	-.6
Topeka . . .	55	+4	0	-.7	Cincinnati . . .	50	-1	.1	-.7	Milwaukee . . .	41	0	T	-.6
Wichita . . .	54	0	T	-.6	Cleveland . . .	41	-3	.1	-.7	WYO. Casper . . .	46	+6	T	-.3
KY. Lexington . . .	49	-3	.3	-.7	Columbus . . .	47	-1	T	-.8	Cheyenne . . .	42	+2	.1	-.3
Louisville . . .	50	-2	.3	-.6	Dayton . . .	49	+1	T	-.8	Lander . . .	45	+5	0	-.6
LA. Baton Rouge . . .	57	-9	0	-1.3	Toledo . . .	44	0	T	-.7	Sheridan . . .	46	+6	0	-.5
Lake Charles . . .	58	-8	0	-1.0	Youngstown . . .	41	-3	.1	-.8	P. R. San Juan . . .	78	+2	.9	+ .2

* Departures are from 30-year means (1931-60).

Based on preliminary reports

CONDENSED STATE SUMMARIES

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

ALABAMA: Showers and cold early in period, then sunny and mild days and clear, cool nights until becoming quite warm over weekend. Temperatures for week much colder than usual until Friday. Rainfall generally light occurring first of week. Rain early week delayed fieldwork, but by weekend preparations for planting gained considerable momentum. Upland fields plowed on Thursday, and many farmers working around clock as period ended. Planting cotton and corn limited, but considerable corn planted few southern counties. Only small acreage planted Tennessee Valley. Peanut planting begun. Cold temperatures hard on emerged corn and vegetables. Small grains fair to good growth, despite cold. Early rye fields heading south. Pastures making good growth, but still short of needs most areas. Livestock mostly fair.

ALASKA: Precipitation pattern during March was inconsistent. Most agricultural areas below average, but with isolated exceptions within particular areas. Anchorage University Experiment Station and Homer were above normal in both snowfall and total precipitation. All areas considerably below average monthly temperatures. The month ranked as one of the coldest on record at many locations. Livestock fair condition. Losses normal. Much outside feed being purchased. March farm activities included livestock care, snow shoveling, seed, fertilizer, and machine preparation.

ARIZONA: Skies were mostly clear and temperatures were above normal over State this week. Strong winds and blowing dust reported some agricultural sections. No precipitation anywhere in State. Cotton emerging central, southwest areas. Stands generally satisfactory. Planting growing conditions favorable, except for wind. Small grain starting to turn color Yuma. Considerable lodging in barley. Central area most fields heading. Early-planted sorghum stands satisfactory. Fall-planted sugar beets good. First cutting alfalfa nearing completion warmer desert areas. Lettuce harvest active Salt River Valley, Harquahala Valley, Pinal County and Parker-Poston. Cantaloupes making good growth. Limited picking valencias, grapefruit Salt River Valley, Yuma areas. Bloom generally complete, new fruit starting to develop. Ranges extremely dry. Lower elevations ranges providing limited amounts spring feed. Supplemental feeding most areas. Pumping, hauling stock-water widespread. Water supplies critical some areas.

ARKANSAS: Weekly mean temperatures averaged 3° to 4° below normal ranging in mid- and upper 50's. Daily extremes 20° to 84°. No measurable precipitation most of State with 0.25 inch or less northwest counties. Harrison high with 0.37 inch for week. Good progress land preparation. Planting begun, but slow progress due cold weather. About 5% rice seeded, heavy planting expected next week. Only a few cotton fields planted, but much land bedded. Seeding corn, sorghum and hay crops continued. No soybeans planted yet. Small grains fair to good condition, but needing rain all upland areas. Fruit prospects favorable despite recent cold weather. Transplanting tomatoes 60% completed south with 10% to 15% replanted because cold damage. Strawberries blooming need rain. Melon planting underway. Livestock fair to good

with some feeding continued since pastures generally short from dry weather and low temperatures.

CALIFORNIA: Average temperatures 2° to 6° above normal in most of State, with greatest positive departures occurring in southern San Joaquin Valley and on south coast. Light precipitation on several days north of Monterey Bay and Yosemite. Total amounts near 1.00 inch on north coast and in central Sierra Nevadas. At 0.10 or 0.20 in Sacramento Valley. Early small grain heading out; some lodging. Cutting, baling alfalfa hay central valley and southern California. Planting cotton continues active; few fields King, Kern, Tulare County areas up. Southern California cotton stands look good. Over-wintered sugar beets continue harvest; early-planted fields being weeded and thinned. Planting corn, milo, beans continues. Safflower planting final stages. Fruit bloom nearing completion; generally good set. Some frost damage early peach, apricot and plum varieties. Almonds good growth; frost damage evident earlier varieties. Grape vines vigorous growth. Favorable conditions for cherry bloom; good set expected. Pistachio trees continue to be planted. Harvest navel oranges. Volume declining, cullage heavy. Valencia harvest increasing. Grapefruit and lemon harvest active. Picking Fuerte other fall and winter avocado varieties nearing end. Ranges northern California good; dry rest of State. Stockwater adequate; little supplementation. Some stock movement irrigated pastures and feedlots. Delta asparagus shipments light to moderate; Imperial Valley almost complete. Broccoli, cauliflower shipments Coastal Districts moderate volume. Imperial Valley carrots very active. Celery supply southern California good volume. Palo Verde lettuce nearing completion. Light harvest started Salinas Valley; increased supplies expected week April 19. Onion harvest Imperial Valley expected 10 days. Strawberry harvest continues very active southern California; early yields reduced by earlier frost damage. Planting processing tomatoes central valley.

COLORADO: Cold at start of week; warm latter part. Light rain or snow some mountain areas. Periods of high winds several areas. Seedbed preparation good progress. Planting spring barley 50% complete, oats 52% seeded. Small acreage spring barley and oats emerged or emerging. Sugar beets 12% seeded. Limited acreage summer potatoes planted. Winter wheat and barley continue good to excellent. Winter rye excellent. Wind damage to wheat light statewide past week. Good growth most areas. Insect damage none to light. Soil moisture supplies short to adequate statewide, very short southeast. Pasture showing some greening. Lambing and calving nearing completion. Livestock condition good.

FLORIDA: Average weekly temperatures plummeted 5° to 10° below normal most of State, and 10° to 15° below normal northern sections. Record-breaking low temperatures for so late in season were set on 7th through 9th at Tampa 40°, Tallahassee 29°, Pensacola 37°, and Palm Beach 45°. Temperatures started gradual climb to normal on weekend. Rainfall averaged 1.00 to 2.00 inches in northern and north-central sections due to unsettled weather early part of week, and 0.20 to

0.30 inch elsewhere in State. Planting field crops active. Shade tobacco complete, flue-curred still setting. Considerable corn to be planted. Warm nights needed for plant growth. Cool temperatures delayed pasture growth. Moisture limited central areas and drought south Florida continues. Citrus tree condition excellent. Additional moisture needed. Petal drop most areas. Some freeze-damaged trees still blooming. Harvest declining. Vegetable shipments show moderate increase. Cabbage, celery, potatoes, tomatoes, lead volume. Most commodities available. Planting mostly complete, confined to celery, sweet corn, central areas. Last week's cool temperatures, wind, retarded growth, burned foliage, especially central, north areas. Damage light. Very limited replanting expected.

GEORGIA: Rain beginning of week with amounts mostly 0.25 to 0.75 inches north and central and 0.75 to 2.00 inches in south. No rain Wednesday through Sunday as entire State enjoyed 5 days of near 100% possible sunshine. Light snow fell in extreme north Tuesday night with flurries as far south as Columbus. Blairsville had 0.5 to 1.0 inch of snow. Cool early in week but warming trend brought temperatures to normal or above by weekend. Highs in 80's south and central and high 70's north Saturday and Sunday. Lows mostly in 30's and 40's. Near to slightly below freezing in mountains on 3 to 5 mornings. Averages ranged from 8° below normal south to 2° below normal in north. Open weather favorable for drying, soils, but many fields still too wet to prepare and plant. Progress generally behind normal, but active where conditions permitted. Tobacco 2/3 transplanted. Cool temperatures unfavorable for germination and early growth. Small grains generally good, beginning to head. Pastures improving. Peaches fair to good.

HAWAII: Locally heavy rain Kauai and Oahu, light to moderate on Hawaii and light on Maui. Some flooding Kauai, but damage light to crops. Sugar-cane harvesting progressing normally. Pineapple harvesting light but increasing seasonally. Banana and papaya picking light. Vegetable supplies adequate. Pastures and cattle fair to good. Ample soil moisture all areas.

IDAHO: Temperatures averaged near normal for week. Highest reached 80° Clearwater River Valley on 6th. Lowest in teens first part of week upper valleys of south-central and east. Precipitation first part of week moderate to heavy north ranging 0.30 to 0.95 inch; elsewhere none or light. Spring fieldwork continues active all areas. Cattle being moved to lower elevation ranges. Very limited frost protection needed so far in orchards. Emerged grains good condition.

ILLINOIS: Little or no precipitation northern half of State where some areas have been 3 weeks without measurable amounts. Total mostly 0.25 to 1.00 inch south half with average near 0.50 inch except near 1.00 inch southwest district. Snow 5th and 6th total 6 to 12 inches west, and south-west districts and 4 to 6 inches southeast. Temperatures averaged 3° to 5° above normal north, 1° to 3° above central and 1° to 4° below south. No snow on ground. Oat seeding 85% complete. Furthest advanced central, east, northeast districts. Plowing for corn and soybeans 80% complete. Plowing almost complete central districts. Winter wheat good to excellent. Winter-kill and dry weather effects reported west and central districts. Precipitation good over most State. Five and 1/4 days suitable fieldwork. Activities plowing,

disking, oats seeding, spreading fertilizer. Soil moisture short 37%, adequate 60%, surplus 3%.

INDIANA: Seasonally cool in south, warm in north. Late record snowfall in south of several inches early in week. Balmy on weekend and first 80's of season in south. Soil temperatures in low 40's except middle 30's near Lake Michigan. Soils dry for spring. March and early April precipitation 2.50 inches to 3.50 inches below normal. Grass and forest fires numerous. Highest danger in spring for many years. Five days suitable fieldwork. Topsoil and subsoil moisture adequate. Considerable greening up last week. Corn and soybean land 50% plowed, 35% average. Oats 45% seeded, same as average. Clover 70% seeded, same as average. Pastures poor to mostly fair. Fieldwork 4 days ahead average.

IOWA: Warm, sunny, dry week. Temperatures moderated early in week. Light showers 11th eastern half State. Frost went out of ground in some north-central and northeastern localities. Fieldwork in full swing over southern 2/3 State. Northern counties started latter part week. Oats 45% seeded. Northern 1/3 State less than 10%. Last year State average 35%, 5-year average 40%. Over 50% 1971 crop acreage plowed, last year 55%, 5-year average near 60%. Legumes 5% winter killed. Some reports indicate pastures slow to green. Statewide nearly 5 days suitable fieldwork. Topsoil moisture reports 8% short, 80% adequate and 12% surplus.

KANSAS: Dry cold front passed through State mid-week producing gusty winds but no precipitation. Temperatures low first of week, predominantly in teens west. Warming rest of week produced generally above-normal temperature averages for week. Warm temperatures, low humidity, and gusty winds accelerated drying conditions over State. Wheat grew considerably and spring fieldwork moved along rapidly under warm, dry weather. Wheat jointing south and few central areas, tillering elsewhere. High winds depleted already-short surface moisture and applied additional stress to wheat. Blow damage generally light. Brown mites, greenbugs, and cut worms troublesome, only light damage evident. Oat seeding 77% completed, 90% last year, 73% average. Spring barley 75% sown, 87% last year, 72% average. Corn 8% planted, well ahead of 3% average. Sugar beet seeding continued west. Good growth cool season pasture grasses, and more livestock grazing. Peaches blooming south-central Kansas.

KENTUCKY: Light to heavy general precipitation night of 5th and on 6th, heaviest in southeast, totals from about 0.20 inch to 1.70 inches; 3 to 6 inches snowfall in Henderson and Owensboro areas in northwest. Balance of week mostly sunny. Early morning temperatures below normal most days. Afternoon temperatures below normal 5th to 7th, seasonable or above balance of week, rising to mid-70's to low 80's on 11th. Cool spring has limited growth of grasses, legumes and small grains. Vegetative development later than normal, but warming trend end of week expected to promote growth. Only 9% tobacco beds have plants up. Soil moisture 72% adequate, 21% surplus and 7% short. Some early corn planting underway extreme western Kentucky.

LOUISIANA: Week dominated by very dry high pressure area. Fourth week with colder than normal temperatures statewide. Departures 5° to 8° north and 9° to 11° central and south. Light freezes or frost middle of week all divisions. Warming

trend weekend. Temperature extremes: 83° Monroe Sunday and 24° Ashland Wednesday which is coldest ever reported in Louisiana in April. Precipitation confined to a few very light showers extreme south and extreme north. No measurable amounts recorded at reporting stations. Fieldwork made excellent progress. High winds dried out soils rapidly and soil moisture was getting short in northwest and other scattered areas. Rowing up, applying fertilizer, and preplanting herbicides were very active, but unusually cool weather held back planting. Rice about 50% planted, corn 30%. Less than 5% cotton planted. Seed germination and growth earlier planting slow, some replanting may be necessary. Sugarcane growth slow, stands mostly fair to good. Small grains good, oats beginning to head out. Strawberry harvest active. Frost damage to peaches light to moderate. Some tender vegetables and melons will be replanted. Pasture feed average. Livestock good.

MARYLAND AND DELAWARE: Temperatures averaged 1° to 4° below normal. Extremes, upper 60's and 70's, 20's and low 30's. Precipitation heavy, 1.00 to 2.50 inches on 6th and 7th except 0.50 to 1.00 inch in western 3 counties. Snow same dates totaled up to 7.5 inches in northern and western Maryland. Easter weekend had clear skies and near normal temperatures. Fieldwork progress about normal. Soil moisture adequate to surplus. Winter grains rated fair to good. Tobacco growers preparing for market opening April 13. Planting green peas and potatoes well along southern shore. Fruit trees wintered well. Peach bloom expected to start April 15 southern areas, week later other areas.

MICHIGAN: Temperatures averaged 5° to 6° above normal in the northwest corner of the upper peninsula, from 2° below normal to 2° above normal elsewhere over the State. Temperatures quite cool early in week but warmed latter part of week. Very little precipitation. Some light rain mostly late Sunday and early this Monday morning. Amounts generally 0.10 to 0.30 inch.

MINNESOTA: Very warm week with temperatures averaging from 7° above normal in southeast to 11° above normal in northwest. Extremes: 79°, -5°. No precipitation. Snow cover gone except in forests in north and northeast. Ice remains on most lakes except small lakes in south and west. Fieldwork beginning west-central. Some spring wheat seeded. Fields mostly wet elsewhere. Topsoil and subsoil moisture generally adequate. Winter wheat, winter rye, pastures and hay fields dormant.

MISSISSIPPI: Third week of below-normal temperatures, with averages mostly 8° to 12° below. No measurable rain in coastal and much of eastern Mississippi, elsewhere amounts were 0.05 inch or less. Jackson record low temperature for April was tied Thursday morning with 30°. Warming trend started Thursday and continued with fair weather over weekend. Soil moisture adequate to surplus northern half and adequate southern half State. Corn 8% planted. Winter wheat and oats in fair to mostly good condition, with 6% wheat and 5% oats headed. Irish potatoes, peaches, pastures and livestock fair to good. Truck crops poor to fair condition. Fieldwork 4 1/2 days.

MISSOURI: Week began cool, with 2 to 8 inches of snow in parts of east central and southeast Missouri. By midweek, full sunshine, strong wind movement and low humidity resulted in rapid melting of snow, and continued drying of top layers of

soil. Fire danger high again by end of week. Northwest half received little or no precipitation. Average 5 days suitable fieldwork. Plowing 70% completed, oats seeding 3/4 completed, 5% corn planted. Wheat and pasture fair condition. Soil moisture adequate to short.

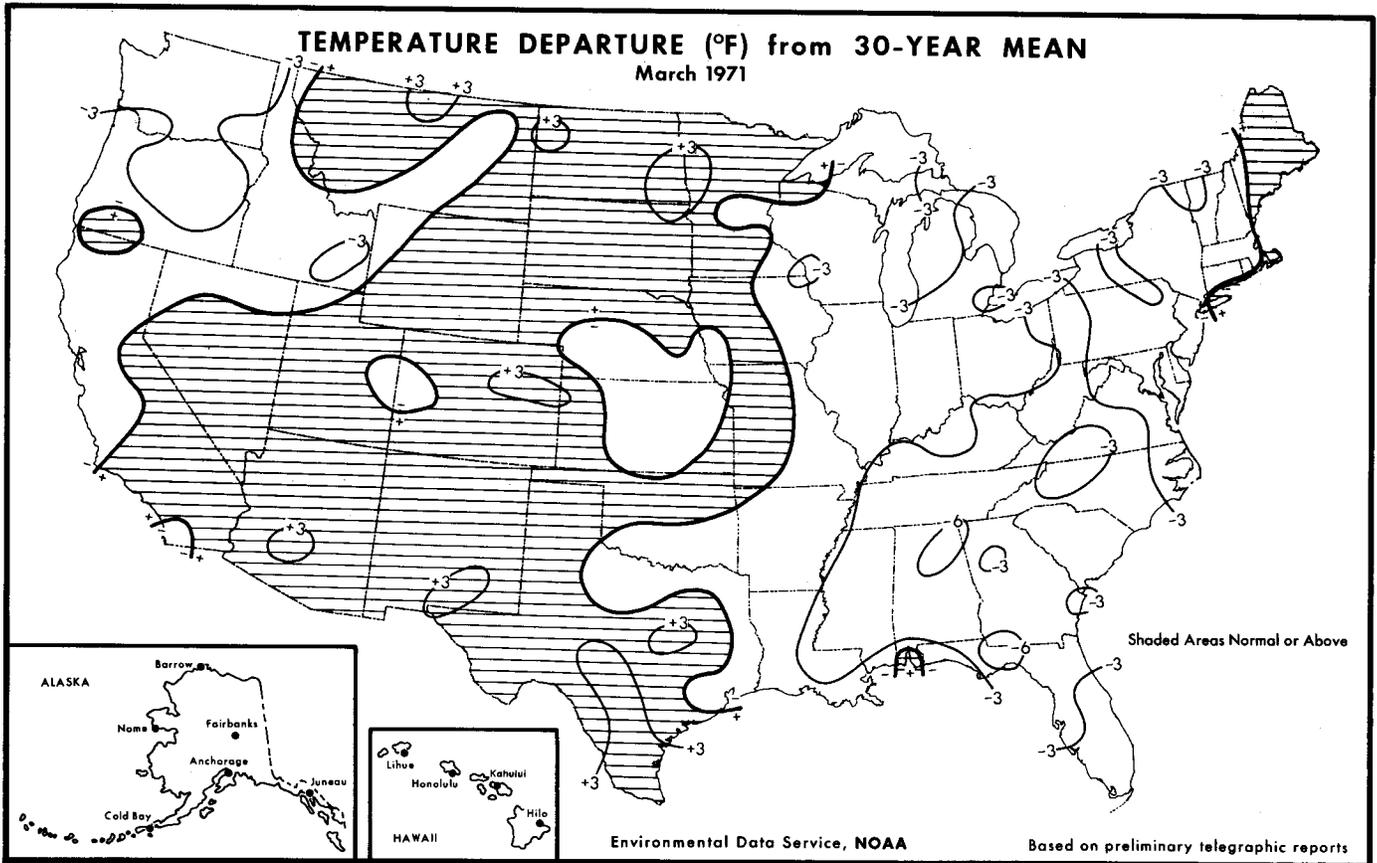
MONTANA: Warmest week of year east half, but freezing most mornings west. Temperatures east averaged 7° to 10° warmer than normal. Little or no precipitation except heavy snow Gallatin Valley midweek. Temperature range 3° Belgrade Easter morning to 82° Broadus 10th. Winter wheat fair to good condition, very little winter-kill. Wind damage light, winter wheat greening. Spring planting started. Spring wheat, barley, oats, and sugarbeets 5% seeded. Topsoil and subsoil moisture adequate. Ninety percent range cattle and sheep receiving supplemental feed. Calving 65% complete, lambing 55%. Sheep 60% sheared.

NEBRASKA: Warm, dry, and windy. Fields dried rapidly. Fieldwork gained momentum. Major activities were spreading fertilizer, shredding stalks, seedbed preparation and seeding small grains. Winter wheat greening; prospects good. Winter-kill minimal. Western cutworms reported southwest. Strong winds caused some blowing resulting in limited damage to wheat in local areas. Topsoil 20% areas short, remainder adequate. Sugar beet planting active. Pastures slow to green. Hay feeding continues. Feedlots drying out. Warmer temperatures and dry weather beneficial to livestock.

NEVADA: Temperatures at all stations near or above normal ranging from 1° below normal at Sheldon to 9° above normal at Fallon. Light precipitation in north, none in south. Five inches of snow at Austin. Heavy damaging winds in northwest Friday. Land preparation for spring planted crops continues most northern areas. Preparation for cotton planting Pahrump Valley. Green onion and radish harvest continues. First harvest alfalfa hay crop started Moapa Valley. Livestock generally good condition. Calving and lambing making satisfactory progress. Movement livestock to spring ranges in progress. Ranges fair to good and turning green.

NEW ENGLAND: Major storm on 7th yielded generally 10 to 18 inches snowfall from southern Vermont to northwestern Connecticut and from 6 to 9 inches in a band thence east-northeastward across New England. Only trace of snow extreme south where heavy rain fell. Scattered thunderstorms in southern half. Strong gusty winds and heavy loading of wet snow caused widespread tree damage. Moderate rain much of west and north on 10th. Total precipitation for week variable from 0.50 to over 1.50 inches, with heaviest mostly in south-east. Week cold until warmer over weekend averaging 3° to 6° below normal in extreme west and 1° to 3° below normal elsewhere. Best maple sap runs of season during period April 7 to 11. Syrup quality very good.

NEW JERSEY: Cool for 3d straight week. Temperatures averaged from 2° to 6° below normal. Maximum readings reached the low 70's on Friday. Overnight readings in the low 20's occurred early and late in week at many locations. Rain and snow Tuesday night brought average of 2.00 inches of melted precipitation to most of State. Up to 8 inches snow fell over central and northern counties. Soil conditions excellent for preparation and planting. Most fieldwork on schedule.



WEATHER - MARCH 1971

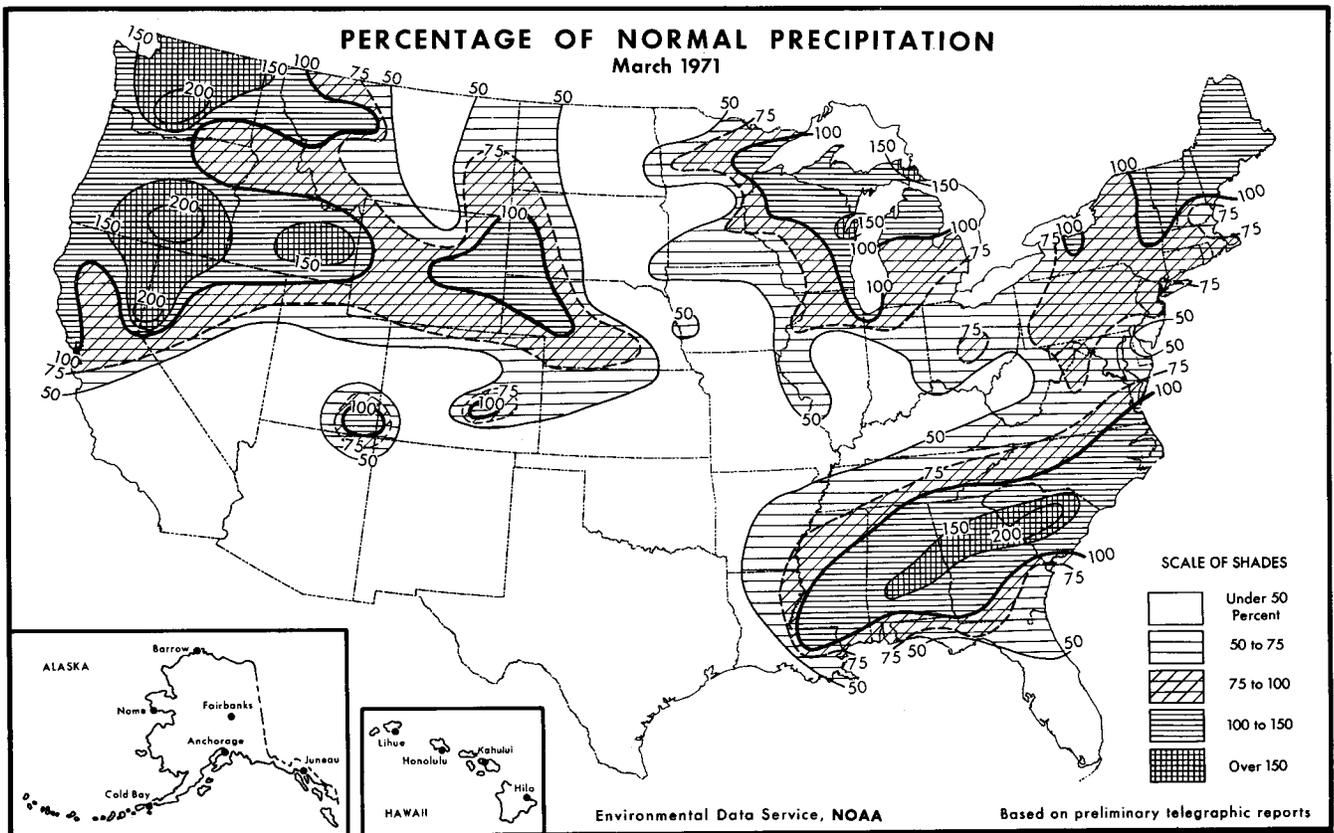
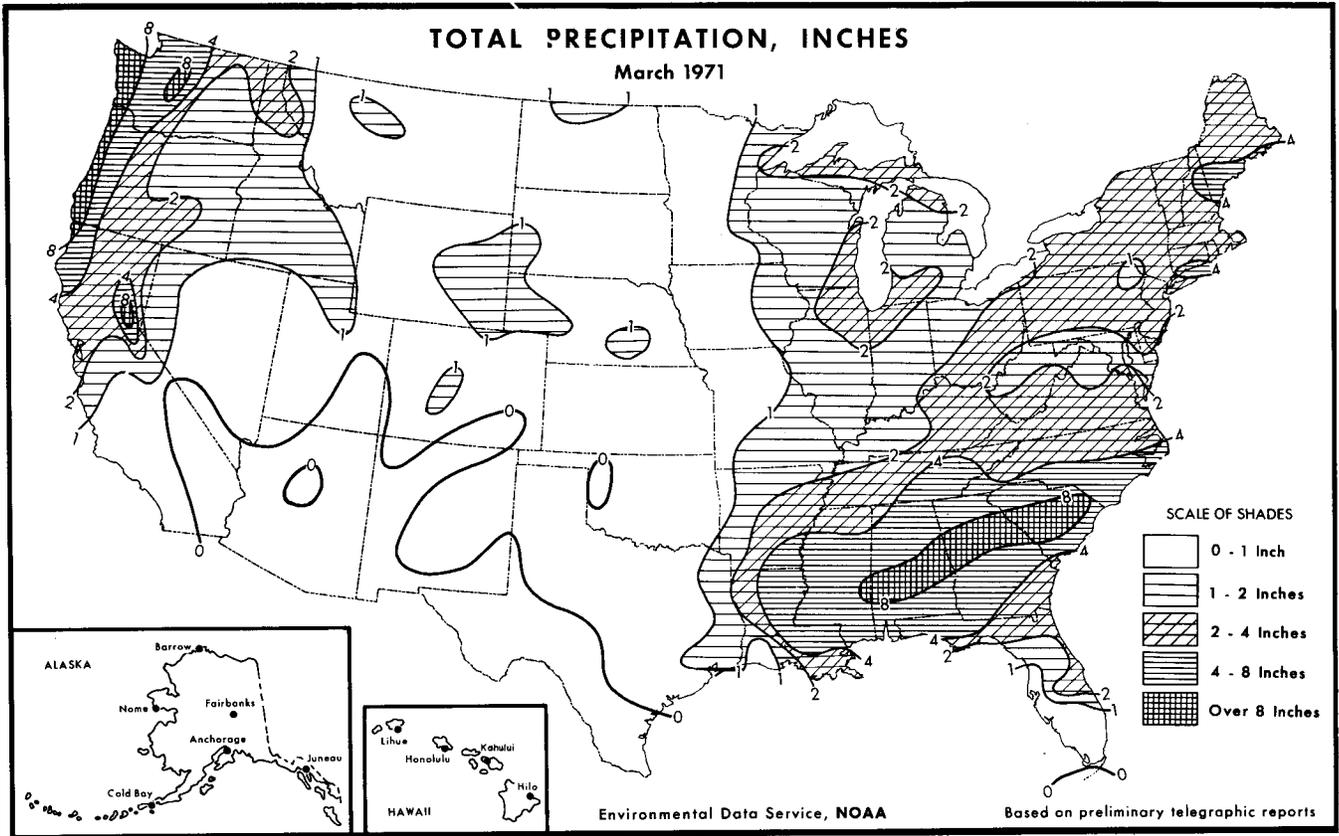
TEMPERATURE: Cold windy weather prevailed over most of the Nation in the 1st week of March. Blustery winds held afternoon temperatures below freezing as far south as the Texas Panhandle and most of Kentucky on 1 or 2 days. Temperatures dropped to freezing in northern Florida and to zero or lower in the Rocky Mountains as far south as northern New Mexico; also from North Dakota to Wisconsin. Southerly breezes brought a warming trend to mid-America in the 2d week of March. Gage, Okla., registered 87° on the 14th when the temperatures over much of Texas reached the 90's. McAllen, Texas, recorded 101° on March 15. Meanwhile, a cooling trend was occurring over the West with temperatures tumbling to the freezing mark from Canada to Mexico. Douglas, Ariz., registered 30° on March 15. Mild weather continued along the Atlantic coast. The Florida Peninsula warmed to the 80's and 90's. About the middle of the 3d week, subzero weather returned to spots in northern Wisconsin and Upper Michigan and freezing temperatures reached the Florida Panhandle. By the end of the 3d week, southerly winds were again warming the West. Temperatures in the last week of March averaged much warmer than normal over the Great Basin, the central and southern Rocky Mountains, and the western edge of the central and southern Great Plains. Recordbreaking afternoon temperatures occurred on the 28th at a number of Texas stations which registered 100° or higher.

Monthly mean temperatures averaged slightly cooler than normal over Washington, Oregon, Idaho, southern Nebraska, central and eastern Kansas and from the Mississippi River Valley to the Atlantic Ocean and slightly above normal elsewhere.

PRECIPITATION: A generous variety of stormy weather occurred in March. Rain fell along the northern Pacific coast with snow in the mountains in the first half and the last week of the month. Dust and sand storms occurred in the southwestern deserts and along the western edge of the central and southern Great Plains. Snowstorms and blizzards whitened the northern and central Great Plains and eastward to New England. Freezing rain and freezing drizzle fell south of the snow belt and violent thunderstorms, some with hail and a few tornadoes struck the Deep South. In the 4th week of March, a snowstorm dumped 8 to 13 inches of snow in the central and southern Appalachians and the nearby Piedmont. The heavy snow in the Northeast brought the seasonal totals to greater amounts than had occurred in any previous season.

March precipitation exceeded the March normals in small areas in the Northwest, northern Wisconsin, Upper Michigan, northern Lower Michigan, northern New England, and from central Mississippi to the Carolina coast. Most of the Great Plains received less than 25% of normal March precipitation. A large area from southern Nevada and Arizona to western Texas received no rain or only light widely scattered sprinkles.

L. W. Dye



Sweet corn planting underway. White potato planting about 30% complete. Pruning and spraying fruit continues. Fall-seeded grains beginning to grow. Some limited grazing pastures should start next week.

NEW MEXICO: Dry spell continues. Only light rain in extreme northeast. Warming with temperatures continuing to average near seasonal. Freezing nights first part of week most of State. Warm days end of week with maximums into 90's. Top- and subsoil moisture generally very short. Critical need for moisture. Irrigated small grains fair condition. Dryland wheat in critical condition—estimated 50% to 80% lost or grazed out. Remaining acreage needs moisture within 2 weeks to make crop. Spring planting, preparation continues. Spring lettuce fair, limited loss. Preirrigating cotton land, some planting active. Livestock poor to fair. Calving and lambing continue. Shearing nearly complete. Limited numbers cattle being forced to market. Ranges vary, generally fair.

NEW YORK: Seasonably cold early half of week followed by wide swings of temperatures late week. Rapid warming on 9th brought maximums of 68° to 74° western half with upper 50's to mid-60's southeast quarter, then sharp cooling during night to maximums in 40's on 10th. Minimum temperatures 5° to 15° northern sections early and midweek with 20° to 25° southern Upstate and low 30's on Long Island, 3d week of below-normal precipitation St. Lawrence Valley and much of western half as weekly totals 0.10 to 0.30 inch, occurring as light snow on 10th. Heavy precipitation on 6th and 7th in coastal sections totaled 1.50 to 2.50 inches decreasing to 0.50 to 0.90 inch Hudson Valley and 0.20 to 0.60 inch northeast. Storm included 2 to 4 inches of snow Long Island and 4 to 8 inches Hudson Valley to Lake Champlain. Snowcover 20 to 40 inches reported in Adirondacks as of weekend.

NORTH CAROLINA: Coastal storm brought cold rain with snow northern mountains 6th and 7th. Otherwise mostly fair and cool nights and daytime temperatures near normal. Range of temperature 20's to 70's with freezing 1 or more mornings most areas. Little damage expected. Total precipitation 1.00 to 3.00 inches coastal plain and near 1.00 inch elsewhere. Soil moisture generally surplus. Small grains and pastures mostly good and improving. Tobacco beds mostly good. Plant supply adequate. Conditions Irish potatoes and peaches good. Truck crops fair. Land preparation and garden planting main activities. Corn planting has begun. Tobacco transplanting southeast. Some labor shortages.

NORTH DAKOTA: Temperatures averaged 10° to 14° above normal northern part of State, 8° above normal southwest, and 11° above normal elsewhere. No precipitation except in northeast and east-central which had traces. Unseasonably high temperatures and lack of precipitation made conditions favorable for calving and lambing. Feed and hay supplies adequate. Warm winds helping dry up feed lots. Farmers preparing seed, hauling fertilizer, repairing machinery for spring work. Some early fieldwork begun.

OHIO: Dry and windy week. Dry and windy weather has prevailed since about March 24. These conditions have resulted in a brush fire hazard over much of state. Less than half of state received measurable precipitation during week. Range in

weekly precipitation amount was none to 0.11 inch. Daily mean temperatures generally 10° below normal through 7th, near normal 8th and 10th and 5° to 10° above normal 9th and 11th. Skies were clear during Easter weekend. Spring weather ahead of schedule. Over 6 days favorable for fieldwork. Soil moisture supply 75% adequate; 25% short. Plowing for corn and soybeans 75% completed; last year 50%; average 40%. Oats seeding 55% completed; 1970 20%; normal 1/3. Planting potatoes 20% completed; last year 5%; normal 10%. One half sugar beets planted, only 5% in 1970. Tobacco beds 60% sown; last year 40%; normal 45%. Corn planting started.

OKLAHOMA: Continued dry and windy. Light snow western Panhandle and isolated light rain elsewhere western half State Monday. Isolated showers east-central Thursday. Few light showers southeastern Panhandle and northern west-central counties Sunday. Greatest weekly rainfall 0.10 inch at Boise City in western Panhandle. Temperatures averaged near to 2° above normal west and near to 4° below normal east. Extremes, 93° and 19°. Small grain prospects continue to deteriorate. Some shower activity over weekend, but no material value to crops. Surface soil moisture near 100% short. Wheat reported 96% poor to fair, compared 86% last week. 71% jointing. Oats and barley condition 92% and 93% poor to fair. Corn planting 17% complete, same as year ago. Growth alfalfa hay inhibited by heavy weevil infestation southern districts and dry weather statewide. Seeded preparation for dryland rowcrops at near standstill until it rains. Native pasture grazing very short, with supplemental feeding continuing. Many fires occurring dry southeastern timberlands.

OREGON: Mild sunny days first of week with rain last half becoming heavy along coast on 9th. Temperatures averaged mostly 2° to 3° above normal. Minima 18° to 30° east, 31° to 40° western valleys and coast. Maxima 59° to 60° coast. 67° to 80° elsewhere. Precipitation only traces southeast, 0.05 to 0.30 inch northeast, 1.00 to 1.60 inches western valleys, 3.00 to 5.50 inches along coast. Spraying and fertilizing grain crops. Plowing summer fallow ground. Early potatoes planted at Ontario, Hermiston. Onions and sugar beets up Ontario. Green pea planting near completion. Peach and cherry trees in bloom, pears popcorn stage. Pastures late due cold weather. Hay supplies very short. Cattle declining due poor feed.

PENNSYLVANIA: Cool rather dry week. Coastal low dumped in excess of 1.00 inch rainfall over southeast corner of State on Tuesday. One to 2 inches of snow at a few extreme eastern localities. Cold front Friday gave amounts generally less than 0.10 inch across State. With exception of southeast weekly totals were less than 0.50 inch. Quite cool except for warmup on Friday and Sunday, temperatures averaging 2° to 4° below normal for week. High, 78° at Huntingdon and Lewistown on 9th; low 18° at Erie on 7th. Plowing and preparing seedbeds underway better drained soils. Oats seeded where soil permitted. Planting early potatoes started eastern and southern counties. Trimming and tying grape vines Erie County area.

PUERTO RICO: Well-distributed light to moderate rain showers entire week except south coast generally little or no rain. Highest total 3.94 inches eastern Luquillo Mountains. Island-wide rainfall averaged 1.25 inches or near normal. Temperatures averaged 76° on coast and

70° interior divisions with average departure of 0.5° below normal. Highest maximum 91°; lowest minimum 51°. Sugarcane harvesting and transporting operations delayed by intermittent showers northern zones, but progressed on schedule south under favorable weather. Coffee plantations active cultivating and fertilizing new trees. Tobacco harvesting and drying operations progressed well southeast, but delayed interior due rain showers. Pastures good to excellent islandwide, except some dryness southwest. Minor crop zones report good progress seeding, fertilizing and cultivating during entire week.

SOUTH CAROLINA: Three-fourths to 1.50 inches of rain fell on 5th and 6th in all parts of State. Remainder of week was sunny with lows in 30's and 40's and highs in 60's. Weekly temperatures averaged 6° to 8° below normal. Soil moisture adequate to surplus. Tobacco transplanting slowed by soil condition. Could be plant shortage unless dry weather continues. Corn 10% planted, small grains hay crop and pastures mostly fair to good. Grains jointed and heading most areas. Pastures suffered from overgrazing Piedmont. Peach condition fair to good. Cold weather damage believed not excessive. Vegetables fair. Cucumbers, snap beans being planted. Tomatoes being set. Most watermelon planting Allendale, Barnwell, Bamberg areas, just becoming active Jefferson, Pageland area. Peanuts 7% planted.

SOUTH DAKOTA: Temperatures averaged 6° to 12° above normal. Extremes ranged from 16° at Edgemont on 6th to 87° near Highmore and Winner on 7th. Little or no precipitation during week. Winds caused light to severe damage to fall-sown grains, but condition fall grains generally fair to good. Spring fieldwork started, about 5% plowing completed compares with 2% completed last year. Approximately 13% oats, 6% barley, and 16% spring wheat seeded. This compares with 22%, 17%, and 22% normally seeded. Livestock good. Supplemental feeding still necessary with light movement to pasture. Calving and lambing proceeded rapidly under favorable conditions.

TENNESSEE: Cold early in week, warming at mid-week, leveled off over weekend at the highest temperatures so far this season. Daily highs ranged from 40's to 80's; lows from mid-30's to low 50's. Showers of light snow in mountains and rain elsewhere on 6th and 7th. Otherwise no precipitation rest of the week. Totals generally less than 0.10 inch in west to 2.00 inches in mountains. Some farming areas in west need rain. All areas State showed increased farm activity during past week. Field preparation showed much progress. Tobacco seeding nearly complete. Small grains and pasture fair to good condition. Intended acreage 60% plowed, same as last year. Corn planted, less than 5%. Livestock mostly fair to good condition, most on pasture but some feeding continues. Days suitable for fieldwork 2.9. Soil moisture reported 67% adequate, 31% surplus, and 2% short.

TEXAS: Except for a few mostly light showers in the northeast Panhandle Sunday, little or no precipitation fell during week. Higgins reported 0.88 inch, the only significant amount. Severe meteorological drought persists throughout the center portion of the State from the Lower Plains through South Texas and has reached extreme drought proportions in parts of the northern Low Plains. Drought conditions continue to be primary concern to Texas farmers and ranchers. Dry conditions causing farmers to fall behind

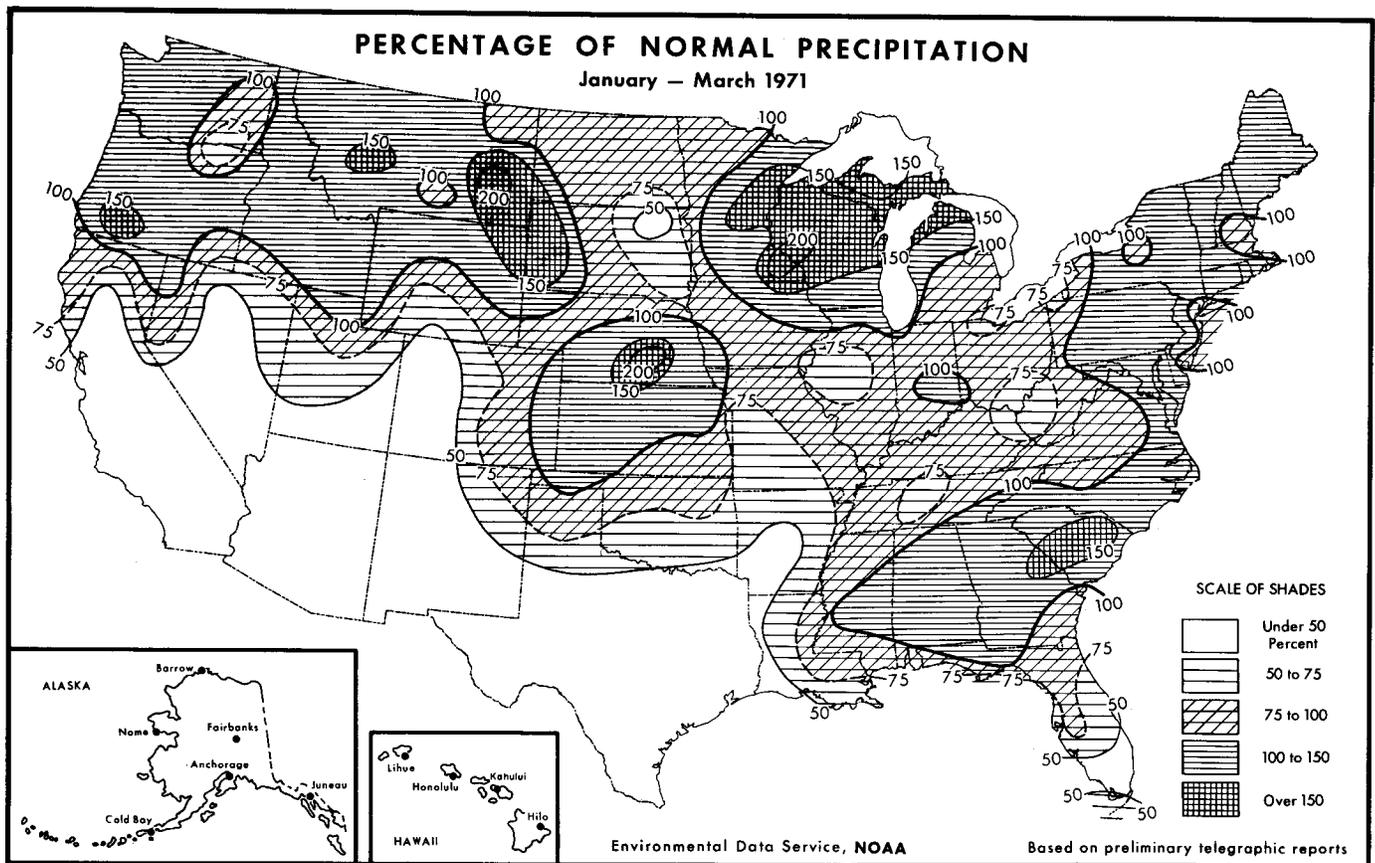
schedule with spring planting. Dryland crop stands are spotted. Dryland small grains and flax crop prospects poor as drought continues. Movement cattle to local livestock auctions increasing rapidly as hay and pasture shortages force movement cattle. Percent planted to date; cotton 9, 13 year ago; sorghum 29; 30 year ago; corn 44; 47 year ago; rice 72; 36 year ago; peanuts 4; 7 year ago. Onion harvest temporarily slowed beginning week Lower Valley because showers April 3 and 4, but harvest again in full swing. Quality good. Shipments expected to peak Lower Valley next several weeks. Onion harvest underway Laredo, Coastal Bend, while early fields maturing Winter Garden. Moderate supplies cabbage, carrots Lower Valley with light supplies cabbage, carrots, lettuce Winter Garden. Potato digging beginning Lower Valley. Irrigated spring vegetables good progress south Texas areas. Dryland watermelon prospects poor. High Plains potato, onion planting nearing completion. Early carrots being planted. Citrus harvest continues active Lower Valley. Peaches damaged by freeze northern half State April 6 and 7.

UTAH: Only 1 station out of 45 reporting this week recorded measurable precipitation. This was Silver Lake Brighton (at 8600 feet elevation), 0.40 inch. Temperatures continued mild averaging near to a little above normal for period. Strong winds southeastern Utah Wednesday and much of northwestern Utah Saturday. Rapid progress made spring plowing and planting as clear dry weather continues. Drought conditions looming. State average precipitation first 100 days 1971 only 60% normal. However Utah's 24 major reservoirs contained 3.4 million acre-feet water April 1, largest storage ever for any date of any year. This will assure adequate irrigation water to all croplands supplied by these reservoirs. Apricots now in bloom. Cherries and peaches may be in full bloom next week. Winter wheatfields slow in greening. Lambing and calving in progress. Weather has been favorable. No unusual death losses reported.

VIRGINIA: Temperatures below normal first half and normal to above normal second half. Heavy precipitation Tuesday and early Wednesday with snow mainly in west. Fieldwork limited to 2 days, included preparing seedbeds, liming, fertilizing and seeding oats, clover, and grasses. Few fields corn planted. Tobacco plant beds, small grains in good condition, but slightly later than normal. Potatoes beginning to emerge eastern shore. Peaches blooming Piedmont counties. Red delicious apples showing pink in Piedmont.

WASHINGTON: West of Cascades: Sunny, warm days beginning of week, cooler latter half with rain. Rainfall amounts 1.00 to 2.00 inches. Frost 1 or more nights most agricultural areas. Spring work getting underway some areas. Seeding grass, clover, small grain crops, and peas delayed by weather. Hay supply short. East of Cascades: warm days cold nights first half week, cooler latter half. Below freezing several nights most localities. Planting sugar beets, potatoes and spring cereals continues. Early-seeded peas starting to emerge. Asparagus harvest approaching. Apricots starting bloom Wenatchee Valley. Early vegetable market crops seeded. Most fall seeded grain looks good. Livestock doing well.

WEST VIRGINIA: Massive coastal storm gave southern sections and mountain areas heavy snow April 6 and 7 with depths generally 1 foot in mountains and up to 14 inches in Bluefield. Light rain pre-



PRECIPITATION - JANUARY to MARCH 1971

Four large areas received above-normal precipitation in the first 3 months of 1971. The Far Northwest received heavy rains in March. Southeastern Nebraska and Kansas received generous rains in February. Heavy snows occurred in the Great Lakes region in March. The southern Appalachians and the Atlantic coast from the Carolinas to New England received heavy rain and snow in both February and March. A large area from

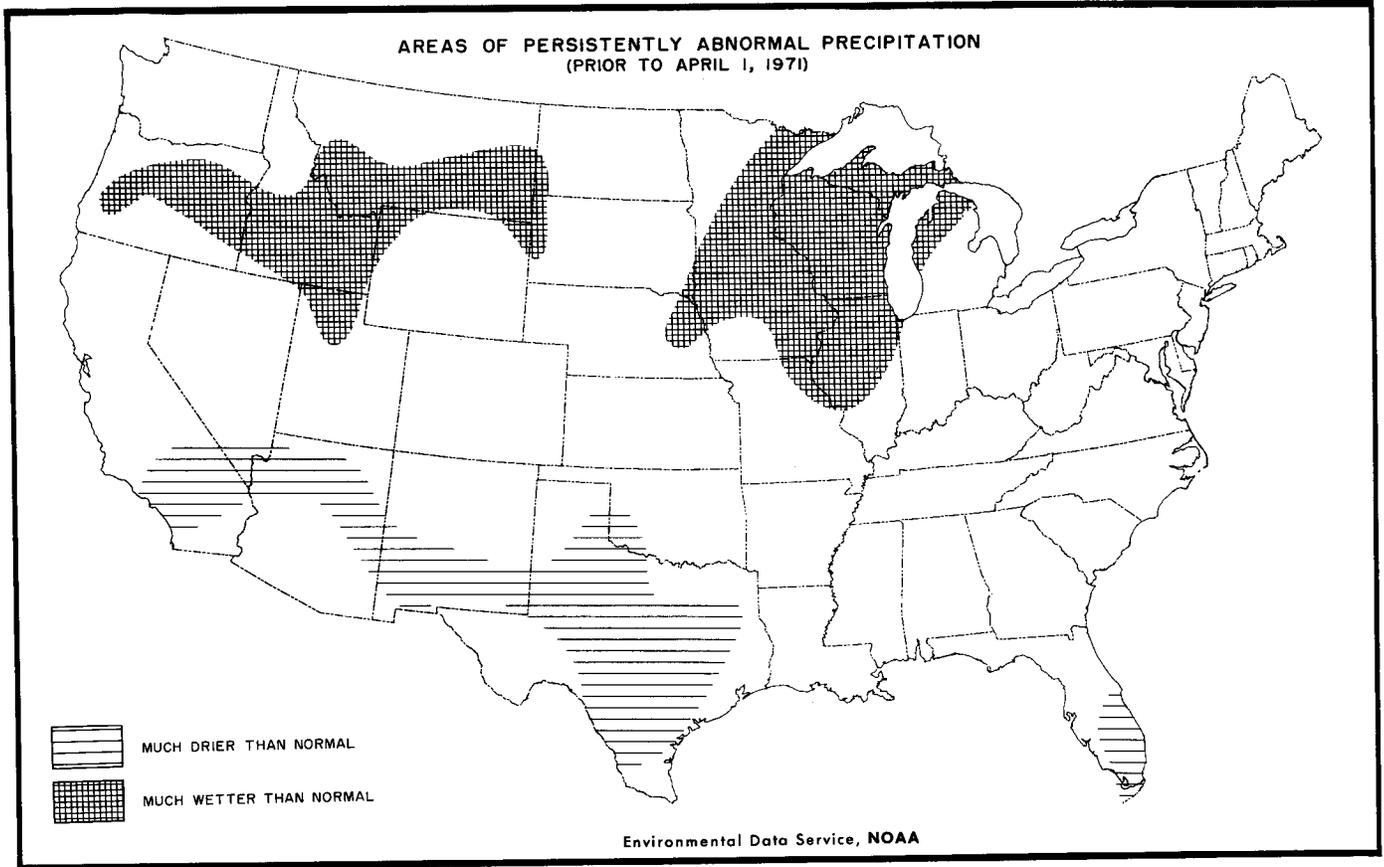
California to Texas has been extremely dry. Less than half the normal precipitation has fallen in those States. Two exceptions are northern California which received heavy rain or snow in March and the Texas Panhandle where generous precipitation fell in February. Another dry area is southern Florida where precipitation has averaged from 25% to 50% of normal.

L. W. Dye

vailed west of mountains. Another storm brought scattered thunderstorms evening April 8 followed by cool windy weekend weather. Weekly temperatures continued below normal. Conditions improving for spring fieldwork. Soil preparation becoming common activity and will remain so until oats are seeded and corn ground plowed. Pastures providing some grazing as growth continues.

WISCONSIN: Sunny, mild, and dry week. Excellent drying of topsoils under intense sunshine. Fieldwork getting started. Considerable plowing done. Some planting oats in south. Snow cover melting rapidly north. Rivers running bankfull with some overflow along Chippewa, Black, Wisconsin and Wolf. Waterfowl migrating northward through State.

WYOMING: Scattered light precipitation and mild temperatures. Casper reported most moisture with 0.28 inch. Frost is out of plains as temperatures averaged near normal. Minima mostly 0° to 20° statewide. Temperature extremes: 80° at Torrington and -9° at Foxpark. Calving, lambing and shearing in full swing. Plowing, seeding small grains and sugar beets underway. Forty percent calves, 50% farm flock lambs and 15% range lambs born. Shearing range sheep 25% complete, farm flocks about 40%. Snow surveys indicate most snow packs among heaviest of record. April-to-September stream flows expected 140% to 160% of average.



CLIMATIC FLUCTUATIONS

This map shows four areas in which the weather has been either persistently wetter or drier than normal for some months or years. Abnormally dry weather set in over southern California and parts of Arizona late in 1969, spread across New Mexico and west-central Texas by mid-1970, and over central and south Texas in the fall of 1970. By early April 1971 severe to extreme drought existed in most of this southwestern area. Central and south Florida has also had much drier than normal weather most of the time since mid-1970, and now has severe drought.

In contrast, abnormally wet weather has been rather persistent in Illinois since the spring of 1970 and over the remainder of the area outlined in the north-central U.S. since the fall of 1970.

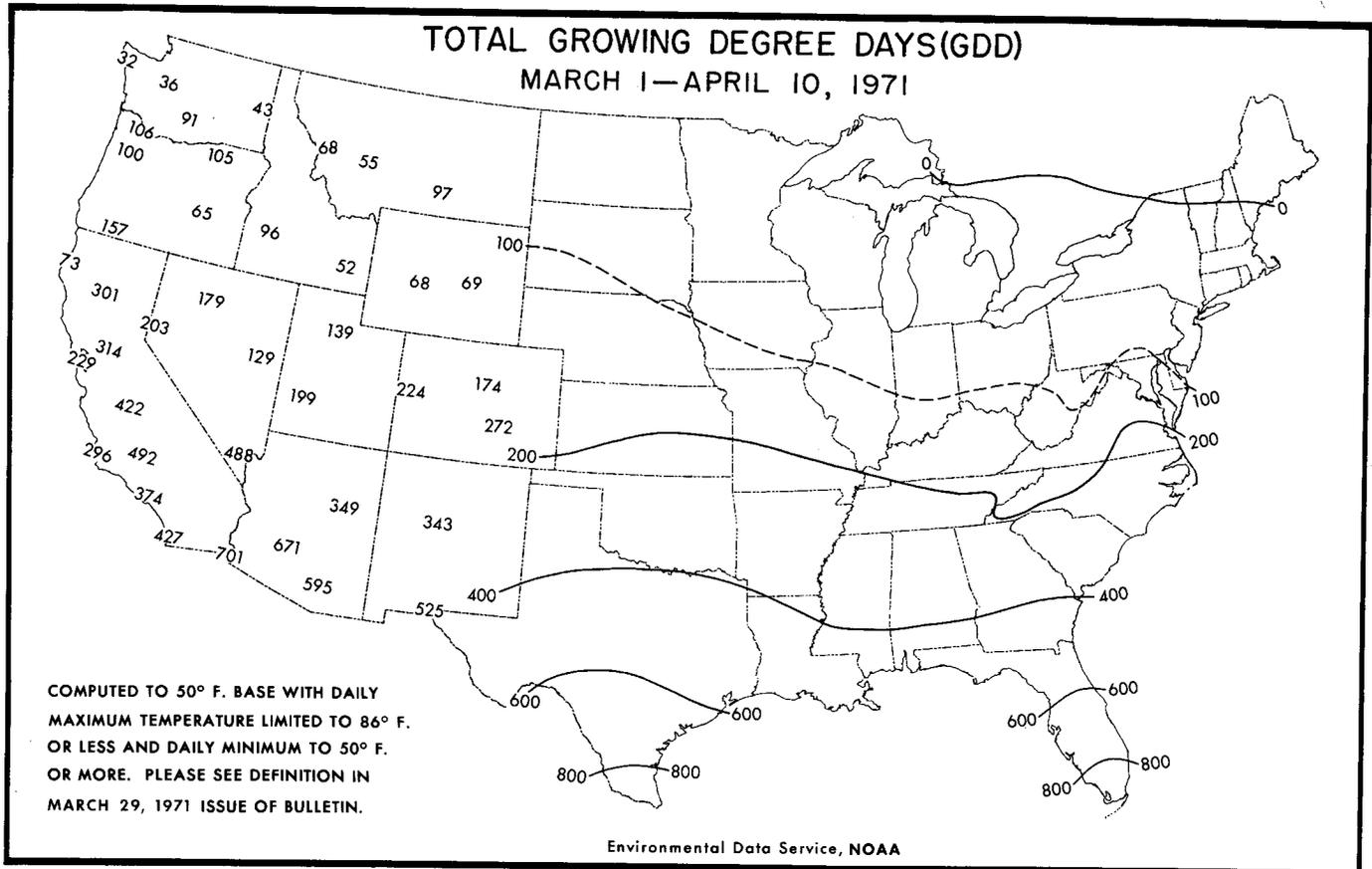
In the northwestern area the weather has been running much wetter than normal most of the time for more than two years now. In fact, the Idaho and Montana portions of this area has now had three years of abnormally wet weather.

All four of these anomalous areas represent climatic fluctuation - a term which describes the fact that climates are changeable on a year-to-year or decade-to-decade basis just as weather is changeable on a day-to-day or week-to-week basis. These fluctuations of climate are probably more disruptive to an established economy than are the more familiar short-term changes of weather. Our

purpose here is merely to point out the location of regions which are now enduring some of these climatic fluctuations.

It is fluctuations such as these which must be anticipated in the design and construction of water systems, agricultural enterprises, and the whole economic structure of an area. In areas subject to large climatic fluctuations plans and programs must allow for these unusual periods to avoid financial failure when they occur. Year-to-year weather in this cumulative sense, or climatology, is the basis for planning to live successfully with these natural ups and downs. Any venture which cannot survive the expected number of bad years must be considered a poor risk. Every weather sensitive undertaking involves some risk. By looking knowingly at climatic data accumulated over past decades, one can know what this risk is. The NOAA Climatologist for your State can refer you to existing studies which may relate to your particular weather problem (ask your local weather office how to contact him) or you can write to the National Climatic Center, Asheville, N.C., and obtain an estimate of the cost of providing a specific analysis to fit your needs.

W. C. Palmer
G. L. Barger



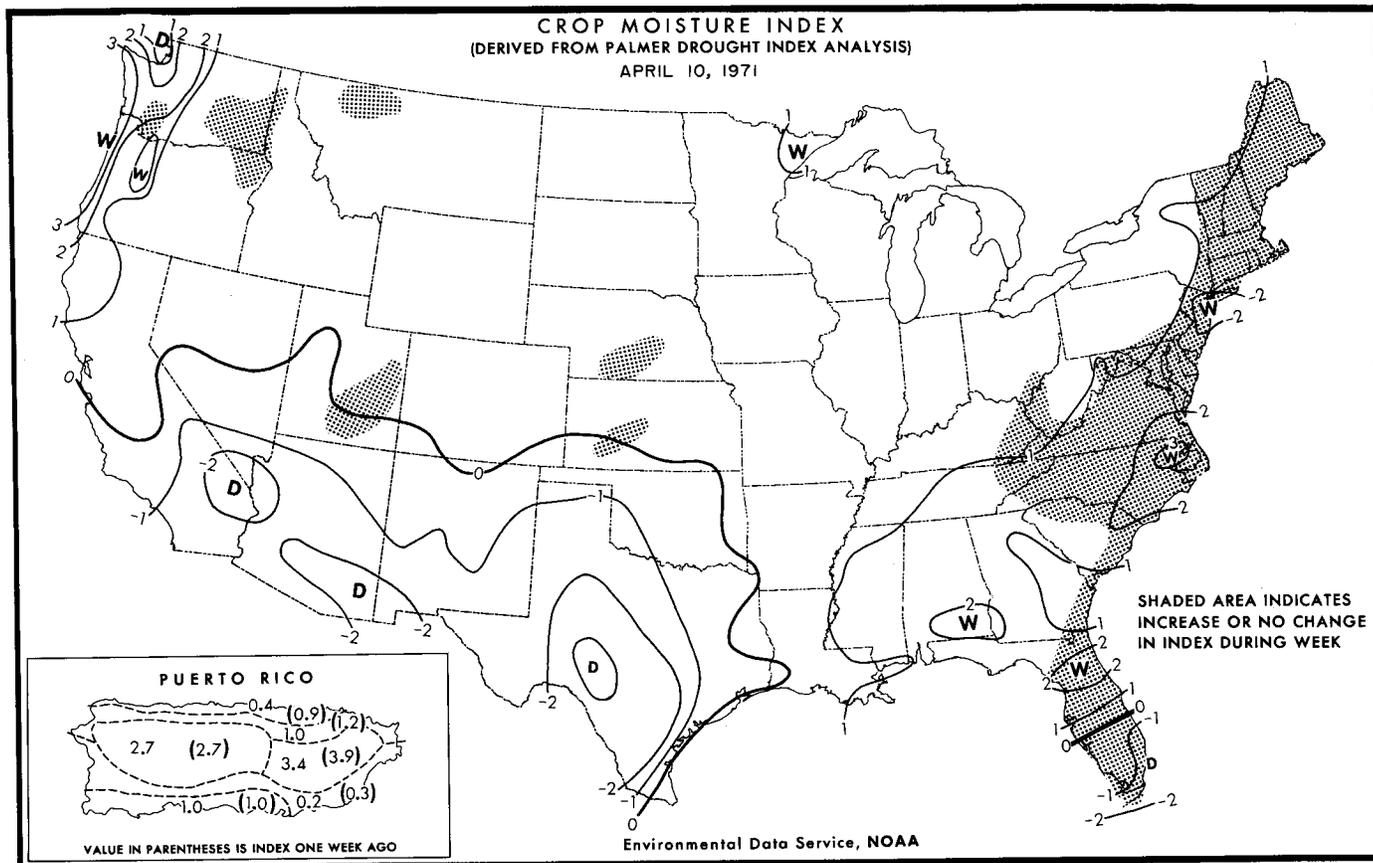
GROWING DEGREE DAY SUMMATIONS RESUME

With this issue of the Bulletin we resume weekly publication of total growing degree day (GDD) maps for the 1971 summer growing season. The GDD values will again be computed using the adjusted 50°F method described on page 11 of the March 29 issue of the Bulletin. As the season progresses, maps showing departure of GDD from 20-year mean values will be published. Tables listing weekly mean cumulative GDD values for 47 stations were published in the March 29 Bulletin, and may be used to compare the current season with "normal" at any time during the crop year.

Special GDD articles published during the past two years in the Bulletin are listed in the following issues:

- 1970 index - Dec. 28, 1970 issue.
- 1969 index - Sept. 28, 1970 issue.

J. J. Rahn



INDEX DECREASED DURING WEEK
(Unshaded Areas)

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

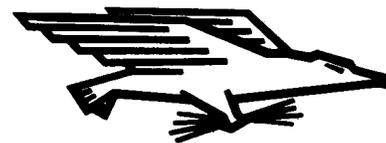
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ABOVE	3.0	SOME DRYING, BUT STILL EXCESSIVELY WET.
	2.0 to 3.0	MORE DRY WEATHER NEEDED, WORK DELAYED.
	1.0 to 2.0	FAVORABLE, EXCEPT STILL TOO WET IN SPOTS.
	0 to 1.0	FAVORABLE FOR NORMAL GROWTH AND FIELDWORK.
	0 to -1.0	TOPSOIL MOISTURE SHORT, GERMINATION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

INDEX

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

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Publication of this bulletin began in 1872 as the Weekly Weather Chronicle. It is now issued under general authority contained in the Act of January 12, 1895 (44 USC 213), 53d Cong., Ill. Sess. Quotation or reproduction of this material is encouraged. Please give credit to this publication and, in case of special articles, to authors.

Questions, comments, and suggestions concerning the content are desired; please send to the Editor at the above address.

WATER SUPPLY OUTLOOK FOR THE WESTERN UNITED STATES
 Issued as of April 1, 1971

The table below shows the most probable forecasts for the residual period (April 1 to September 30, 1971) at selected points in the West. Water Supply Outlook for the Western United States issued as of April 1, 1971, contains supplementary information and forecasts for these and many other points in the West.

River	Station	Forecast in 1,000 acre-ft.	Forecast % of 15-yr. Avg.†
Columbia	Grand Coulee, Wash.	77,200	111
Columbia	The Dalles, Oreg.	127,000	121
Snake	Clarkston, Wash.	35,700	121
Sacramento*	Red Bluff, Calif.*	11,700	133
San Joaquin*	Big Creek, Calif.*	1,250	98
Weber	Gateway, Utah	382	150
Jordan	Utah Lake, Utah	321	132
Truckee	Lake Tahoe to Farad	240	114
Colorado	Lake Powell inflow	9,300	124
Green	Green River, Utah	4,300	149
San Juan	Bluff, Utah	620	60
Little Colo.**	Woodruff, Ariz.**	1.9	25
Gila#	Solomon, Ariz.#	8.5	20
Rio Grande	San Marcial, N.Mex.	140	41
Arkansas	Pueblo, Colo.	265	76
Missouri	Ft. Peck, Mont.	6,920	156
Yellowstone	Sidney, Mont.	9,060	142
North Platte	Glendo, Wyo.	1,113	161

† Period, 1953-67
 * Period, Oct. 1, 1970 to Sept. 30, 1971
 ** Period, Nov. 1, 1970 to June 30, 1971
 # Period, Apr. 1, 1971 to June 30, 1971

Hydrologic Services Div.

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