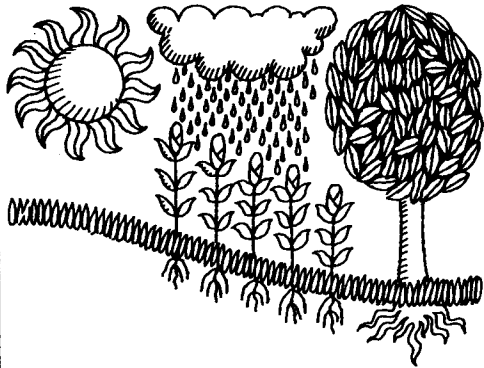




Weekly Weather & Crop Bulletin

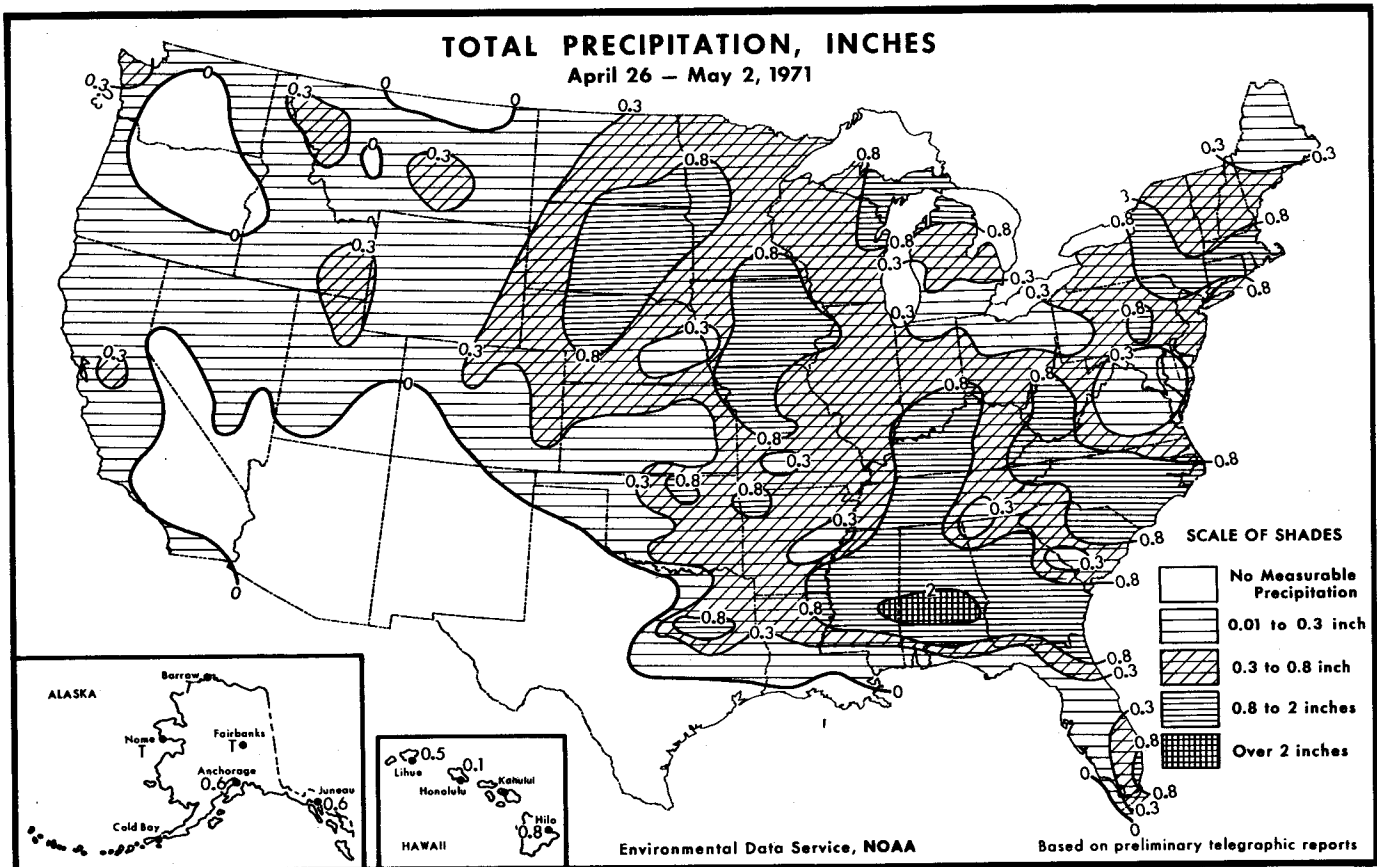
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Edited by Lucius W. Dye

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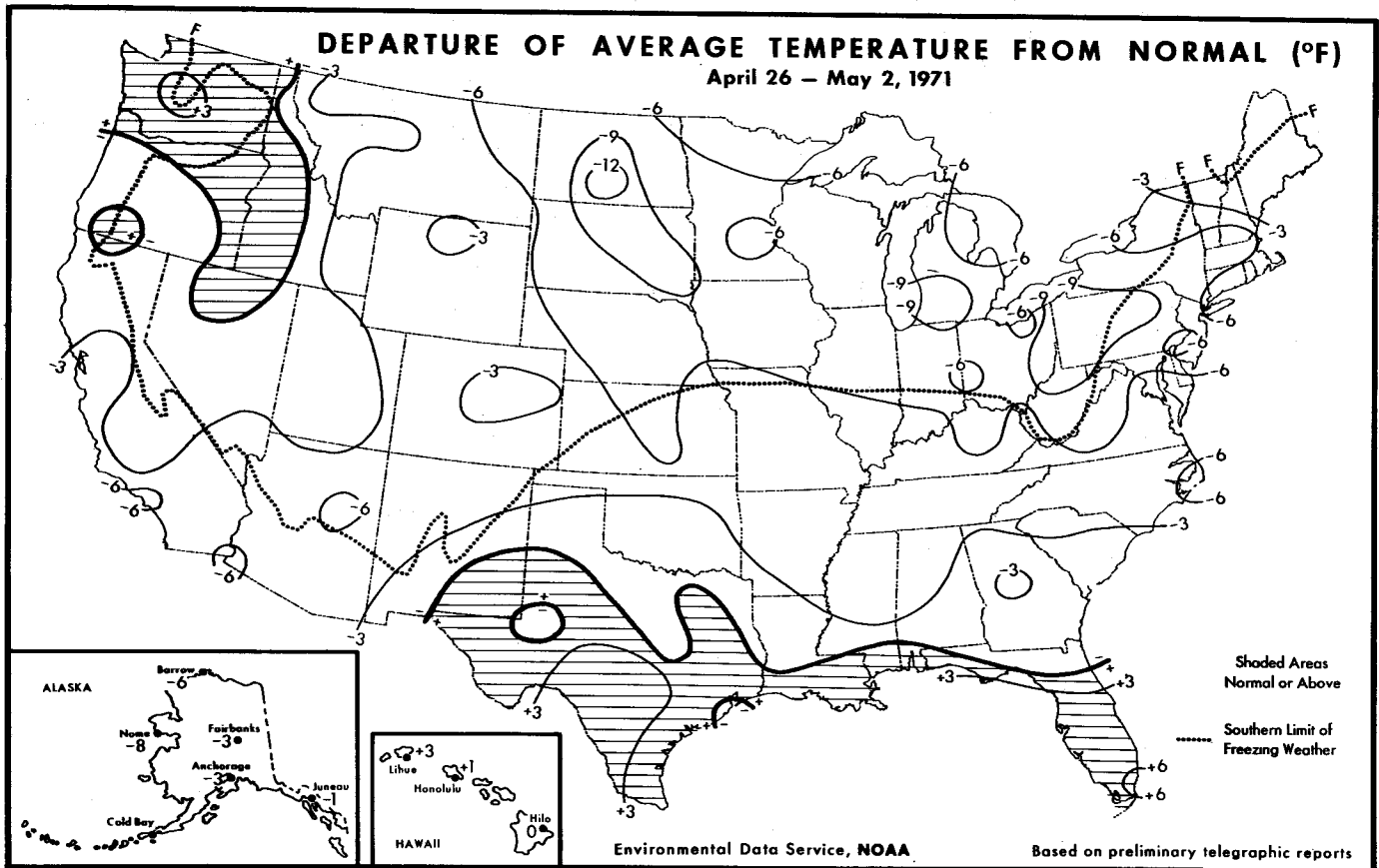
NATIONAL WEATHER SUMMARY

HIGHLIGHTS: Temperatures averaged above normal in Washington, southern Texas, along the Gulf Coast, and the Florida Peninsula and below normal most other areas. The drought intensified in the Southwest and the Florida Peninsula.

PRECIPITATION: Winter maintained its grip in the Rocky Mountains and the western edge of the Great Plains. Fourteen inches of snow fell at Lander, Wyo., in the 18 hours ending at 8 a.m., Monday, April 26. Mixtures of snow and rain fell in lower elevations. Four inches of snow fell at Harrison and Chadron and 3 inches at Valentine, all in Nebraska, Monday. Thundershowers occurred over the central and southern Great Plains. Large hail fell in from some of the thunderclouds. Hail as large as baseballs occurred in the Enid, Okla., vicinity Monday afternoon and the De Soto, Mo., area Tuesday afternoon. A tornado killed 1 per-

son, injured several, and damaged numerous dwellings at Thompsonville, Ill., Tuesday afternoon. During the night tornadoes struck north-eastern Arkansas, and the western and central portions of Kentucky and Tennessee. At midweek, showers became widespread from the Great Lakes to New England and southward to the middle Atlantic coast. The severe drought continued in southern Florida. Miami, Fla., has received 2.04 inches of rain in the past 6 months. This is less than 1/3 as much rain as fell during the previous driest November-to-April period at Miami. The few light showers that fell in Florida Friday and Saturday were of little consequence in the driest areas. Thundershowers, some accompanied by strong winds and hail, fell from Missouri to the Lower Ohio River Valley Saturday.

Weekly precipitation totals exceed 1.00 inch from Mississippi to Georgia, in eastern New York,



and southern New England, but were generally less than 0.50 inch over the western half of the Nation. Much of the Southwest received no rain.

TEMPERATURE: Cool weather persisted over the West and from the northern Great Plains to New England. Subfreezing temperatures occurred as far south as northern Arizona and northern New Mexico on 1 or 2 mornings. Elkins, W. Va., registered 18° on Tuesday morning. Afternoon temperatures remained in the 40's over the northern Great Plains but reached the high 80's across the South. A few southern localities warmed to

the 90's. Cotulla and Laredo, both in Texas, registered 99° Wednesday afternoon. West Palm Beach, Fla., registered 99° Friday afternoon. Only once has the mercury at West Palm Beach gone higher than 99°. That was in July 1942 when the temperature reached 101°.

A warming trend occurred over the West late in the week. Temperatures reached the 80's in southern Washington, Oregon, and Idaho Saturday and Sunday.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Corn planting well advanced. * Soybean seeding underway. * Dryland crop prospects bleak in the Southwest and Florida. * Cool temperatures slowing northern fruit development.

SMALL GRAINS: Winter wheat growth and development made generally favorable progress on the Great Plains. Damp weather helped replenish soil moisture in vast areas of the region. However, no improvement was noticed in western Oklahoma and the dry Southwest where dryland acreage prospects appear bleak.

Below normal temperatures throughout the Nation slowed crop development, but minimized moisture loss. Grains started to head in the North Central States, but some Illinois wheat acreage was plowed under due to dry weather and winterkill. Small grains are heading rapidly in the South, with some fields ripe and combining underway in Mississippi. Grains are ripening in southern California and Arizona, but strong winds caused lodging in many fields.

Even though interrupted by wet weather, seeding of spring grains is generally ahead of last year in the Northern States. Planting was nearing an end in South Dakota, but inclement weather delayed seeding in North Dakota and the Lake States. Cold soils are slowing germination in Colorado and other northern regions.

CORN: Corn planting was the major activity on most central Corn Belt farms during the week. Acreage planted remains well ahead of both last year and average in all States. Missouri is the most advanced Corn Belt State with 61% of its acreage planted, Ohio farmers follow with 45% in. Early-planted fields are starting to emerge in Illinois and Indiana. Cold temperatures slowed field activity in the Lake States, but a few fields were seeded. Kentucky growers continue to set a record in planting their 1971 acreage.

Outside the Corn Belt, planting progressed rapidly in the South and remained ahead of 1970. Beneficial showers aided seeded acreage. In drought ridden Oklahoma and Texas corn planting lags behind last year.

COTTON: Seeding of 1971 crop cotton continues at a fast pace throughout the South. Seeding is generally ahead of last spring. However, growers in Louisiana, Georgia and South Carolina are having a difficult time and are falling behind last year's pace.

Texas farmers are waiting for an increase in moisture before planting. Only 22% of the Texas crop is planted, well behind progress made the last few years.

Planting is nearly complete in Arizona, but a number of fields were replanted. Cold temperatures have delayed emergence and limited growth. Replanting of cotton is more extensive in California than earlier expected.

SOYBEANS: Soybean planting began in many Southern States, but only limited headway was made. Corn Belt farmers are well advanced in preparing land for soybeans. Some planting got underway in southernmost areas of the Belt.

OTHER CROPS: Warmer weather is needed in the South to improve growth and development of tobacco. Cool nights and winds retarded bed growth in Tennessee, and Kentucky plants are smaller than usual. North Carolina fields are fair with growth good in the southeastern Border Belt. Georgia farmers have finished setting. Potato planting made good progress in southwest Idaho. Rains halted planting in Upstate New York. Digging in Hastings Florida area increased; Baldwin, Alabama area to start about mid-May. Sorghum seeding off to a fast start in Kansas, but continues to lag in Texas as growers wait for more moisture. Texas and Louisiana rice growers are in the wrap-up stage of planting. The bulk of the acreage is also seeded in California. Some late planting of sugar beets continues in California. About 3/4 of the crop is sown in Idaho and Michigan.

Fruits and Nuts: Florida citrus growers are using all methods of irrigation as trees are showing stress from the drought. Some leaf curl and wilt are evident. California cherries are ripening with picking underway. The grape crop looks good, but warmer weather would be welcome. Citrus picking is nearing the final stage in Texas. Cold weather slowed fruit bud development from Michigan to New England. The fruit crop outlook remains excellent in most Western States. Texas pecans are blooming and setting nuts. A heavy pecan bloom was also noted in Louisiana.

Vegetables: Drought continues to plague most Florida vegetable areas, but shipments are increasing. Vegetable supplies also increased from California. Scattered frost was reported in northern areas. Watermelon harvest increased in south Florida areas, with the Texas crop to start next week. However, dryland Texas prospects are poor. Georgia watermelon vines are starting to run.

Vegetable planting was active in the Northeast, but warmer weather would be a blessing for development. Setting tomatoes and sowing other vegetables was in progress on the Del-Mar-Va Peninsula.

PASTURES AND LIVESTOCK: Cool, damp weather slowed pasture growth in the East. Rains improved pasture conditions in the South, but milder temperatures are needed to spark growth. Pasture prospects improved in the West (except Southwest.) Most herds were turned out to pasture in the Pacific Northwest; and none too soon as hay supplies are depleted.

Supplemental feeding remains heavy in the drought stricken Southwest. Arizona and New Mexico ranchers are being forced to haul water to their herds. Ranchers in many areas are still reducing herd size as range conditions deteriorate.

Steve Pscodna
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, L.s.t., May 2, 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. . .	63	- 4	1.3	+ .4	New Orleans . . .	74	+ 2	T	-1.0	OKLA.Okla. City . .	63	- 2	.2	- .7
Mobile.	74	+ 2	.1	-1.2	Shreveport. . . .	68	- 2	.4	- .6	Tulsa	61	- 3	.5	- .5
Montgomery. . . .	67	- 1	2.5	+1.6	MAINE.Caribou . .	42	- 1	.1	- .5	OREG.Astoria. . . .	52	+ 1	.1	- .9
ALASKA.Anchorage. .	38	- 3	.6	+ .5	Portland.	46	- 2	.3	- .5	Burns	50	- 1	T	- .2
Barrow.	4	- 6	T	0	MD.Baltimore. . . .	53	- 7	.1	- .7	Medford	55	+ 1	.1	- .2
Fairbanks	36	- 3	T	0	MASS.Boston	47	- 6	1.0	+ .2	Pendleton	58	+ 2	T	- .2
Juneau.	41	- 1	.6	- .1	Nantucket	46	- 1	1.3	- .1	Portland.	57	+ 2	T	- .4
Nome.	20	- 8	T	- .2	MICH.Alpena	41	- 4	1.0	+ .3	Salem	53	- 2	0	- .5
ARIZ.Flagstaff. . . .	43	- 5	T	- .2	Detroit	46	- 8	.1	- .7	PA.Allentown. . . .	48	- 7	.4	- .5
Phoenix	68	- 4	0	- .1	Flint	43	- 7	.4	- .3	Erie	42	-10	.4	- .5
Tucson.	65	- 5	0	- .1	Grand Rapids. . . .	42	-10	.5	- .2	Harrisburg.	51	- 6	1.0	+ .2
Winslow	55	- 6	0	- .1	Houghton Lake . . .	40	- 6	.5	- .1	Philadelphia. . . .	52	- 5	.3	- .6
Yuma.	68	- 6	0	0	Lansing	42	-10	.2	- .6	Pittsburgh.	46	- 9	.2	- .5
ARK.Fort Smith. . . .	63	- 3	.7	- .4	Marquette	37	- 8	1.1	+ .4	Scranton.	45	- 9	1.1	+ .3
Little Rock	63	- 4	.2	-1.0	Muskegon.	42	- 9	.3	- .4	R.I.Providence. . .	48	- 4	1.0	+ .1
CALIF.Bakersfield . .	66	- 1	0	- .1	S.Ste.Marie	39	- 6	.8	+ .3	S.C.Charleston. . .	67	- 2	.5	- .2
Eureka.	50	- 2	.1	- .4	MINN.Duluth	38	- 6	.3	- .3	Columbia.	66	- 2	1.1	+ .2
Fresno.	63	- 2	.1	- .1	Internatl Falls . .	41	- 4	.4	0	Greenville.	61	- 5	.6	- .3
Los Angeles	58	- 6	0	- .1	Minneapolis	47	- 4	.6	+ .1	S.DAK.Aberdeen. . .	44	- 8	1.5	+ .9
Red Bluff	60	- 1	.1	- .3	Rochester	44	- 7	.9	+ .3	Huron	41	-11	1.0	+ .5
San Diego	59	- 4	.1	0	St. Cloud	44	- 6	.8	+ .2	Rapid City.	44	- 7	.5	0
San Francisco	54	- 3	.2	0	MISS.Jackson. . . .	66	- 3	2.0	+1.0	Sioux Falls	43	-10	.6	0
Stockton.	59	- 4	.4	+ .3	Meridian.	66	- 3	2.8	+1.7	TENN.Chattanooga. .	62	- 3	T	- .9
COLO.Denver	49	- 2	.2	- .3	MO.Columbia	55	- 5	.7	- .2	Knoxville	61	- 3	.7	- .1
Grand Junction. . . .	53	- 5	0	- .1	Kansas City	57	- 4	.9	0	Memphis	64	- 3	.3	- .7
Pueblo.	53	- 3	.1	- .3	St. Louis	57	- 3	.2	- .7	Nashville	60	- 5	1.1	+ .2
CONN.Bridgeport . . .	49	- 4	.6	- .3	Springfield	58	- 3	.2	- .9	TEX.Abilene	71	+ 2	0	- .7
Hartford.	48	- 6	1.3	+ .5	MONT.Billings	48	- 5	.5	+ .2	Amarillo.	60	- 2	T	- .4
D.C.Washington. . . .	56	- 5	.1	- .7	Glasgow	45	- 6	T	- .3	Austin.	76	+ 4	T	- .9
FLA.Apalachicola. . .	74	+ 3	.2	- .6	Great Falls	48	- 2	.1	- .2	Beaumont.	74	+ 2	0	-1.1
Ft. Myers	76	0	T	- .6	Havre	47	- 4	T	- .2	Brownsville. . . .	79	+ 2	0	- .4
Jacksonville.	71	- 1	1.7	+ .9	Helena.	46	- 4	T	- .3	Corpus Christi. . .	77	+ 2	T	- .5
Key West.	82	+ 4	0	- .6	Kalispell	46	- 4	.3	+ .1	Dallas	71	+ 2	.3	- .7
Lakeland.	77	+ 3	.6	- .2	Miles City.	49	- 4	.3	0	Del Rio	79	+ 4	0	- .5
Miami	82	+ 6	1.1	- .1	Missoula.	49	- 1	.3	0	El Paso	68	0	0	- .1
Orlando	79	+ 5	T	- .7	NEBR.Grand Island .	49	- 7	.3	- .4	Fort Worth.	68	- 1	T	-1.0
Tallahassee	70	- 1	.1	-1.1	Lincoln	52	- 6	.3	- .4	Galveston	72	- 1	T	- .7
Tampa	78	+ 4	T	- .6	Norfolk	47	- 8	.7	+ .1	Houston	73	+ 2	0	- .8
GA.Atlanta	64	0	1.7	+ .8	North Platte. . . .	47	- 7	.9	+ .3	Lubbock	66	+ 2	T	- .4
Augusta	65	- 2	.1	- .7	Omaha	50	- 6	.1	- .6	Midland	69	- 1	0	- .3
Macon	67	- 3	.9	+ .1	Valentine	45	- 7	1.1	+ .6	San Angelo.	74	+ 3	T	- .8
Savannah.	68	- 2	1.0	+ .2	NEV.Ely	45	- 2	T	- .2	San Antonio	77	+ 5	T	- .7
HAWAII.Hilo	72	0	.8	-1.7	Las Vegas	65	- 5	0	- .1	Victoria.	75	+ 1	T	- .6
Honolulu.	76	+ 1	.1	- .1	Reno.	50	- 2	0	- .1	Waco.	69	- 2	.2	- .7
Kahului	74	0	T	- .6	Winnemucca.	51	+ 1	.1	- .1	Wichita Falls	67	- 1	T	- .8
Lihue	76	+ 3	.5	- .2	N.H.Concord	44	- 6	.8	+ .1	UTAH.Blanding . . .	49	- 3	0	- .2
IDAHO.Boise	58	+ 3	T	- .3	N.J.Atlantic City . .	49	- 7	.6	- .2	Salt Lake City. . . .	53	- 2	.3	- .1
Lewiston.	58	+ 2	.1	- .2	Trenton	51	- 6	.6	- .2	VT.Burlington. . . .	45	- 3	.6	0
Pocatello	48	- 4	.3	+ .1	N.MEX.Albuquerque .	57	- 4	0	- .1	VA.Lynchburg. . . .	53	- 8	.3	- .4
ILL.Cairo	62	- 3	.5	- .4	Roswell	65	+ 1	0	- .3	Norfolk	58	- 5	.4	- .4
Chicago	47	- 7	.4	- .3	N.Y.Albany.	46	- 6	.8	+ .1	Richmond.	57	- 6	T	- .8
Moline.	48	- 8	1.4	+ .6	Binghamton.	43	- 7	1.7	+1.0	Roanoke	56	- 6	.5	- .2
Peoria.	49	- 7	.5	- .5	Buffalo	43	- 6	.4	- .3	WASH.Colville	54	+ 2	.1	- .2
Rockford.	47	- 7	.6	- .2	New York.	51	- 6	.3	- .5	Omak.	56	+ 2	T	- .2
Springfield	53	- 6	.3	- .5	Rochester	45	- 6	.4	- .2	Quillayute.	52	+ 2	.7	- .5
IND.Evansville. . . .	58	- 5	1.3	+ .4	Syracuse.	46	- 6	1.3	+ .6	Seattle-Tacoma. . . .	56	+ 3	T	- .5
Fort Wayne.	47	- 8	.6	- .2	N.C.Asheville	58	- 3	.3	- .4	Spokane	53	0	T	- .2
Indianapolis.	50	- 7	.3	- .6	Charlotte	61	- 4	.8	0	Walla Walla	59	+1	0	- .3
South Bend.	44	- 9	.2	- .7	Greensboro.	57	- 5	.8	0	Yakima.	49	+ 3	0	- .1
IOWA.Burlington . . .	49	- 8	.7	- .2	Hatteras.	57	- 7	.9	+ .2	W.VA.Beckley. . . .	48	- 7	.9	+ .3
Des Moines.	48	- 7	1.0	+ .4	Raleigh	59	- 5	1.1	+ .2	Charleston.	53	- 7	1.1	+ .3
Dubuque	46	- 7	.5	- .3	Wilmington.	63	- 3	.9	+ .3	Huntington.	55	- 5	.6	- .1
Sioux City.	48	- 8	.6	0	N.DAK.Bismarck. . .	39	-13	.8	+ .5	Parkersburg	51	- 9	.9	+ .2
KANS.Concordia. . . .	52	- 6	.3	- .3	Fargo	43	- 7	.9	+ .4	WIS.Green Bay	44	- 5	.8	+ .2
Dodge City.	54	- 5	.1	- .5	Williston	43	- 8	.1	- .2	La Crosse	46	- 8	.7	0
Goodland.	50	- 3	.4	- .1	OHIO.Akron-Canton .	46	- 9	.1	- .7	Madison	45	- 6	.5	- .2
Topeka.	56	- 4	.3	- .6	Cincinnati.	51	- 9	.9	0	Milwaukee	42	- 7	.6	- .1
Wichita	57	- 6	.1	- .6	Cleveland	46	- 6	.2	- .6	WYO.Casper.	45	- 4	.1	- .4
KY.Lexington.	51	- 8	.8	0	Columbus.	48	- 8	.5	- .4	Cheyenne.	43	- 5	.4	- .1
Louisville.	55	- 5	1.1	+ .2	Dayton.	51	- 6	.3	- .5	Lander.	44	- 5	.2	- .5
LA.Baton Rouge. . . .	73	+ 1	T	-1.0	Toledo.	45	- 8	.2	- .5	Sheridan.	48	- 2	.2	- .3
Lake Charles.	72	0	T	-1.1	Youngstown.	44	- 9	.2	- .7	P.R. San Juan	81	+ 3	.4	-1.1

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

CONDENSED STATE SUMMARIES

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

ALABAMA: Partly sunny and quite warm with a few light showers first of week. Numerous showers and thundershowers with some hail and cooler Thursday and Friday. Fair and cool over weekend. Rainfall for week moderate to heavy except light near coast and extreme north. Average temperatures near normal. Rains interrupted fieldwork, short periods. Substantial seeding occurred most areas. Showers beneficial to seed germination and crop growth. Few areas remain dry. Cotton and corn half seeded and ahead last year. Peanuts 65% planted, little behind last year. Cool nighttime temperatures detrimental to growth tender crops. Small grains heading all sections, turning yellow south. Crop prospects fair to good. Dry weather hampered sizing potatoes Baldwin areas—harvest expected about mid-May. Pastures and livestock improved.

ARIZONA: Temperatures much below normal early in week rising during week to above normal values by weekend. Strong winds and blowing dust many sections. No measurable precipitation. Cotton planting nearing completion. Some replanting required, especially southeast. Cold temperatures delayed emergence, hindered growth. Small grains good condition. Most central and southwest fields headed, many turning color. Strong winds caused heavy lodging some barley fields. Planting sorghum continues. Early plantings good condition, although green bugs and corn leaf aphids causing problems. Harvesting sugar beets began May 1. Crop in good condition. Planting spring beets nearing completion, thinning underway early fields. Alfalfa hay harvest active. Harvest spring lettuce active. Cantaloupes making good growth Yuma area. Fruit set looks good. Limited harvesting grapefruit, Valencia oranges Yuma and Salt River Valley. Ranges poor to fair, supplying less than adequate feed. Widespread supplemental feeding and water hauling continue. Calving nearing completion most range areas. Shearing underway on Indian reservations.

ARKANSAS: Warm early with change to cooler late in week. Weekly mean temperatures upper 50's extreme north to mid- and upper 60's elsewhere. Daily extremes: 32° to 88°. Showers midweek heaviest southeast. Otherwise averaging around 0.50 inch. Eudora high with 2.11 inches. Beneficial rains much of Arkansas, but additional moisture needed central and north-central areas. Cool weather slowing seed germination and growth, but approximately 40% cotton and 85% rice seeded. Rice coming up mostly good, but cotton slow. Soybean planting begun, but progress limited so far. Feed grain planting well advanced most areas. Hay crops improved by rains. Fruit prospects mostly favorable. Strawberry picking begun with peak marketing expected about May 10. Tomatoes making good progress, beginning to bloom. Planting okra and cucumbers well advanced. Pastures much improved, but still below normal numerous counties. Livestock situation fair to good.

CALIFORNIA: Average temperatures 3° to 6° below normal with greatest negative departures in southern interior. Light precipitation northern mountains and Sierra Nevadas. Continued cool weather slowed growth, development of California

crops. Lack of moisture has stunted dryland barley and wheat fields. Many fields continue to headout and turn color. Lodging general. Alfalfa making good growth, some 2d cutting underway San Joaquin Valley. Replanting cotton more extensive than expected. Corn planting continues. Bulk rice acreage planted major areas. Grapes look good, earlier frost damage Napa County with probable 20% crop loss. Early cherries ripening, few shipments reported. Thinning peaches, plums, nectarines continues. Some hail damage lower San Joaquin Valley. Harvest navel oranges nearing completion. Valencia harvest continues slow. Harvest lemons, grapefruit moderate. Range grass maturing rapidly. Livestock moving to higher elevation ranges and feedlots. Livestock good. Fat lambs moving to market. Delta District asparagus harvest declining with bulk production to processors. Broccoli harvesting active both Santa Maria and Salinas Valleys. Cauliflower shipment light Santa Maria and Salinas. Cabbage shipments Oxnard increased. Imperial Valley carrot harvesting active, Coachella Valley to decrease next 2 weeks. Southern California celery expected increase next week. Lettuce harvesting Salinas Valley increasing volume, quality variable. Onion digging active Imperial Valley. Harvesting new crop potatoes Kern District increasing volume. Strawberry harvesting active all areas.

COLORADO: Cold first of week warming to near normal over weekend. Moderate to heavy snow or rain early in week northern mountains and along eastern front ranges. Rain 0.50 to 1.00 inch northeastern ranges. Precipitation light or none west, light southeast except for heavier rain Thursday and Friday extreme southeast. Wet fields hampered soil preparation and seeding. Cold soil slowed seed germination. Spring oats and barley 84% seeded. Oats 60% and barley 47% emerged. Sugar beets 73% planted, 30% emerged. Late summer potatoes 49% seeded, 11% emerged. Corn 15% planted, condition emerged crop good to excellent. Fall-sown grains excellent. Winter wheat 44% and winter barley 37% jointing. Insect damage light. Soil moisture supply generally adequate. Ranges and pastures improving. Grass growth slowed by cool weather. Livestock condition good. Supplemental feeding limited.

FLORIDA: Temperatures averaged above normal. The 99° recorded at West Palm Beach on 30th was highest ever recorded in month of April. Precipitation under 0.25 inch except 1.00 to 2.00 inches in a few isolated spots. Peanut and cotton planting nearing completion. Tobacco flue-cured and shade crown progressing well. Sugarcane growth retarded. Pasture grasses short and dry central and south. Condition critical. Supplemental feeding as dry weather persists. Citrus in stress due dryness. All available irrigation being used. Some leaf curl and wilt. Water supplies low. Drought continues to affect most vegetable producing areas. Scattered showers beneficial, but sparse. Vegetable shipments continue seasonal increase. Cabbage, potatoes, tomatoes, celery, leading commodities shipped. All major commodities available. Hastings potato harvest increasing to volume supply. Watermelon harvest increasing south Florida areas.

GEORGIA: Rainfall moderate north and heavy to excessive much of south. Totals were over 1.00 inch most areas and exceeded 4.00 inches several places in south. Tornadoes and severe thunderstorms hit several south Georgia areas Thursday and Friday. Temperatures were warm first half of week and unusually cool last half. Highs remained in 60's most areas on Friday. Cool dry air moved into State late Sunday and Monday morning. Lows were in 30's in mountains and 40's most other areas. Averages ranged from near normal to 2° below normal. Soil moisture adequate and surplus some areas. Field activities restricted wet soil. Soil crusting and cool temperatures retarded germination. Tobacco transplanting completed. Cotton 62% planted, 34% up. Corn 82% planted. Peanuts 68% in. Soybean seeding still light. Small grain and pasture conditions improved considerably. Peaches fair to good. Cattle mostly good. Condition truck crops mostly good. Some watermelons past bunch stage and beginning to run.

HAWAII: Cloudy weather with rainfall heaviest early in week and dry latter part. Sugarcane harvest making normal progress. Pineapple harvest increased. Banana production light. Papaya supplies reduced by disease. Cattle and pastures good condition.

IDAHO: Temperatures increased to above normal by end of week but averaged 3° to 8° below normal. Precipitation was light and below normal southwest valleys northward to the Lewistown area. Elsewhere precipitation was heavy. Totals ranged above 1.00 inch at many points of the south-central and east. Salmon, Lemhi County, recorded 1.91 inches to nearly triple April normal of 0.64 inch; 1.36 inches came on 24th in damaging snow storm. Oakley, Cassia County, recorded 1.90 inches to more than double the April normal of 0.74 inch. Rain and cool weather slowed crop development and field activities early period. By weekend fieldwork was progressing rapidly under fair skies and warm temperatures. Crops prospects remain good. Spring grains 50% sown north and east, 90% elsewhere. Sugar beets 75% planted central valleys, 90% southwest. Potato planting 1/3 complete southwest, only 10% other areas. Range and pasture growth behind normal. Fruit prospects excellent.

ILLINOIS: Precipitation varied widely. Average near 0.50 inch north and central except 0.25 inch east-central. Totals in south mostly 0.50 to 1.00 inch except some local amounts over 2.00 inches. Temperatures average 6° to 8° below normal north and central and 3° to 6° below south. Corn 35% planted, 10% last year. West southwest district most advanced--55% planted. Some corn up. Much showing dry weather effects. Corn planted some areas delayed by cool dry weather, but restored after rains. Oats fair to good, some spotty. Dry weather effects. Winter wheat fair to good. Some plowed up due combination dry weather, winter-kill. Alfalfa and red clover hay fair to good. Growth slowed due dry weather. Plowing for corn and soybeans virtually complete. Pasture fair to good. Dry weather slowed growth. Six days suitable fieldwork. Main activities land preparation and planting corn. Soil moisture 74% short, 24% adequate, 2% surplus.

INDIANA: Cool week. Temperatures 5° to 10° below normal. Temperatures of 29° in north and central on 3d. Rainfall 0.30 inch in north to 1.50 inches in southwest. In last 4 weeks, precipitation 2.00 to 3.20 inches below normal. Soil temperatures in 50's except high 40's in far north where soil

temperatures are 3° to 5° below normal. No tornadoes in April. First such April since 1955. Six days suitable fieldwork. Topsoil moisture mostly short. Subsoil moisture short to adequate. Pastures fair. Corn and soybean land 90% plowed, 55% average. Corn 20% planted, 5% average. Corn 5% emerged; stands fair to mostly good. Oats 95% seeded, 75% average. Oats 3 inches high, same as average. Wheat 8 inches, 9 average. Barley and rye 5% headed.

IOWA: Cool week with moderate precipitation. Temperatures were 6° to 8° subnormal. Fieldwork progressing ahead of normal with 5 days suitable. Plowing over 90% complete, last year 85%, 5-year average 80%. Corn planting just started northern counties, in full swing rest of State. About 20% planted, last year 20%, 5-year average shows 10% planted by this time. Most oats planted for grain emerged and stands near normal. Pasture growth slow due cool weather. Topsoil moisture about 75% adequate, and 25% short. Subsoil moisture mostly adequate.

KANSAS: Light to moderate rains eastern portion, locally over 2.00 inches northeast. Generally light precipitation west. Weekly mean temperatures averaged below normal. Subfreezing weather locally western Kansas 27th and portions northeast May 3, one of lowest temperatures, 30° Topeka early on 3d. Seedbed preparation and row crop planting made good progress. Corn 36% planted, 24% last year, 26% average. Sorghums 5% planted, 2% average. Few soybeans planted eastern areas. Sugar beet plantings nearly complete western areas. Good alfalfa growth, some early cutting for dehydrators. Winter wheat growth and development continued to show generally favorable progress. Wheat 77% jointing, 66% last year, 67% average. Wheat 5% headed, average 8%. Most surface moisture supplies replenished, except for some southern areas. Most pasture grasses showing good growth. Some livestock still grazing wheat. Calving in final stages; spring lambs heading for market.

KENTUCKY: Several tornadoes in south-central Kentucky on night of 27th were cause of at least 9 deaths. Preliminary estimates indicated more than 100 injuries, more than 100 homes destroyed, and more than \$7 million damage. Rainfall of 27th variable from a trace to heavy. Additional rain on May 2. Weekly totals less than 0.30 inch extreme north Bluegrass and in southwest. Elsewhere 0.50 inch to about 3.00 inches generally heaviest in about a month. Temperatures variable early in week, unseasonably cool end of week averaging 3° to 6° below normal. More than 5 days suitable fieldwork. Land preparation well advanced. Corn planting 57% completed, most advanced of record, last year 15%, 1969, 23%. Tobacco plant beds fair, plants smaller than usual and need warm weather. Barley 2/3 heading, wheat 1/5 heading. Soil moisture 55% short, 45% adequate. Pasture growth slowed by cool and dry conditions. Alfalfa 10 inches high, last year 13, some weevil infestation.

LOUISIANA: Another dry week most of State. Showers Thursday left 0.30 to 1.30 inches rain north but none or less than 0.10 inches central and south. Temperature warm first half, cooler last of week. Average 1° to 3° below normal north and central, 1° below normal to 3° above normal south. Greatest 1-day rain 1.27 inches at Calhoun and Oak Grove measured Friday morning. Temperature extremes: 90° several places Wednesday and 44° two points Saturday. April coolest since 1962 and

driest since 1965 statewide. Driest of record several stations. Soil moisture getting short over most of State despite scattered shower activity north and northeast. Good progress made land preparation and planting with some crops waiting for more moisture. Planting to date compared to year ago in percent: Corn 85 and 90; cotton 44 and 65; rice 90 and 80; soybeans 5 and 10; sweet-potatoes 5 and 5. Some corn, cotton and rice replanted because poor stands. Crop growth slow. Wheat, oats, and corn hurting for moisture some areas. Heavy pecan bloom reported, peach prospects fair to good. First cutting hay made, pasture feed generally adequate, but below average. Livestock fair to good.

MARYLAND AND DELAWARE: Cool with showers on 27th, 28th, and 2d. Temperatures averaged 5° to 7° below normal. Extremes: 60's and 70's, 30's except 20's in west. Rainfall mostly 0.25 to 0.75 inch. April 1971 temperatures and precipitation below normal for second straight month. Topsoil moisture shortages near critical stage most areas. Small grain, hay, and pasture growth below normal. Plowing well advanced, but seedbed preparation hampered. Corn planting 23% done, ahead of slow start last year and 13% average. Tobacco plants good in early beds, but poor development later beds. Plant bed watering common.

MICHIGAN: A cold week. Temperatures averaged 6° to 10° below normal with greatest departures in interior sections of Lower Peninsula. Minimum temperatures in 20's many areas on last day of April and this Monday morning. Frequent showers. From 0.50 to 0.75 inch fell in northern Lower Michigan and most of Upper Peninsula. In central and southern Lower Michigan amounts ranged from 0.25 to 0.50 inch. Continued rapid progress fieldwork southern counties. Soil moisture short southern counties, adequate elsewhere. State averaged 4.5 days suitable fieldwork. Almost 3/5 acreage plowed for spring-planted crops. Oat planting nearing completion southern Lower Peninsula. Bay County potatoes 80% planted. For State, oats 68%, sugar beets 72%, potatoes 27% and corn 11% planted. Cool weather slowing development wheat, hay, pasture, and fruit buds. Apple, cherry and peach bud development less advanced than previous recent years. Asparagus developing slowly, expect to start harvest May 6 to 10.

MINNESOTA: Temperatures averaged 6° below normal. Extremes: 66°, 24°. Precipitation averaged from 0.50 to 1.00 inch across State. All lakes clear of ice except some patchy ice near Canadian border. Fieldwork slowed by rain and cold temperatures. Percent small grain seeded: Spring wheat 55, normal 33; oats 64, normal 47; barley 44, normal 23; flax 32, normal 18. Early seedlings emerging west-central and southwest. Corn and soybean land being prepared southern half with 44% corn land and 15% soybean land prepared, compared with normals 24% and 9%. Corn 8% planted, normal 5%. Topsoil and subsoil moisture adequate. Winter wheat, rye, and pastures fair to good.

MISSISSIPPI: Generally 1 day with rain except none in coastal area. Amounts up to over 3.00 inches in central Mississippi, much of rest of State less than 1.00 inch. On Thursday, several houses unroofed and cars overturned at Matherville, 35 miles south southwest of Meridian. Weekly temperature averages ranged between 2° and 4° below normal in much of northern 1/3 of State and up to 2° to 4° above normal in coastal division.

Over the weekend: Generally 1 day with rain and amounts mostly under 0.10 inch. Soil moisture short to mostly adequate southern counties, other areas adequate to surplus. Average 4 days suitable fieldwork. Winter wheat and oats 2% ripe, harvesting just starting. Corn 44%, cotton 23%, soybeans 4%, sorghum 19%, sweetpotatoes 14% planted. Cotton 5% and corn 30% up to stand. Cotton, corn, soybeans, Irish potatoes, peaches and truck crops mostly fair to good. Pastures and livestock fair to mostly good.

MISSOURI: A cool wet week. Temperatures averaged 1° to 3° below normal with frost many areas Friday, April 30. Heavy thundershowers Tuesday, April 27, gave a much needed soaking to most of State. They also caused an outbreak of hail in southern Missouri, with heaviest damage in Joplin area, mostly to broken windows. Fieldwork progressing well ahead normal with 5 days suitable fieldwork. Corn planting 61% complete, grain sorghum and soybean plantings 17% and 6% complete. Cotton planting progressing rapidly with 39% in. Wheat mostly fair condition, and beginning to head. Soil moisture mostly adequate.

MONTANA: Fairly general rainfall early in week, but little or none last 3 days. Although averaging about 3° cooler than seasonal normals, it was quite warm over weekend which saw the warmest days of season to date. Topsoil and subsoil moisture generally adequate. Winter wheat good, stooling fair to good. Spring wheat and oats 40% planted. Barley 45% and sugar beets 65% seeded. Calving 80% lambing 80% and shearing 75% completed. 65% range cattle and sheep receiving supplemental feed.

NEBRASKA: Cold, snow west, showers elsewhere. Topsoil moisture adequate, except portions east and southeast. Winter wheat mostly good to excellent. Few reports pale western cutworm, but no widespread damage. Wheat starting to joint southern counties. Corn planting ahead normal, with 10% in ground, but soil temperatures too cool for good germination. Sugar beet planting nearing completion. Pasture and range grasses developing slowly. Cool, damp weather caused discomfort to young livestock, few losses from scours.

NEVADA: Temperatures generally 3° to 5° below normal but locally above normal. Example: Fallon 8° above normal. Moderate to heavy precipitation at beginning and end of week in north, light precipitation in south-central, zero in extreme south. Planting spring crops continues, but development curtailed due inclement weather. Planting small grains over 2/3 complete, with 40% emerged. Harvest first crop alfalfa hay under-way southern valley. Planting cotton Pahrump Valley well underway. Livestock in generally good condition, with death losses about normal. Calving and lambing nearing completion, except for northeast area.

NEW ENGLAND: Almost daily precipitation in south and west but less frequent in Maine and New Hampshire. Totals variable from 0.50 to 1.50 inches except ranging down to less than 0.10 inch in eastern Maine. Week cool, averaging mostly 3° to 5° below normal except near normal in much of Maine. Season running 1 to 2 weeks late. Peach buds starting to show color. Asparagus harvest delayed. Rhubarb coming slow. Planting some vegetable crops. Potato planting Connecticut Valley active. Maple sap running later than usual.

NEW JERSEY: A cold week with temperatures averag-

ing from 4° to 8° below normal. Readings ranged from upper 20's to upper 60's. Light rain mid-week and over weekend totaled 0.30 inch over northern 1/3 of state and about 0.50 inch elsewhere. Soil moisture supplies generally short early week, but improved considerably by morning of 3d. Asparagus harvest continued but slowed by cool weather. Peaches past full bloom some areas. Pink bud stage beginning to show apples. Spraying continues. Soil preparation underway for corn and soybeans. Spring planting vegetable crops continues. All crops would benefit from warmer temperatures. Fall-seeded grains good to excellent.

NEW MEXICO: Generally dry with widely scattered light showers in east and a locally heavy shower of more than 1.00 inch at Des Moines. General warming but with average temperatures in west continuing below normal. Freezing temperatures in northern mountains and northwestern plateau Tuesday. Warmest Sunday with 90° in southeastern plains. Moisture condition extremely short. Dry-land wheat continuous cropping land will be grazed out. Summer fallow wheat fair condition. Irrigated wheat fair to good. Cotton up to stand southern areas. First cutting alfalfa underway. Lettuce cutting to begin shortly. Ranges extremely dry. Livestock fair condition. Heavy supplemental feeding continues. Livestock water short supply. Some ranchers hauling water.

NEW YORK: Cloudy unsettled weather and unseasonably cold entire period. Maximums mostly 45° to 55° except low 60's southeast on 27th and 2d. Minimums above freezing except 25° to 30° northern half and interior of south on 28th. Precipitation almost daily. Showers 28th through 30th total 0.50 to 1.00 inch southern tier and Finger Lakes to Hudson Valley with 0.30 to 0.60 inch elsewhere. Additional rain on weekend with heaviest 0.50 inch in central. Cool rainy weather hampered all field activities. Plowing and seedbed work continues weather permitting. Oats 20% planted, but less than 5% corn in. Wheat good condition. Pastures and hays remain fair. Growth slow due cool weather. Long Island potato planting complete 10 days earlier than usual. Upstate potato planting currently at standstill due rain. Onion seeding complete Orange County and nearly ended in Orleans-Genesee muckland. About half done Canastota muck. Cool weather held back fruit bud development. Maple syrup harvest completed after late season caused by cold temperatures and heavy snow cover.

NORTH CAROLINA: Temperatures little changed from previous 2 weeks. Near normal in early April they are now about 4° below normal. Range from 30's to 80's. Rain 28th and showers again over weekend. Total amounts 0.10 inch to 2.00 inches averaging 1.00 inch. Soil moisture improved to mostly adequate, except short northeast counties. Planting corn 2/3 complete. Flue-cured tobacco transplanting 1/5 done. Cotton planting 1/2 complete. Planting peanuts, soybeans, and milo continuing, but limited. Cool nights slowing growth crops. Small grains mostly good. Barley heading. Tobacco plant beds mostly fair east with supply declining, but mostly adequate. Tobacco in, fields fair, except good southeast border belt counties. Irish potatoes and vegetables mostly good. Peaches about 10 days late, with full set of fruit most varieties.

NORTH DAKOTA: Wet and cool. General rain over State, heaviest in central and southeast. Amounts ranged from 0.10 to 0.20 inch extreme west to

1.30 inches southeast. Temperatures averaged 6° to 9° below normal. Light to heavy showers caused some delay spring planting. Much needed rains helped relieve dry conditions southeast 1/4. Winter wheat and rye greening up. Wild oats could become problem some fields. Calving and lambing over 3/4 finished. Some sickness because cool damp weather.

OHIO: A cool, cloudy, and windy week. Rainfall amounts from midweek storms ranged from none at Oberlin to 0.69 inch at Cincinnati. Areas southeast of Wilmington to Columbus to Steubenville line received 0.20 to 0.50 inch of rain on 3d. Driest portion of Ohio is northwest quadrant. Average daily temperatures have been below normal since April 21. Frost common 27th, 30th, 1st. Six days favorable fieldwork. Total 26 days favorable during April. Soil moisture supplies 90% short, 10% adequate. Plowing for corn and soybeans over 95% completed, last year 70%, normal 75%. Corn planting 45% finished, 12 days ahead last year, 17 days ahead 1965 to 1969 average. Planting soybeans 3% to 4% completed. Oat seeding finished, about 2 weeks ahead 1970 and average. Potato planting 55% finished, last year 30%, usual 40%. Livestock obtaining 1/4 forage requirements from pasture.

OKLAHOMA: Rainfall averaged from 0.13 inch west-central to 0.70 inch east-central. Temperatures averaged from near normal southwest and Panhandle to 5° below normal north-central. Extensive hail damage at Enid in north-central and at Fairfax northeast. Considerable wind damage at Duncan south-central. Wheat condition essentially unchanged from last week; 62% poor, 21% fair, 17% good. Some improvement most localities eastern 2/3 State, some decrease Panhandle. About 55% crop heading, somewhat ahead previous 2 years dough stage, 1%. Oats and barley condition 1/2 poor, remainder fair to good. Oats 60%, barley 66% headed. Corn 42% planted, 20% up to stand. Field preparation and planting summer row crops progressing very slowly as many farmers western 2/3 State waiting for additional moisture. Surface soil moisture declined slightly, now 67% short, 29% adequate, 4% surplus. Subsoil 60% short, 40% adequate. Supplemental livestock feeding continues most western localities. Alfalfa crop 54% poor, remainder fair to good; - drought and insect damage deferred first cutting date many localities. Livestock mostly fair to good.

OREGON: General light showers first of week became scattered by midperiod. Increasing sunshine aided warming trend. Weekly temperatures averaged mostly 2° to 5° below normal. Weekly minima 17° to 41° with fruit valleys 29° to 30°. Maxima 58° to 76°. Precipitation totaled less than 0.10 inch southeast quadrant, elsewhere mostly 0.10 to 0.30 except 0.60 inch on south coast. Warmer weather improved conditions for field crops. Most livestock turned out, grass starting to make good growth. Hay used up most places. Bush and pole beans, and sweet corn planting underway Willamette Valley. Tree fruit bloom continues, no severe frost.

PENNSYLVANIA: A cloudy cool week. Temperatures averaged 8° below normal. Quite cold except Wednesday and Saturday. High 70° at Martinsburg on 29th. Low 24° at Pittsburgh on 1st. Several periods of light rain with some stations reporting precipitation every day. Weekly rainfall totals ranged from less than 0.50 inch in extreme west and at southeast corner of State to over 1.00 inch in Upper Susquehanna region. Overall weekly totals

still below normal for 6th straight week. One of driest Aprils on record at several locations. Light showers improved growing and soil working conditions. Topsoil moisture supply 65% short, remainder adequate. Corn planting more active, progress still slow. Spring plowing well advanced. Oat seeding 75% completed. Livestock received limited feed from pastures. Fruit development delayed cold weather. Planting peas for processing passed halfway mark and on schedule.

PUERTO RICO: Near normal rainfall of 1.37 inches. Highest weekly total 5.44 inches central-interior. Scattered dry areas of no rain north and interior divisions. Good distribution southern slopes and south coast. Crop moisture conditions near normal most zones except more rain needed extreme north-east and southwest and some fields too wet in central and western interior. Temperatures averaged 79° on coast and 73° interior or about normal. Highest maximum, 94°, lowest, minimum 52°. Sugar-cane harvesting and grinding operations progressing well, except minor interruptions southern slopes due rain showers. Coffee plantations report excellent progress seeding, fertilizing, and fumigating. Tobacco harvesting and drying made good progress. Pastures good to excellent, except some scattered zones northeast and southwest too dry. Minor crops developing well all zones, with good progress fieldwork.

SOUTH CAROLINA: Rain at beginning and at midweek totaled between 1.25 and 2.75 inches all parts of State. No unseasonably warm or cold spells and temperatures averaged about normal, 63° to 68°. Soil moisture adequate to surplus all areas. Tobacco transplanting 80% completed. Condition of stands and plants good. Corn 78% planted, virtually complete southeast. Plants fair to good. Cotton 64% planted. Stands and plants mostly fair. Soybeans 3%, peanuts 34%, sweet potatoes 14% planted. Sorghum planting underway. Small grains, hay crops, pastures mostly good, wheat 66%, oats 67% headed. Small grains 5% turned color, all in lower coastal areas. Small watermelon acreage yet to be planted Pageland and Jefferson areas. Planting spring vegetables virtually complete. Condition mostly fair to good. Peaches good. Possible cold weather damage end of week. Trees dying sandhill area - reportedly bacterial cancer.

SOUTH DAKOTA: Weekly temperatures averaged from 4° below normal in west to 10° below normal in east. Extremes ranged from 23° at Mission on 28th to 69° at Hot Springs on 30th. Precipitation was scattered through week with greatest amounts falling as general rain or snow first part of week. Snowfall of 3 to 12 inches in north and west. Mission reported 12 inches of snow on 27th. Precipitation totals generally ranged from about 0.20 inch to 2.00 inches. Cool weather slowed crop growth and development. Pasture growth slow and small grain growth slow to moderate. Adequate to surplus topsoil moisture throughout State, including northeast areas which earlier reported shortage. Subsoil moisture also adequate. Rain showers slowed fieldwork again this week and caused some soil erosion. Spring plowing 59% completed, equal to average and well ahead last season. Seeding small grains nearing completion. Some corn planted, about 2%. Eroded winter wheat fields being reseeded with spring wheat and other spring crops. Livestock good condition. Calving well advanced. Lambing near completion. Slow movement to pasture.

TENNESSEE: Variable temperatures dominated last week's weather. Sharp cooling on weekend. Extremes: 85°, 34°. Precipitation totals 0.50

to 1.00, heaviest parts of east where a few totals exceeded 2.00 inches. Scattered hail. Farmers made good progress and all farm activities were at season high. Planting gained momentum with aid of sunny days and few showers. Cotton planting gained momentum, approximately 30% planted. Corn 60% planted. Few growers not getting seed. Tobacco plant growth retarded. Cool nights and wind reason. Few farmers watering beds. Small grains good condition. Pastures better than last year. Plowing 85% complete, slightly ahead last year. Days suitable fieldwork 4.5. Soil moisture 25% short, 71% adequate, 4% surplus.

TEXAS: Scattered showers of 0.25 to 1.00 inch fell in portions of north-central and north-west Texas Wednesday bringing some temporary relief to drought in small areas of heaviest showers. With little or no rain elsewhere, drought conditions worsened in all other sections of State. In most areas, temperatures were warmer than previous week. Planting activities continue to lag behind as drought conditions persist. Farmers waiting for increased soil moisture and warmer temperatures to aid germination of seed already planted. Irrigated wheat crop looks good, while dryland crop prospects appear bleak. Range conditions remain poor. Ranchers still reducing herds as they wait out drought. Planting cultivating, preplant irrigation and caring livestock main activities. Percent planted to date: cotton 22, 28 a year ago; corn 76, 85 a year ago; sorghum 42, 48 a year ago; peanuts 8, 18 a year ago; rice 91, 80 a year ago. Onion harvest well past peak Lower Valley with about 3/4 crop shipped. Onion harvest continues active Laredo, Coastal Bend with harvest underway Winter Garden. Potato digging active Lower Valley, Winter Garden. Cabbage, carrot harvest declining South Texas, light supplies available. Tomatoes, sweet corn, cantaloupe, cucumbers, green peppers being harvested Lower Valley with supplies to increase. Watermelon harvest starts in week. Irrigated watermelons good prospects, but dryland watermelons poor. High Plains onions, potatoes good progress. Other vegetables being planted. Citrus harvest nearing completion Lower Valley. Peach prospects poor because late freeze, drought. Pecans blooming and setting nuts.

UTAH: Rain in valleys and snow in mountains continued during forepart of period but after 10 days of nearly continuous precipitation skies cleared and temperatures began to climb over weekend. Average temperatures for week ranged between 4° and 11° below normal. Soil temperatures 4-inch depth range from upper 40's extreme north to low 50's central section and mid-60's extreme southwest. Accumulated growing degree days continue well ahead of last year. Clearing weather enabled Utah farmers to catch up on planting, spraying and other fieldwork. Fortunately no freeze followed the cool rainy period. Bees busy pollinating. Good fruit crops still in prospect. Growth dryland winter wheat, range grasses, and weeds following prolonged rainy period evident. Calving nearing completion, shearing and lambing well advanced.

VIRGINIA: Temperatures normal to below first half becoming much below normal second half. Showers at midweek and over weekend. Totals ranged from almost none in east to over 1.00 inch in southwest. Rain needed. Topsoil dry. Corn over half planted in Piedmont and Tidewater. Cotton planting picked up momentum. Very limited soybean and peanut acreage planted. Planting late oats southwest. Tobacco growth in plant

beds slow. Barley heading east. Pasture and hay growth short. Eastern shore growers set tomatoes and planted cucumbers. Potatoes up with good stands.

WASHINGTON: West of Cascades: Average temperatures near normal. Few light showers first of week. Vegetable crops and field peas being planted. Pastures dried and growth improved. Dairy cattle being turned on pastures. Blueberries, strawberries, and raspberries growing well, but about 2 weeks behind last year. East of Cascades: Warm sunny days, cold nights. Few showers beginning of week. Cherries, early pears and apples blooming. Asparagus harvest heavy with good quality. Planting corn, installing grape trellises, training hops, and thinning sugar beets in progress. Wheat entering boot stage central basin. Pastures and hay 10 days behind last year. Winter wheat eastern and northern areas good condition.

WEST VIRGINIA: Cool cloudy week. Rain April 26 to 28 totaled about 0.50 inch, with another 0.50 inch May 2. Temperatures continued below normal. As the week ended moisture was short. Rain on Sunday brought needed moisture to most sections. Major activities during week were tilling soil, spreading lime and fertilizer, and mending fences. About 6 days suitable fieldwork. Per-

cent planted for spring oats, potatoes, and field corn: 82, 80 and 10, respectively. Most crop conditions should be expected to improve due weekend rain.

WISCONSIN: Cold and wet during week. Snow and rain in north on Tuesday and Wednesday. Some hail showers and locally strong gusty winds Friday evening. Precipitation delayed fieldwork, but was generally appreciated as topsoils were getting dry. Oats about 60% planted. Slightly behind last year. Spring plowing nearly half done. Corn ground being prepared. Few fields planted south. Peas and potatoes going in. Still lots of manure to haul and fences to mend. Tobacco beds steamed and seeded. Soil moisture 75% adequate, 20% surplus, and 5% short.

WYOMING: Moderate to heavy precipitation. Over 2.00 inches at several places. Temperatures averaged 2° to 9° below normal, warming at weekend. Maxima mostly 55° to 65° west of Divide, 60° to 70° east. Minima mostly 10° to 25° west of Divide, 20° to 30° east. Temperature extremes: 71° at Deaver and 10° at Evanston. Sugar beet planting slow, wet fields, 60% in, less than normal. About 45% oats, 60% barley sown. Calving normal, 75% complete. Some minor disease due to wet weather. Soil moisture adequate to surplus.

DROUGHT PERSISTENCE

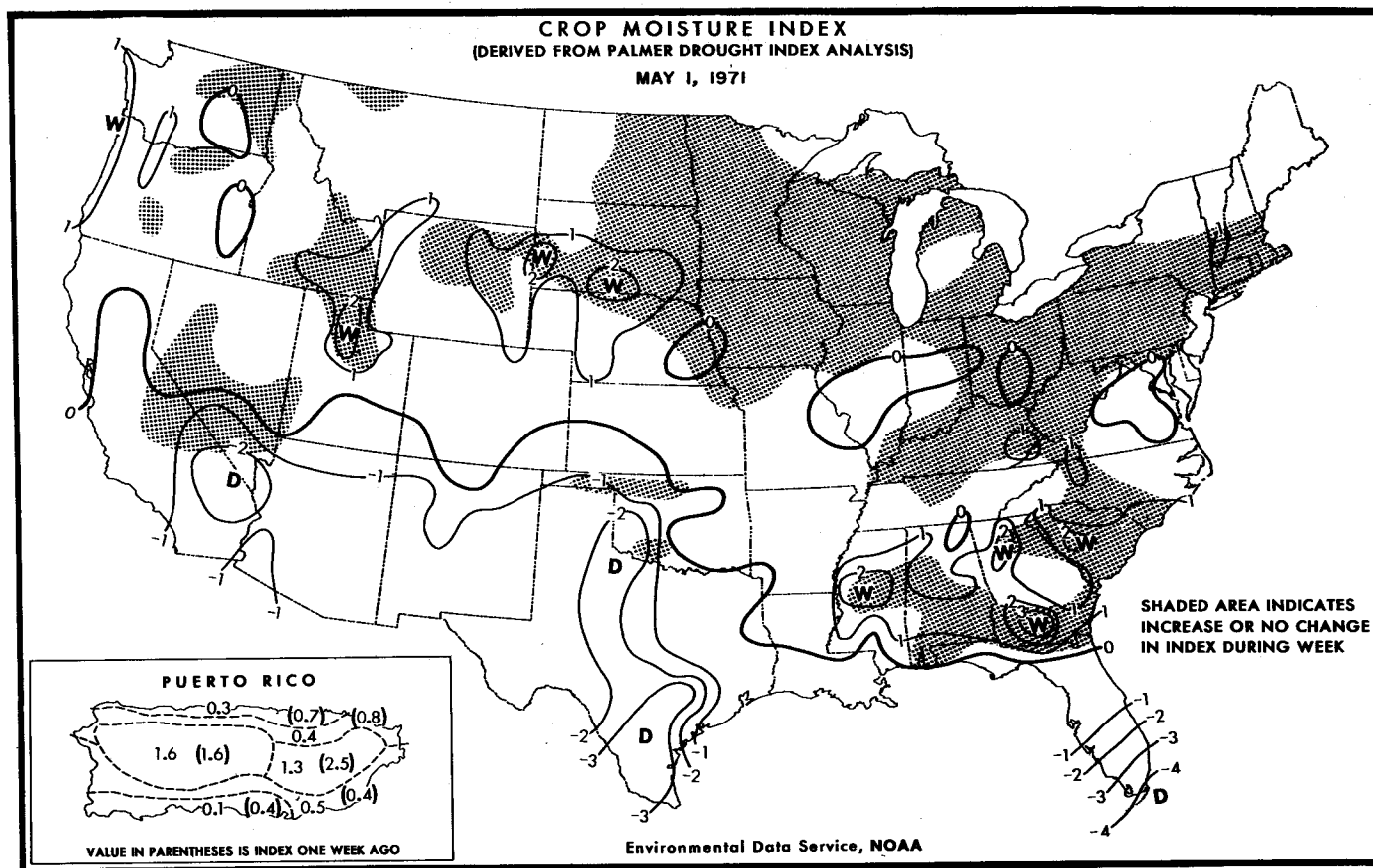
During the 40 years, 1931 to 1970, drought existed in southwestern Oklahoma on May 1 in 19 separate years. Of these 19 droughts, 15 were continuing on both June 1 and July 1; 12 of them had become more severe by June 1 and 13 had become more severe by July 1. This same 40-year period also produced 19 cases of drought on May 1 in the Edwards Plateau area of Texas. By June 1, 18 of the 19 droughts were still going on and 14 of them had become more severe. By July 1, 17 were still underway and 15 had become more severe.

The above climatology indicates that drought, once established, has been remarkably persistent in these two areas. Further, past records show that May and June have increased the severity of the existing droughts more frequently than they have ended them or lessened their severity.

Once an area has lost most of its moisture reserves, above-normal rainfall is required each week merely to keep the situation from getting worse. For example, with little or no soil moisture, the rate of water use by vegetation

will be below average in these areas unless rainfall is above average. In addition, there are requirements for even more rainfall in order to bring the storage reserves in soils, streams, lakes, etc., back to normal. Of course, all these enlarged moisture requirements total more than the expected rainfall and give a total monthly or weekly requirement which, by the very definition of a mean value, has less than a 50% chance of occurring. This is one of the built-in characteristics that tends to perpetuate a drought, and is quite aside from the atmospheric circulation patterns which produced the abnormally dry weather in the first place. In addition, much of the solar radiation which falls on a dried out area turns into heat and increases water requirements rather than being used to evaporate water. In the light of these physical factors, it is hardly surprising to find that drought is hard to get rid of once it gets a hold on the land.

W. C. Palmer



INDEX DECREASED DURING WEEK
(Unshaded Areas)

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

INDEX

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

INDEX

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

LITTLE RELIEF FOR DROUGHT AREAS

Although scattered showers fell across portions of southern Florida, the drought in that area intensified during the past week, as can be seen on the above map. All available irrigation is being used as citrus groves, vegetable growing areas, and pastures feel the increasingly serious effects of the prolonged dryness.

Very little rain fell in the Texas-Oklahoma drought area and conditions there continue to decline. Planting activities continue to lag and

ranchers are reducing herds. A discussion of drought persistence in this area is presented on Page 10.

In parts of the Southeast and Northern Great Plains soils were wet, causing temporary interruption of fieldwork. Moisture conditions throughout the Corn Belt and the Northeast were generally near normal.

J. J. Rahn

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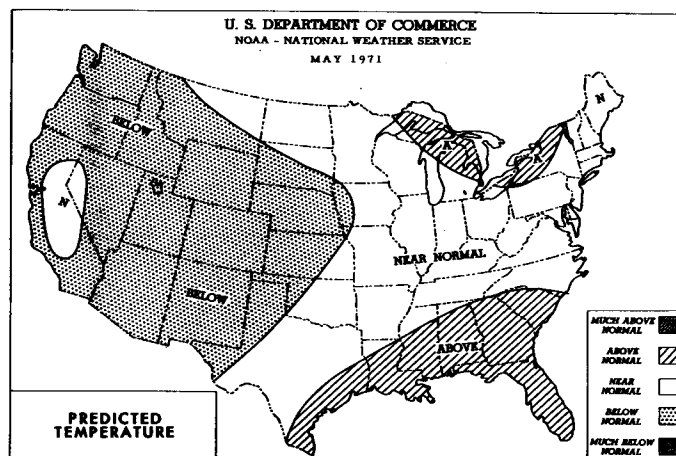
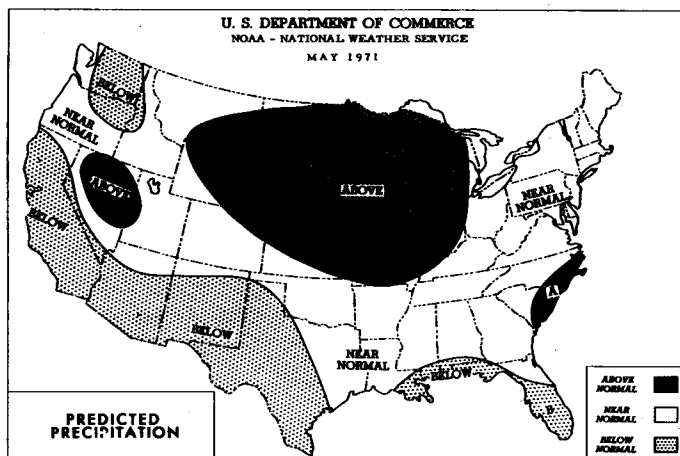
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AVERAGE MONTHLY WEATHER OUTLOOK



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