

# WEEKLY WEATHER AND CROP BULLETIN

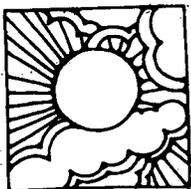
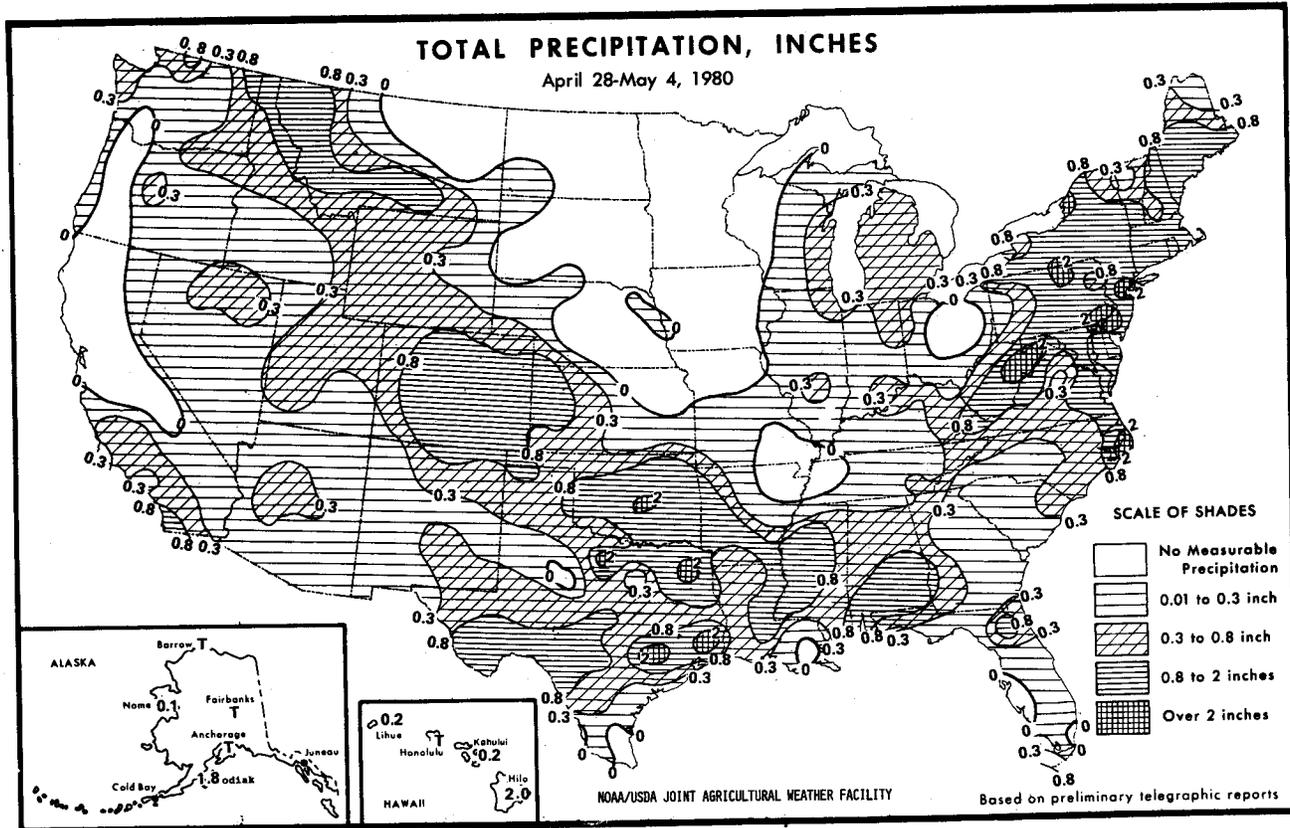
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## National Weather Summary

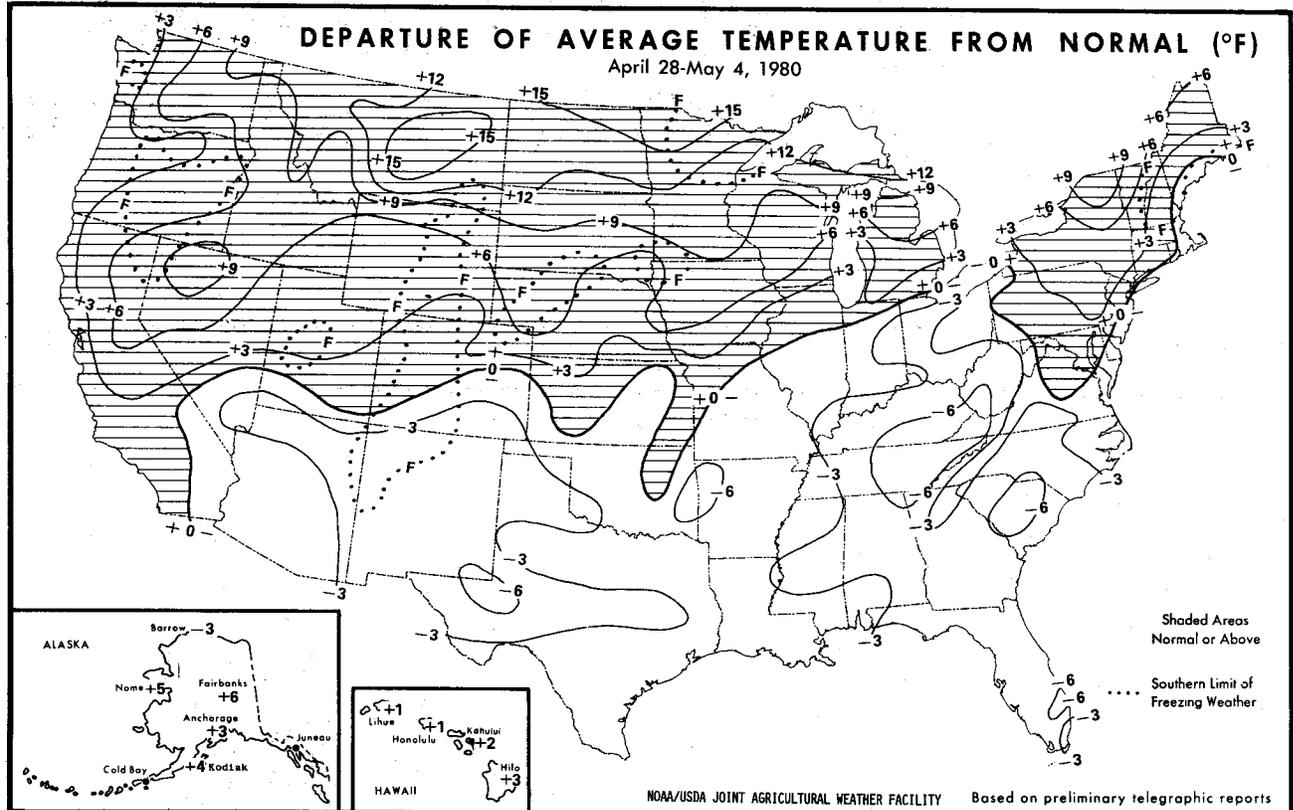
April 28 - May 4

**HIGHLIGHTS:** A near stationary low pressure system brought drizzle, rain, and some thunderstorms to the northeastern quarter of the Nation before it moved slowly eastward into the Atlantic near the end of the week. Elsewhere, severe weather tracked from eastern Colorado through the lower Mississippi Valley and eastward before turning northward to the mid-Atlantic States. Hail and wind damage was reported in eastern Colorado, Oklahoma, and northern Texas. Thunderstorms also deluged parts of southwest Texas and southern New Mexico.

**MONDAY...**A series of slow moving low pressure systems were inching through the Ohio Valley and

along the mid-Atlantic Coast. Rain and thunderstorms stretched from the eastern sections of the middle Mississippi Valley, across the Ohio and Tennessee Valleys, the central and southern Great Lakes region to New England. The rain was heavy at times and flooding occurred in several areas from New Jersey to parts of New England. Elsewhere, a cold front produced thundershowers along the West Coast. Only light rain fell, but several California areas reported hail. Temperatures were cool under the cloudy skies of the East, but most of the Plains and the West climbed to warm springtime readings under clear skies.

**TUESDAY...**The sluggish low pressure system in the Northeast continued to bring rain and thundershowers to the area although some points enjoyed partly cloudy skies. Drizzle and light rain fell from the southern Great Lakes to the Ohio Valley. Sunny skies prevailed over the South as cool weather settled over the area. Florida had record low temperatures in the morning, but the sun warmed the area to the eighties during the day. Elsewhere, a Pacific frontal system brought showers and thun-



derstorms to the Rockies and Plateau region. By late afternoon, cool weather had moved in behind the front. Early in the evening, the temperature had dropped to 34° at Flagstaff, Ariz., and it was snowing.

**WEDNESDAY...** Winter was making a comeback in the Rockies and Plateau regions with cool temperatures and snow at some higher elevations. A sharp contrast existed across the slow moving Pacific front. Billings, in eastern Montana, had a pleasant 81° reading while, at the same time, Butte in the western part of the State had a chilly 36°. Ahead of the front in eastern Colorado thunderstorm rains caused small streams to overflow their banks. Thunderstorms also broke out from Kansas into northern Texas. Some large hail was reported with these storms. Skies were still mostly cloudy in the Northeast with rain and a few thunderstorms in the mid-Atlantic Coast States and in northern New England.

**THURSDAY...** Cloudy skies and scattered light rain lingered along the mid-Atlantic Coast and over parts of New England as the large low pressure area moved slowly eastward. Thunderstorms developed over the southern Plains. Hail and high winds were reported over much of Oklahoma and middle and eastern Texas. Two and one-half inches of rain fell in less than an hour at Ft. Worth, Tex., causing local flooding. Elsewhere, some thunderstorms occurred in southern Montana and the eastern Gulf Coast area. Temperatures were warm in the northern Plains and cool in the West.

**FRIDAY...** The broad low pressure area was moving out of the Northeast into the Atlantic. Most of the area enjoyed sunny skies, but as a parting shot, an area of light rain in Pennsylvania and New York developed into a line of thunderstorms

from New York to Maryland. Skies cleared as the line moved eastward and dissipated. Elsewhere, thunderstorms moved from eastern Colorado to the lower Mississippi Valley and spread into the middle Mississippi Valley. Also some widely scattered activity was reported in southern Florida and along the Rio Grande Valley in south central Texas. In the West, there was some isolated shower activity over the northern Rockies and in western Washington. Some record warm temperatures were recorded in the northern Plains and western Great Lakes area.

**SATURDAY...** Warm, moist air from the Gulf of Mexico flowed into southwest Texas and southern New Mexico. Thunderstorms became severe and widespread in these areas and caused some heavy downpours in these dry areas. A broad area of low pressure from the eastern Gulf across the southern Atlantic States was triggering thunderstorms from Alabama to the Atlantic Coast and spreading as far north as North Carolina. Clear to partly cloudy was the rule over the mid-Atlantic States. Widely scattered showers reached into Wyoming and southern Montana. Mostly clear skies and unseasonably warm weather prevailed over the upper Mississippi Valley and upper Great Lakes.

**SUNDAY...** A wedge of warm air in the upper Midwest continued to bring unseasonably warm and dry conditions to portions of the Plains and Mississippi Valley. Isolated showers and thundershowers were reported from the central Plains through northern Texas and eastward to the Mississippi River. There were also some widely scattered showers over Florida and Georgia, while in most of the northeastern quarter of the Nation skies were clear. Fair skies also prevailed in the West although there were a few showers over the Plateau and central Rockies.



## National Agricultural Summary

April 28 - May 4

**HIGHLIGHTS:** Continued warm, dry weather throughout the north central States pushed planting progress well ahead of last year and the average. These States received very little precipitation and farmers generally had 5 to 7 days suitable for fieldwork. In the western States, 5 to 6 days were suitable for fieldwork. Wet soils continued to delay fieldwork in the North Atlantic, South Atlantic, and South Central States and held the number of days suitable between 1 and 4. Plowing in the Corn Belt was ahead of schedule except Indiana at 80%, which lagged the average by 5 points. Iowa plowing at 95%, was 15 points ahead of the average. Corn planting progressed at a very rapid pace and reached 38% complete, ahead of last year's slow progress of only 10% and the average of 25%. Iowa corn planting reached 61% and Illinois planting stood at 46%. During the week, Iowa farmers planted 52% of the corn crop, Illinois farmers 38%, and Minnesota, Missouri, and Nebraska farmers about a third of the corn crop. Planting in Minnesota, Missouri, and Nebraska reached 36%, 50%, and 35% respectively. Spring wheat seeding in the five major producing States excluding South Dakota and Montana stood at 70%, well ahead of last year's late season 6% and the average of only 32%. Oats seeding in the nine major States excluding South Dakota and Pennsylvania reached 78%, ahead of last year's 33% and the 55% average. Only Michigan and Ohio lagged the average. Barley seeding continued at a rapid pace with the seven major producing States excluding South Dakota and Montana showing 69% seeded, well ahead of the 20% a year ago. Emergence is spotty in the northern Plains due to dry weather. Cotton planting in the 14 major producing States reached 35%, 2 points ahead of last year. Excluding California and Arizona, cotton planting stood at 24%, ahead of last year's 22% but short of the 28% average. Grain sorghum planting reached northward into Nebraska. For the seven major producing States, progress stood at 26%, slightly ahead of last year's 25% and the 24% average. Most of the acreage already planted is still in Texas where 67% of the crop is planted, compared with 69% last year and the 62% average. Excluding California, rice seeding in the major producing States stood at 64%, falling between 1979's 57% and the 75% average. Winter wheat rated fair to mostly good, except in the northern Plains where conditions deteriorated due to lack of moisture. Jointing extended as far north as Nebraska and heading as far north as Oklahoma. Pastures rated fair to mostly good, although dry soils limited growth and resulted in poor conditions in the northern Plains. Fuel supplies held steady from the previous week. LP gas stood at 2% tight, 95% adequate, and 3% surplus. Diesel fuel rated 4% tight, 93% adequate, and 3% surplus. Gasoline scored 4% tight, 92% adequate, and 4% surplus.

**SMALL GRAINS:** Winter wheat rated fair to mostly good, except in the northern Plains where conditions deteriorated due to lack of moisture. Jointing extended into Nebraska and heading into Oklahoma. In Texas, dryland stands in the Plains responded to last week's rain and the outlook improved. In northeastern Texas, stands are thin with some fields being grazed out. Fields are maturing rapidly.

Spring wheat seeding in the five major producing States excluding South Dakota and Montana, reached 70%, well ahead of last year's late season 6% and

the average of only 32%. Minnesota producers planted 36% of the acreage during the week and Montana and North Dakota producers 30%. Oats seeding progress ranged from 35% in Michigan to 98% in Illinois. Only Michigan and Ohio lagged the average. Emergence is spotty in the northern Plains due to lack of moisture.

**CORN:** Corn planting stood at 38%, ahead of last year's slow progress of 10% and the average of 25%. During the week Iowa farmers planted 52% of the corn crop, Illinois farmers 38% and Minnesota, Missouri, and Nebraska farmers about a third of the corn crop. The east north central States reported 27% planted, compared with 4% last year and the average of 22%. The west north central States reported 43% planted, compared with 4% last year and the average of 21%. The south-east States with 78% planted, continued to lag last year's 83% and the average of 81%.

**COTTON:** Cotton planting in the 14 major producing States reached 35%, 2 points ahead of last year. Excluding California and Arizona, planting stood at 24%, ahead of last year's 22% but short of the 28% average. Texas planting centered in the Blacklands and Cross-Timbers although rain caused some delays, and was gaining momentum in the Plains. Some Blackland fields were replanted because of damage from cold temperatures. In South Texas, crop progress was slowed due to moisture shortages and cool weather.

**OTHER CROPS:** Grain sorghum planting reached 26% in the seven major producing States, slightly ahead of last year's 25% and the 24% average. Seeding in Texas reached 67%, behind last year's 69% but ahead of the 62% average. Texas planting was most active on Edwards Plateau and Cross-Timbers and continued to advance on the Plains. Development in southern Texas was slowed by cool, dry weather. Insects were reported to be a problem in southern Texas, although damage is moderate.

Rice seeding, excluding California, reached 64%, 7 points ahead of last year but 11 points below the average. In Texas, where 96% of the crop has been planted, 73% of the crop has emerged.

Peanut planting in the six major producing States excluding Oklahoma reached 30%, 15 points behind last year and the average. Progress ranged from 11% in Texas to 42% in Georgia.

**FRUITS & NUTS:** New England peach trees bloomed and early apple varieties were showing pink. Apples began to bloom in southern areas. Texas pecan trees were in full leaf and blooming in most areas. Florida citrus grove condition was being maintained with irrigation with very little wilt reported; non-irrigated trees were showing stress. Florida growers harvested Valencias. Arizona citrus groves were in very good condition as growers continued to harvest grapefruit and Valencias.

**VEGETABLES:** Florida vegetable shipments were up 39% from last week although shipments of cauliflower and strawberries decreased seasonally. Supplies of sweet corn, cucumbers, eggplant, okra, tomatoes, and watermelons increased considerably. In Texas, watermelons required heavy irrigation; moisture stress and wind damage occurred in dryland watermelons. In East Texas, cool weather has slowed the spring vegetable growth.

**PASTURES & LIVESTOCK:** Pastures generally rated fair to good, although dry soils slowed growth in many areas. In the northern Plains, conditions were rated as fair to poor due to lack of moisture. Ranchers continued to turn herds onto rangelands. Calving and lambing were nearly complete with most areas reporting only light losses.

Weather Data for the Week Ending May 4, 1980

States and Stations	Temperature °F						Precipitation					Relative Humidity, percent		Number of Days			
	Average maximum	Average minimum	Extreme high	Extreme low	Average	Departure from normal	Weekly total, in.	Departure from normal	Greatest in 24-hours, in.	Total, in., since March 3	Pct. normal since March 3	Average maximum	Average minimum	Temperature °F		Precipitation	
														90 and above	32 and below	.01 inch or more	.50 inch or more
ALA. Birmingham . . .	74	51	78	46	62	- 5	.4	-.5	.4	23.3	212	90	45	0	0	2	0
Mobile . . .	80	59	82	50	70	- 2	1.6	-.5	1.0	28.1	216	92	46	0	0	3	2
Montgomery . . .	74	57	78	52	66	- 4	1.1	-.2	.9	15.7	148	86	51	0	0	3	1
ALASKA. Anchorage . .	52	36	55	30	44	- 3	T	-.1	T	.5	56	75	46	0	2	1	0
Barrow . . .	12	1	18	- 8	6	- 3	T	-.0	T	0	77	76	6	0	0	0	0
Fairbanks . . .	57	32	61	29	45	- 6	T	-.1	T	.2	13	75	30	0	4	0	0
Juneau . . .	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Kodiak . . .	47	40	49	38	44	- 4	1.8	-.8	.8	7.8	98	89	73	0	0	6	1
Nome . . .	39	26	46	21	32	- 5	1.1	-.1	1.1	1.3	87	77	67	0	6	1	0
ARIZ. Flagstaff . . .	57	31	68	28	44	- 2	.3	-.1	.2	5.5	172	89	46	0	4	3	0
Phoenix . . .	82	61	94	57	71	- 1	T	-.1	T	1.0	91	61	32	3	0	2	0
Tucson . . .	80	55	89	52	68	- 2	.1	-.0	.1	1.3	144	51	19	0	0	1	0
Winslow . . .	71	41	80	35	56	- 3	.2	-.1	.1	1.2	133	---	---	0	0	2	0
Yuma . . .	87	61	101	56	74	- 1	.3	-.3	.2	.8	160	54	24	3	0	2	0
ARK. Fort Smith . . .	75	51	81	45	63	- 4	1.1	-.2	.6	6.3	70	94	48	0	0	4	1
Little Rock . . .	76	55	82	50	65	- 1	.2	- 1.1	1.1	12.3	116	81	44	0	0	2	0
CALIF. Bakersfield . .	77	59	88	55	68	- 1	.6	-.5	.5	2.0	125	---	53	0	0	2	1
Eureka . . .	57	48	59	44	52	- 1	T	-.6	T	10.2	129	92	72	0	0	0	0
Fresno . . .	81	57	92	56	69	- 5	T	-.2	T	2.1	70	70	33	1	0	0	0
Los Angeles . . .	66	56	71	53	61	- 2	.1	-.0	.1	2.3	68	87	66	0	0	1	0
Red Bluff . . .	84	54	87	50	69	- 5	0	-.3	0	3.6	84	86	40	0	0	0	0
San Diego . . .	68	60	72	58	64	- 2	1.1	- 1.0	.5	4.6	192	83	66	0	0	3	1
San Francisco . . .	66	49	73	46	58	- 1	T	-.2	T	3.1	76	87	51	0	0	0	0
Stockton . . .	84	54	89	52	69	- 7	T	-.2	T	1.8	55	79	32	0	0	0	0
COLO. Denver . . .	65	44	76	42	55	- 2	1.1	-.5	.5	4.3	123	78	39	0	0	3	2
Grand Junction . . .	72	46	77	45	59	- 1	.5	-.3	.3	2.5	167	73	35	0	0	3	0
Pueblo . . .	66	43	78	37	54	- 3	1.1	-.7	.9	4.5	214	95	49	0	0	3	1
CONN. Bridgeport . . .	59	47	70	46	53	- 1	1.6	-.8	1.5	14.1	196	68	53	0	0	1	1
Hartford . . .	65	45	81	41	55	- 2	1.2	-.4	.7	11.4	148	77	49	0	0	3	1
D.C. Washington . . .	72	56	83	54	64	- 2	.8	-.0	.3	8.4	129	85	53	0	0	5	0
FLA. Apalachicola . .	76	59	79	54	68	- 4	.1	-.6	.1	9.2	108	90	59	0	0	1	0
Daytona Beach . . .	80	58	84	47	69	- 4	T	-.4	T	4.5	76	82	45	0	0	0	0
Ft. Myers . . .	82	63	87	55	73	- 3	0	-.5	0	1.7	32	88	45	0	0	0	0
Jacksonville . . .	79	57	82	50	68	- 4	.7	-.1	.5	11.1	163	91	48	0	0	2	0
Key West . . .	80	71	84	68	75	- 4	1.1	-.6	1.1	4.0	98	81	62	0	0	3	1
Miami . . .	81	68	84	61	75	- 2	0	- 1.1	0	10.2	162	82	58	0	0	0	0
Orlando . . .	83	58	88	48	71	- 4	.1	-.4	T	4.7	75	88	40	0	0	2	0
Tallahassee . . .	77	57	83	49	67	- 5	.1	-.7	.1	16.8	170	94	50	0	0	1	0
Tampa . . .	79	64	85	58	71	- 3	T	-.4	T	6.3	103	86	53	0	0	0	0
W. Palm Beach . . .	80	60	87	53	70	- 3	T	-.9	T	3.9	54	57	50	0	0	1	0
GA. Atlanta . . .	75	51	85	45	63	- 3	.2	-.7	.1	13.2	126	91	41	0	0	3	0
Augusta . . .	78	47	84	43	62	- 3	.1	-.6	.1	13.0	156	88	36	0	0	0	0
Macon . . .	77	52	84	49	65	- 6	.1	-.7	.1	14.4	160	93	40	0	0	1	0
Savannah . . .	76	55	79	52	66	- 4	T	-.7	T	11.4	154	81	37	0	0	0	0
HAWAII. Hilo . . .	---	---	---	---	76	- 3	2.0	-.7	---	56.8	210	---	---	0	0	---	---
Honolulu . . .	85	70	86	69	77	- 1	T	-.2	T	3.9	85	90	55	0	0	0	0
Kahului . . .	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Lihue . . .	---	---	---	---	75	- 1	.2	-.4	---	6.0	75	---	---	0	0	---	---
IDAHO. Boise . . .	74	46	82	37	60	- 6	T	-.3	T	3.4	148	78	32	0	0	2	0
Lewiston . . .	74	50	87	43	62	- 7	.6	-.3	.4	2.2	100	86	40	0	0	3	0
Pocatello . . .	69	41	76	34	55	- 4	.1	-.2	.1	2.0	95	73	33	0	0	1	0
ILL. Cairo . . .	71	53	82	50	62	- 3	0	- 1.1	0	7.0	74	---	---	0	0	0	0
Chicago . . .	66	43	86	39	55	- 1	.4	-.4	.3	5.3	78	91	49	0	0	2	0
Moline . . .	71	44	86	49	57	- 1	.2	-.7	.1	4.1	61	90	39	0	0	2	0
Peoria . . .	67	47	83	43	57	- 0	.1	-.9	.1	5.6	73	86	45	0	0	2	0
Rockford . . .	70	42	86	37	56	- 2	.1	-.8	.1	3.6	52	94	46	0	0	2	0
Springfield . . .	69	46	85	40	57	- 2	.2	-.7	.1	6.6	89	61	0	0	2	0	
IND. Evansville . . .	66	47	82	41	57	- 5	T	- 1.0	T	6.7	74	91	54	0	0	1	0
Ft. Wayne . . .	64	40	80	33	52	- 3	.5	-.4	.5	7.3	109	90	51	0	0	1	0
Indianapolis . . .	65	45	85	36	55	- 3	.3	-.6	.3	6.4	81	87	50	0	0	1	0
South Bend . . .	67	45	85	40	56	- 2	.2	-.6	.2	7.1	99	96	56	0	0	1	0
IOWA. Burlington . . .	71	46	86	40	59	- 2	T	-.8	T	4.8	71	---	---	0	0	2	0
Des Moines . . .	77	47	86	40	62	- 5	T	-.8	T	1.9	35	79	31	0	0	0	0
Dubuque . . .	71	49	82	43	60	- 6	.1	-.9	.1	3.0	40	79	46	0	0	1	0
Sioux City . . .	79	42	85	34	60	- 4	0	-.6	0	2.4	60	78	24	0	0	0	0
KANS. Concordia . . .	76	44	80	40	60	- 2	T	-.6	T	4.0	117	81	30	0	0	0	0
Dodge City . . .	70	50	79	43	60	- 0	.4	-.2	.2	4.8	145	87	48	0	0	3	0
Goodland . . .	67	42	73	33	55	- 0	1.3	-.8	.7	5.6	215	90	45	0	0	3	1
Topeka . . .	75	41	81	34	58	- 2	0	-.8	0	5.1	84	96	43	0	0	0	0
Wichita . . .	74	47	78	42	60	- 2	.2	-.6	.1	5.3	102	79	35	0	0	2	0
KY. Lexington . . .	65	45	79	36	55	- 5	.2	-.7	.1	8.8	99	91	45	0	0	2	0
Louisville . . .	68	45	83	39	57	- 4	.4	-.5	.4	7.2	77	95	48	0	0	1	0

Based on preliminary reports and 1941-70 normals

Weather Data for the Week Ending May 4, 1980

States and Stations	Temperature °F						Precipitation					Relative Humidity, percent		Number of Days			
	Average maximum	Average minimum	Extreme high	Extreme low	Average	Departure from normal	Weekly total, in.	Departure from normal	Greatest in 24-hours, in.	Total, in., since March 3	Pct. normal since March 3	Average maximum	Average minimum	Temperature °F		Precipitation	
														90 and above	32 and below	.01 inch or more	.50 inch or more
LA. Baton Rouge . . .	81	61	83	51	71	- 1	.2	- 1.0	.2	23.2	219	89	46	0	0	2	0
Lake Charles . . .	82	59	86	49	70	- 2	.4	- .7	.3	10.5	125	97	47	0	0	0	0
New Orleans . . .	82	61	84	50	72	- 1	T	- .9	T	25.7	262	90	48	0	0	0	0
Shreveport . . .	79	57	84	50	68	- 3	.7	- .6	.6	9.4	95	92	51	0	0	3	1
MAINE. Caribou . . .	62	36	71	30	49	5	.1	- .5	.1	5.9	120	83	39	0	3	1	1
Portland . . .	54	39	62	32	47	- 2	1.3	- .5	1.1	10.4	144	79	62	0	1	3	3
MD. Baltimore . . .	68	52	80	49	60	1	1.7	-.9	.5	10.0	145	94	58	0	0	5	5
MASS. Boston . . .	56	46	69	41	51	- 3	1.1	-.3	.7	9.7	128	60	45	0	0	3	3
Chatham . . .	52	43	63	41	48	-	1.0	-	.6	9.1	120	71	70	0	0	3	3
MICH. Alpena . . .	64	42	81	38	53	7	.8	-.2	.5	5.5	120	-	-	0	0	3	3
Detroit . . .	66	43	82	39	55	1	.4	-.4	.2	8.1	133	96	49	0	0	3	3
Flint . . .	65	46	79	42	56	4	.3	-.3	.2	5.5	104	56	51	0	0	3	3
Grand Rapids . . .	68	45	83	44	57	4	.5	-.5	.3	5.3	85	-	-	0	0	2	2
Houghton Lake . . .	66	44	82	41	55	6	.5	-.1	.3	4.5	100	91	54	0	0	2	2
Lansing . . .	67	43	83	39	55	3	.5	-.2	.2	4.4	79	-	53	0	0	3	3
Marquette . . .	69	40	85	36	55	9	.2	-.4	.1	4.9	104	89	30	0	0	1	0
Muskegon . . .	61	42	77	38	51	0	.4	-.3	.3	5.4	92	73	61	0	0	2	0
S. Ste. Marie . . .	75	43	84	39	59	15	T	-.6	T	4.6	107	85	39	0	0	1	0
MINN. Duluth . . .	73	37	86	30	55	10	0	-.7	0	1.5	33	77	19	0	2	0	0
Internatl. Falls . . .	82	41	89	32	61	16	0	-.5	0	1.3	43	62	16	0	1	0	0
Minneapolis . . .	79	47	88	39	63	11	T	-.6	T	1.7	44	68	20	0	0	0	0
Rochester . . .	77	44	89	34	61	9	T	-.6	T	2.0	45	70	29	0	0	0	0
St. Cloud . . .	80	42	87	34	61	11	0	-.7	0	1.3	32	80	-	0	0	0	0
MISS. Jackson . . .	76	54	79	45	65	- 4	1.5	-.4	1.2	29.0	271	91	51	0	0	3	1
Meridian . . .	77	54	83	49	66	- 4	.5	-.5	.3	24.5	213	94	49	0	0	2	0
MO. Columbia . . .	70	46	79	42	58	- 2	.1	-.9	.1	5.2	74	84	47	0	0	1	0
Kansas City . . .	76	46	84	41	61	1	T	-.8	T	4.6	72	83	31	0	0	1	0
St. Louis . . .	70	49	85	44	60	- 2	T	-.9	T	5.4	73	92	45	0	0	1	0
Springfield . . .	72	46	78	40	59	- 3	T	- 1.1	T	6.8	86	89	39	0	0	1	0
MONT. Billings . . .	81	51	87	47	66	15	1.5	1.1	1.3	3.3	118	59	24	0	0	3	1
Glasgow . . .	81	49	85	44	65	15	T	-.2	T	.5	42	52	18	0	0	0	0
Great Falls . . .	76	47	85	37	61	11	.1	-.3	.1	1.4	61	55	26	0	0	1	0
Havre . . .	78	45	83	37	61	10	0	-.3	-	1.9	119	66	20	0	0	0	0
Helena . . .	71	41	80	37	56	7	.5	-.2	.3	1.8	112	76	32	0	0	2	1
Kalispell . . .	71	42	81	37	56	9	1.1	-.8	.6	2.5	125	87	43	0	0	2	1
Miles City . . .	80	52	85	44	66	14	T	-.4	T	1.0	48	54	26	0	0	0	0
Missoula . . .	72	44	80	40	58	9	1.4	1.1	.4	2.8	156	89	40	0	0	2	0
NEBR. Grand Island . . .	77	42	80	34	59	3	T	-.7	T	4.1	100	76	28	0	0	0	0
Lincoln . . .	78	44	83	35	61	3	T	-.6	T	3.8	88	82	29	0	0	0	0
Norfolk . . .	77	43	83	37	60	5	T	-.6	T	2.1	54	79	22	0	0	1	0
N. Platte . . .	76	43	79	33	60	6	T	-.6	T	3.4	103	73	25	0	0	0	0
Omaha . . .	76	50	82	45	63	7	T	-.8	T	2.9	60	83	37	0	0	0	0
Valentine . . .	78	38	82	31	58	6	T	-.5	T	2.0	74	75	20	0	1	1	0
NEV. Ely . . .	65	35	70	33	50	4	.2	0	.1	2.3	121	89	33	0	0	5	0
Las Vegas . . .	76	56	90	52	66	- 3	.2	.2	.1	1.1	137	59	31	1	0	3	0
Reno . . .	74	40	81	30	57	6	.1	0	.1	1.2	120	73	21	0	2	1	0
Winnemucca . . .	75	44	80	35	60	10	.5	-.3	.3	1.1	85	62	26	0	0	3	0
N.H. Concord . . .	62	40	83	31	51	1	.7	0	.6	7.2	124	77	50	0	1	2	1
N.J. Atlantic City . . .	63	47	77	44	55	- 2	1.7	-.9	1.1	12.0	148	82	57	0	0	4	1
Trenton . . .	65	51	81	47	58	1	1.0	-.2	.8	11.4	158	-	-	0	0	5	1
N.MEX. Albuquerque . . .	71	43	78	37	57	- 4	.1	0	T	1.3	144	75	24	0	0	2	0
Roswell . . .	73	48	86	44	60	- 4	.3	-.1	.3	1.2	120	-	-	0	0	2	0
N.Y. Albany . . .	67	47	82	43	57	4	1.0	-.3	.5	7.6	138	81	51	0	0	3	0
Binghamton . . .	62	46	76	42	54	3	1.5	-.7	1.2	11.7	186	83	49	0	0	3	1
Buffalo . . .	61	45	66	44	53	3	.4	-.4	.4	6.5	103	94	56	0	0	2	0
New York . . .	63	51	79	47	57	0	2.7	1.9	2.7	15.3	199	75	54	0	0	4	1
Rochester . . .	66	46	79	43	56	4	1.0	-.3	1.0	6.2	113	91	53	0	0	3	1
Syracuse . . .	66	46	79	43	56	4	.8	-.1	.5	7.7	120	87	49	0	0	3	0
N.C. Asheville . . .	67	46	79	43	57	- 4	T	-.8	T	12.8	151	92	41	0	0	1	0
Charlotte . . .	72	49	81	44	60	- 5	T	-.7	T	10.2	126	80	38	0	0	1	0
Greensboro . . .	70	45	80	40	58	- 6	.3	-.4	.3	7.9	114	71	40	0	0	1	0
Hatteras . . .	71	54	78	46	63	- 1	2.4	1.7	2.3	10.9	156	92	52	0	0	2	1
Raleigh . . .	75	47	84	43	61	- 3	.3	-.4	.3	6.5	96	95	48	0	0	1	0
Wilmington . . .	75	53	83	49	64	- 4	.5	-.2	.3	6.2	86	87	38	0	0	2	0
N.DAK. Bismarck . . .	81	42	84	36	62	11	T	-.4	T	.7	28	59	16	0	0	0	0
Fargo . . .	82	43	88	34	63	13	0	-.5	0	.6	19	59	15	0	0	0	0
Williston . . .	82	44	87	39	63	13	0	-.3	0	.5	25	68	15	0	0	0	0
OHIO. Akron-Canton . . .	66	42	78	37	54	0	T	-.8	T	7.6	112	91	37	0	0	0	0
Cincinnati . . .	68	45	85	40	56	- 3	.1	-.7	.1	7.9	101	90	46	0	0	2	0
Cleveland . . .	63	39	77	35	51	- 3	T	-.8	T	6.6	97	89	48	0	0	0	0
Columbus . . .	67	43	81	41	55	- 2	T	-.9	T	5.5	74	90	43	0	0	1	0
Dayton . . .	66	41	81	37	53	- 4	T	-.8	T	7.8	111	96	48	0	0	1	0
Toledo . . .	66	41	83	36	54	0	.2	-.5	.1	6.8	121	50	44	0	0	1	0
Youngstown . . .	66	40	77	36	53	0	0	-.9	0	7.5	104	95	42	0	0	0	0

Based on preliminary reports and 1941-70 normals

Weather Data for the Week Ending May 4, 1980

States and Stations	Temperature °F						Precipitation					Relative Humidity, percent		Number of Days			
	Average maximum	Average minimum	Extreme high	Extreme low	Average	Departure from normal	Weekly total, in.	Departure from normal	Greatest in 24-hours, in.	Total, in., since March 3	Pct. normal since March 3	Average maximum	Average minimum	Temperature °F		Precipitation	
														90 and above	32 and below	.01 inch or more	.50 inch or more
OKLA.Okla. City	76	52	82	41	64	- 1	1.2	.1	.8	3.9	65	81	38	0	0	3	1
Tulsa	78	53	84	49	66	0	1.8	.7	1.7	8.7	121	83	42	0	0	2	1
OREG.Astoria	59	42	64	35	51	0	.2	.7	.1	11.2	101	91	62	0	0	2	0
Burns	69	39	78	27	54	5	T	.2	0	1.1	73	81	28	0	1	2	0
Medford	75	42	83	34	58	4	0	.3	0	3.0	111	87	34	0	0	0	0
Pendleton	70	45	83	37	58	2	.5	.2	.4	2.2	105	69	44	0	0	1	0
Portland	71	46	79	39	59	5	T	.4	T	5.7	98	87	40	0	0	0	0
Salem	68	40	75	32	54	1	T	.4	T	7.1	108	94	50	0	1	0	0
PA.Allentown	67	51	80	48	59	3	1.0	.1	.8	9.4	124	74	52	0	0	3	1
Erie	57	41	69	37	49	- 3	.8	0	.5	7.9	122	--	--	0	0	3	1
Harrisburg	67	49	80	46	58	0	1.7	.9	1.2	9.8	151	96	56	0	0	5	1
Philadelphia	66	50	80	48	58	- 1	2.3	1.6	1.2	11.7	162	78	64	0	0	4	2
Pittsburgh	65	45	76	40	55	- 1	.1	.7	.1	8.6	119	83	44	0	0	1	0
Scranton	66	50	80	46	58	3	.6	.2	.3	6.3	107	81	52	0	0	3	0
R.I.Providence	59	47	72	43	53	1	1.9	1.1	.9	14.5	186	69	54	0	0	4	2
S.C.Charleston	76	52	81	47	64	- 5	T	.7	T	11.3	147	85	41	0	0	1	0
Columbia	75	48	82	41	61	- 7	.2	.5	.2	11.7	141	87	32	0	0	1	0
Greenville	72	48	80	39	60	- 6	T	.8	T	14.4	145	86	41	0	0	1	0
S.DAK.Aberdeen	80	43	85	36	61	10	0	.5	-	2.2	71	61	16	0	0	0	0
Huron	81	39	87	33	60	8	0	.5	0	1.7	53	81	22	0	0	0	0
Rapid City	74	42	78	34	58	7	0	.6	0	1.9	56	76	27	0	0	0	0
Sioux Falls	78	39	83	32	58	5	0	.6	0	1.4	35	74	22	0	1	0	0
TENN.Chattanooga	69	47	78	44	58	- 7	T	.9	T	20.7	203	90	42	0	0	2	0
Knoxville	70	45	80	40	58	- 7	.1	.7	.1	11.8	137	96	44	0	0	2	0
Memphis	77	55	81	50	66	- 2	0	1.2	0	18.1	165	76	38	0	0	0	0
Nashville	70	48	80	45	59	- 6	T	.9	T	10.5	112	88	40	0	0	1	0
TEX.Abilene	81	56	92	46	68	- 1	T	.8	T	.8	21	69	25	1	0	0	0
Amarillo	69	44	79	41	56	- 5	.3	.2	.2	2.3	105	85	42	0	0	3	0
Austin	81	60	87	52	70	- 2	.5	.4	.5	5.8	98	80	45	0	0	1	0
Beaumont	82	59	85	47	71	- 1	.9	.2	.5	8.3	109	93	47	0	0	4	1
Brownsville	87	66	92	57	77	- 1	T	.4	T	.1	5	90	47	2	0	0	0
Corpus Christi	83	63	89	55	73	- 3	T	.7	T	.6	17	87	47	0	0	2	0
Del Rio	87	62	92	53	75	- 1	1.6	1.1	1.6	2.3	92	72	28	3	0	1	1
El Paso	77	49	87	42	63	- 5	.1	0	.1	.6	75	50	22	0	0	1	0
Fort Worth	82	56	88	47	69	0	.3	.8	.2	3.8	51	71	44	0	0	2	0
Galveston	77	67	82	61	72	- 2	.1	.5	.1	4.4	81	91	62	0	0	3	0
Houston	83	60	87	48	72	- 2	1.6	.6	1.6	8.6	128	97	48	0	0	1	1
Lubbock	76	52	87	46	64	- 1	.3	.2	.2	1.7	77	80	29	0	0	0	0
Midland	75	50	87	45	63	- 6	.5	.2	.5	1.4	100	70	33	0	0	2	0
San Angelo	79	54	90	44	66	- 5	.6	.1	.6	1.8	64	70	38	1	0	3	1
San Antonio	85	60	90	50	72	- 1	.8	.1	.7	3.3	73	78	36	1	0	2	1
Victoria	84	63	87	53	74	- 1	.1	.7	T	2.4	50	90	44	0	0	2	0
Waco	79	55	85	45	67	- 4	.4	.7	.2	6.4	91	90	51	0	0	4	0
Wichita Falls	80	51	91	41	66	- 2	.5	.5	.5	1.7	80	91	35	1	0	1	0
UTAh.Blanding	67	39	75	36	53	1	.2	0	.1	2.1	117	87	25	0	0	2	0
Salt Lake City	70	48	80	46	59	4	.4	0	.3	3.4	87	80	41	0	0	2	0
VT.Burlington	67	49	78	47	58	8	.1	.5	.1	4.8	102	77	48	0	0	3	0
VA.Lynchburg	70	46	82	40	58	- 3	.7	0	.4	8.8	137	85	--	0	0	3	0
Norfolk	68	54	76	49	61	- 2	1.2	.5	.6	6.5	105	89	51	0	0	4	1
Richmond	74	52	88	48	63	0	.9	.2	.7	8.9	139	90	54	0	0	4	1
Roanoke	70	45	83	40	57	- 3	.3	.4	.3	10.0	156	90	36	0	0	1	0
WASH.Colville	72	47	81	42	60	9	.8	.5	.3	3.9	186	--	--	0	0	4	0
Omak	75	45	82	38	60	7	.2	0	.2	1.9	106	64	33	0	0	1	0
Quillayute	61	37	70	32	49	0	.4	1.0	.3	18.6	97	93	53	0	1	3	0
Seattle-Tacoma	66	45	77	40	55	3	.3	.1	.2	5.4	90	80	45	0	0	2	0
Spokane	71	47	83	44	59	8	.6	.3	.3	2.0	69	87	43	0	0	4	0
Walla Walla	73	51	87	44	61	4	.5	.1	.3	2.5	81	73	44	0	0	3	0
Yakima	76	46	85	35	61	7	T	.1	T	1.2	133	65	29	0	0	1	0
W.VA.Beckley	59	38	74	33	49	- 7	1.0	.2	.8	7.8	100	--	55	0	0	2	1
Charleston	67	44	80	38	55	- 6	1.1	.3	.6	9.5	125	92	45	0	0	2	1
Huntington	68	45	82	38	56	- 4	.1	.7	.1	7.6	99	93	40	0	0	1	0
Parkersburg	68	45	81	38	56	- 4	T	.8	T	6.8	92	95	38	0	0	0	0
WISC.Green Bay	70	46	87	44	58	8	.4	.3	.3	3.8	81	92	59	0	0	3	0
La Crosse	76	48	89	42	62	8	0	.7	0	2.4	48	88	38	0	0	0	0
Madison	70	43	88	41	57	5	.2	.5	.2	3.1	63	95	45	0	0	1	0
Milwaukee	64	43	86	40	54	3	.5	.1	.4	4.8	92	86	48	0	0	3	0
WYO.Casper	69	35	76	29	52	3	.2	.2	.1	1.8	67	87	32	0	1	3	0
Cheyenne	61	38	72	34	50	1	.5	0	.4	2.5	83	81	44	0	0	3	0
Lander	66	42	74	38	54	5	.4	.2	.2	3.6	92	80	38	0	0	3	0
Sheridan	73	41	79	36	57	8	.5	0	.3	2.1	57	83	28	0	0	3	0
P.R.San Juan	93	77	95	76	85	7	0	1.3	0	4.0	67	91	55	7	0	0	0

Based on preliminary reports and 1941-70 normals

## State Summaries of Weather and Agriculture

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

**ALABAMA:** Temperatures 4° below normal. Light rains north early; heavier totals central, south last half, 1.00 to 2.00 in. common.

Fieldwork: 3.7 days suitable. Soil moisture adequate to surplus. Activity: Plowing, row crop planting, fertilizing, livestock and poultry care. Planting progress: Corn 73%, 70% 1979, 69% average; soybeans 5%, 11% 1979; cotton 56%, 55% 1979, 70% average; peanuts 39%, 51% 1979, 53% average; sorghum 8%, 11% 1979. Wheat 74% headed, 81% 1979, 85% average. Corn fair condition, some replanting. Pastures fair to good.

**ALASKA:** Week was warm and dry except for 1st, 2d, and 3d when showers were more widespread.

Below normal precipitation in April allowed farmers in railbelt to get early start on spring fieldwork. Fertilizer spreading general where ground firm enough to hold equipment. Field preparation common late week. Barley seeding started Delta Junction. Seeding general this week. Potato planting underway. Livestock in fair to mostly good condition. Topsoil and subsoil moisture supplies ranged short to adequate. Field supplies adequate.

**ARIZONA:** Precipitation ranged from 0.10 in. to over 0.50 in. Temperatures averaged mostly 1 to 4° below normal.

Small grains mostly headed out with color rapidly changing. Early harvest about 1 week away. Cotton 80% planted, 78% last year. Planting corn, sorghum continued. Alfalfa haying continued, western area in 3d cutting, other areas in 1st and 2d cuttings. Lettuce harvest complete west, winding down central areas, begin next week southeast areas. Potato harvest began Salt River Valley. Mixed vegetable harvest, mostly green onions, carrots active. Grapes making very good progress Yuma, Salt River Valley areas. Small fruit sizing well, early variety harvest may begin month's end. Grapefruit harvest virtually complete western areas, still active Salt River Valley. Valencia orange harvest active both Yuma, Salt River Valley. Citrus groves very good condition, new crop prospects good. Range, pasture conditions northern Arizona mostly fair condition. Southern pasture conditions ranged poor to good, water supplies short. Cattle, calves reported fair to good condition with pastures supplying mostly average amounts feed.

**ARKANSAS:** Temperatures below normal. Extremes: 85 and 34°. Precipitation from zero to 1.22 in.

Rice, cotton, corn and sorghum plantings major field activities. Fieldwork: 5.0 days suitable. Soil moisture adequate, but surplus central and southern. Soybean seed bed preparation 5% seeded, 3% 1979, 5% average. Rice seeding 46% complete, 39% 1979, 65% average. Cotton seeding 28%, 17% 1979, 32% average. Corn 58% seeded, 48% 1979, 68% average. Sorghum 42% planted, 25% 1979, 50% average. Wheat and oats good condition. Heading stage. Spraying and pruning fruit trees. Blooms on apple trees. Peach trees good progress. Strawberries, watermelons excellent condition. Strawberry harvest underway. Good tomato crop prospects. Pastures average condition. Providing substantial forage. Fescue and alfalfa excellent. Alfalfa weevils still being sprayed. Cattle good condition. Insecticides for ticks, lice, flies applied.

**CALIFORNIA:** Varying amounts of rainfall over desert areas, southern end of the San Joaquin Valley as well as the south coast. Sacramento Valley had average temperatures well above normal, south coast and desert average temperatures were a few degrees cooler than normal.

Cotton 97% planted, a year ago 95%. Emergence generally good. Rice planting full swing, 55% planted, 44% a year ago. Shrimp controls applied early planting. Early small grains maturing. Hay harvest active. Sugarbeet harvest active San Joaquin Valley. Seeding new crop beets. Planting field corn, dry beans, sunflowers active. Apple crop good. Apricot crop light. Heavy avocado bloom. Cherry harvest to begin. Olives blooming, peaches being thinned. Bartlett pears look good. Citrus quality good. Almond crop variable. Walnuts looking good. Artichokes moderate supply central coast. Broccoli movement to decrease slightly central coast. Carrot harvest active desert. Cauliflower supplies fairly light. Celery harvest increasing south coast. Lettuce supplies decreasing San Joaquin Valley. Harvest increasing sharply Salinas-Watsonville; moderately Santa Maria. Onion grading underway Imperial Valley; harvest started Stockton. Potato shipments increasing Kern District. Planting sweetpotatoes active. Strawberry harvest increasing central coast, San Joaquin Valley; considerable diversion to freezers south coast. Range feed continues mature rapidly lower elevations as temperatures increase. Movement livestock summer ranges continues. Calving complete most areas. Bee colonies being moved out State.

**COLORADO:** Temperatures averaged near normal except in southeast 4 to 6° below normal.

Winter wheat good to very good condition. Barley seeded 74%, 68% 1979, 83% average. Oats seeded 59%, 47% 1979, 74% average. Corn seeded 16%, 33% 1979, 41% average. Sugarbeets seeded 69%, 79% 1979, 79% average. Spring wheat seeded 65%. Onions seeded 73%. Ranges and pastures good condition. Livestock good condition. Soil moisture supplies adequate.

**FLORIDA:** Temperatures at or slightly below normal. Widely scattered showers generally less than 0.25 in., except 0.50 in. in the northeast.

Soil moisture mostly adequate west, north and south, short northeast and central. Corn, tobacco fair to good condition. Planting of peanuts active, planting of soybeans increasing. Small grains beginning to mature. Sugarcane good growth. Pastures good to excellent south, vary mostly good to excellent and poor to fair other areas. Cattle mostly good condition. Good grove condition being maintained by irrigation, very little wilt. Non-irrigated trees showing stress. New crop fruit progressing very well. Valencia harvest very active. Condition good to very good some crops while other crops declining seasonally. Weather continues ideal for good growth, progress. Fruit setting, sizing well. Quality, size, yields variable, from fair to very good. Overall vegetable shipments up 39% from previous week. Supplies sweet corn, cucumbers, eggplant, okra, tomatoes, watermelons increased considerably; snap beans, carrots, celery, lettuce, peppers, squash also increased. Chinese cabbage, escarole, cabbage, parsley, potatoes, radishes held steady but ship-

ments cauliflower, strawberries decreased seasonally. Potato harvest winding down. Light harvest underway Hastings area of mostly hail damaged potatoes. Yields, quality variable. Harvest complete on small acreage in west central area. Strawberry season complete Plant City-Ruskin area. All fields open to U-PIC. Season nearing completion Bradford County area. Production below normal caused by early March Freeze. Excessive rains late in season. Watermelon supplies increasing rapidly southwest area as more fields ready for cutting. Quality, size mostly good. Yields fair to good. Growth mostly good west central area. Light harvest expected by mid-May. Crop condition continues to improve southeast area. Small acreage suffered light to moderate hail damage but recovery has been good. Fruit sizing well. Light harvest expected by mid-May. Crop progress fair north central area. Some bloom, fruit set evident. Crop making fair progress after slow start north, west areas.

GEORGIA: Rainfall variable, up to 2.00 in. north and south. Drier other areas, mostly 0.25 in. Temperatures 2 to 9° below normal. Extremes: 40 and 80°.

Soil moisture short to mostly adequate. Fieldwork: 5.0 days suitable. Planting and land preparation very active. Corn 88% planted, last year 94%, average 90%, fair to good condition. Tobacco 97% transplanted, 100% last year and average, poor to fair condition, some resetting due to blue mold. Watermelons 86% planted, last year 93%, average 90%, fair to good condition. Cotton 53% planted, last year 84%, average 75%, fair to good condition. Peanuts 42% planted, last year 76%, average 70%, fair to good condition. Soybeans 6% planted, last year 13%, average 12%, fair to good condition. Sorghum 14% planted, last year 24%. Small grains fair to mostly good. Peaches and apples fair to mostly good. Vegetables fair to good condition. Cattle and hogs good, pastures good.

HAWAII: Weather favorable. Showers light with some sunny periods.

Crop progress was fair to good. Tomato harvesting Island of Maui, shortened because of disease. Young watermelon fields, Island of Oahu, abandoned due to mosaic disease. Spray programs intensified as drier weather prevailed. Vegetable supplies more adequate. Banana supplies continue light. Papaya seasonal production surge continued. Pineapple harvesting steady. All sugar mills grinding full force. Pastures generally fair to good condition. Fuel supplies adequate.

IDAHO: Temperatures continued above normal by 3 to 12°. Extremes: 90 and 22°. Most stations in north reported at least 0.33 in. rain. Showers and thunderstorms dotted remainder of State. Spring wheat planted 90%, 62% 1979, 68% average. Spring barley planted 85%, 51% 1979, 64% average. Potatoes planted 40%, 23% 1979, 31% average. Dry peas planted 100%, 45% 1979, 66% average. Sugarbeets planted 100%, 74% 1979, 84% average. Lentils planted 100%, 25% 1979, 57% average. Crop emergence progressed rapidly during the week with excellent weather. Winter wheat generally in good condition with part of crop in north poor. Fruit development has been good. Cattle and sheep being moved to ranges throughout the State.

ILLINOIS: Temperatures 1 to 6° above normal north, 1 to 3° below normal south. Precipitation 0.40 in. northeast, none to 0.20 in. other areas.

Soil moisture mostly adequate. Corn planting 46% complete, 2% 1979, 31% average. Winter wheat mostly good. Oat seeding 98% complete, 69% 1979,

91% average. Alfalfa mostly good. Plowing 94% complete, 76% 1979, 87% average. Soybean planting 4% complete, 0% 1979, 2% average. Pastures good, supplying 80% livestock roughage requirements, 60% 1979, 69% average. Fieldwork: 5.0 days suitable.

INDIANA: Temperatures ranged from 32 to 86°, slightly below normal in south. Rainfall 0.10 in. east, 0.20 or 0.30 in. central and west. Growing degree days continue below normal past 5 weeks.

Fieldwork: 5.0 days suitable. Topsoil and subsoil moisture mostly adequate. Spring planted cropland 80% plowed, 1979 75%, average 85%. Corn 18% planted, 1979 5%, average 23%. Wheat mostly good condition. Wheat 9 in. high, 1979 9 in., average 11 in. Wheat 20% jointed, 1979 35%. Oats 75% seeded, 1979 75%, average 85%. Oats 2 in. high, 1979 2 in., average 3 in. Clover 95% seeded, 1979 90%, average 95%.

IOWA: Temperatures 3 to 9° above normal, and measurable precipitation was limited to small amounts over a few eastern counties. Most of Iow has been without measurable precipitation since mid-April. Topsoils very dry.

Fieldwork: 6.9 days suitable. Corn 61% planted, 1979 2%, normal 25%. Oats 99% seeded, 1979 66%, normal 81%. Oats 60% emerged. Plowing 95% complete, 1979 68%, normal 80%. Topsoil moisture mostly short. Subsoil moisture mostly adequate. Cover crops mostly good condition. Livestock in good condition. Market movement about normal, some heavier than normal livestock.

KANSAS: Precipitation averaged 0.75 in. southwest and west central; 0.50 in. northwest, 0.25 in. in south central, 0.10 in. southeast. Little or no precipitation over the northeast. Temperatures averaged 1° below normal in southwest and south central and 1 to 3° above normal elsewhere.

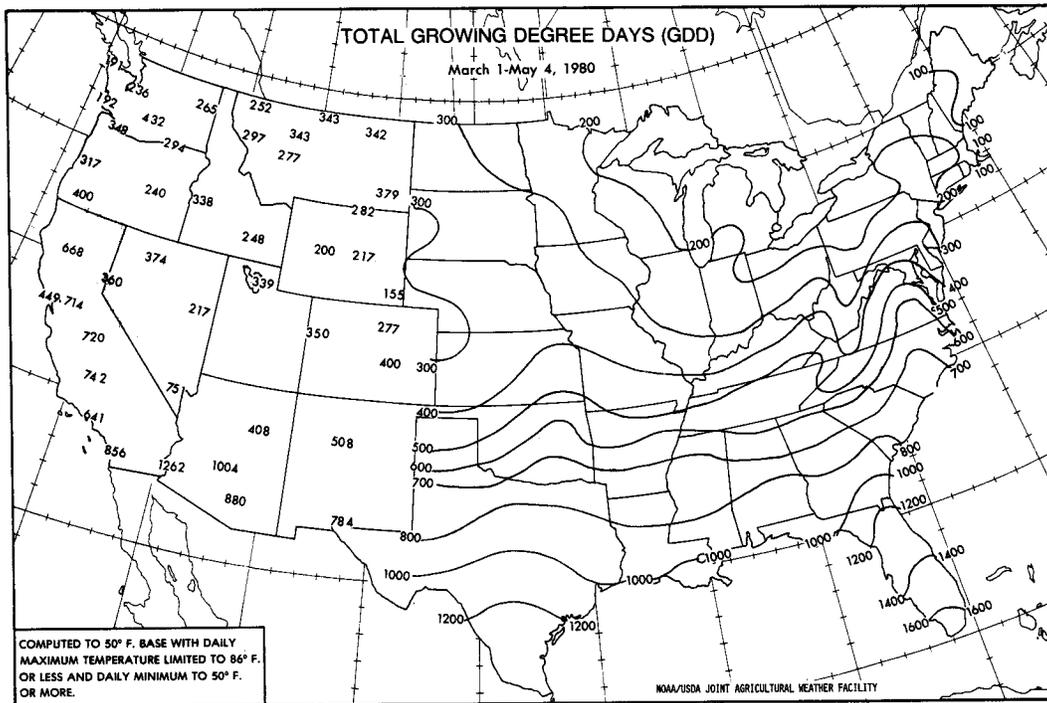
Planting advanced, corn 30% in, 10% last year, 20% average. Oats and barley virtually complete. Soybeans 3% planted, none last year and average. Sorghum 2% acreage in, none last year, equals average. Some alfalfa for dehydrating cut in southern counties. Wheat condition steady. Development advanced: 60% jointed, 55% last year, 75% average.

KENTUCKY: Temperatures averaged 4° below normal. Rainfall light, averaging about 0.25 in.

Fieldwork: 3.7 days suitable. Soil moisture mostly adequate, some lowland areas still too wet, other areas topsoil becoming hard and dry. Corn planting excellent progress and 38% complete, last year 22%, average 36%. Soybeans 2% planted, average 2%, last year virtually none planted. Tobacco plants in beds in fair condition. Plant size rated as follows: Size of dime or less 65%, size of quarter 25%, and size of half dollar or larger 10%. Most reporters have observed no blue mold in plantbeds. Barley 80% headed, wheat 10% heading. Alfalfa height 14 in. Pasture good to excellent and providing lush grazing.

LOUISIANA: Rains statewide late in week. Temperatures 1 to 6° below normal. Extremes: 43 and 86°.

Soil moisture adequate to surplus. Fieldwork: 3.9 days suitable. Corn planted 78%, 82% 1979, 85% average. Emerged 73%, 77% 1979, condition fair. Cotton planted 16%, 22% 1979, 45% average. Emerged 4%. Cool temperature delaying planting. Rice planted 74%, 82% 1979, 80% average. Emerged 66%. Condition fair to good. Sorghums planted 14%. Light soybean planting underway. Sugarcane condition fair. Small grains good condition. 80% headed. Pastures, livestock good. Vegetables



fair. Sweetpotatoes planted 17%, 13% 1979. Strawberry harvest continued.

**MARYLAND & DELAWARE:** Temperatures averaged 8° below normal. Extremes: low 60's and upper 40's. Precipitation averaged 2.65 in.

Plowing for corn delayed by rain and wet fields. Small grains in most localities in good condition. Early vegetables being planted. Hay crop good. Peaches have good bloom and fruit set.

**MICHIGAN:** Temperatures normal in south, 15° above normal in Upper. Most precipitation fell in Lower, from 0.25 in. in extreme north and south to 0.80 in. in east central.

Fieldwork: 2.0 days suitable. Soil moisture adequate to surplus. Plowing 55% complete, same last year, 57% normal. Corn 5% planted, 2% last year, 10% normal. Oats 35% planted, 32% last year, 53% normal. Sugarbeets 15% planted, 40% last year, 62% normal. Potatoes 7% planted, same last year, 19% normal. Asparagus harvest underway southwest.

**MINNESOTA:** Temperatures averaged 10 to 15° above normal. Extremes: 93 and 28°. Precipitation averaged 0.50 in. or more below normal. Precipitation totals were zero at all reporting stations.

Spring planting, fieldwork advancing well ahead normal but soil moisture supplies rapidly becoming depleted. Increasing concern some newly seeded crops may not germinate uniformly and herbicide effectiveness will be reduced. Topsoil moisture adequate in small band across southern Minnesota just north Iowa border. Elsewhere short to very short. Ground prepared: Corn 66%, 1979 5%, normal 34%; soybeans 30%, 1979 1%, normal 17%. Planted: Corn 36%, 1979 1%, normal 19%; soybeans 3%, 1979 0%, normal 2%; spring wheat 87%, 1979 4%, normal 43%; oats 86%, 1979 13%, normal 45%; barley 80%, 1979 1%, normal 35%; sugarbeets 92%, 1979 1%,

normal 40%. Sunflowers 11%, 1979 0%, normal 7%; flax 21%, 1979 0%, normal 17%. Potatoes 22%, 1979 1%, normal 12%.

**MISSISSIPPI:** Temperatures 1 to 6° below normal. Extremes: 40 and 85°.

Soil moisture surplus to adequate. Fieldwork: 2.9 days suitable. Fertilizer applied to some pastures. Rains still a problem. Soybeans 2% planted, 1% 1979, 4% average. Sorghums 3% planted, 7% 1979, 10% average. Peanuts 30% planted, 2% 1979. Sweetpotatoes 4% planted, 18% 1979, 14% average. Watermelons 72% planted, 81% 1979. Cotton 33% planted, 24% 1979, 41% average; 3% up to stand, 7% 1979, 15% average. Corn 59% planted, 61% 1979, 79% average; 28% up to stand, 45% average; condition fair. Rice 56% planted, 34% 1979, 63% average; 10% up to stand, 11% 1979, 30% average. Wheat 85% headed, 84% 1979; 3% ripe, 4% 1979, condition good to fair. Peaches fair to good condition. Pasture good to fair.

**MISSOURI:** Temperatures averaged 5° below normal. Rain early in week in south, only traces elsewhere.

Fieldwork: 6.1 days suitable. Plowing 81% completed, last year 65%, normal 75%. Oats 95% sown, last year 53%, normal 92%. Corn 50% planted, last year 7%, normal 44%. Grain sorghum 12% planted, last year 2%, normal 11%. Soybeans 5% planted, last year 0%, normal 5%. Cotton 31% planted, last year 8%, normal 38%. Wheat 1% headed, last year 3%, normal 27%. Condition of winter wheat and pasture mostly fair to good. Topsoil moisture supply short to adequate.

**MONTANA:** Very warm temperatures over State. Temperatures averaged 7 to 15° above normal. Precipitation moderate over southwest and west. Light to moderate rain fell over central and south central areas. Northeast and southeast remain very dry.

Moisture supplies mostly short. Fieldwork: 6.0 days suitable. Winter wheat condition fair. Some thin stands reseeded to spring grains. Spring wheat 70% planted. Barley 65%, oats 55%, sugarbeets 90%, corn 50%, potatoes 25%, dry beans 35%. Livestock condition good, 20% moved to summer ranges.

NEBRASKA: Temperatures 5 to 7° above normal. Precipitation lacking over central and east.

Oats planting over 95% complete, year ago near 95%, normal 90%. Winter wheat condition rated 21% excellent, 55% good; 24% fair. Jointing has begun. Corn planting 35% complete, 10% last year, 15% normal. Sorghum planting just begun with less than 5% complete; last year and normal less than 5%. Topsoil moisture condition rated mostly short. Subsoil moisture mostly adequate. Fieldwork: 6.8 days suitable.

NEVADA: Cool, wet southeast, warm and limited precipitation northwest. Temperatures averaged slightly below normal extreme south, 5 to 10° above west and north. Extremes: 90 and 18°.

Almost daily showers slowed seedbed preparation and seeding operations. Low night temperatures hindered vegetative growth. Good progress calving and lambing.

NEW ENGLAND: Temperatures 10 to 15° below normal south and near normal north through midweek, rising to 5 to 10° above normal through weekend. Precipitation 1.00 to 1.50 in.

Fieldwork: 3.5 days south and west, 1.0 day elsewhere. Early peas up and some sweet corn planted south. Peaches are in bloom while early apple varieties showing pink. Many farmers waiting to start planting. Soil moisture surplus to adequate.

NEW JERSEY: Temperatures averaged near normal. Extremes: 41 and 84°. Rainfall averaged 2.00 in. north, 1.23 in. central and 1.55 in. south. Soil moisture in percent of field capacity averaged: 96° north, 96° central and 95° south. Four inch soil temperature averaged: 56° north, 57° central and 60° south.

Fieldwork: 2.0 days suitable. Rain early in week further delayed fieldwork. Asparagus harvest increasing. Spinach volume moderate. Apples beginning to bloom. Strawberries and early variety blueberries in bloom. Potato planting continues behind schedule. Field corn planting advanced as field conditions permit. Pasture growth increasing.

NEW MEXICO: Soil moisture short to adequate. Planting continued where soil temperatures and moisture conditions permitted. Cool soil temperatures and intermittent rains have slowed cotton planting; about 55% planted. Alfalfa good condition. Planting of corn and grain sorghum progressing. Irrigated wheat and barley good condition, dryland crop poor. About 90% jointed and over 50% headed. Lettuce and onions good condition. Lettuce harvest underway. Chile in good condition, planting in Roswell and northern areas. Rangeland fair to good, some supplemental feeding with livestock reported good condition statewide.

Temperatures 4° below normal. Scattered showers daily with substantial rain in the south. Few rain totals 0.75 in. or more.

NEW YORK: Rainfall and temperatures averaged above normal most locations.

Early week rains slowed fieldwork. Corn planting starting. Oat planting 25% complete, 30% 1979, 50% average. Wheat condition good. Hay, pastures

greening. Ontario County onions 30% planted. Upstate potato planting on Uplands progressing well. L.I. potato planting delayed by rain. Apples half inch green to pink. Tart cherries at bud burst. Western pears at green cluster stage. Peaches half inch green to pink.

NORTH CAROLINA: Temperatures 3° below normal. Precipitation 0.25 in. west to 1.25 in. east.

Fieldwork: 4.5 days suitable. Soil moisture mostly adequate. Conditions: Wheat, oats, barley, rye mostly good, declining; pastures mostly good, improving; tobacco beds mostly good, improving; field tobacco fair to good; corn fair to mostly good; cotton fair to good; Irish potatoes fair to mostly good, improving; peaches fair to mostly good, declining; truck crops fair to good, declining. Plantings: Corn 83%, 1979 86%, average 81%; cotton 57%, 1979 63%, average 52%; peanuts 23%, 1979 21%, average 22%; sorghum 7%, 1979 15%, average 13%; soybeans 5%, 1979 11%, average 7%; flue-tobacco 36%, 1979 45%, average 45%; sweetpotatoes underway; green peppers and watermelons about 75%; tomatoes and summer cucumbers about 33%; summer cabbage and spring cucumbers about 50%; spring snap beans about 66%.

NORTH DAKOTA: Warm and dry weather continued with above normal temperatures and almost no precipitation. Majority of the State no precipitation. High for week 93° while freezing mark reached in northeast and south central areas.

Seeding well ahead of normal. Percents planted with current progress last year and average: Hard red spring wheat 62; 1, 24; durum wheat 50, less than 1, 14; oats 57, less than 1, 17; barley 55, 1, 20. Percents of grain crops emerged are hard red spring wheat, 21; durum wheat, 11; oats, 17; and barley, 19. Row crops planted percents are sugarbeets, 96; sunflower, 4; corn and soybeans, 7; dry edible beans, 4; potatoes, 25 and flax 16. All growing crops are rated poor to fair. Whole State rated short of topsoil moisture, most on record for this date. Seed planted in dry soils need rain to germinate. Pastures mostly poor. Calving and lambing finishing.

OHIO: The week began cool, warmed to normal by May 1 and to above normal over the weekend. Average temperatures were from 4° below normal in the south to 1° above normal in the north. Extremes: 31 and 85°. Measurable rain fell only two days. Average less than 1.00 in. Soil temperatures rose into the 60's. Average four in. temperature is in the mid-50's. Soils dried rapidly over the weekend. Corn planted 25%, 15% 1979, 20% average. Potatoes planted 35%, 40% 1979, 50% average. Oats planted 80%, 75% 1979, 90% average. Sugarbeets planted 55%, 50% 1979, 80% average. Tobacco sown 100%. Soybeans planted 5%, 5% 1979, 5% average. Land plowed 90%. Fieldwork: 5.5 days suitable. Pasture condition good. Soil moisture mostly adequate.

OKLAHOMA: Precipitation varied from 0.29 in. north central to 1.32 in. central part of state. Temperatures 1 to 4° below normal.

Wheat, pasture development made excellent progress. First cutting alfalfa earlier because heavy infestations alfalfa weevil and aphids. Spring tillage and planting activities slowed by wet fields. Wheat jointing 85%, 100% 1979 and average; wheat heading 15%, 30% 1979, 55% average. Seedbed preparations: Cotton 60%, 65% 1979 and average; sorghum 65%, 75% 1979, 65% average; corn 95%, 100% 1979, 95% average. Crops planted: Sorghum 5%, 10% average; corn 35%, 30% 1979, 40% aver-

age. Corn up to stand 10%, 15% 1979 and average. Fieldwork: 4.3 days suitable.

OREGON: Temperatures 1 to 5° above normal. Precipitation mostly less than 0.20 in., although 0.50 in. in northeast portion.

Soil moisture supplies adequate except surplus in southwest and short in northeast. Winter wheat condition mostly good. Other crops good condition. Summer fallow work underway. Strawberries blooming. Caneberries and bushberries good condition. Cherries and pears still blooming at higher elevations; sprays being applied to all fruits and nuts. Vegetable plantings on schedule. Early beans and corn going in. Rhubarb and asparagus harvest continuing. Early potatoes up; late area plantings going in or will be shortly. Livestock, range and pasture condition good. Early reports of grasshoppers being hatched.

PENNSYLVANIA: Cool, wet first half of week, warm and dry by week's end. Temperature extremes 38 and 84°. Precipitation ranged from 0.01 in. the southwest to over 3.00 in. southeast.

Fieldwork: 2 days suitable. Soil moisture mostly surplus to adequate. Activities: Discing, plowing; spreading lime, fertilizer, and manure; spraying; fence repair; planting oats, corn, potatoes, soybeans, alfalfa, sweet corn, green peas and strawberries. Plowing 59%, last year 68%. Oats 59% planted, last year 72%. Potatoes 21% planted, behind last year's 42%. Corn 8% planted, behind last year's 13% and the 17% normal. Soybeans 6% planted, same as last week. Barley 12% in boot stage, last year 17%. Wheat less than 5% in boot, last year 12%. Hay conditions mostly good to fair. Peaches 33% pink, 54% full or past. Cherries 28% pink, 57% full or past. Apples 51% pink, 11% full or past.

PUERTO RICO: Island average rainfall 1.51 in. or 0.15 in. above normal. Temperatures averaged about 79 to 81° on coasts and 75 to 77° interior. Extremes: 95 and 61°.

SOUTH CAROLINA: Cold, dry weather persisted except later, near normal. Few isolated showers, but amounts negligible.

Soil moisture mostly short. Corn fair to good, 20% cultivated; 90% planted but some need moisture for germination, 96 last year, 93 average. Cotton condition fair, rains would improve germination, 81% planted, 91 last year, 76 average. Tobacco beds some blue mold, some supplies getting short, crop condition fair to good, being cultivated; 89% transplanted, 99 last year, 94 average. Soybean planting at 2%, 6 last year, 8 average. Peaches, apples, good condition. Tomatoes virtually planted, growing good. Cucumbers fair to good, progressing nicely despite cool nights. Good cabbage harvest starting, zucchini nearly ready. Pastures, hay, small grains look good except oats fair to good; wheat some powdery mildew, rains needed to fill out heads, 74% headed, 90 a year ago. Oats 83% headed, 88 a year ago.

SOUTH DAKOTA: Precipitation light and temperatures above normal for 3d consecutive week. Average temperatures 5 to 4° above normal. Extremes: 25 and 89°.

Fieldwork: 6.0 days suitable. Topsoil moisture short, critically short large area of West River extending just east of Missouri River. Subsoil adequate most eastern counties, critically short most of West River and extreme north central. Short elsewhere. Farm activities: Seeding, plowing, discing, branding, moving livestock to pastures. Winter-wheat fair condition, good to ex-

cellent stands. Rye fair condition, good stands. Spring seeded grains spotty emergence due to lack of moisture. Land preparation for row crops nearly complete. Livestock good, calving 85% complete, lambing over 90% complete, still feeding. Pastures poor to fair, slow growth, need rain. Stock water supplies low.

TENNESSEE: Precipitation averaged 0.75 in. Temperatures averaged slightly below normal west and 6 to 7° below normal rest of State.

Fieldwork: 3.7 days suitable. Soil moisture adequate. Plowing 76% completed, 1979 67%, average 76%. Corn 50% planted, 1979 34%, average 41%. Cotton 35% planted, 1979 17%, average 30%. Tobacco seedlings good condition, some blue mold in plantbeds. Small grains fair to good. Wheat 19% headed, 1979 25%, average 50%. Oats 22% headed, 1979 27%, 45% average. Barley 35% headed, 40% 1979, average 55%. Pastures and cattle good. Plowing and planting activities in full swing.

TEXAS: Fair to partly cloudy with scattered showers and thunderstorms were prevalent during middle, latter portion week. Precipitation near normal across northwest Texas, southward into the Edwards Plateau region. Precipitation 0.75 in. above normal across far west Texas, slightly below normal amounts elsewhere. Temperatures from 2 to 4° above normal over south, east, and west Texas; near normal elsewhere.

Most districts in need of moisture, South Texas, Rio Grande Valley hardest hit. Early planted crops continue to progress slowly. Crops East Texas, Blacklands, Cross-Timbers progressing slowly as cold temperatures stall growth. Planting continued at a steady pace, land preparation on Plains nearing completion. Application of fertilizers, herbicides continues, preplant irrigation increased High Plains. Cultivation of corn, cotton and sorghum in Rio Grande Valley, South, Central Texas. Cotton planting progressing, some activity in Plains. Blacklands, Cross-Timbers planting continued although rain showers caused some delays. Some Blackland fields replanted because of damage from cold temperatures. South Texas, Rio Grande Valley, cotton progress slowed due to moisture shortages, cooler than average temperatures. Cotton beginning to emerge, stands in generally good condition East Texas, Trans-Pecos. Cotton 21% planted. American-Pima cotton continued to progress, good condition despite delays caused by cold fronts. Corn planting continued at a rapid pace. Planting centered in northern portion with Plains experiencing heaviest activity. Corn in good condition, additional moisture needed for development. Cultivation continues Valley, Southern districts. Insect damage minor, some reports of rootworms Gulf Coast, Coastal Bend. Sorghum planting 67% complete. Heaviest planting activity Edwards Plateau, Cross-Timbers while some fields being planted Plains. Stands fair to good with development slowed southern portion by unseasonably cool temperatures, moisture shortage. Coast, Central, Southcentral areas, insects reported although damage moderate. Rice seeding 96% complete. Planting well ahead of last year's 80%, 73% emerged. Peanuts progressing slowly, 11% planted, slightly ahead of last year's crop. Land preparation progressing well in major producing areas. Small grains showing stress due to moisture shortages. Recent rains helped alleviate dry conditions but not sufficient to completely revive drought stressed fields. Wheat fields, Plains, responded to last week's showers, outlook appears brighter. Cross-Timbers, Blacklands, East Texas, stands are thin, some fields being grazed out. Wheat is being grazed South Texas, Coast, Coastal Bend, Rio

Grande Valley; yields expected to vary greatly. Oat and barley fields showing effects of dry conditions despite recent rains. Small grain fields maturing rapidly--some due to lack of significant moisture.

In Lower Rio Grande Valley, harvest onions, cabbage, carrots continued active and light supplies okra, squash available. Watermelons required heavy irrigation. Peppers showed some recovery from wind damage. In South Texas, onion harvest neared completion. Harvest carrots continued. Extreme moisture stress and wind damage present in dryland watermelons. Irrigated watermelons in better condition. In San Antonio-Winter Garden area, vegetables making good growth. Onion harvest active Dimmit County, nearing harvest at Uvalde. Cucumbers, potatoes making normal growth. Potato digging expected to begin soon. In Coastal Bend area cucumbers, cantaloups being watered where possible. In Southcentral Texas tomatoes, peppers, beans making normal growth. Tomatoes continued to bloom. In East Texas cool nights slowed spring vegetable growth. Some disease, fungus problems present. Aphids, other insects began to appear. In North Texas light supplies of turnips, onions, squash, radishes, mustard greens available. Some watermelons planted. Damage from cutworms continued. In some parts, lack of moisture slowed growth. In Trans-Pecos onions, cabbage, lettuce, chili peppers made good growth. On High Plains replanting carrots continued. Potatoes began to emerge. Onions making excellent growth. Peaches that survived freezing temperatures, hail look good. Cool weather slowed growth. Some spraying underway. Pecan trees in full leaf and blooming most areas. Spraying of zinc and insecticide continued.

Range, pasture forage continued green up where moisture received. However, general rains needed statewide. Most areas, available forage limited. New growth slowed by lack of moisture, cool nights. Supplemental feeding still necessary many areas to maintain livestock in fair to good condition. Some shipment of cattle occurred where forage, hay supplies been depleted. Sheep shearing continued Edwards Plateau. Cotton planted 21%, 19% 1979, 22% average. Rice planted 96%, 80% 1979, 93% average. Rice emerged 73%. Sorghum planted 67%, 59% 1979, 62% average. Wheat headed 25%. Wheat turning color 2%. Corn planted 83%, 77% 1979, 82% average. Peanuts planted 11%, 10% 1979, 17% average. Sugarbeets planted 100%, 100% 1979, 100% average. Sunflowers planted 3%, 6% 1979, 2% average.

UTAH: Recurring periods rain in valleys, snow in mountains. Accumulated amounts moisture variable ranging from a few hundredths of an inch to nearly 1.00 in. Average temperatures continued above normal most localities ranging from 2° below to 7° above. Soil moisture conditions improved most sections of State.

Spring work continued, held up slightly by 2 or 3 days of rain during week. Fieldwork: 5.0 days suitable. Fruit trees well into bloom stage. Corn planting just beginning. Spring wheat 88% planted, 56% emerged; barley about the same level. Lambing and calving over 75% complete.

VIRGINIA: Temperatures averaged below normal. Extremes: 88 and 33°. Precipitation averaged 1.50 in.

Wet conditions delayed outside work. Hail destroyed small grains, vegetables in Hanover County. Topsoil moisture adequate to surplus.

Fieldwork: 1.6 days suitable. Seeding progress: Corn 45%, 55% 1979, 61% usual; soybeans 2%, 5% 1979, 6% average; peanuts 25%, 15% 1979, 21% usual. Wheat good, limited unnatural yellowing of immature plants in east. Rye baled north. Flue-cured tobacco transplanted less than 1%, 2% 1979, 6% usual; no blue mold reported. Cotton seeding virtually done, on schedule. Potato growth uneven on Eastern Shore. Pastures good to excellent. Sheep sheared north. Swine rations cut by eastern producers to save on input costs.

WASHINGTON: West: Temperatures averaged 3° above normal. Precipitation below normal. Planting vegetables, field corn, beets for seed. Harvest active field rhubarb, radishes, winter cauliflower. Tulip flower harvest about finished. Raspberries budding. Blueberries, strawberries blooming. Dairymen green chopping. Pastures good.

East: Temperatures averaged 5 to 7° above normal. Precipitation normal to slightly above. Potato, bean, corn plantings made. Wheat in boot stage, outlook average. Powdery mildew in irrigated wheat. Grass seed, pastures, hay growing well. Fruit growers applying thinning spray. Asparagus cutting picking up. Calving finished. Hay short.

WEST VIRGINIA: Temperatures averaged below normal early in week, slightly above normal near end of week. Extremes: 84 and 26°. Precipitation well above normal.

Soil moisture surplus to adequate. Fieldwork: 1.5 days suitable. Wheat good to fair. Oats fair to good, 48% planted. Barley good to fair. Corn 6% planted. Tobacco beds 74% planted, 41% emerged. Pasture and hay good to fair. Planting progress 1 to 2 weeks behind.

WISCONSIN: Temperatures averaged 11° above normal. Extremes: 93 and 27°. Very dry conditions continued, especially over western half where virtually no rain fell for third consecutive week. Light shower activity occurred south and east 28th - 30th, with amounts ranging from 0.25 to 0.65 in.

Spring planting progressing rapidly in dry weather. Fieldwork: 6.0 days suitable. Oats 65% seeded, 1979 25%, normal 52%. Most farmers done seeding except for heavier clay soils that had been too wet. Rain needed for good seed germination. Spring plowing 50% done, 1979 23%, normal 41%. Corn 10% planted, 1979 1%, normal 6%. Hay fields, pastures, and winter wheat need moisture for better growth. Some winterkill of hay and wheat, especially on older hay stands. Planting of potatoes and peas continues. Tobacco beds being seeded. Fruit trees nearing bloom. Topsoil moisture short to adequate. Fire danger high in forest. Soaking rain needed to relieve dry conditions.

WYOMING: Temperatures averaged 3 to 11° above normal. Extremes: 84 and 23°.

Fieldwork: 6.0 days suitable. Topsoil moisture mostly adequate. Subsoil moisture mostly adequate. Acreage planted: Spring wheat 68%; oats 61%; barley 74%; sugarbeets 78%; corn 13%; potatoes 6%. Acreage emerged: Spring wheat 42%; oats 15%; barley 39%; sugarbeets 7%. Winter wheat mostly good condition. Prospects for alfalfa mostly good. Prospects for spring and early summer grazing mostly good. Spring calves born 86%. Range ewes lambed 47%. Farm flock ewes lambed 87%. Range sheep shorn 55%, farm flock shorn 81%.

International Weather and Crop Summary

April 28 - May 4

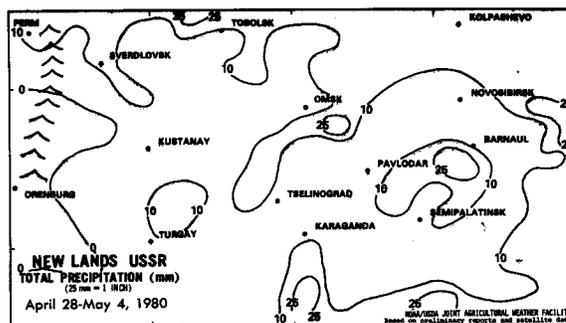
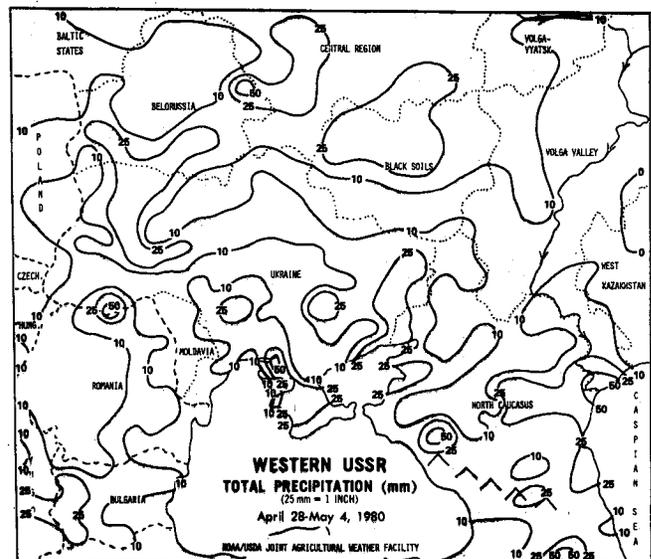
HIGHLIGHTS:

- USSR. Winter grains greening-up in northeast, booting in south...widespread rainfall.
- EUROPE. Winter grains jointing in most areas, turning color in Spain\*...too wet in Spain.
- CHINA. Winter wheat heading...conditions somewhat dry--irrigation required. Planting rice in the south\*...excessively wet in some areas.
- INDIA. Wheat harvest nearly complete\*...favorable weather.
- THAILAND. Planting rice and corn\*...below-normal rainfall.
- AUSTRALIA. Sowing winter grains in the south...still dry in northeastern portions of belt.
- NORTHWESTERN AFRICA. Harvesting winter grains...detrimental rainy weather.
- ARGENTINA. Late soybeans pod-filling...a second light frost.
- BRAZIL. Harvesting soybeans...some interruption by rains in Rio Grande do Sul.
- MEXICO. Corn, wheat, and vegetable development in the northwest...suffering from drought.
- CANADA. Sowing spring grains in the south...too dry in southwestern part of belt.

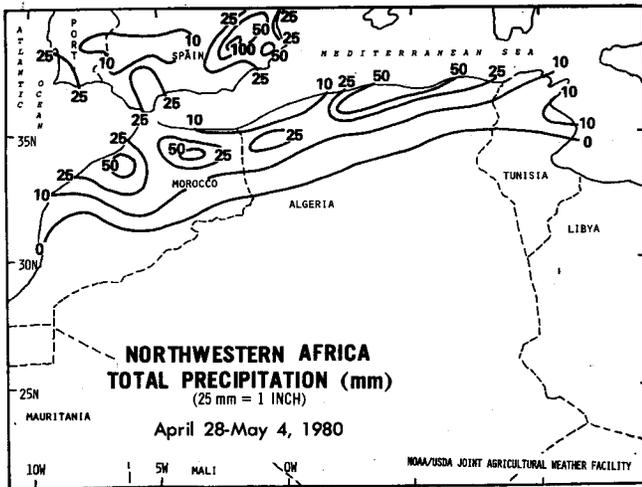
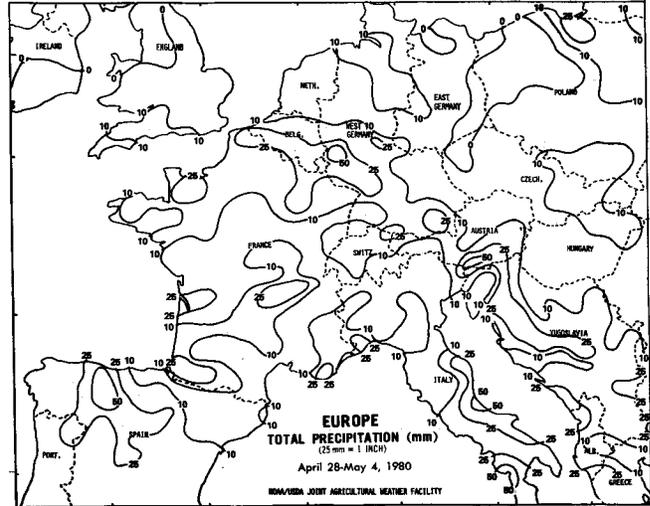
\*Based on normal crop calendar information

USSR. A series of minor weather disturbances produced some scattered light precipitation nearly every day in the winter grain belt, but a major rain-producing system moved into the Ukraine from the southwest on May 2. It spread above-normal precipitation over extensive areas in the belt and although temperatures remained near normal in the south and west and above normal in the northeast, the excessively wet conditions continued to slow field work and hinder the development of pastures and winter grains. Crops in extreme southern European USSR seem to be in relatively good condition, but in more-northerly areas (including the northern Ukraine) where the growing season is shorter, the problem is becoming serious, and yield reductions can be expected.

A fair-weather system dominated the New Lands through most of the week. By the weekend, a series of minor disturbances set off showers and thunderstorms, resulting in fairly uniform coverage by light rainfall, with some heavier totals being especially beneficial in dry areas of the east.

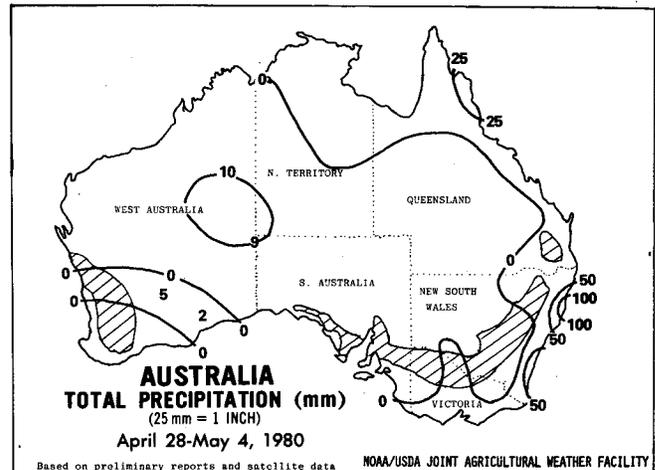


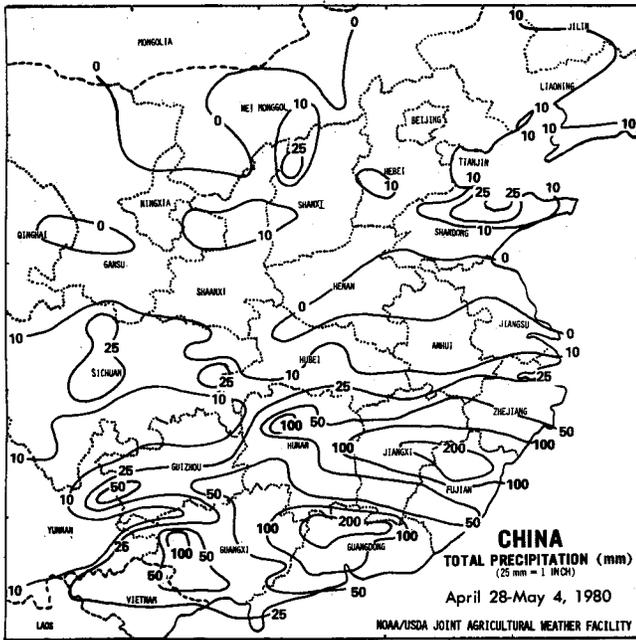
**EUROPE.** Two intense storm systems moved through the Mediterranean during the week, spreading areas of above-normal rainfall as far north as the Low Countries. Wet fields in parts of Belgium and West Germany probably hampered fieldwork; but generally drier weather over most of Eastern Europe left soils mostly dry enough to work. The late arrival of spring in the northeast has caused substantial delays in crop development. Winter grains in all areas should have had quite adequate soil moisture, however, the wet weather in parts of Spain and Italy was not particularly beneficial to maturing grains. Rainfall totals of 30 to 50 mm were probably not heavy enough to damage these crops, but drier weather will be needed to bring them to maturity in the next few weeks.



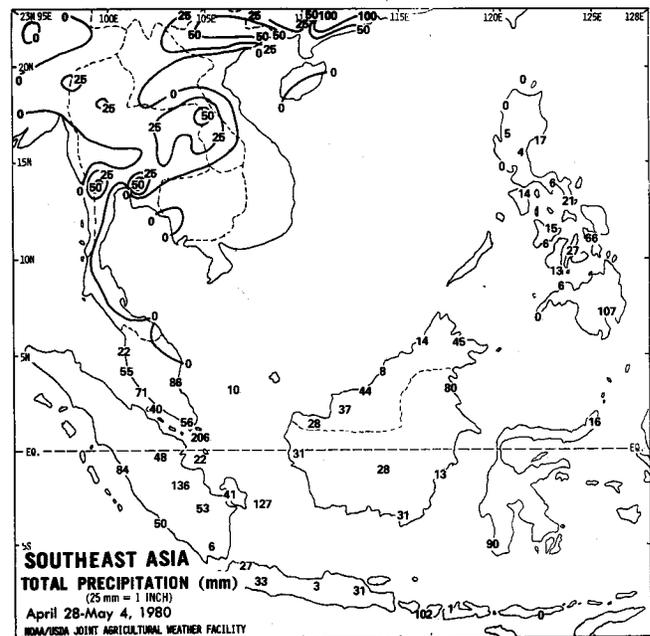
**NORTHWESTERN AFRICA.** Numerous showers which fell throughout the week in winter grain areas of Morocco and Algeria created unfavorable conditions for harvest. Recent weeks have been relatively dry, and impacts will be minimal if such weather returns, but a continuation of this abnormally wet weather could cause serious problems. Tunisian grain areas received lesser rainfall amounts, and conditions there seem more favorable.

**AUSTRALIA.** A weak storm entered southwestern Australia during the week, but only light rainfall occurred. Major agricultural areas in the south-east stayed mostly dry as rains were restricted to coastal areas. Conditions remain critical for livestock in northeastern New South Wales and southern Queensland, but time remains for winter grain sowing. In those areas which had received rainfall during the previous two weeks, field preparation and winter grain sowing were already in progress.

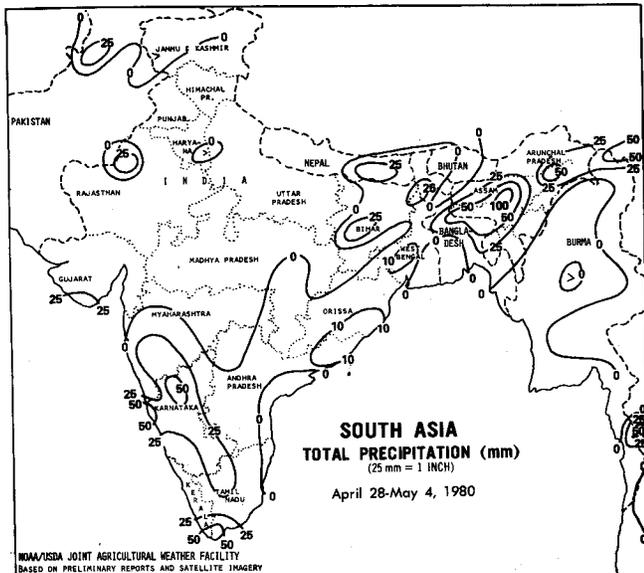




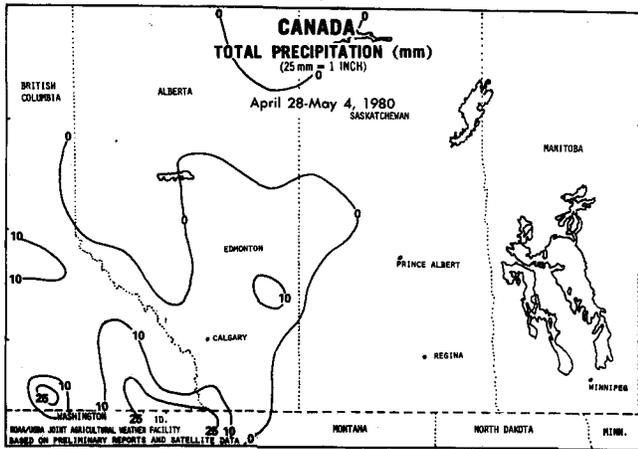
**CHINA.** A major low-pressure system moved slowly across northern China during the week, with an associated cold front trailing southward. Heaviest rainfall occurred in the southern provinces, where moisture had been brought in from the East China Sea ahead of the front. The rains maintained excessively wet conditions which have persisted since late February in the valleys south of the Yangtze River. Water-control problems should be increasing, and crop diseases may now be posing a threat in this abnormally wet situation. A third week (out of the last four) of heavy rainfall in the southern coastal provinces should still be regarded as beneficial, helping to refill reservoirs depleted earlier in the year. Northern winter wheat areas received some beneficial rainfall, especially in Shandong Province, but southern portions of the main wheat belt continued to experience dry weather. Irrigation water should continue in good supply.



**SOUTHEAST ASIA.** Conditions remained less than favorable for newly-planted rice and maize in the main crop area north of Bangkok. Although some above-normal totals fell in the surrounding hills, virtually no rain touched the fields. Near-normal amounts fell in the eastern part of the country and in water source areas to the north--an increase over last week--but these were of no direct benefit to dry crops in major areas.

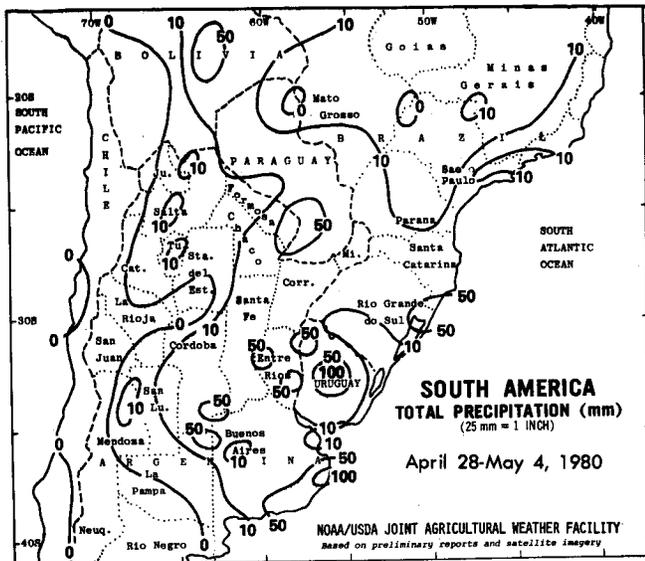
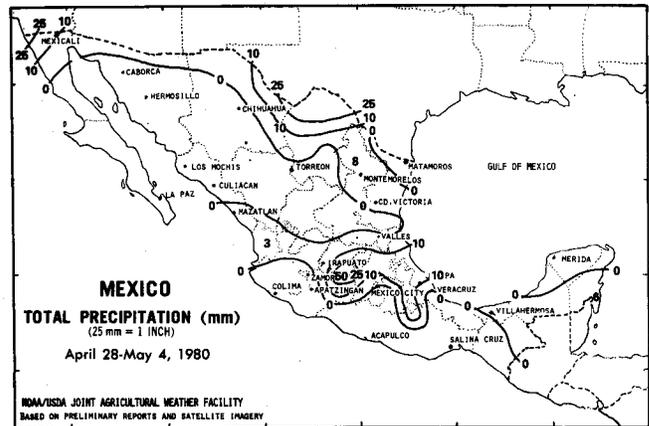


**SOUTH ASIA.** Favorable weather prevailed over India's winter wheat belt as harvesting neared completion in major areas in the far north. Shower activity increased and covered a greater portion of southern and eastern India as the monsoon season approached. Some areas in southwestern Bangladesh have received much less than normal rainfall in recent weeks, creating dry pre-planting conditions.



**CANADA.** The blocking high pressure system in western Canada weakened after mid-week and allowed some moisture into Alberta. Amounts remained light, however, and soils in some southern parts of the wheat belt were still too dry for successful wheat sowing.

**MEXICO.** Moderate to locally heavy showers fell over a small portion of the southern plateau and extended eastward to the coast. The rains benefited Jalapa citrus and some corn and beans in the interim. Other citrus areas had only sprinkles. Critically dry rangelands in northern Coahuila finally received some significant rains, up to 40 mm in a few spots. The drought continued over the northwest, and reservoir levels are unseasonably low. However, the large water needs of tomato production have decreased over the west coast.

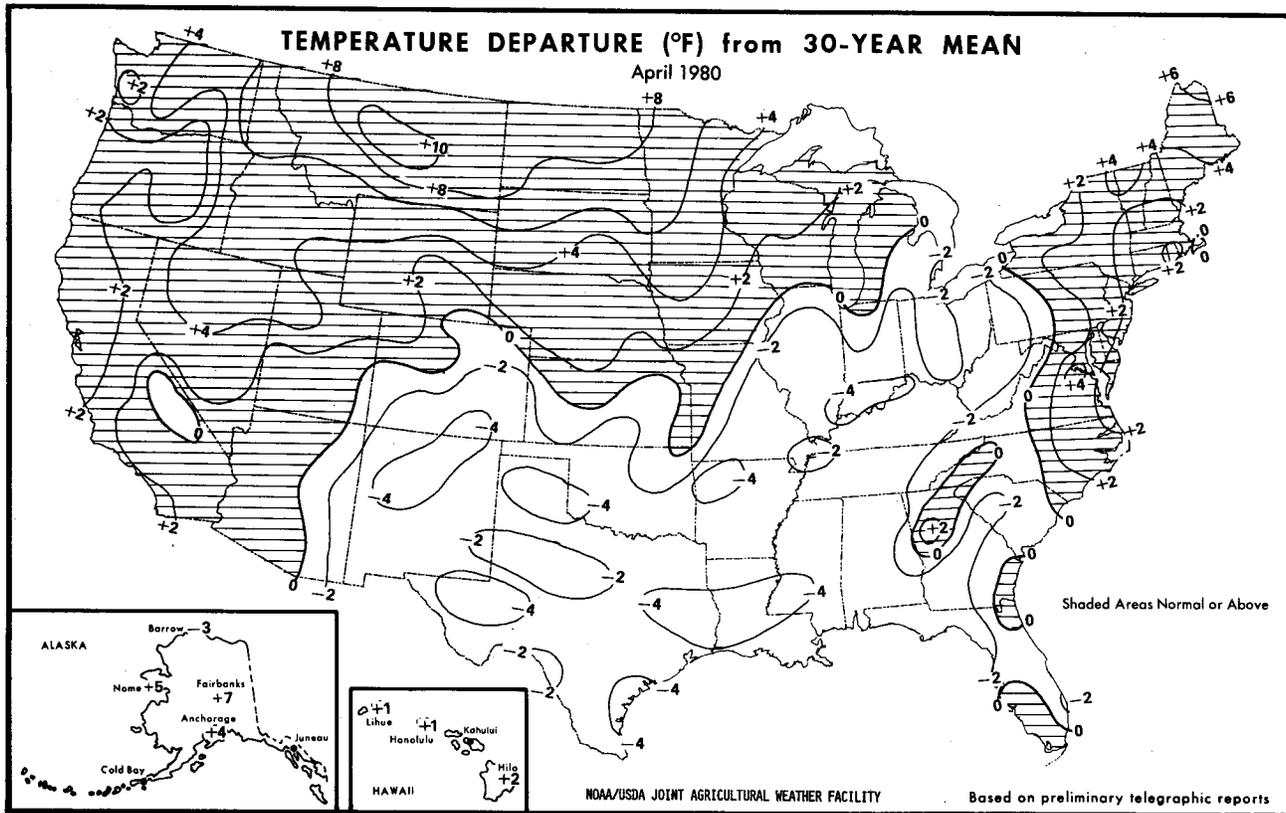


**SOUTH AMERICA.** Soybean harvest entered the final stages unimpeded for the most part in Parana, Brazil, but moderate, near-normal rainfall in Rio Grande do Sul brought harvest to a temporary halt. Fair weather at the week's end allowed harvest to continue, with production prospects remaining quite high. In Argentina, above-normal rainfall in many parts of Buenos Aires Province prolonged flooding problems in livestock areas due to the previous week's heavy rains. Winter grain areas in Buenos Aires had received lighter totals last week, and with the continued rainfall this week, soil moisture for planting should be quite adequate. Beneficial rains fell in southern soybean areas, but temperatures dipped again during the week, spreading light frost over late soybeans still in the pod-filling stage. Probably little damage occurred, but progress toward maturation was slowed.

Temperature and Precipitation Data for April 1980

States and Stations	Temperature Of		Precipitation Inches		States and Stations	Temperature Of		Precipitation Inches		States and Stations	Temperature Of		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
ALA. Birmingham . . .	61	-2	9.1	4.5	LA. Baton Rouge . . .	66	-2	14.8	-9.7	Youngstown . . .	45	-3	2.2	-1.5
Mobile . . .	66	-2	15.4	9.8	Lake Charles . . .	65	-4	1.6	-2.7	OKLA. Okla. City . . .	57	-3	2.2	-1.3
Montgomery . . .	63	-2	5.5	1.0	New Orleans . . .	66	-3	16.1	11.9	Tulsa . . .	61	0	3.4	.8
ALASKA. Anchorage . . .	39	4	.2	.4	Shreveport . . .	63	-3	5.3	.1	OREG. Astoria . . .	50	2	4.9	.3
Barrow . . .	-4	-3	.1	.1	MAINE. Caribou . . .	43	6	2.6	.2	Burns . . .	45	1	.6	-.1
Fairbanks . . .	36	7	.1	.2	Portland . . .	44	2	5.8	2.4	Medford . . .	52	2	1.8	.8
Juneau . . .	--	--	--	--	MD. Baltimore . . .	55	1	4.2	1.1	Pendleton . . .	52	1	.6	-.4
Kodiak . . .	--	--	--	--	MASS. Boston . . .	49	0	4.4	.9	Portland . . .	54	3	2.6	.4
Nome . . .	24	5	.4	.3	Chatham . . .	46	-1	3.5	-.1	Salem . . .	51	1	3.6	1.3
ARIZ. Flagstaff . . .	42	0	1.2	-.1	MICH. Alpena . . .	40	0	4.2	1.8	PA. Allentown . . .	53	-3	4.4	.6
Phoenix . . .	70	2	.4	.1	Detroit . . .	46	-2	4.2	1.0	Erie . . .	43	-2	3.8	.2
Tucson . . .	66	0	1	-.3	Flint . . .	45	-1	3.4	.5	Harrisburg . . .	55	-2	4.8	1.5
Winslow . . .	52	-2	.5	.1	Grand Rapids . . .	47	0	3.6	.2	Philadelphia . . .	55	-2	2.9	-.5
Yuma . . .	72	1	.2	.1	Houghton Lake . . .	42	0	3.3	.9	Pittsburgh . . .	48	-2	2.4	-1.0
ARK. Fort Smith . . .	58	-4	2.2	-2.5	Lansing . . .	45	-2	2.4	-.5	Scranton . . .	51	2	2.4	-1.0
Little Rock . . .	61	-2	7.5	2.1	Marquette . . .	39	2	4.1	1.2	R.I. Providence . . .	50	-3	6.2	2.5
CALIF. Bakersfield . . .	63	0	.7	-.2	Muskegon . . .	45	0	4.4	1.2	S.C. Charleston . . .	64	-1	3.4	.4
Eureka . . .	52	2	4.2	1.2	S. Ste. Marie . . .	41	3	3.5	1.3	Columbia . . .	62	-2	2.0	-1.5
Fresno . . .	62	2	.3	-.9	MINN. Duluth . . .	41	2	.4	-.2	Greenville . . .	59	-2	3.5	-.8
Los Angeles . . .	61	2	.2	-.9	Internatl Falls . . .	44	6	.5	-1.2	S.D. Aberdeen . . .	50	6	1.2	-.2
Red Bluff . . .	60	0	1.8	0	Minneapolis . . .	49	4	.8	-1.2	Huron . . .	49	3	.8	-1.2
San Diego . . .	64	3	1.2	.4	Rochester . . .	47	2	1.2	-1.2	Rapid City . . .	49	4	1.1	-1.0
San Francisco . . .	56	9	.9	-.7	St. Cloud . . .	47	4	.5	-1.8	Sioux Falls . . .	50	4	.8	-1.5
Stockton . . .	61	2	.9	-.5	MISS. Jackson . . .	62	-4	14.3	9.6	TENN. Chattanooga . . .	58	-2	4.8	.4
COLO. Denver . . .	48	0	2.5	.6	Meridian . . .	62	-3	10.2	5.1	Knoxville . . .	59	-1	3.3	-.3
Grand Junction . . .	51	-1	.5	-.3	MO. Columbia . . .	52	-3	2.4	-1.4	Memphis . . .	61	-2	7.5	2.1
Pueblo . . .	48	-4	3.0	1.7	Kansas City . . .	55	1	1.0	-2.5	Nashville . . .	57	-3	3.7	-.4
CONN. Bridgeport . . .	48	0	7.0	3.6	St. Louis . . .	55	-2	1.5	-2.4	TEX. Abilene . . .	64	-1	.2	-2.3
Hartford . . .	49	1	5.4	1.6	Springfield . . .	54	-3	2.9	-1.4	Amarillo . . .	52	-5	.8	-.4
D.C. Washington . . .	60	4	3.3	.4	MONT. Billings . . .	55	10	.5	-1.1	Austin . . .	67	-2	2.2	-1.3
FLA. Apalachicola . . .	65	-3	5.8	2.2	Glasgow . . .	52	9	.2	-.5	Beaumont . . .	66	-3	.9	-3.3
Daytona Beach . . .	69	-1	2.5	.1	Great Falls . . .	53	10	.6	-.6	Brownsville . . .	72	-3	T	-1.3
Ft. Myers . . .	73	0	1.5	.5	Have . . .	52	0	1.3	-.3	Corpus Christi . . .	69	-4	.3	-1.9
Jacksonville . . .	68	0	3.9	.8	Helena . . .	49	6	.6	-.3	Del Rio . . .	71	-1	.4	-1.2
Key West . . .	78	0	2.8	.6	Kalispell . . .	48	6	1.5	.5	El Paso . . .	61	-3	.3	-.1
Lakeland . . .	--	--	--	--	Miles City . . .	53	8	.7	-.6	Fort Worth . . .	63	-2	2.2	-1.1
Miami . . .	75	0	10.2	6.6	Missoula . . .	50	6	1.0	0	Galveston . . .	67	-2	.6	-2.0
Orlando . . .	70	-1	4.1	1.4	NEBR. Grand Island . . .	52	2	1.9	-.6	Houston . . .	66	-3	2.1	-1.4
Tallahassee . . .	64	-4	6.0	1.9	Lincoln . . .	52	1	1.9	-.6	Lubbock . . .	59	-1	1.1	0
Tampa . . .	70	-2	4.4	2.3	Norfolk . . .	51	2	1.1	-1.1	Midland . . .	59	-5	.9	0
W. Palm Beach . . .	72	-2	3.9	.4	N. Platte . . .	51	3	.8	-1.1	San Angelo . . .	64	-3	.5	-1.2
GA. Atlanta . . .	63	2	1.9	-2.7	Omaha . . .	53	3	1.3	-1.5	San Antonio . . .	68	-2	1.7	-.8
Augusta . . .	63	-1	1.3	-2.1	Valentine . . .	49	3	.5	-1.3	Victoria . . .	67	-4	.5	-2.2
Macon . . .	64	-2	2.5	-1.1	NEV. Ely . . .	44	3	.5	-.5	Waco . . .	63	-4	4.0	0
Savannah . . .	66	0	3.7	.8	Las Vegas . . .	64	0	.2	-.1	Wichita Falls . . .	61	-3	.4	-2.8
HAWAII. Hilo . . .	74	2	11.0	-1.9	Reno . . .	50	3	.5	0	UTAH. Blanding . . .	48	1	1.0	.1
Honolulu . . .	76	1	1.1	-.3	Winnemucca . . .	49	4	.3	-.4	Salt Lake City . . .	53	4	.9	-1.2
Kahului . . .	--	--	--	--	N. H. Concord . . .	44	0	3.7	.8	VT. Burlington . . .	47	4	2.4	-.2
Lihue . . .	74	1	3.3	0	N. J. Atlantic City . . .	52	0	5.4	2.0	VA. Lynchburg . . .	57	0	4.0	1.3
IDAHO. Boise . . .	53	4	1.2	-.1	Trenton . . .	54	2	4.2	1.0	Norfolk . . .	59	1	3.3	.6
Lewiston . . .	56	6	.8	-.3	N. MEX. Albuquerque . . .	52	-4	.6	.5	Richmond . . .	61	3	4.3	1.5
Pocatello . . .	48	3	.6	-.5	Roswell . . .	58	-2	1.0	.3	Roanoke . . .	55	-1	5.5	2.7
ILL. Cairo . . .	59	-1	2.6	-1.8	N. Y. Albany . . .	48	1	3.0	.3	WASH. Colville . . .	51	4	1.8	.8
Chicago . . .	47	-2	3.4	0	Binghamton . . .	47	2	5.5	-2.3	Omak . . .	53	4	1.3	-.3
Moline . . .	49	-2	2.3	-1.5	Buffalo . . .	46	1	2.4	-.8	Quillayute . . .	48	2	8.1	-.1
Peoria . . .	49	-2	3.8	-.6	New York . . .	53	1	6.5	-2.9	Seattle-Tacoma . . .	52	3	3.2	.7
Rockford . . .	46	-2	2.8	-1.1	Rochester . . .	48	2	2.4	-.3	Spokane . . .	52	6	1.1	0
Springfield . . .	46	-2	2.2	-1.9	Syracuse . . .	48	1	3.3	.2	Walla Walla . . .	57	4	.6	-.8
IND. Evansville . . .	53	-4	2.7	-1.4	N. C. Asheville . . .	57	1	4.8	1.3	Yakima . . .	54	4	.8	.3
Ft. Wayne . . .	46	-3	3.0	-.6	Charlotte . . .	60	-1	2.3	-1.1	W. VA. Beckley . . .	51	-1	4.9	1.6
Indianapolis . . .	49	-3	2.1	-1.8	Greensboro . . .	58	-1	3.2	0	Charleston . . .	53	-3	4.5	1.2
South Bend . . .	49	1	3.4	-.6	Hatteras . . .	61	2	4.0	.9	Huntington . . .	53	-3	3.1	-.2
IOWA. Burlington . . .	50	-1	2.0	-1.8	Raleigh . . .	62	2	2.0	-1.1	Parkersburg . . .	52	-3	2.2	-1.3
Des Moines . . .	52	2	.9	-2.0	Wilmington . . .	63	0	1.3	-1.6	WISC. Green Bay . . .	45	1	2.7	0
Dubuque . . .	48	0	1.8	-2.4	N. DAK. Bismarck . . .	49	6	.4	-1.0	La Crosse . . .	49	1	1.7	-.9
Sioux City . . .	52	3	1.4	-.8	Williston . . .	49	7	T	-2.1	Madison . . .	46	1	2.4	-.3
KANS. Concordia . . .	53	0	1.8	-.5	OHIO. Akron-Canton . . .	50	8	.4	-.8	Milwaukee . . .	45	0	4.0	-1.2
Dodge City . . .	53	-1	1.9	-.2	Cincinnati . . .	47	-2	3.0	-.3	WYO. Casper . . .	44	1	.4	-1.1
Goodland . . .	47	-2	2.7	1.3	Cleveland . . .	50	-4	2.0	-1.6	Cheyenne . . .	42	-1	.9	-.7
Topeka . . .	54	-1	1.0	-2.6	Columbus . . .	46	-2	2.7	-.8	Lander . . .	45	2	1.7	-.7
Wichita . . .	54	-3	1.1	-1.9	Dayton . . .	50	-1	1.6	-2.1	Sheridan . . .	48	4	.2	-1.9
KY. Lexington . . .	53	-2	2.8	-1.1	Toledo . . .	48	-3	3.6	.3	P. R. San Juan . . .	81	3	2.5	-.9
Louisville . . .	54	-2	2.6	-1.5		47	-1	3.1	.1					

Based on 1941-70 normals



### April Weather Summary

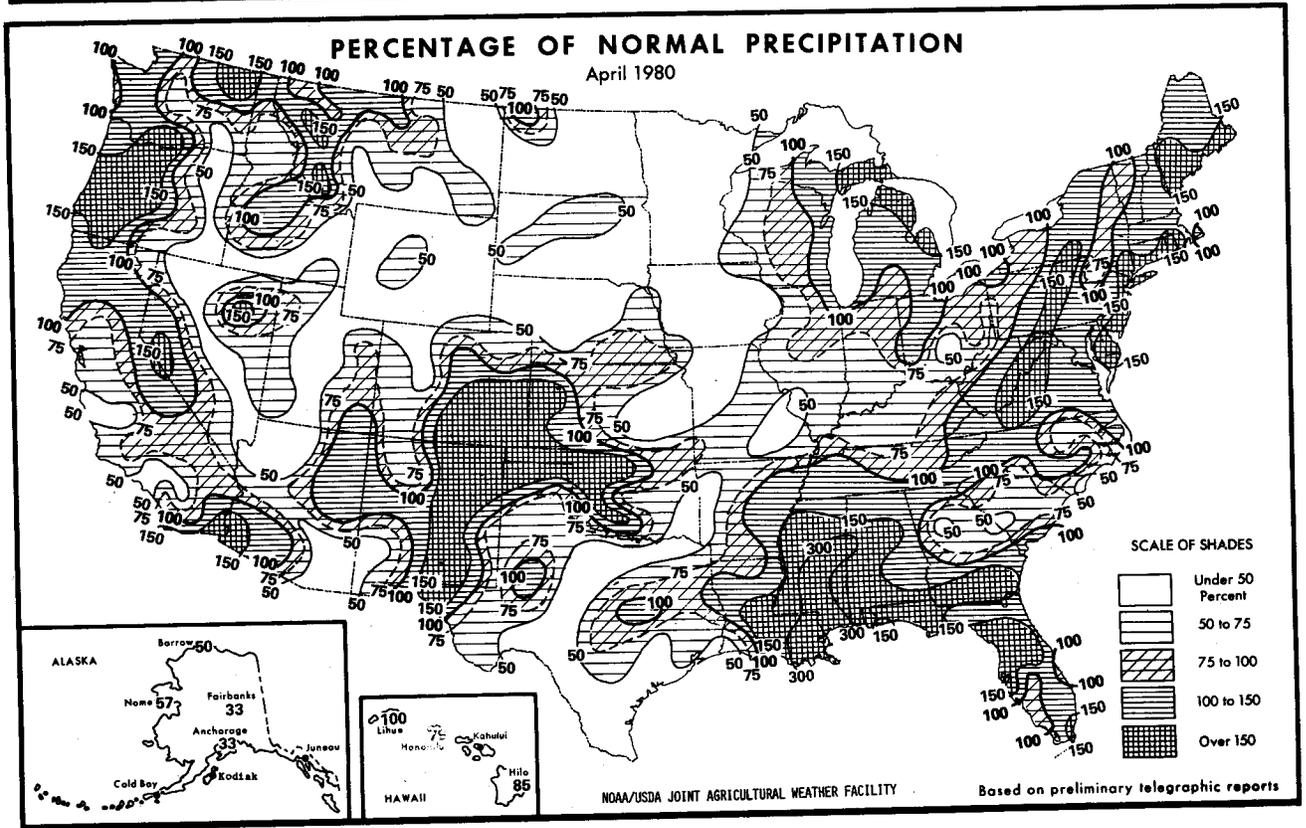
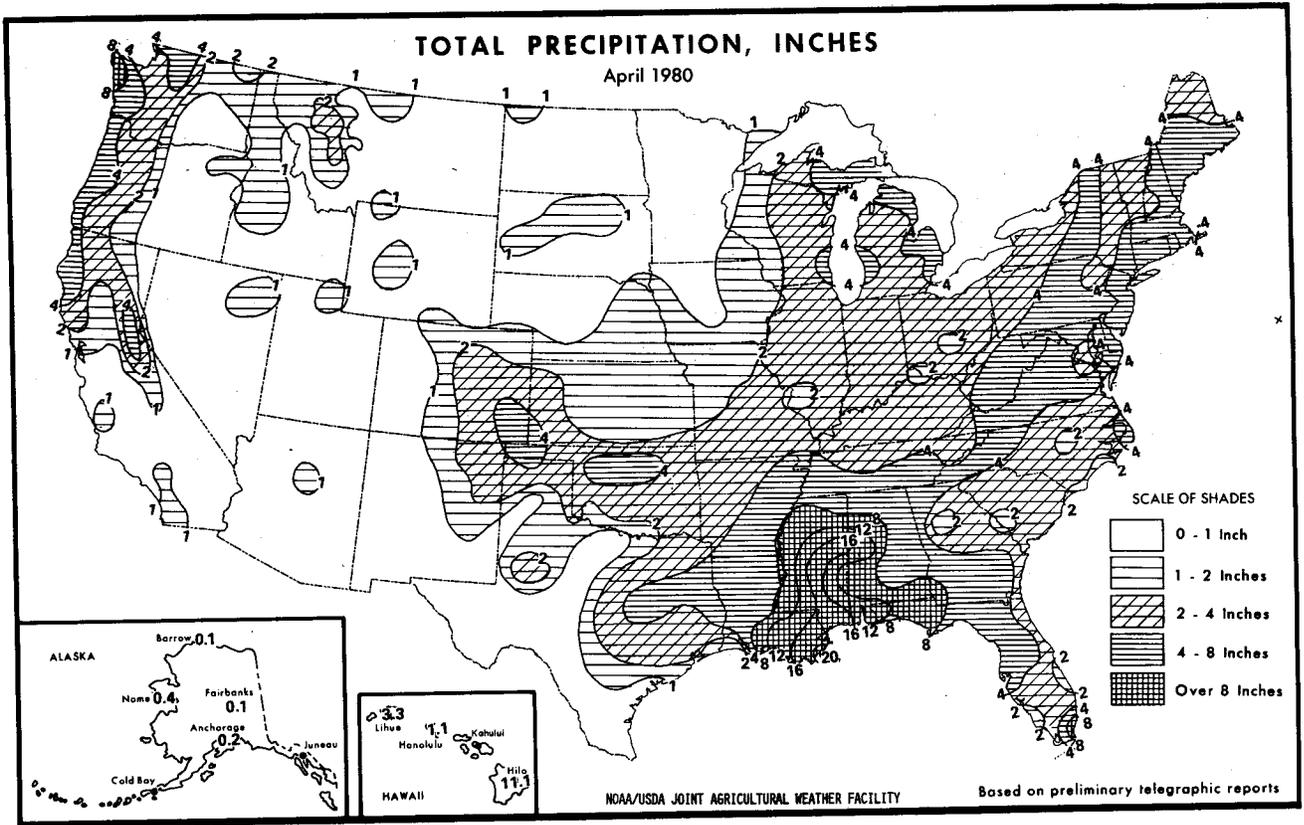
**HIGHLIGHTS:** Early in April, unseasonable snow fell in Kansas, Arkansas, and Missouri. A series of storms moving out of the central Rockies brought severe weather and deluges of rain to most of the southeastern United States. The rain spread northward along the East Coast and into New England. Record breaking high temperatures were recorded in the northern Plains after midmonth. Near the end of April a low pressure system stagnated in the Northeast and ended the month with rainy weather and occasional thunderstorms in that area.

On the first day of April, a series of storm systems were forming in the southern Plateau and Rockies. The disturbed weather continued in these areas during the first ten days of the month. Snow fell in most of the western mountains during this period, but eastern Colorado received the largest amounts. Some of the storms moved into the central Plains and tracked northeastward. The snow area moved into Kansas and Nebraska--over 6 inches stayed on the ground in eastern Colorado, western Kansas and southwest Nebraska. The storms carried rain to the western Great Lakes area and then eastward to the mid-Atlantic States and into New England. Some storms moved southeastward from the central Plains and brought more heavy rain to the Gulf Coast area. The heaviest rain was confined to the immediate coastal region and Florida. Conditions were cold in the Rockies and Plateau but very warm for this time of year in the northern Plains.

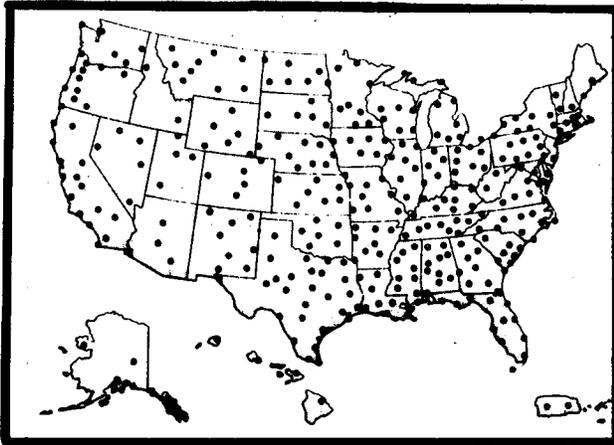
The respite from heavy rain was short lived in the South. On April 10, another storm had moved out of the Rockies and was winding up in Oklahoma. The storm moved rapidly northeastward trailing a cold front into the Gulf of Mexico. From eastern Texas through Michigan and eastward to the Atlantic,

thunderstorms, hail, and tornadoes were reported. Flooding was prevalent in the lower Mississippi Valley. As the storm moved northeastward, it left a mantle of snow in portions of Arkansas and Missouri. This unusual spring weather was repeated on April 14th when another storm formed in the Gulf and moved northward through the Great Lakes. The second storm caused additional heavy rain and severe weather from the lower Mississippi Valley through the Great Lakes and eastward to the Atlantic. By April 17th, rain was light in most of the Nation, but another low pressure in the Gulf moved eastward and spread light to moderate showers along the coast and through Florida. Some severe weather occurred in Florida on April 20th.

The last ten days of April began with unseasonably warm air moving northward through the Plains and then southeastward. Many record high temperatures--for so early in the Spring--were set, first in the central Plains and then in Montana. On April 22d, temperatures reached 100° in North Dakota and in Iowa on the 23d. The high 80's were recorded throughout the Midwest on the 23d and the 90's in the Carolinas the next day. The wedge of warm air was followed by cold air and some snow in the Great Lakes area. Temperatures dropped into the 20's in the Lakes region and the 30's in the Midwest. As the month of April ended, a ridge of high pressure became nearly stationary from the western mountains into Canada. This caused a low pressure system to move very slowly from the lower Mississippi Valley northeastward. Rain and severe weather spread from the central Plains through the South and then to New England. The rainy weather slowly cleared in the South, but as April ended intermittent rain and occasional thunderstorms continued from the mid-Atlantic States into New England.



# NOAA WEATHER RADIO



NOAA Weather Radio Is  
Nation's Weather Network

**NOAA Weather Radio:** If that phrase doesn't mean anything to you now, it probably soon will, for it is a fast grown network that has saturated the Nation with continuous broadcasts of storm warnings and the latest weather observations and forecasts--24 hours a day, seven days a week.

Some people call it push-button weather, because it's always there when you want it. Already there are more than 326 stations, operated by the National Weather Service, and installations are increasing because people like it so much. When completed next year, there will be about 352 stations, covering 90 percent of the U.S. population.

Just what is NOAA Weather Radio? It's a program begun back in the 1960's to serve commercial and recreational boaters, but since expanded to cover just about everyone, including farmers who need detailed agricultural forecasts. The "NOAA" part of its name stands for National Oceanic and Atmospheric Administration, a major component of the U.S. Department of Commerce, and the parent agency of the Weather Service.

Proof of NOAA Weather Radio's popularity is that, as word has spread, a great many states have volunteered to provide facilities, and in some cases manpower, to augment and speed its availability. The National Weather Service currently has more than 30 Federal/State agreements of one kind or another to accomplish this.

Editorialized a Nebraska weekly newspaper: NOAA Weather Radio "is probably one of the most beneficial systems that the Government has devised for the taxpayer. Yet too many of us don't take advantage of the protection the system provides."

Here's how it works: During good weather, the latest observations and forecasts are tape-recorded by local Weather Service offices in messages that last from three to five minutes. These messages are replayed continually, guaranteeing reception any time of the day or night at the push of a button or the twist of a dial.

The tape-recorded messages are revised every three to four hours, more frequently when appropriate. When severe weather threatens, forecasters at the local Weather Service office interrupt the broadcasts with storm warnings, either tape-recorded or "live" as the situation demands.

Furthermore, the system has a feature which allows you to be alerted automatically, if you choose, when dangerous weather such as a tornado or flash flood is on the way. Radio receivers available for as little as \$35 will silently monitor the NOAA weather broadcasts and automatically either sound a siren or come up to audible volume when the forecaster presses a button in his office signifying that a storm bulletin is forthcoming. These "warning-alarm receivers" are especially valuable for schools, hospitals, nursing homes, factories, mobile-home communities and other places where large numbers of people are congregated. They are also of vital importance to radio and TV stations and public-safety officials.

Because of its unique warning capability, the NOAA Weather Radio system was designated in January 1975 by the White House Office of Telecommunications Policy as the sole Federally-operated radio system to provide warnings directly into people's homes--not only for natural disasters, but also in the event of nuclear attack.

What kind of receiver do you need? One that will receive very high frequency FM broadcasts--considerably above commercial FM broadcasts, which end at 108 megahertz. The frequencies used for NOAA Weather Radio, nationwide, are 162.40, 162.475, or 162.55 megahertz. Most radio-specialty shops and many other retail outlets have such "high band" receivers, some for as little as \$15 or \$20--if you don't care to have the automatic stormwarning feature.

Effective range of the broadcasts is about 40 miles, depending upon the terrain and the quality of the receiver. Because of the high frequency, transmission is by line of sight, like television, and may be blocked or interfered with by hills, nearby buildings, or commercial radio transmitters. Such problems may sometimes be overcome, or listening range extended, by use of high-quality receivers and high, outside antennas.

Because of these uncertainties, the Weather Service advises people to make final acceptance of a receiver conditional upon a test in the setting in which it is to be used. It urges institutional buyers to select a high-quality receiver with great sensitivity and selectivity.

It's also worth noting that you can purchase receivers that will pick up NOAA Weather Radio broadcasts when you're traveling, as you move from the range of one station to another, so that you will have a continuous source of local weather reports. As the system grows, you will seldom be out of range for very long of a local NOAA Weather Radio broadcast when traveling on interstate highways.

If you have a question concerning NOAA Weather Radio, please write: National Weather Service, (Attn: W112), National Oceanic and Atmospheric Administration, Silver Spring, MD 20910.

**SEEDING PROGRESS**  
FOR WEEK ENDING MAY 4

	COTTON		
	1980	1979	AVG.
ALA.	56	56	70
ARIZ	88	78	NA
ARK.	88	17	32
CALIF	97	97	NA
GA	53	84	75
LA	16	22	48
MISS	32	24	41
MO	31	8	38
N. MEK	55	55	68
N. C.	47	62	52
OKLA	0	2	2
S. C.	81	91	76
TEMN	38	17	30
TEX.	41	19	22
14 STATES	35	33	NA
EXCL CALIF AND ARIZ	24	22	28

THESE 14 STATES PRODUCED 99% OF THE 1979 COTTON CROP.

	RICE		
	1980	1979	AVG.
ARK.	46	39	65
CALIF	55	64	NA
LA	76	82	80
MISS	56	34	63
TEX.	96	88	93
5 STATES	43	55	NA
EXCL CALIF	66	57	75

THESE 5 STATES PRODUCED 99% OF THE 1979 RICE CROP.

	CORN		
	1980	1979	AVG.
COLO	16	33	41
GA	88	94	90
ILLI	46	2	21
IND	18	4	23
IOWA	81	2	25
KANS	38	18	28
KY	28	22	26
MICH	5	2	10
MINN	36	1	19
MO	58	7	44
NEBR	35	10	15
N. C.	23	86	81
OHIO	25	16	20
PA	8	13	17
S. DAK	18	0	3
VA	45	55	61
WIS.	18	1	6

17 STATES 38 18 25

THESE 17 STATES PRODUCED 93% OF THE 1979 CORN CROP.

NA NOT AVAILABLE

IF LESS THAN 5%

	GRAIN SORGHUM		
	1980	1979	AVG.
COLO	8	3	0
KANS	2	8	2
MO	12	2	11
NEBR	17	17	17
OKLA	5	0	0
S. DAK	0	0	0
TEX.	67	69	62

7 STATES 86 25 24

THESE 7 STATES PRODUCED 92% OF THE 1979 GRAIN SORGHUM CROP.

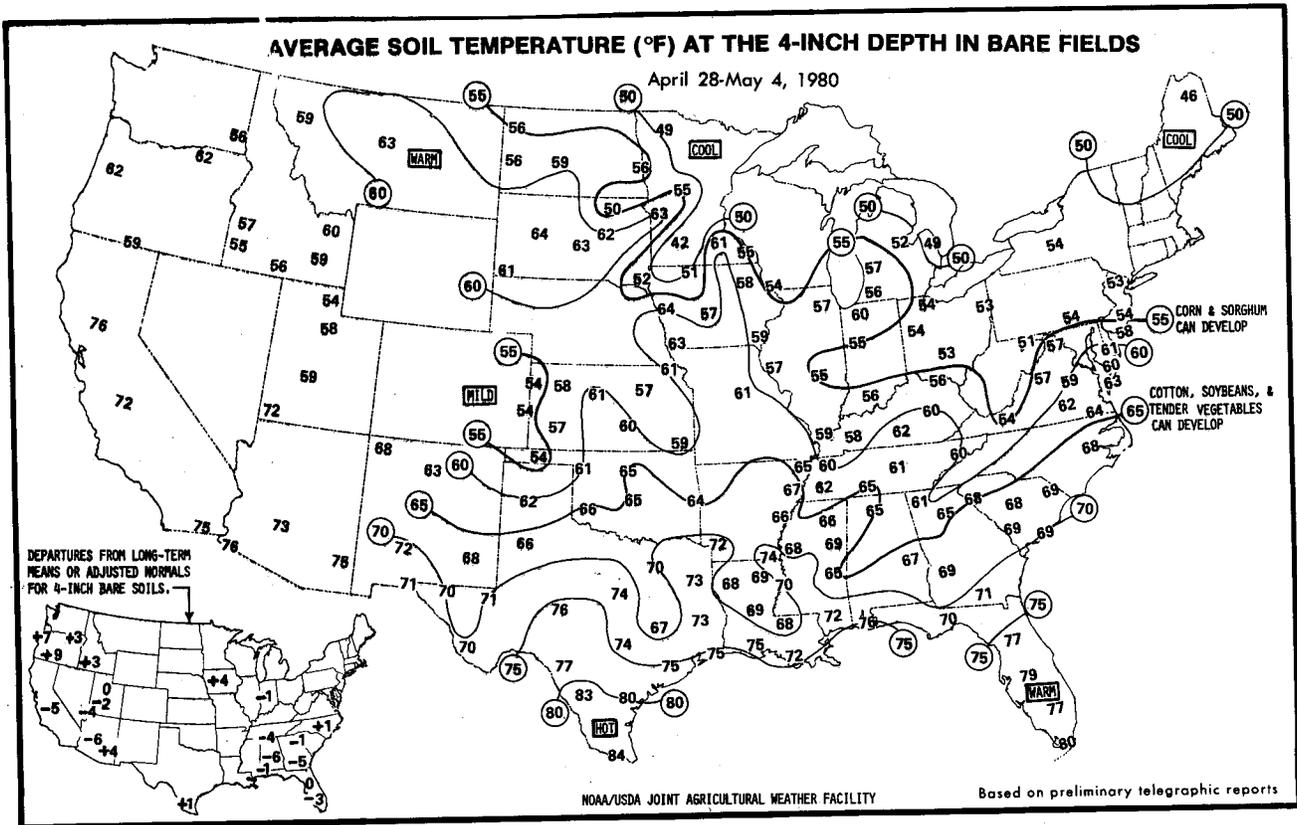
	SPRING WHEAT		
	1980	1979	AVG.
IDAHO	88	62	68
MINN	87	4	43
MONT	79	5	NA
N. DAK	62	1	24
S. DAK	NA	NA	NA

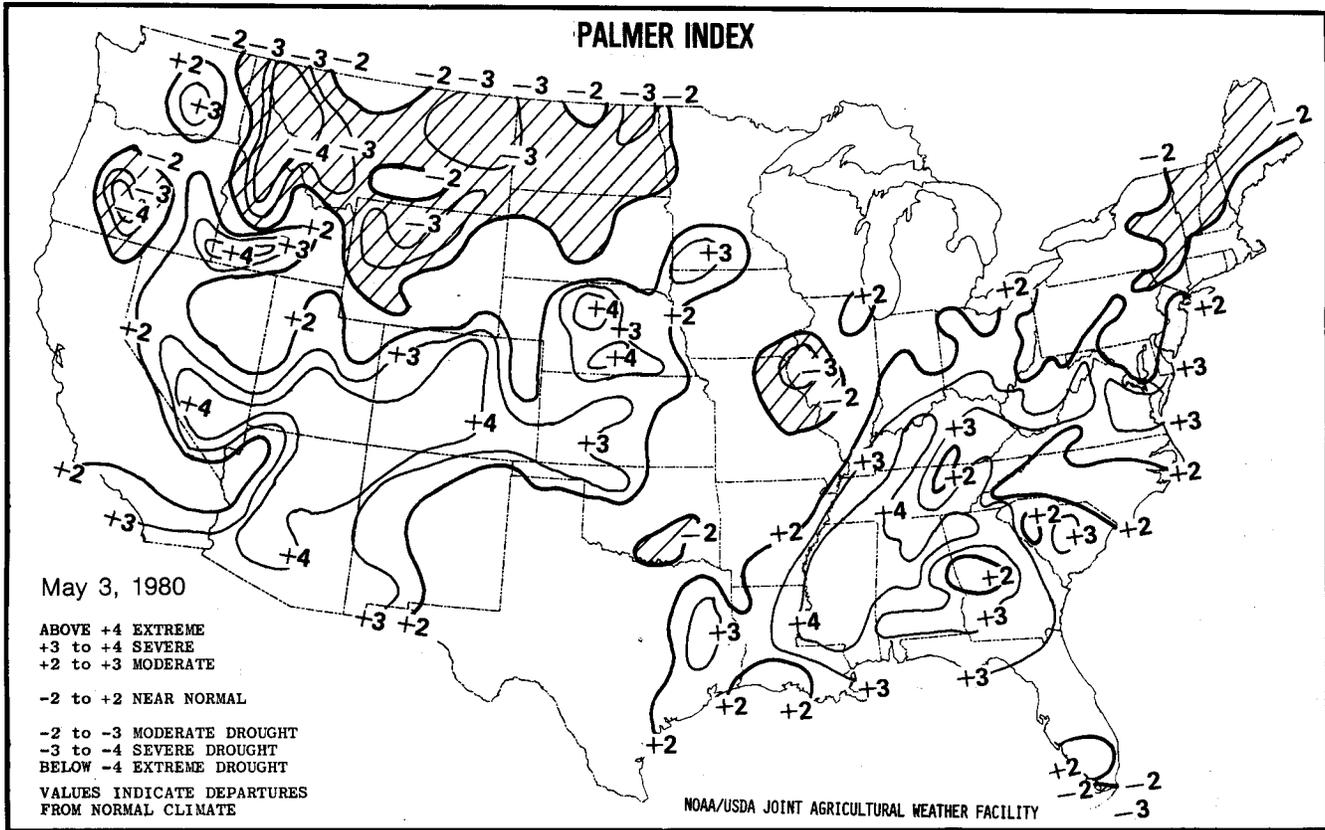
5 STATES EXCL S. DAK 70 6 NA EXCL S. DAK AND MONT 70 6 32

THESE 5 STATES PRODUCED 91% OF THE 1979 SPRING WHEAT CROP EXCLUDING DURUM.

CORRECTION FOR W/E APR 27 SPRING WHEAT PLANTED

5 STATES 47 5 23





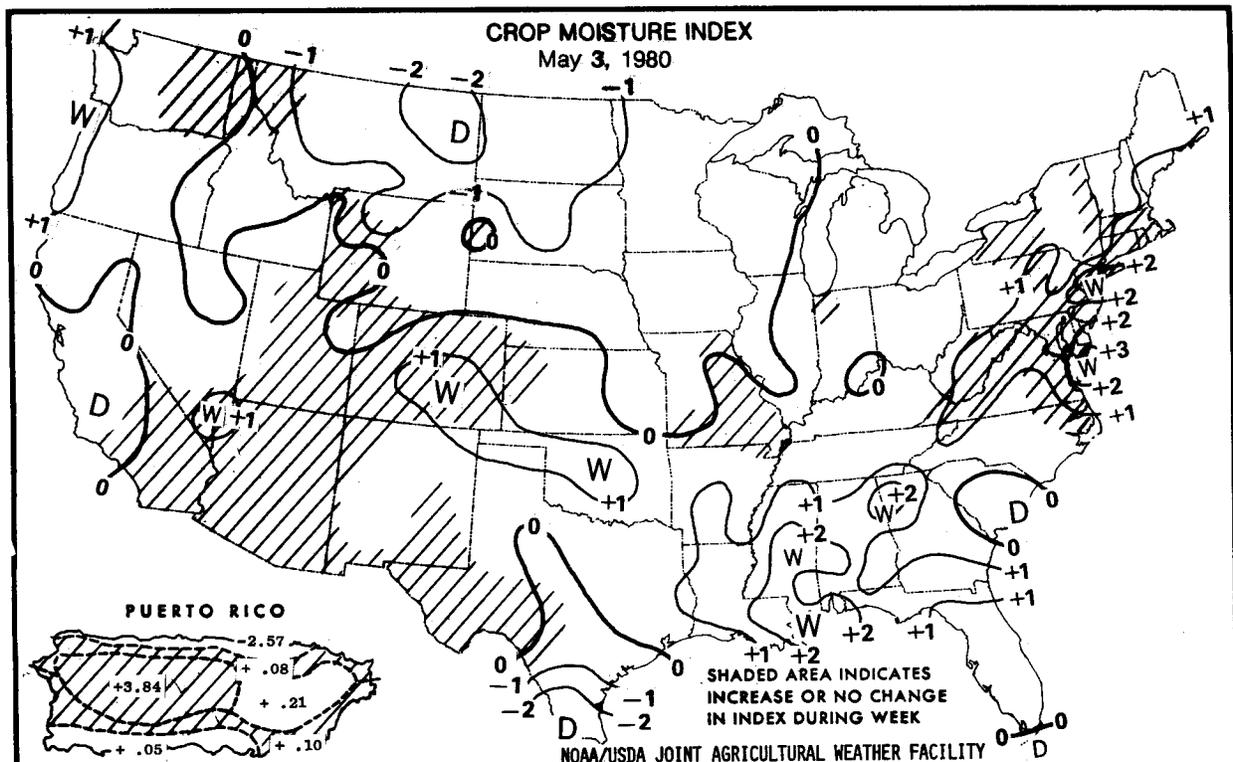
The Palmer Index

The Palmer Index is an index of meteorological drought, which may be defined as a prolonged and abnormal moisture deficiency. The general concept is one of supply and demand. Supply is represented by precipitation and stored soil moisture. Demand is the combination of potential evapotranspiration, the amount needed to recharge the soil moisture, and the runoff needed to keep the rivers, lakes, and reservoirs at a normal level. The results of this water balance accounting produce a positive or negative anomaly which is then weighted by a climate factor. The final product is an index that expresses the abnormality for that particular place for the period of time being computed. This manipulation allows the index to have a reasonably comparable local significance in space and time, that is, a certain index value obtained for a division in New York would have the same local significance as a like value in the more arid areas of western Kansas. This monthly increment is added to a portion of the previous month's index to include the duration of the anomaly in the final index.

The Palmer Index was designed as a climatological indicator of the scope and severity of past droughts. Using the Palmer Index on a real-time basis presents difficulties. A day or so of normal or better rainfall is certainly welcome in an area that has experienced a long drought, but one cannot know whether it indicates the end of the drought or just a brief respite. In order to

make the program have some real-time value, a system of computing a "probability" that a weather spell has ended was devised. This is not entirely satisfactory, but does allow one to assign a definite index value at times when there may be some doubt as to whether it should be positive (wet) or negative (dry).

Another aspect of using the Palmer Index is that one must remember that the demand part of the computations includes three parameters---potential evapotranspiration, recharge of soil moisture, and runoff, any one of which may produce a negative index. For instance if only enough rain fell to satisfy most of the expected evapotranspiration, but not enough to supply the expected recharge and runoff, then a negative index would result. If such a situation continued then one might find that agriculture was progressing at a near normal pace but the Palmer Index would be indicating a worsening drought. In this situation the drought would cause shallow wells and springs to go dry and the levels of rivers, lakes and reservoirs to fall below normal and, if this odd situation continued long enough, would cause serious economic stress to the livestock industry and eventually to other industries and cities. Then if rainfall fell below the minimum needed for agriculture, crops would suffer drastic and rapid decline because there would be no reserve water in the soil. Such a situation, to some extent, occurred during the Northeast drought in the 1960's when New York City almost ran out of water.



The Crop Moisture Index measures the degree to which moisture requirements of growing crops were met during the previous week. The index is computed from average weekly values of temperature and precipitation. These values are used to calculate the potential moisture demand. Taking into account the previous soil moisture condition and current rainfall, the actual moisture loss is determined.

If the potential moisture demand, or potential evapotranspiration, exceeds available moisture supplies, actual evapotranspiration is reduced and the CMI gives a

UNSHADED AREAS: INDEX DECREASED	
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 2.0	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	EXTREMELY DRY, MOST CROPS RUINED

negative value. However, if moisture meets or exceeds demand the index is positive.

Shaded areas indicate the index was unchanged or increased from the previous week's value; soils dried in the unshaded areas. Centers of positive and negative areas are identified by W for wet and D for dry.

Local moisture conditions may vary because of differences in rainfall distribution or soil types. The type of agriculture and stage of crop development must be considered when assessing the impact of moisture conditions based on the Crop Moisture Index. Some general guidelines follow.

SHADED AREAS: INDEX INCREASED OR DID NOT CHANGE	
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 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 EXTREMELY DRY

THE WET AREA IN SOUTHEASTERN UNITED STATES IS DRYING RAPIDLY AS NEAR NORMAL RAINFALL RESUMES. ALTHOUGH SOME FIELDS ARE STILL TOO WET, CONSIDERABLE FIELD WORK IS PROCEEDING. SOILS ARE DRYING RAPIDLY IN THE NORTHERN PLAINS AND WESTERN CORNBELT. RAIN IS BADLY NEEDED TO GERMINATE NEWLY SOWN GRAINS. THE VERY DRY AREA IN NORTHEASTERN MONTANA HAS ALREADY REDUCED YIELD PROSPECTS. IN MUCH OF THE REST OF THE STATE AND IN NORTH DAKOTA AND PARTS OF SOUTH DAKOTA, PROSPECTS ARE DETERIORATING.

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Heating Degree Days (Base 65° F.)

April 1980

Spring Snowmelt Flood Outlooks  
from April 1, 1980 data

Rio Grande Basin

Several intense storm systems deposited significant additional snow to the already high snowpack producing near maximum record snow water equivalents in the Colorado/New Mexico border area. Cumbres Pass has about 40 inches of snow water equivalent equal to 1937 and 1941 observed records. In the Rio Chama Tributary, average snowpack is 231 percent of normal.

Reservoir storage over the basin continued to be more than double the average. In Colorado, there is 202 percent of normal in storage and in New Mexico, there is 231 percent of normal.

Utah

Precipitation during the last three months, January through March, has been well above average and in some areas established new records. With high runoff volumes anticipated, snowmelt flooding has become more likely in the following river basins and watersheds of Utah: San Juan Basin, Gunnison and Delores Watersheds, Upper Duchesne and Price Drainages, Upper Provo, Spanish Fork, Upper Sevier, and Virgin River.

National Weather Service  
Office of Hydrology  
Flood Information Center

ALA. Birmingham . . . . .	144	MAINE, Caribou . . . . .	644	OKLA. Okla. City . . . . .	249
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Phoenix . . . . .	35	Houghton Lake . . . . .	690	Erie . . . . .	644
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Key West . . . . .	0	Missoula . . . . .	448	Dallas . . . . .	--
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Preliminary reports from airport locations, except those marked U for urban and R for rural.  
\*Estimated.