

WEEKLY WEATHER AND CROP BULLETIN

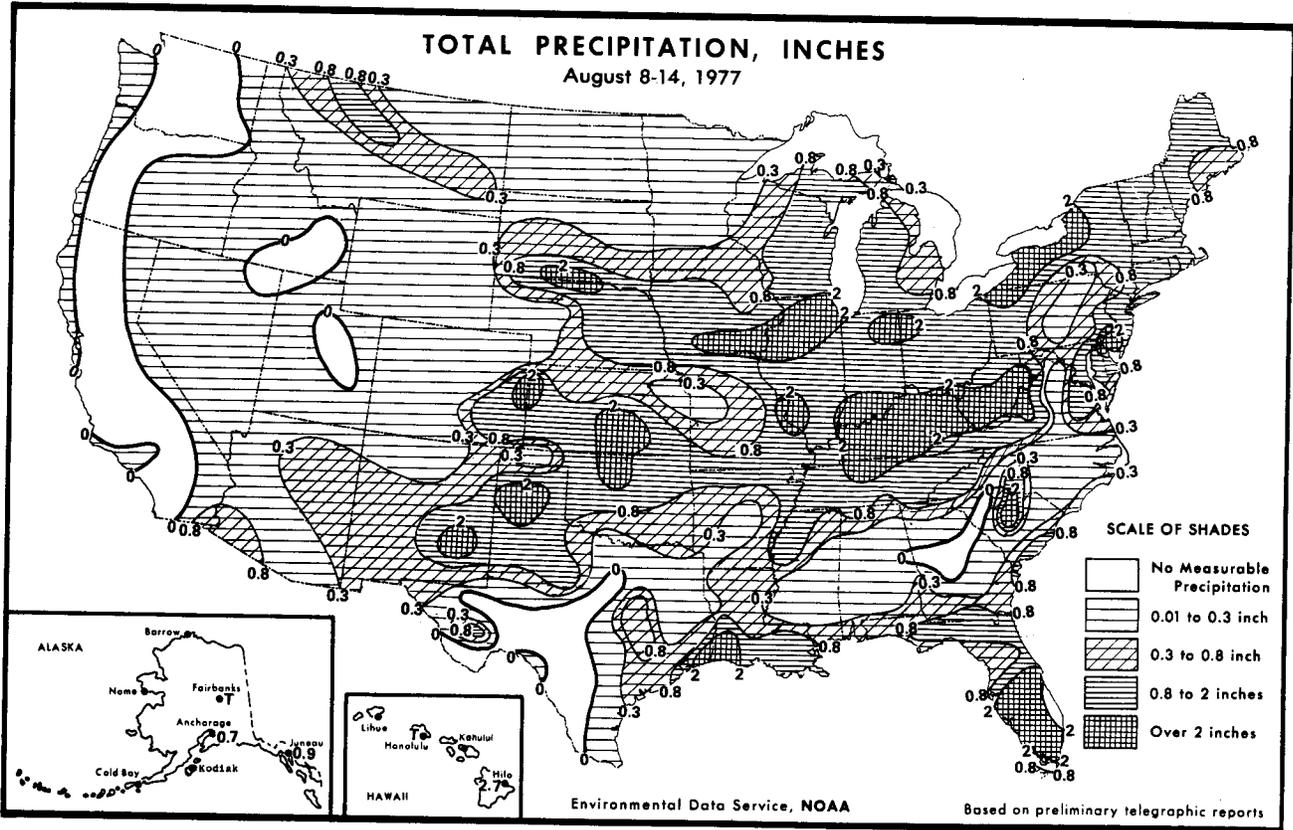
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National Weather Summary

August 8 - 14

HIGHLIGHTS: Ample precipitation continued to fall in the Corn Belt replenishing depleted soil moisture reserves. Portions of drought-stricken northwestern Virginia received heavy showers, however, other parched areas of the State got little or none.

Near-freezing temperatures brought autumnlike readings to parts of the northern Plains. It was 9 to 13° below normal. By sharp contrast, the Pacific Northwest recorded unseasonably warm temperatures--more than 9° above normal at some points.

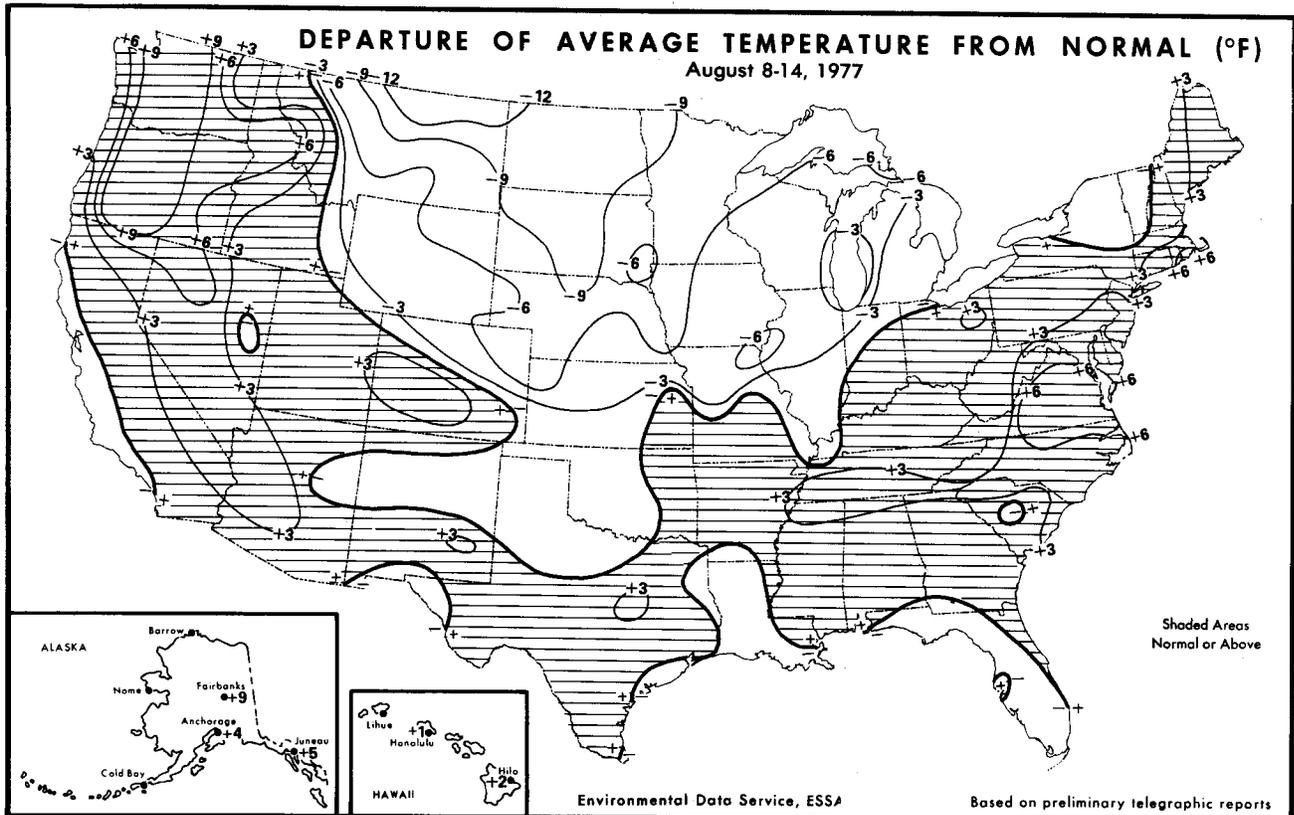
Thunderstorms swamped central Iowa with 3 to 7 in. of rain through Monday. Daybreak also revealed thunderstorms from Michigan and Illinois westward into the central Plains and along the entire Gulf Coast. By afternoon, storms intensified from the upper half of the Atlantic Coast States across the Appalachians and Great Plains into the Rockies. Hail peppered parts of Missouri and South Dakota

while twisters were sighted near Clarksburg, W. Va., Gillette, Wyo., and in lower Michigan.

Record temperatures baked Richmond, Roanoke, and Norfolk in Virginia as well as Huntsville, Ala., and Baltimore.

The heaviest precipitation immediately after midnight Tuesday fell on Iowa and Nebraska where there was some overflow from swollen streams; 3.6 in. fell just west of Omaha and 4.77 in. soaked Clarendon in southwestern Iowa. By midday, the pattern of thunderstorms had shifted eastward. A large area of precipitation extended from upper Michigan across the northern reaches of the Deep South. Other storms dotted the Gulf Coast into Florida and portions of Minnesota, Missouri, Arkansas, and Oklahoma. Late afternoon thunderstorms dumped heavy rain on south central Montana and 1.31 in. on Flagstaff, Ariz.

A cold front dipped into the northern Plains and Minnesota triggering rain and two tornadoes in the west central and southwestern parts of the



State. Another touched down outside St. Louis. Showers dampened the eastern Gulf Coast into the middle Atlantic States, middle Mississippi Valley, and Great Lakes region as Tuesday ended.

Wednesday showers and thunderstorms continued into mid-morning from the Northeast to the middle Mississippi Valley, along the Gulf Coast, and over western portions of the Plains. Rainstorms produced heavy rain for portions of Indiana, Ohio, Pennsylvania, and New York; the heaviest amounts by afternoon showed three inches in Sullivan, Mo., and 2.5 in. in Toledo.

As the day heated up, thunderstorms developed over most of the Atlantic Coast States; high winds, hail, and heavy rains buffeted Fayetteville, N.C. Hail also fell near Springfield, Mo., and Goodland, Kans., while tornadoes whirled through parts of Delaware, Texas, and Ohio.

Early Thursday temperatures were frosty in the northern Plains; Bismarck, N. Dak., and Lewiston, Mont., shivered at 34°. Rains were generous from the central Plains to the Ohio Valley--five inches soaked Halstead in south central Kansas.

Rain extended from Michigan and Wisconsin to northeastern New Mexico where heavy rain triggered some flooding. By evening, other parts of the Southwest received precipitation. Storms were scattered across the lower half of the Atlantic Coast, the Appalachians, Ohio and lower Mississippi Valleys, and lower Great Lakes.

Seattle set a record of 95° while Portland, Oreg., sweltered through 102°. Seattle reached for the record books for another mark--its 13th consecutive day above 80°, breaking the 1967 string of 12.

The leading edge of a cool air was marked by showers and occasional thunderstorms on Friday--from New England through southern Pennsylvania and northern Virginia to the Missouri/Arkansas border. Other storms occurred along the Gulf Coast States, over Texas and the lower half of the Rockies into the Intermountain Region. Intense thunderstorms carried more rain to parts of New Mexico and near

Phoenix, Ariz. A tornado was reported 25 miles outside the Nation's Capital.

Temperatures varied from record lows of 50° in Denver and 47° in Dubuque to Richmond, Virginia's 101° and another day in the 90's in western Washington.

Saturday thunderstorms continued over Arizona causing some flooding near Phoenix and Scottsdale. As the day wore on, thunderstorms became plentiful over the Southeast and for several localities between southern Indiana and southwestern West Virginia. Rain also fell over parts of the Plains, northwestern Montana, and the eastern slopes of the Sierra Madre Mountains in California. Late Saturday precipitation dampened the lower Great Lakes, Ohio Valley, and the southern sections of Illinois and Indiana. Some of the heaviest totals included two inches in Harmony, Ind., and Topeka and more than three inches in the Yoakum-Hallettsville area of southeastern Texas.

Temperature extremes included Norfolk, Virginia's August record of 11 consecutive days above 90° and record low readings in the mid-30's for points in North Dakota.

A ridge of high pressure from Canada brought cool temperatures to the upper Midwest on Sunday.

Heavy rains caused flooding in Kentucky and West Virginia; 3 to 5 in. fell in parts of the Bluegrass State while nearly five inches inundated southern West Virginia. Scattered heavy thunderstorms progressed to the Atlantic Coast, and others formed over the lower Great Lakes region, Gulf Coast, central Plains, southwestern Texas, New Mexico, and from Oregon to Montana. Two-inch hail battered New Strawn in eastern Kansas and heavy rain launched flooding in the Pittsburgh area.

Erie, Pa., has already set a record of 18.84 in. of rain for the June-August period; the old record of 18.11 in. was set in 1947.

Something new, but not unusual for this year's weather agenda--south of Baja, Calif., Hurricane Doreen was moving northwestward.

National Agricultural Summary

August 8-14

HIGHLIGHTS: Soil moisture improved in most of the Corn Belt and a few of the southern States, but in most of the South, the West, and the Dakotas and Minnesota dry soils hampered growth of crops and grasslands. Farmers prepared land for planting the 1978 wheat crop and sowed a few fields. The small grain harvest was almost complete. Most corn rated fair to good developing at a fast pace to maturity; grain harvest spread across the South. Cotton developed rapidly with some bolls opening. Rains helped soybeans as podding quickly advanced and some leaves began turning color in northern areas. Sorghum headed rapidly and early; harvesting in Texas advanced past the halfway mark. Rice harvesting spread through the Delta. Grasslands rated fair to good east of the Mississippi except in the southern Atlantic Coast States where it rated poor. In the West, ranges were poor to fair.

SMALL GRAINS: Harvest of the U. S. winter wheat crop was almost complete, the remaining acreage to be combined was located in the northern Mountain States and the Pacific Northwest. Producers prepared land for seeding 1978 winter wheat throughout the Nation; Texas growers planted some fields on the High Plains. Plowing ranged from 11% in Pennsylvania, 15% in Indiana, 25% in Ohio, and 60% in Illinois.

Damp weather slowed the North Dakota harvests of oats and spring wheat causing some losses of swathed crops. In Wisconsin, weather also slowed combining and some of the crop was over-ripe; progress stood at 75% compared with 70% in 1976 and 45% average. Minnesota oats combining was almost complete at 91%, surpassing 1976's 85% and the 60% average; spring wheat combining advanced to 75%, 11 points ahead of 1976 and more than twice the average.

CORN: Corn developed rapidly assisted by additional rains and lower temperatures through most of the Corn Belt. Farmers harvested corn for grain from Texas across the South to Florida. In the dry Southeast, farmers harvested their poor corn for silage and forage. Elsewhere in the South, most of the corn was in the dent stage or beyond and the percentage of the mature crop ranged from 12% in Tennessee to 31% in Mississippi to 79% in Louisiana.

In the important Corn Belt States, most corn was in the dough and moving into the dent stage. The crop was as much as two weeks early. Among the eastern north central States, corn in the dough stage or beyond ranged from 55% in Michigan, 65% in Ohio and Wisconsin, 85% in Indiana, and 92% in Illinois; dent stage ranged from just beginning in Wisconsin to 54% in Illinois.

Throughout the western north central States from 48 to 88% of the corn was in the dough stage or beyond. Dent stage ranged from 34 to 40%. Nearly 15% of the crop was mature in Kansas and Missouri.

SOYBEANS: Soybeans rated fair to good nationally having gotten the most benefit from recent rains across parts of the South and most of the Corn Belt. Pod set was well advanced and leaves began turning color in northern areas. In the south central States, pod set was developing quickly and ranged from 50 to 75%. Some areas needed lower temperatures to improve pod set.

In the north central States, pod set ranged from 55% in Michigan to 90% in Ohio, Illinois, and Nebraska. In Iowa, 7% of the acreage had leaves turning color. Wisconsin soybean plants grew tall and pods filled well.

COTTON: Cotton rated fair to good with some poor cotton in the Southeast. Most of the acreage set bolls ranging from 80% in Oklahoma to almost 100% in many of the southern States. Farmers sprayed the crop to control insect infestations. Bolls began opening and ranged from 2% in Missouri, 5% in Mississippi, and 16% in Georgia. Harvest extended northward into Arkansas, the Texas harvest extended from the Rio Grande Valley to the southern Blacklands. Cotton on the Plains developed rapidly; irrigated cotton was in good condition, but the dryland crop was shedding fruit in areas without recent rain. California cotton was in full bloom; some acreage was abandoned because of insufficient irrigation water.

OTHER CROPS: Sorghum development also surpassed most recent years; most of the crop headed and some began turning color. Last year very little was coloring by this time. The Texas sorghum harvest advanced to 54% complete, ahead of the 42% last year and the 45% average. Only a few fields remain for harvest from the southern Blacklands southward. Heading varied from 60% in Kansas to 90% or more in Missouri and South Dakota. Nebraska's sorghum showed a color change on 45% of the acreage compared with 10% or less in recent years. About 15% of the Kansas crop colored and 28% in South Dakota.

The rice harvest reached 74% complete in Texas lagging 1976's 78% but ahead of the 56% average. Louisiana growers harvested 38% of the crop exceeding last year's 39% and 25% average. Arkansas growers harvested some rice and continued draining fields for later harvest. Mississippi rice was 60% headed and California's 50%.

Maine's potato crop grew well as growers sprayed to control diseases and insects. Most of Idaho's potato vines grew closed in the middle and 20% began turning compared with last year's 35%. Washington growers dug Norgolds with Russetts to follow soon. Oregon producers harvested early potatoes.

FRUITS AND NUTS: Growers harvested a few late peaches in southern areas, but most activity was in northern sections. Apple harvest was underway across the entire Nation. New York grape development was a week early. In Florida, almost daily rains provided good soil moisture putting citrus trees in excellent condition with late bloom almost ended. California fruit producers picked apples, nectarines, citrus, peaches, pears, plums, grapes, and dates.

VEGETABLES: Growers in northern areas harvested the usual mix of summer vegetables and also transplanted cool season cabbage and cauliflower. Cool, wet weather slowed Wisconsin vegetable growth. Michigan growers picked half of the pickle crop, ahead of both 1976 and the average. In southern areas, growers prepared seedbeds and planted crops for fall harvest. Florida growers planted tomatoes, peppers, eggplant, okra, and squash. Texas producers harvested cucumbers, okra, onions, carrots, and cabbage in northern areas and planted crops in the South. California growers picked a wide variety of fresh market vegetables and processing tomatoes.

PASTURES AND LIVESTOCK: Rainfall through most of the eastern part of the Nation improved pastures moving the ratings into the fair to good range. Elsewhere in the West and parts of the South grasslands rated only poor to fair. Stock water reached low levels in most of the West. Producers culled herds closely to stretch forage supplies. In California, dry ranges confronted cattlemen with the dangers of fires and potential erosion.

Temperature and Precipitation Data for the Week Ending Midnight, Aug. 14, 1977

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
ALA. Birmingham . . .	82	+ 2	T	-1.0	La. Baton Rouge . . .	82	0	1.8	+ .7	Youngstown . . .	72	+ 2	.9	+ .1
Mobile . . .	84	+ 2	.3	-1.3	Lake Charles . . .	81	- 2	2.0	+ .9	OKLA. Okla. City . . .	81	- 1	1.3	+ .8
Montgomery . . .	82	+ 1	T	- .7	New Orleans . . .	82	0	1.2	0	Tulsa . . .	84	+ 2	1.2	+ .6
ALASKA. Anchorage . . .	61	+ 4	.7	+ .2	Shreveport . . .	81	- 3	.7	+ .1	OREG. Astoria . . .	65	+ 5	T	- .3
Barrow . . .	66	+ 9	T	- .6	MAINE. Caribou . . .	68	+ 3	1.5	+ .7	Burns . . .	73	+ 6	T	- .1
Fairbanks . . .	66	+ 9	T	- .6	Portland . . .	70	+ 3	1.1	+ .5	Medford . . .	80	+ 9	0	- .1
Juneau . . .	60	+ 5	.9	- .2	MD. Baltimore . . .	81	+ 5	1.8	+ .8	Pendleton . . .	81	+ 8	0	- .1
Kodiak . . .	66	+ 16	.7	- .1	MASS. Boston . . .	75	+ 3	.4	- .4	Portland . . .	78	+ 11	0	- .2
Nome . . .	66	+ 2	1.6	+ 1.0	Chatham . . .	73	- .5	.5	- .1	Salem . . .	76	+ 9	0	- .1
ARIZ. Flagstaff . . .	94	+ 4	.2	- .1	MICH. Alpena . . .	64	- 1	.5	- .1	PA. Allentown . . .	77	+ 4	2.0	+ 1.0
Phoenix . . .	86	+ 2	.2	- .4	Detroit . . .	71	- 1	.7	- .1	Erie . . .	69	+ 1	4.2	+ 3.5
Tucson . . .	76	- 1	.6	+ .2	Flint . . .	68	- 1	.6	- .2	Harrisburg . . .	78	+ 3	.5	- .2
Winslow . . .	95	+ 2	.7	+ .6	Grand Rapids . . .	68	- 3	1.5	+ 1.0	Philadelphia . . .	80	+ 4	3.0	+ 2.0
Yuma . . .	84	+ 2	.4	- .2	Houghton Lake . . .	63	- 3	1.1	+ .6	Pittsburgh . . .	71	0	1.3	+ .6
ARK. Fort Smith . . .	83	+ 2	T	- .6	Lansing . . .	69	- 2	.3	- .3	Scranton . . .	73	+ 2	.3	- .4
Little Rock . . .	84	+ 2	0	0	Marquette . . .	62	- 5	.9	+ .3	R.I. Providence . . .	77	+ 6	.2	- .7
CALIF. Bakersfield . . .	57	0	T	- .1	Muskegon . . .	68	- 2	.9	+ .3	S.C. Charleston . . .	83	+ 3	1.4	- .1
Eureka . . .	80	+ 1	0	0	S. Ste. Marie . . .	57	- 7	.3	- .3	Columbia . . .	80	- 1	2.7	+ 1.4
Fresno . . .	71	- 3	0	0	MINN. Duluth . . .	59	- 7	.1	- .8	Greenville . . .	82	+ 4	.2	- .7
Los Angeles . . .	82	+ 2	0	0	Internat Falls . . .	58	- 7	.1	- .7	S.D. Aberdeen . . .	65	- 7	T	- .5
Red Bluff . . .	72	0	0	0	Minneapolis . . .	66	- 6	.2	- .5	Huron . . .	68	- 6	.2	- .2
San Diego . . .	62	- 1	T	0	Rochester . . .	66	- 4	.3	- .5	Rapid City . . .	68	- 5	.6	0
San Francisco . . .	76	0	0	0	St. Cloud . . .	63	- 7	.2	- .7	Sioux Falls . . .	68	- 5	.6	0
Stockton . . .	68	- 5	T	- .3	MISS. Jackson . . .	83	+ 1	.2	- .6	TENN. Chattanooga . . .	82	+ 3	1.4	+ .7
COLO. Denver . . .	81	+ 4	T	- .2	Meridian . . .	83	+ 2	T	- .9	Knoxville . . .	80	+ 2	1.9	+ 1.1
Grand Junction . . .	73	+ 3	1.3	+ .8	MO. Columbia . . .	77	0	.5	- .2	Memphis . . .	85	+ 4	.9	+ .1
Pueblo . . .	78	+ 4	1.1	+ .2	Kansas City . . .	75	- 4	.2	- .6	Nashville . . .	82	+ 3	2.4	+ 1.7
CONN. Bridgeport . . .	76	+ 5	.5	- .4	St. Louis . . .	77	- 1	2.6	+ 2.0	TEX. Abilene . . .	84	0	1.0	+ .5
Hartford . . .	82	+ 4	1.6	+ .5	Springfield . . .	81	+ 3	.8	+ .2	Amarillo . . .	76	- 3	2.6	+ 1.9
D.C. Washington . . .	80	- 2	.8	- .9	MONT. Billings . . .	67	- 5	T	- .2	Austin . . .	87	+ 2	T	- .4
FLA. Apalachicola . . .	82	+ 1	.8	- .7	Glasgow . . .	59	- 12	T	- .4	Beaumont . . .	84	+ 1	2.1	+ .8
Daytona Beach . . .	80	- 3	3.6	+ 1.9	Great Falls . . .	61	- 8	1.0	+ .8	Brownsville . . .	85	0	T	- .5
Ft. Myers . . .	82	+ 1	1.3	- .5	Havre . . .	57	- 13	.1	- .1	Corpus Christi . . .	86	+ 1	T	- .6
Jacksonville . . .	83	- 2	.7	- .2	Helena . . .	63	- 5	T	- .2	Dallas . . .	88	+ 1	T	- .2
Key West . . .	80	- 2	5.1	+ 3.5	Kalispell . . .	64	0	.5	+ .2	Del Rio . . .	80	- 1	.4	+ .1
Lakeland . . .	82	- 1	2.3	+ .9	Miles City . . .	66	- 8	.4	+ .1	El Paso . . .	87	+ 1	0	- .5
Miami . . .	80	- 2	2.8	+ 1.3	Missoula . . .	72	+ 6	.1	- .1	Fort Worth . . .	83	- 1	1.0	+ .1
Orlando . . .	80	- 1	4.6	+ 3.0	NEBR. Grand Island . . .	75	- 2	1.0	+ .4	Galveston . . .	87	+ 1	0	- .5
Tallahassee . . .	83	+ 1	.9	- .9	Lincoln . . .	71	- 6	1.4	+ .7	Houston . . .	84	0	.7	- .3
Tampa . . .	82	0	1.7	+ .3	Norfolk . . .	69	- 6	.9	+ .3	Lubbock . . .	78	- 1	1.6	+ 1.2
W. Palm Beach . . .	79	+ 1	.2	- .6	N. Platte . . .	66	- 8	.4	- .1	Midland . . .	85	+ 2	T	- .4
GA. Atlanta . . .	81	+ 1	.3	- .7	Omaha . . .	69	- 6	1.7	+ .8	San Angelo . . .	86	+ 1	0	- .3
Augusta . . .	83	+ 2	0	- .8	Valentine . . .	64	- 10	2.3	+ 1.7	San Antonio . . .	85	0	0	- .5
Macon . . .	82	+ 1	1.2	- .3	NEV. Ely . . .	66	- 1	.1	0	San Antonio . . .	85	0	.7	+ .1
Savannah . . .	78	+ 2	2.7	+ .1	Las Vegas . . .	93	+ 5	T	- .1	Victoria . . .	90	+ 4	1.3	+ .9
HAWAII. Hilo . . .	82	+ 1	T	- .2	Reno . . .	71	+ 3	T	- .1	Waco . . .	84	- 3	.2	- .2
Honolulu . . .	82	- .5	---	---	Winnemucca . . .	76	+ 7	T	- .1	Wichita Falls . . .	73	+ 1	T	- .4
Kahului . . .	82	- .5	---	---	N.H. Concord . . .	70	+ 2	1.5	+ .9	UTAH. Blanding . . .	77	+ 1	T	- .2
Lihue . . .	77	+ 3	T	- .1	N.J. Atlantic City . . .	79	+ 5	2.0	+ .8	Salt Lake City . . .	68	- 1	1.5	+ .7
IDAHO. Boise . . .	83	+ 10	0	- .1	Trenton . . .	79	+ 4	1.2	+ .2	VT. Burlington . . .	79	+ 4	3.7	+ 2.8
Lewiston . . .	70	0	0	- .1	N.MEX. Albuquerque . . .	75	- 2	.6	+ .3	VA. Lynchburg . . .	87	+ 9	.3	- 1.1
Pocatello . . .	82	- 2	1.7	+ .9	Roswell . . .	82	+ 3	3.9	+ 3.5	Norfolk . . .	85	+ 8	1.0	- .2
ILL. Cairo . . .	73	- 2	3.9	+ 3.2	N.Y. Albany . . .	70	- 1	1.8	+ 1.2	Richmond . . .	82	+ 7	1.3	+ .3
Chicago . . .	71	- 3	3.6	+ 2.8	Binghamton . . .	70	+ 2	.3	- .5	Roanoke . . .	82	+ 7	1.3	+ .3
Moline . . .	71	- 4	2.2	+ 1.5	Buffalo . . .	70	+ 1	3.1	+ 2.3	WASH. Colville . . .	78	+ 9	0	- .1
Peoria . . .	69	- 4	2.0	+ 1.2	New York . . .	78	+ 2	1.2	+ .1	Omak . . .	65	+ 6	T	- .6
Rockford . . .	72	- 3	1.1	+ .5	Rochester . . .	71	+ 1	2.3	+ 1.6	Quillayute . . .	74	+ 10	0	- .2
Springfield . . .	79	+ 2	3.0	+ 2.3	Syracuse . . .	70	- 1	2.9	+ 2.1	Seattle-Tacoma . . .	70	+ 1	.1	0
IND. Evansville . . .	72	0	3.0	+ 2.3	N.C. Asheville . . .	75	+ 2	2.0	+ .9	Spokane . . .	83	+ 8	0	- .1
Ft. Wayne . . .	76	+ 2	1.5	+ .9	Charlotte . . .	83	+ 5	.9	0	Walla Walla . . .	80	+ 10	0	- .1
Indianapolis . . .	69	- 3	1.9	+ 1.1	Greensboro . . .	82	+ 4	.2	- 1.3	Yakima . . .	71	+ 2	3.4	+ 2.6
South Bend . . .	69	- 6	3.2	+ 2.5	Hatteras . . .	82	+ 5	T	- 1.1	W. Va. Beckley . . .	75	+ 1	2.6	+ 1.7
IOWA. Burlington . . .	72	- 3	1.2	+ .5	Raleigh . . .	84	+ 4	.6	- 1.0	Charleston . . .	78	+ 3	3.2	+ 2.4
Des Moines . . .	68	- 4	1.7	+ .8	Wilmington . . .	80	- 11	.1	- .4	Huntington . . .	75	0	1.6	+ .8
Dubuque . . .	68	- 7	1.4	+ .8	N.DAK. Bismarck . . .	62	- 9	.1	- .6	Parkersburg . . .	66	- 3	1.3	+ .7
Sioux City . . .	74	- 4	.7	0	Fargo . . .	59	- 11	.1	- .3	WIS. Green Bay . . .	68	- 5	.9	+ .3
KANS. Concordia . . .	78	- 1	1.8	+ 1.2	Williston . . .	76	+ 5	1.0	+ .4	La Crosse . . .	65	- 5	.8	+ .1
Dodge City . . .	69	- 7	2.9	+ 2.4	OHIO. Akron-Canton . . .	75	0	2.0	+ 1.4	Madison . . .	68	- 2	1.3	+ .7
Goodland . . .	78	0	.2	- .8	Cincinnati . . .	72	+ 1	1.4	+ .7	Milwaukee . . .	66	- 5	T	- .4
Topeka . . .	79	- 2	2.4	+ 1.7	Cleveland . . .	74	+ 1	1.4	+ .7	WYO. Casper . . .	63	- 6	T	- .1
Wichita . . .	77	+ 1	2.7	+ 1.9	Columbus . . .	75	+ 1	1.4	+ .8	Cheyenne . . .	66	- 5	T	- .1
KY. Lexington . . .	79	+ 2	3.0	+ 2.3	Dayton . . .	71	- 1	2.0	+ 1.3	Lander . . .	62	- 9	.3	+ .1
Louisville . . .	79	+ 2	3.0	+ 2.3	Toledo . . .	71	- 1	2.0	+ 1.3	Sheridan . . .	80	- 1	.5	- 1.1

Based on 1941-70 normals

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State Summaries of Weather and Agriculture

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

ALABAMA: Warm and dry. Temperatures 1 to 3° above normal. Rainfall spotty.

Fieldwork: 5.3 days suitable. Soil moisture short to adequate. Cotton fair; 97% setting bolls, 83% 1976. Corn poor condition; 53% mature, 45% 1976, 36% average. Some harvested. Soybeans fair condition; 52% podding, 43% 1976, 43% average. Peanuts fair to good condition. Pastures and hay fields poor to fair but improved.

ALASKA: Tanana Valley temperatures above normal; precipitation subnormal. Matanuska Valley temperatures near or slightly above normal; precipitation below normal. Kenai Peninsula temperatures near normal; precipitation near normal. Kodiak Island cool and wet.

Topsoil moisture supplies mostly short. Small grains pushed into maturity and second crop hay showing moisture stress. Barley harvest underway. Harvesting small grain mixtures for silage. Potatoes showing good growth. Vegetable harvest active.

ARIZONA: Moist, unstable air produced thunder-showers. Central mountains, southeast over 1.00 in. rain. Temperatures above normal west, elsewhere near normal.

Cotton good progress; rapidly maturing central, west. Early planted sorghum harvest shortly; later plantings all stages development. Corn good condition. Alfalfa hay activity slowing, fifth cutting underway Yuma. Fall vegetable planting well advanced. Melon planting getting underway Yuma. Lemon ring picking getting underway Yuma. Other citrus good progress. Recent rainfall beneficial many areas, lower desert ranges mostly dry. Livestock fair to good higher elevations, poor to fair desert ranges. Supplemental feeding, water hauling required some areas.

ARKANSAS: Highest mean 86°, lowest 80°. Extremes: 103 and 61°. Most precipitation 5.87 in.

Short soil moisture. Fieldwork: 6.4 days suitable. Soybeans mostly good condition; late planted beans suffering from lack of moisture. Cooler weather needed for good pod set. Cotton good; fields maturing rapidly, some harvested. Open bolls 7% of acreage, none last year. Insect activity continued increase, insecticides applied. Rice good, maturing rapidly; first field harvested August 8. Additional fields being drained in preparation for harvest. Corn approaching maturity. Sorghum good condition; harvest began. Apple, grape harvest continued. Peach harvest complete. Watermelon harvest nearing completion. Hay harvest continued. Pastures providing below average amounts feed.

CALIFORNIA: Near normal temperatures. Few thunderstorms at mountain locations but no appreciable moisture.

Cotton full bloom. Isolated abandonment because of water shortage. Small grain harvest nearly complete. Rice 50% headed. Corn nearing maturity. Almond harvest beginning southern San Joaquin Valley. Date bagging continues. Table grape harvest gaining momentum. Thompson seedless table use harvest increasing. Apple, avocado, grapefruit, lemon, nectarine, Valencia oranges, freestone and clingstone peaches, pears, plum harvests continue. Artichokes, broccoli, cauliflower,

strawberries, honeydews, and melons harvest light. Cantaloup increasing. Carrots, celery, cucumbers, and lettuce continue moderate. Sweet corn, bell peppers harvest strong. Processing tomatoes harvest full swing, fresh market tomato continues. Watermelon harvest near peak. Rangeland dry, extreme fire danger. Range may have heavy erosion when rains come. Supplemental feeding, hauling water necessary.

COLORADO: Eastern plains moderate rain; western slope and San Luis Valley dry. Severe weather eastern areas on weekend. Temperatures eastern plains 2 to 3° below normal. Western slope 3 to 5° above normal. Hot temperatures with light rain accentuated drought conditions.

Winter wheat and winter barley harvest complete. Potatoes good, 33% harvested. Corn very good, 76 in. high, 90% silked. Spring barley harvest underway. Dry beans good except southwest fair. Alfalfa good; 67% 2d cutting harvested, 3d cutting underway. Peach harvest underway. Range and pasture poor west, fair to good east. Livestock good.

FLORIDA: Partly cloudy, warm, humid with scattered thundershowers. Temperatures averaged near normal. Rainfall mostly moderate, ranging from less than 0.25 in. to over 4.00 in.

Soil moisture short north, some west, mostly adequate other areas. Corn harvest well advanced. Tobacco harvest active. Peanuts making good growth, worms a problem. Harvest green peanuts active. Soybeans good progress, worm control measures active. Haymaking underway. Sugarcane making good growth. Recent rainfall improving pastures. Northern Peninsula, eastern Panhandle grazing lands poor to fair. Pastures mostly good elsewhere. Worm, insect infestation becoming more prevalent. Cattle condition mostly good, except for scattered dry areas. Citrus tree condition excellent, moisture best of year to date, rain most areas daily. Late bloom almost over. All types of fruit growth very good. Fall vegetable plantings increasing. Tomato transplantings gaining momentum. Direct seeding tomatoes active south. Early pepper seeding southwest, southeast. Eggplant transplanting increasing. Small acreage squash, okra planted Dade County. Land preparation for other fall crops very active.

GEORGIA: Temperature averages ranged from 75 to 83°. Extremes: 100 and 51°. Scattered showers each day with amounts varying widely; no precipitation to 5.55 in.

Crop conditions and soil moisture declined. Soil moisture extremely varied; very short to adequate, mostly short. Fieldwork: 5 days suitable. Heavy infestation of insects on increase with insecticides in short supply. Corn condition poor; cutting for silage or hay. Tobacco condition fair; 66% harvested, 96% last year, average 92%. Cotton poor to mostly fair; 99% setting bolls, last year 100%; this year 16% reported open, while 1% open last year. Soybean condition mostly fair. Peanuts rated mostly fair; 100% blooming, 100% pegging, last year 99% blooming, 99% pegging. Pastures poor to fair. Cattle mostly fair. Hogs fair to good. Peaches mostly fair; 99% harvested, same as last year, average 98%. Apples fair to good; 26% harvested, last

year 27%. Watermelons poor to fair; 95% harvested, same as last year.

HAWAII: Warm humid weather continues. Heavier showers second half of week Maui and Hawaii. Rains light and scattered other Islands.

Vegetable supplies snap beans, mustard, cabbage short; others adequate. Banana supplies moderate to heavy. Papaya supplies light to moderate. Pineapple harvesting peak over. Sugar harvesting steady. Pasture fair to good. Showers on Maui, Kauai and Hawaii beneficial.

IDAHO: Thundershowers left light amounts, mostly below normal. Temperatures above normal north to below normal south.

Harvest of small grains continues under favorable weather. Winter wheat 90% ripe, 55% harvested against 70% ripe, 25% harvested 1976. Spring wheat 65% ripe, 25% harvested compared with 45% and 20% 1976. Barley 70% ripe, 35% harvested; 50% ripe, 20% harvested 1976. Potatoes 95% closing middles; 20% turning, 35% turning last year.

ILLINOIS: Temperatures well below normal north and central, near normal elsewhere. Precipitation widespread, nearly 8.00 in. some areas, some flooding.

Corn good; 92% in dough, 72% 1976, 64% average; 54% dented, 27% 1976, 25% average. Soybeans good; 90% setting pods, 82% 1976, 71% average. 1978 wheat 60% plowed, 50% 1977, 45% average. Third crop alfalfa hay 43% cut, 30% 1976, 22% average; mostly good. Pastures mostly fair to good. Soil moisture adequate. Fieldwork: 1.8 days suitable.

INDIANA: Abundant rainfall averaged from 1.80 in. east central, to 2.60 in. southwest and north central. Cloudy, temperatures near normal, and humidity moderately high.

Fieldwork: 1 day suitable. Topsoil moisture mostly adequate to surplus. Subsoil moisture mostly adequate. Pastures improved, fair to good. Corn 85% in dough, 1976 60%; 30% dented. Corn condition fair to mostly good. Soybeans fair to mostly good; 75% setting pods, 1976 80%. Wheat land 15% plowed, 1976 25%, average 35%. Tomatoes 40% picked first time. Tobacco cutting started.

IOWA: Cool with heavy early week rainfalls south to moderate or light rain north.

Rains improved soil moisture; topsoil adequate, subsoil short. Fieldwork: 3.8 days suitable. Corn: 48% in dough stage, 34% dent; last year, 50% dough, 18% dent; average, 53% dough, 7% dent. Soybeans: 82% setting pods, 7% leaves turning; last year, 96% setting pods, 7% leaves turning; average, 62% setting pods, 2% leaves turning. 3d cutting alfalfa: 43% complete. Rain improved crop conditions. Corn good to fair. Soybeans mostly good to fair. Alfalfa and clover hays fair to good. Pastures greening, poor to good condition. Livestock in good condition with supplemental feeding in areas of short pasture.

KANSAS: Showers averaged 0.67 in. west and north, to 2.50 in. southeast. Strong midweek cooling; temperatures averaged 2° below normal.

Moisture conditions mixed; topsoil generally adequate, subsoil short to adequate. Crops doing well under favorable temperatures and rainfall. Corn 70% dough stage, last year 45%, average 65%. Corn dent stage 35%, last year 15%, average 25%. Corn fully mature 15%, last year none, average 5%. Sorghums growing rapidly, 60% headed, last year and average 50%. Sorghum turning color 15%, last year none, average 5%. Soybeans setting pods 60%, last year 40%, average 60%. Alfalfa hay cutting

80% third cut, last year 70%, average 55%. Alfalfa fourth cutting 10%, last year 5%. Pastures staying green. Livestock doing well. Principal farm activities: Working summer fallow ground, irrigating, haying, and fertilizing.

KENTUCKY: Above normal temperatures and rainfall. Highs generally in 80's and lows in 60's. Rainfall averaged from 2.50 to about 5.00 in.

Rains kept farmers from fields. Fieldwork: 3.5 days suitable. Activities: Topping and cutting tobacco, cutting hay, cropping corn silage, mowing and spraying weeds. Soil moisture adequate to surplus. Almost 80% corn in dough or dent stage. Silage harvest underway, also a little high moisture corn picked. Some stalk diseases and corn borer damage showing. About 66% soybeans podding versus 51% last year, most advanced since 1965. Burley tobacco 75% topped, 7% cut; darks nearly 80% topped and cutting 15% finished, approximately week ahead last year. About 70% third cutting alfalfa complete.

LOUISIANA: Temperatures near normal. Extremes: 67 and 97°. Daily showers south.

Soil moisture short to adequate. Fieldwork: 4.8 days suitable. Main activities: Harvesting rice, applying pesticides, and haying. Rice 56% ripe, 39% harvested; 33% last year, average 25%. Cotton fair to good, bolls open 3%; first bale harvested. Corn fair: 79% mature, 9% harvested. Sorghum fair to good; 95% headed, 35% turning color. Soybeans fair to good; 89% blooming, 61% setting pods. Sugarcane good; borers light. Sweetpotatoes fair to good; 11% harvested. Hay and pasture fair. Cattle fair to good.

MARYLAND & DEWARE: Temperatures above normal. Highs in 90's, lows in 70's. Precipitation widespread.

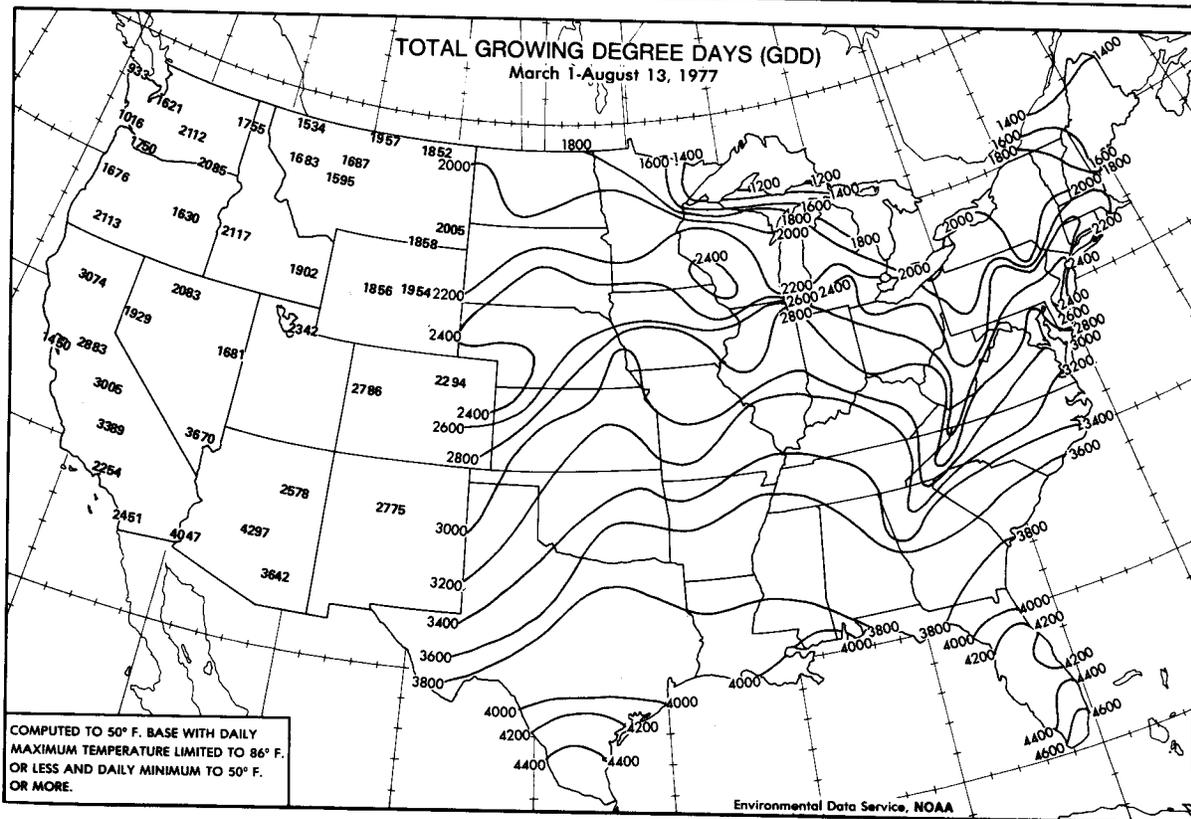
Corn 60% dough stage, 60% 1976, 55% average; 30% dent stage, 25% 1976, 21% average. Soybeans 60% bloomed, 70% 1976, 63% average; 30% podded, 35% 1976, 30% average. Third cutting alfalfa 75%; second cutting clover and clover mixtures 80%. Tobacco 20% harvested, 15% 1976, 16% average. Apple and peach harvest active.

MICHIGAN: Temperatures mostly below normal ranging from normal to 4° below normal Lower, to 5° below normal Upper. Needed precipitation general over Lower Peninsula.

Topsoil moisture improved after recent rains, subsoil moisture low. Pasture feed supplies improving, but below average. Fieldwork: 3 days suitable. Plowing for fall seedings. 2d cut hay yield low, prospects for 3d cut better since rain. Corn 55% dough, 37% 1976, 26% normal; 10% dented. Oat harvest 85%, 76% 1976, 53% normal. Dry beans 65% pods set, 44% 1976. Soybeans 55% pods set, 51% 1976, 56% normal. Pickle harvest 50%, 40% 1976, 43% normal. Harvest of other fruits and vegetables continues.

MINNESOTA: Temperatures 7 to 9° below normal northwest to 4 to 6° below normal southeast. Extremes: 91 and 36°. Precipitation 0.35 to 0.75 in. below normal except normal or a little above extreme south. Totals ranged from near 1.00 in. extreme southeast and extreme south central to less than 0.10 in. west central and northeast.

Topsoil moisture short all but northeast, southeast. Late row crops not filling as completely as expected because of moisture shortage. Most soybeans green; few turning yellow; some still setting pods. Small grain harvest nearing completion in all but northern area. Some insect damage to sunflowers. Corn 39% denting, 1976 6%, normal 1%;



88% in dough, 1976 31%, normal 20%. Soybeans 93% setting pods, 1976 79%, normal 79%. Combined: Spring wheat 75%, 1976 64%, normal 35%; oats 91%, 1976 85%, normal 60%; barley 94%, 1976 79%, normal 58%; winter wheat 98%, 1976 99%, normal 86%; rye 97%, 1976 99%, normal 86%; flax 23%, 1976 33%, normal 18%.

MISSISSIPPI: Temperatures 2 to 3° above normal north central and upper Delta, near normal elsewhere. Extremes: 99 and 65°.

Soil moisture short to adequate north, adequate elsewhere. Fieldwork: 5.5 days suitable. Soybeans 90% blooming, 89% 1976, 65% average; 53% podding, 43% 1976. Cotton 97% setting bolls, 82% 1976, 92% average; 5% open bolls. Rice 60% headed, 62% 1976. Corn 97% dough stage, 93% 1976; 80% dented, 62% 1976; 31% mature. Sorghums 73% headed, 80% 1976. Hay crops 60% harvested, 69% 1976, 62% average. Peaches 95% harvested, 97% 1976, 92% average. Sweetpotatoes 8% harvested, 14% average. Watermelons 83% harvested, 88% 1976, 76% average. Corn silage 57% harvested, 34% 1976. Peanuts 12% harvested. Soybeans and cotton good to fair condition. Rice good condition. Corn fair condition. Pastures fair to good condition.

MISSOURI: Temperatures 2° subnormal north, normal central and southwest, 5° above normal Bootheel. Temperatures exceed 100° several locations. Precipitation general ranging from 0.94 in. west central plains to 3.26 in. northwest prairie. Heavy thunderstorms north and east brought 5.00 in. or more.

Fieldwork: 3.2 days suitable. Soil moisture short to adequate. Corn condition fair to good; 75% dent stage or beyond; 15% mature, 2 weeks ahead of last year. Soybean condition fair to good; 84% blooming or beyond, last year 76%, normal 76%; 63% setting pods, 48% last year, 51% normal. Grain sorghum 90% headed, 73% last year,

74% normal. Cotton 2% opening bolls, 2 weeks ahead of normal. Third cutting alfalfa 58% harvested, last year 53%, normal 47%. Pasture fair.

MONTANA: Temperatures east of Continental Divide well below normal. West near or above normal. Precipitation north central, central and south central; mostly dry elsewhere. Cold Canadian air pushed southward east of Rockies beginning unseasonably cold weather.

Soils dry except weekend rains helped northern areas. Harvest progress good. About 75% winter wheat combined, 45% last year and normal. Spring wheat 35% harvested, 40% last year, 20% normal. Barley 35% harvested, 20% last year and normal. Oats combining 45% complete, 30% last year, normal 25%. Second cutting alfalfa 40% done, last year 35%, normal 30%. Livestock movement due grass shortages heavy north central, northeast and southeast. Cow and calf marketing above average. Ewe and lamb marketings about normal.

NEBRASKA: Temperatures 5 to 10° below normal. Rainfall averaged 0.10 in. west to 2.00 in. southeast.

Corn 40% denting, 10% last year, less than 10% normal. Sorghum turning 45% crop, year ago 10%, normal below 10%. Soybeans nearly 90% podding, 100% year ago, 90% normal. Alfalfa hay third cutting 55% completed, last year 30%. Topsoil moisture adequate. Subsoil moisture adequate to short.

NEVADA: Warm, dry early; widely scattered thunderstorms remainder. Temperatures averaged above normal. Extremes: 109 to 30°.

Potatoes blossom stage or beyond. Haying, small grain harvest delayed by rains some localities. Ranges still mostly dry.

NEW ENGLAND: Temperatures above normal. Scattered showers and thunderstorms 1.00 to over 2.00 in.

Maine potatoes making good progress. Growers sprayed for insects and disease control. Vegetable crops looking good. Peaches, early variety apples, and blueberries harvested. Field corn growth good. Harvesting second crop hay hindered by frequent showers.

NEW JERSEY: Wet. Temperatures 2 to 5° above normal. Extremes: 56 and 96°. Rainfall averaged 1.31 in. north, 1.93 in. central and 1.51 in. south. Soil moisture in percent of field capacity 78% north, 93% central and 70% south. Soil temperature averaged 74° north, 79° central and south.

Marketing of most summer vegetables continue with mostly moderate volume available. Harvest of peppers general, processing tomato harvest continues to increase. Peaches available in moderate to heavy volume. Some areas especially in central and south need additional rain for development of field corn and soybeans.

NEW MEXICO: Rains with totals to near 4.00 in.

Cotton, irrigated grain sorghum, corn good. Dryland grain sorghum fair, 50% heading. Cotton 90% setting bolls. Corn 90% tasseling. Irrigated grain sorghum 80% heading. Alfalfa third cutting underway north, fourth cutting underway south. Ranges poor to fair. Livestock fair to good.

NEW YORK: Warm, wet. Rainfall totaled 0.25 to 3.50 in. Lower hudson valley and St. Lawrence area dry. Temperatures above normal. Extremes: 38 and 93°.

Rains slowed harvesting but spurred crop growth. Corn prospects improved. Oat combining 45% done. Second cutting alfalfa 75% complete. Dry bean condition good. Long Island fall cabbage and cauliflower transplanting about done. Early variety apples and peaches being harvested. Some grape varieties showing cracks. Grape harvest expected week earlier than normal.

NORTH CAROLINA: Temperatures 4 to 7° above normal. Widely scattered showers east of mountains. Good rainfall in mountains.

Fieldwork: 5.9 days suitable. Soil moisture short. Conditions: Pastures mostly poor; corn and hay poor to fair; tobacco, soybeans, cotton, Irish and sweetpotatoes fair; peanuts and apples fair to good. Harvested: Flue-cured tobacco 45%, 1976 60%, average 55%; hay 76%, 1976 72%; apples and sweetpotatoes just underway.

NORTH DAKOTA: Cool northern air caused scattered light frosts in low-lying areas. Extremes: 34 and 92°. Scattered showers; accumulations average 0.10 in. west to 1.00 in. southeast.

Harvest slowed by damp weather with some quality loss in swathed small grain. Hard red spring wheat combining 40% complete, durum 20%; oats 60%, barley 65%. Row crop deterioration slowed by cool damp weather but need rain for good yields. Pasture growth reduced by dry conditions.

OHIO: Temperatures near normal. Extremes: 92 and 50°. Precipitation widespread; 3.69 to 0.94 in.

Fieldwork: 2.7 days suitable. Main activities: Vegetable harvesting, hay baling, topping tobacco, plowing for winter wheat (25%). Crop development: 65% corn in dough stage, 55% 1976, 45% average. Soybeans 90% setting or has set pods, 1976 95%, average 75%. Potatoes 5% harvested, 1976 15%, average 25%. Clo-tim 80% of second crop, 1976 85%.

average 70%. Corn and soybeans mostly good. Pastures fair to mostly good. Soil moisture adequate.

OKLAHOMA: Temperatures 2° above normal east, 3° above north and northwest, near normal elsewhere. Precipitation very spotty. North central averaged 2.75 in.; southwest least with 0.28 in.

Seasonally hot weather, with spotted rainfall, caused some drop in crop condition. Peanuts and cotton in south central areas showed stress. Topsoil moisture short. Wheat ground being worked and fertilizers applied. Planting conditions expected to be mostly good. Corn now 67% dough or later, ahead 65% year ago, behind 71% average. Sorghum now 80% headed, average for date, ahead 71% year ago. Cotton in mostly good condition, with bulk crop squaring, nearly 80% setting bolls, well ahead 55% average, and 70% year ago. Peanuts late with only 45% acres spiking, compared 60% year ago, 55% average; condition only fair to good. Combining alfalfa seed started. Crop needs rain for late cuttings. Insect damage on pecans increasing. Pastures and ranges need rain to provide fall grazing.

OREGON: Hottest weather during summer; temperatures ranged from 4 to 10° above normal. Interior valleys of west 10 to 12° above normal. Rainfall quite varied; thundershowers dropped 0.25 in. or less east.

Grain harvest continues, nearly complete in several areas. Early planting of summer fallow not possible because of drought. Grass seed harvest continues; red clover seed harvest to start soon. Gravenstein apples and Red Haven peach harvest in full swing. Berry and bean harvests continue. Pear harvest about to begin. Early potato harvest underway. Livestock and range conditions fair to good in west and very poor to fair in east. Water situation continues critical and worsening in east and south. Fall pasture outlook extremely poor.

PENNSYLVANIA: Very humid and warm with showers and thunderstorms. Temperatures 2 to 4° above normal all except extreme west where several degrees cooler. Extremes: 92 and 45°. Rain 1.00 to 2.00 in.

Fieldwork: 3 days suitable. Soil moisture adequate. Activities: Haymaking, potato spraying, wheat and oats combining, harvesting of potatoes, tomatoes, sweet corn, peaches. Oats 83% harvested, last year 86%. Potatoes 14% harvested, last year 12%. Corn for grain 9% pre-silked, 55% silked, 35% dough stage, some denting. Fall plowing 11% complete, last year 13%. Alfalfa hay second cut 88%, last year 80%; third cut 33%, last year 32%. Feed from pastures average to above average.

PUERTO RICO: Island average rainfall 1.30 in. or 0.32 in. below normal. Temperatures averaged about 81° on coasts and 75° interior. Extremes: 96 and 59°.

Island restoring fairly well from drought effects with water supplies increasing slowly as rains continue; except south coastal areas where agricultural drought continues despite recent light rains. Additional moderate rains needed for complete recuperation. All crops recuperating well except south coast. Farmers planting and fertilizing.

SOUTH CAROLINA: Temperatures near normal. Extremes: 64 and 97°. General rainfall east and central. Widely scattered showers west.

Soil moisture very short to adequate. High insect infestation; farmers spraying frequently

to control. Tobacco condition fair; producers harvesting, curing, marketing crop. Insects active some areas. Corn condition poor; farmers cutting crop for grain, silage. Cotton condition poor to fair; bollworm, armyworms active but farmers spraying frequently. Soybean condition fair; armyworms, corn earworms active. Peach harvest about over; some late varieties harvested. Watermelon harvest 97% complete. Farmers planting fall snap beans and cucumbers.

SOUTH DAKOTA: Temperatures below normal. Extremes: 35 and 98°. Scattered rains, heaviest in south central and southeast, up to 3.25 in.

Topsoil moisture short. Row crops vary poor to excellent, depending on where and when rains have fallen. Developing at near record pace. Small grain harvest virtually complete. Spring wheat harvested 94%, 1976 98%, normal 85%. Flax harvested 41%, 1976 66%, normal 32%. Sorghum headed 91%, 1976 54%, normal 64%. Sorghum turning color 28%, 1976 0%, normal 0%. Soybeans podded 84%, 1976 91%, normal 80%. Corn in dough stage 73%, 1976 17%, normal 30%. Corn denting 21%, 1976 12%, normal 20%. Pastures mostly fair, some poor due to lack of moisture and overgrazing. Stock water supplies adequate.

TENNESSEE: Scattered thundershowers 12th and weekend. Temperatures slightly above normal. Rainfall from 0.84 to 2.91 in.

Most crops good; fields dry and need rain. Soil moisture short. Cattle condition fair. Fieldwork: 5.1 days suitable. Soybeans blooming 95% 1977, 77% 1976, 78% normal. Soybeans setting pods 72% 1977, 36% 1976, 36% normal. Cotton setting bolls 98% 1977, 81% 1976, 85% normal. Corn in dough 87% 1977, 74% 1976, 74% normal. Corn dented 60% 1977, 35% 1976, 39% normal. Corn mature 12% 1977, 3% 1976, 6% normal. Burley tobacco harvested 25% 1977, 24% 1976, 10% normal. Fall plowing complete 17% 1977, 16% 1976, 22% normal.

TEXAS: Cold front moved through northern half late, followed by rain. Moist southerly flow elsewhere with scattered thundershowers southeast. Temperatures slightly below normal Panhandle; elsewhere, normal or above. Precipitation concentrated across north, east, coast.

Scattered rains improve crop prospects parts of Panhandle. Cotton harvest full swing from Lower Valley to southern Blacklands. Cotton on plains, rapid development. Irrigated cotton good condition; dryland shedding fruit in areas without recent rain. Insect activity light. Sorghum harvest good progress. Only few fields remain for harvest from southern Blacklands southward. Dryland sorghum on plains stressed where no rain received; responding where received. Corn High Plains good progress; silage harvest beginning. Harvest for grain full swing from southern Low Plains southward; slowed by showers, Upper Coast. Rice harvest good progress despite showers along Upper Coast. Peanut fields, especially dryland, need rain. Harvest of early crop continuing south, south central. Early sunflowers on High Plains maturing rapidly; late planted blooming. Soybeans in High Plains benefited by rains. Crop looks good other areas, but many fields need rain. Wheat planting begun few fields on High Plains. Land preparation active. Sorghum harvested 54% 1977, 42% 1976, 45% average. Rice harvested 74% 1977, 78% 1976, 56% average. Corn 10% 1977, 16% 1976, 29% average. Cotton 4% 1977, 3% 1976, 4% average. Peanuts 2% 1977, 7% 1976, 4% average. Planting vegetables continues. Melon harvest nearing completion. Dry weather stressed vege-

tables. Harvest cucumbers, okra, onions, potatoes, carrots, cabbage. Pecan trees shed nutlets, dry weather.

Grazing condition poor to adequate; grasses mostly dry, cured. Ranges on plains that received rain have some new growth. Stock water low many areas. Livestock generally fair to good condition; supplemental feeding continuing many areas.

UTAH: Widely scattered showers and thunderstorms; amounts generally light but locally moderate. Temperatures continued to range from near normal to 7° above.

Soil moisture deficit most lower elevation dryland fields and ranges severe. Some moisture to support plant development available in upper 6 in. on higher elevation ranges. Soil moisture on most nonirrigated crop and rangelands very short. Range feed on higher ranges fair. Stock water supplies short many areas. Cattle and sheep generally good condition. Harvest advanced rapidly with second crop alfalfa nearly 90% done, other hay 95%, winter wheat 80% to 85%, spring wheat and oats 65%, barley 72%. Early peach harvest started.

VIRGINIA: Rainfall averaged 0.60 in. Temperatures 8° above normal. Extremes: 103 and 57°.

Topsoil moisture adequate. Pasture area livestock watering supplies short. Irrigation water supply mostly short. Corn poor; silage and green chop harvests active. Grain harvest began in east. Soybeans fair; blooms and pods dropping in dry areas. Peanuts mostly good but need rain; crop about 1 week ahead of 1976. Flue 16% harvested 19% 1976, 22% normal. Fire harvest 9% done, 12% 1976, 6% normal. Burley 4% harvested. Sun-cured 10% done, 1 week earlier than normal. Fieldwork: 5.6 days suitable.

WASHINGTON: West: Temperatures 5 to 9° above normal. No precipitation.

Green pea harvest 70% complete. Pears, Newtown apples and all other non-irrigated crops show drought stress. Range and pasture very dry, fire danger extreme.

East: Temperatures averaged 7° above normal. Precipitation near normal central basin, below normal elsewhere.

Hot weather causing sunburn on apples. Pear, peach harvest continues. Green beans, sweet corn harvested. Norgolds still being dug. Russets coming on. Mint harvest continues. Wheat and barley 60 to 100% harvested. Fall planting prospects bleak, soil moisture critically low. Range and pasture feed conditions worsen.

WEST VIRGINIA: Temperatures above normal; high 96°. Rainfall above normal except below in north-east.

Fieldwork: 3.4 days suitable. Soil moisture mostly adequate. 2d haying 52%, 44% 1976, 50% average. Small grain harvest: Oats 87%, 72% 1976, 77% average. Corn development 16% pre silked, 58% silked, 26% dough. Corn condition good to fair. Potatoes 31% dug, 21% 1976, 25% average. Pastures mostly good except northeast.

WISCONSIN: Temperatures 6° below normal. High 70's and 80's except on cloudy days when 60's and 70's. Rainfall mostly on 9th and 13th; totals varied, ranging up to 0.50 in. north and up to 2.00 in. other areas.

Oats 75% harvested, 1976 70%, normal 45%. Damp weather and weed growth slowed combining. Some oats becoming overripe. Second crop hay 90% harvested, 1976 75%, normal 50%. Rainy weather spoiled second crop. Growth good on third crop and harvest started. Hay storage space filling up.

Pasture conditions good. Corn 65% in dough, 1976 30%, normal 15%. Early corn denting many fields, ears hanging and husks drying. Silo filling to begin soon. Soybean pods filling well, foliage growth tall. Tobacco harvest underway. Cool, wet weather slowed vegetable crop maturity and harvest. Soil moisture adequate.

WYOMING: Temperatures and precipitation mostly below normal.

Topsoil moisture short to adequate. Subsoil moisture short. Small grain harvest progressing normally. Percent harvested: Winter wheat 91%; barley 47%, oats 29%. Spring wheat ahead of normal; 56% harvested. Second cutting alfalfa 51% harvested; other hay 76% harvested. Row crop development: Corn tasseled 91%, silked 75%; potatoes in bloom 90%; dry beans setting pods 84%. Dry bean windrowing to begin mid-August. Livestock water supplies adequate.

World Weather and Crop Update

EUROPE. Spain, France, and northern Italy received well above normal moisture during July. In Spain, significant amounts were limited to the northern half. Generally soil moisture conditions were adequate to more than adequate across the country with the exception of Andalusia and Estremadura, where soil moisture was very short. Parts of France were extremely wet, with over six inches falling in south central areas. In contrast to northern Italy, southern Italy is suffering from severe drought which was a common feature along the Mediterranean. England was also very dry for the third August in a row. Conditions across Scandinavia were mixed; July moisture was well below normal in Norway and western portions of Sweden, but above normal in the eastern two-thirds of Sweden. Rainfall hampered the July harvest of small grains in the Netherlands; excessive rains have been a problem in parts of Germany and Poland.

USSR. Moisture was well above normal over most of the USSR west of the Volga River, impeding the grain harvest in some areas. The grain harvest, however, proceeded at an above normal pace and by August 8, threshing had been completed on 50 million hectares or 40 percent of the total grain area. In the principal spring wheat areas, precipitation was above normal over most of northern Kazakhstan, but below normal in western Kazakhstan, western Siberia, and the southern Urals. Harvest of spring wheat was well underway. Thunderstorm activity was fairly general throughout European USSR, and a strong frontal system dropped moderate, locally heavy, amounts of moisture over the spring wheat areas.

ASIA. Rainfall was generally above normal in the People's Republic of China for the month with heaviest amounts in the northern and southern areas. Localized flooding and waterlogging occurred from extremely heavy downpours. In India, July moisture was well above normal in the western, north central, and northeast sections of the country. Bangladesh also received above normal moisture. The central and southeastern states of India were generally below normal with the greatest departures in the State of Coastal Andhra Pradesh. Monsoon activity declined with only scattered showers and thundershowers being the primary source of moisture. Australia was very dry in July only about 25 percent of normal moisture or less in many areas.

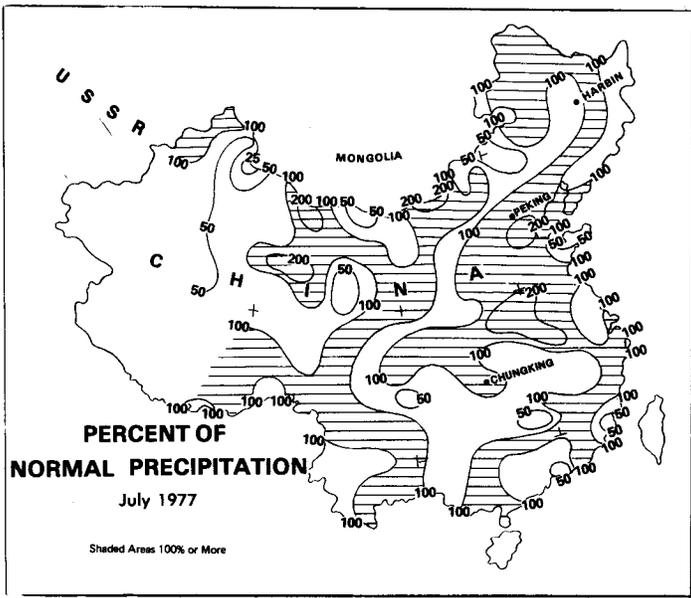
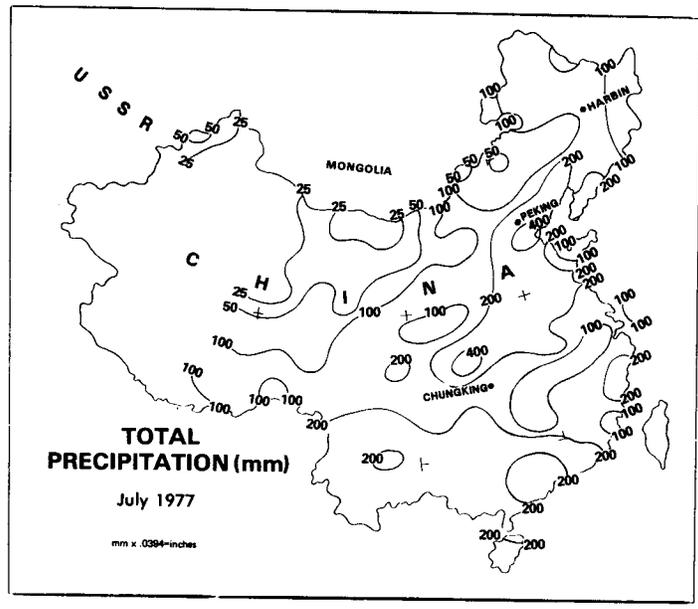
A strong frontal system did move onshore about the 8th and swept across the southern part of the country, dropping showers in the southeast as well. Heavy rains fell across New Zealand for two-to-four days early last week. The Philippines were well above normal for the month of July when most areas received at least 12 inches.

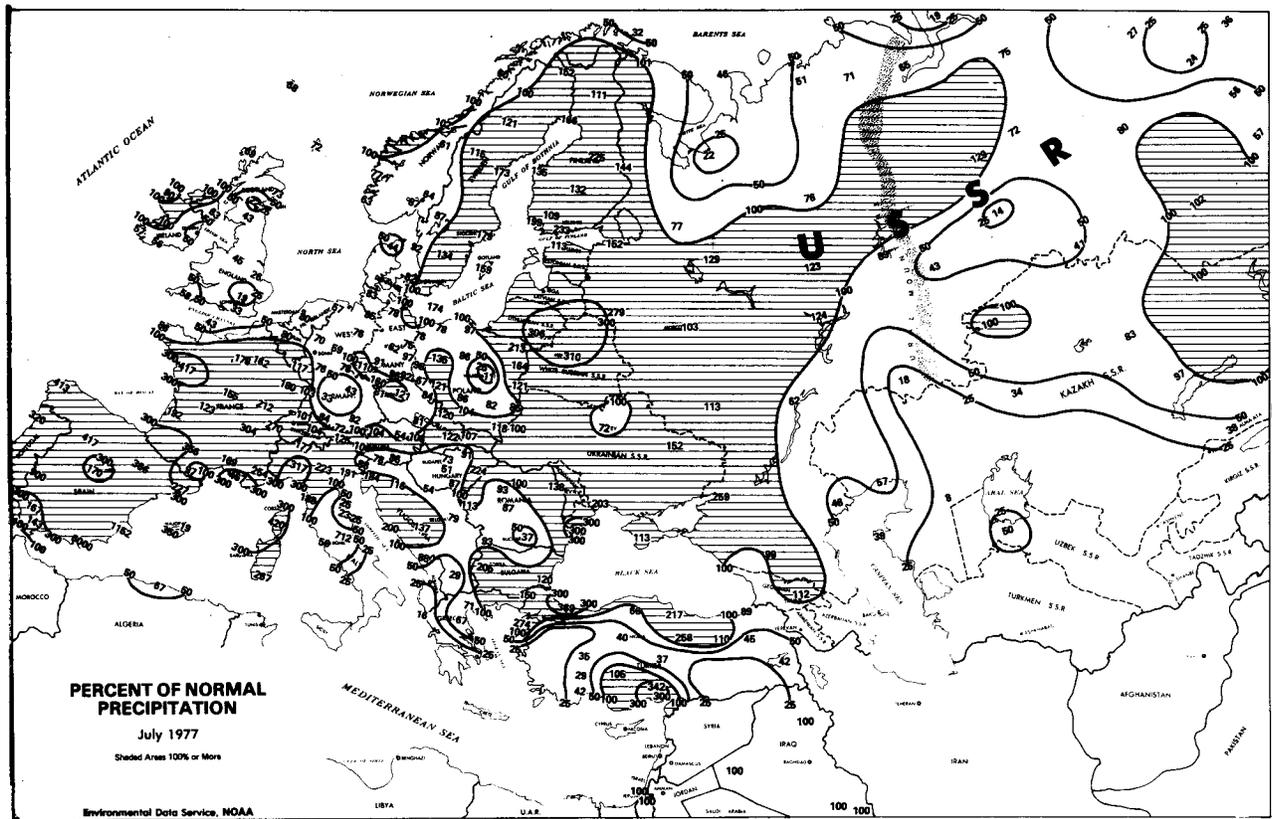
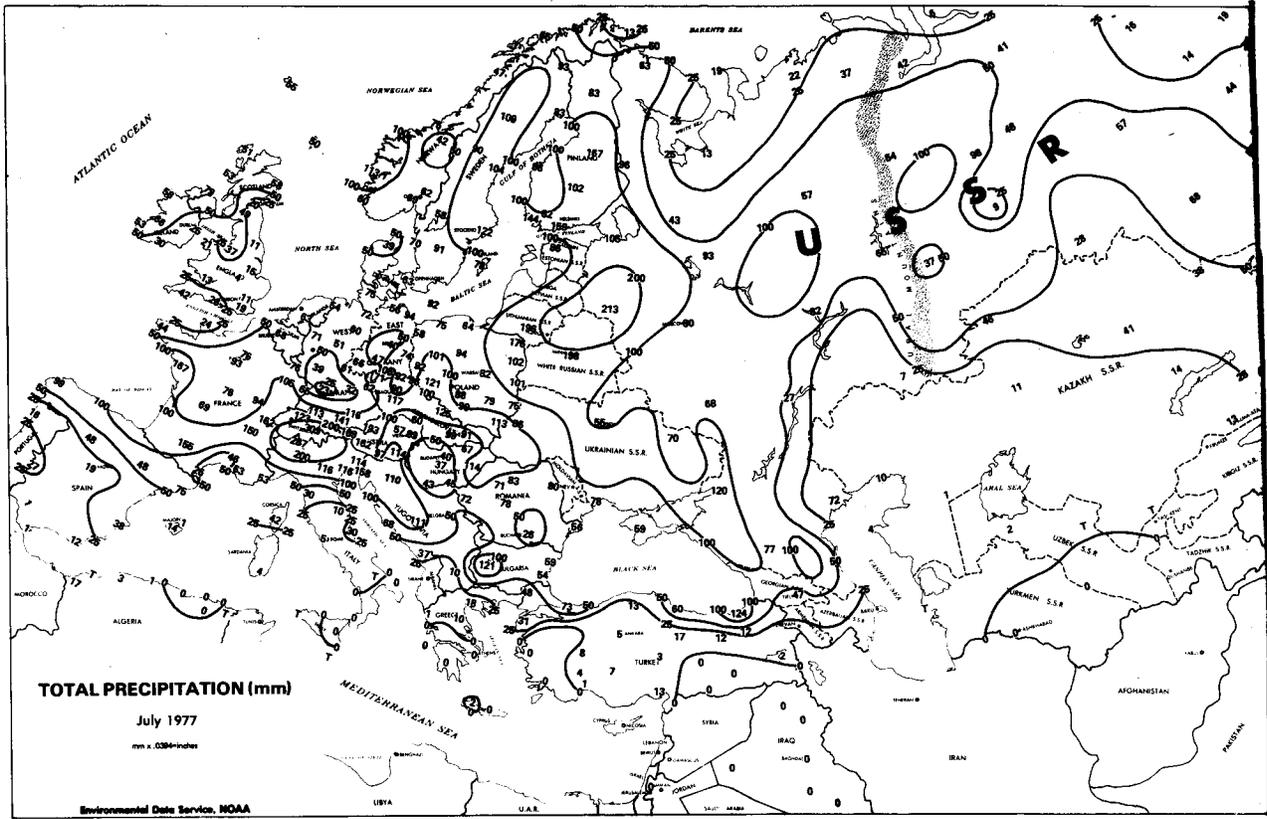
AFRICA. Although data were limited, moisture was well above normal during July in the northern Sahel regions, but fell well below normal in southern areas. Ghana, Togo, Dahomey, and Upper Volta appear to be the hardest hit. In South Africa, only the coast had near normal moisture. Heavy thunderstorms appeared to develop almost daily over Niger, Chad, Cameroon, and the Central African Republic.

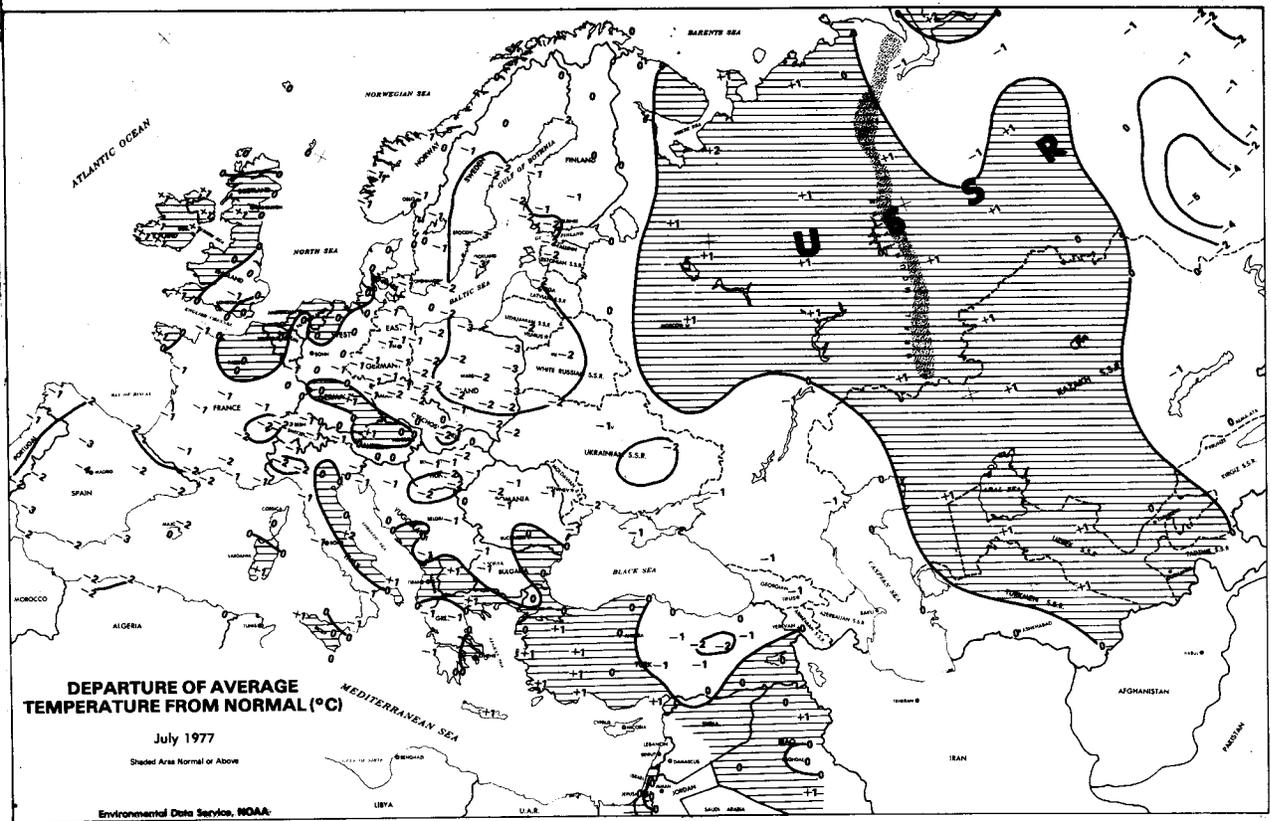
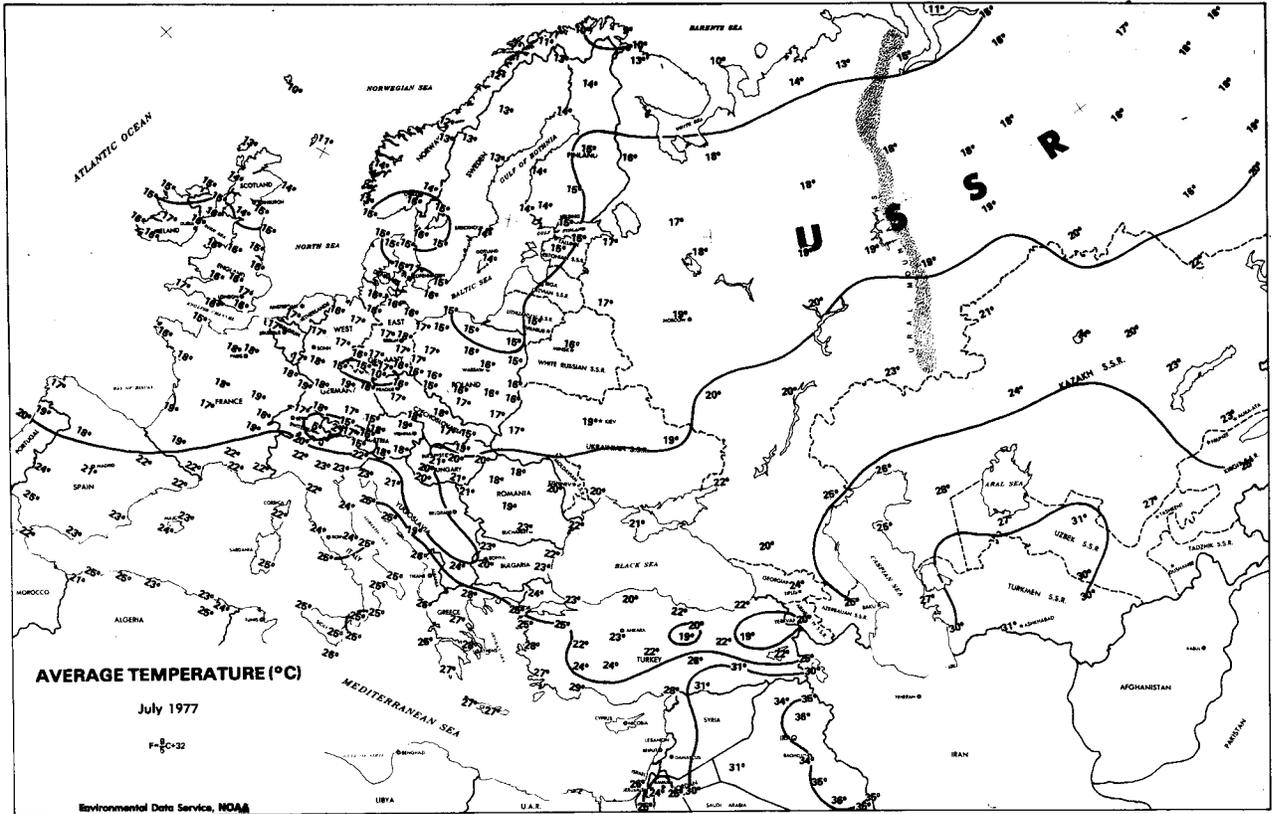
SOUTH AMERICA. July rainfall was highly variable across the continent, but was dry overall. Brazil was well below normal except for southern Sao Paulo and the northeast coast. Uruguay and northern Argentina were near normal, but the grain belt of Argentina was well below normal. Temperatures were well above normal; parts of south central Brazil were 4 to 5°C. above normal. Rainfall appeared to have picked up, particularly in some of the important winter grain areas of Argentina. There were showers across San Paulo province. Considerable activity also was noted along the west coast of Chile.

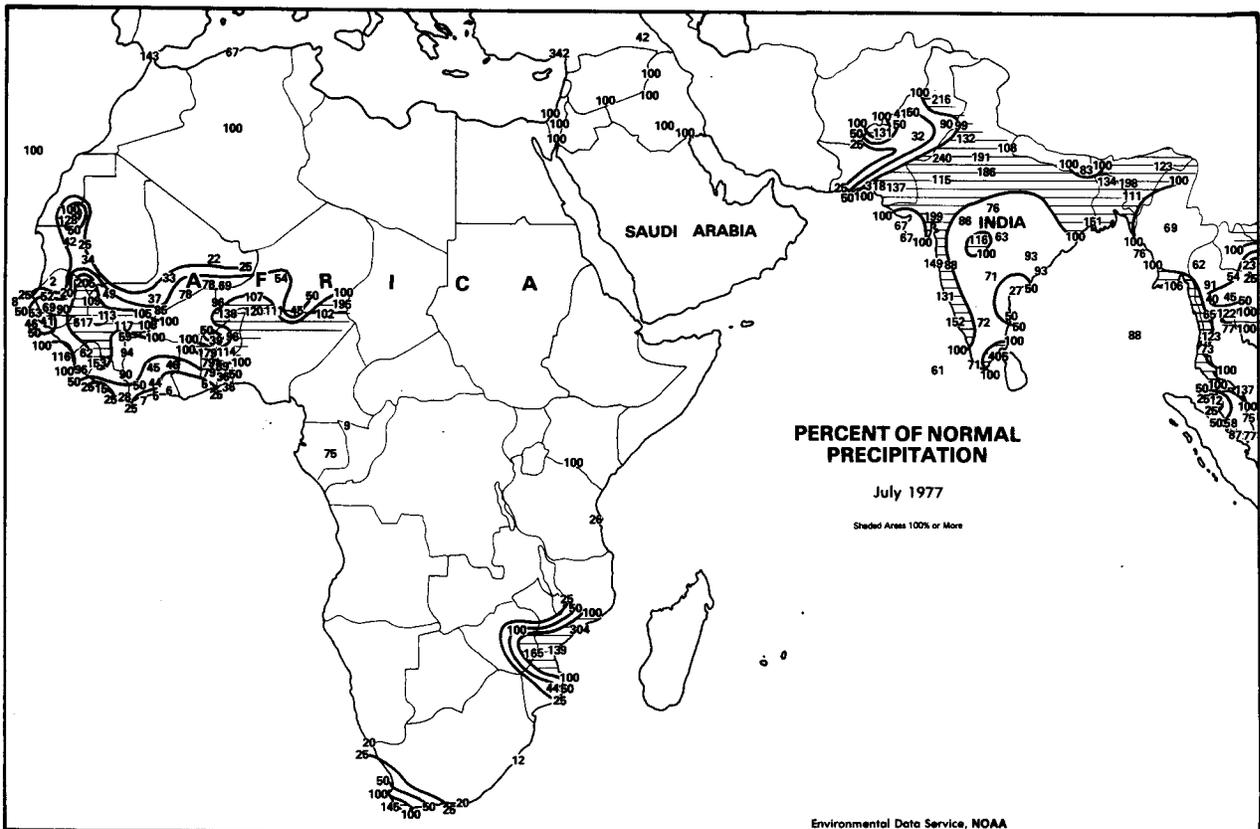
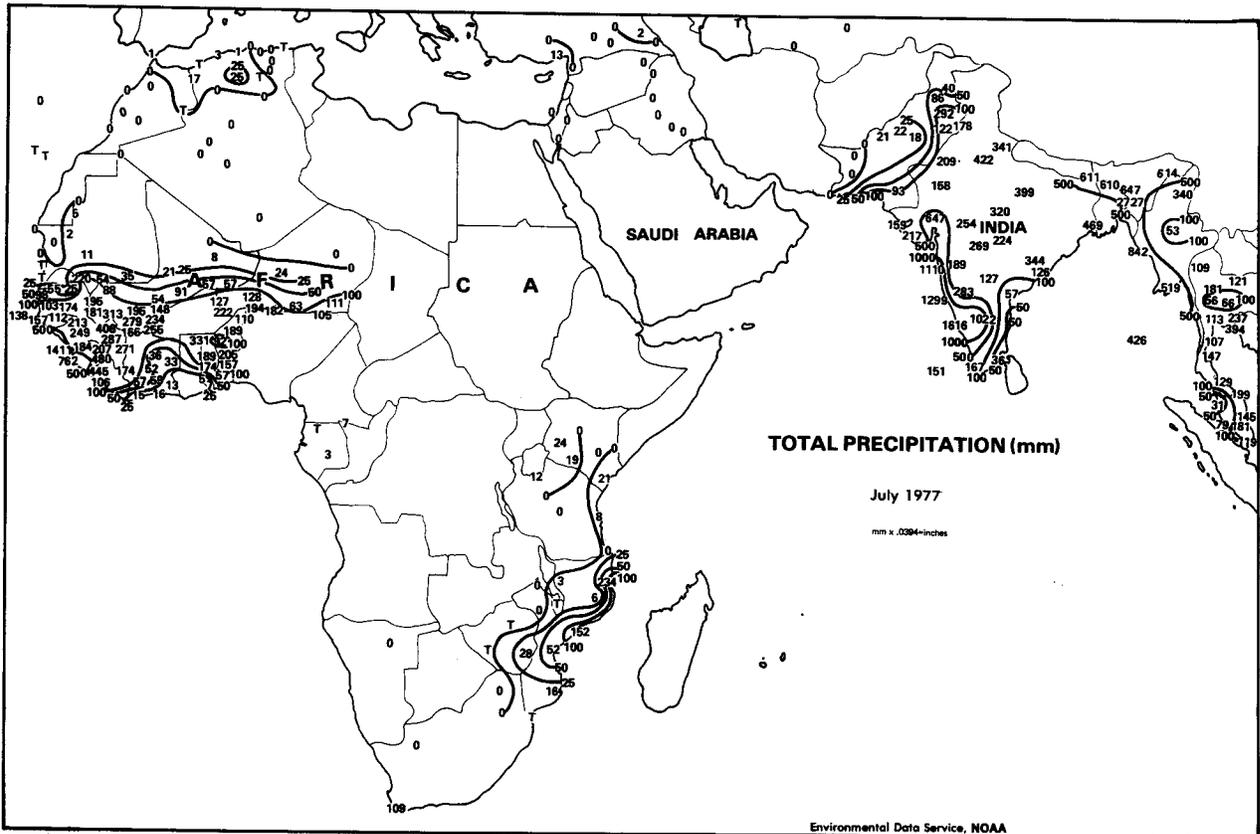
NORTH AMERICA. July was generally on the dry side from Mexico to the Canadian Prairies. By August 1, several critical areas existed in the Prairie Provinces, with the driest areas in Alberta and Saskatchewan. Conditions in Manitoba were generally good except in some light soils. Moisture prospects have generally improved. Rain fell nearly every day in the drier parts of Alberta with totals up to one inch. The grain crops are rapidly approaching maturity as the harvest was underway. The United States also was helped by recent good weather. Although the rains were slightly late for a considerable portion of the corn crop, late corn and soybeans will definitely be helped. The moisture will also provide excellent conditions for the preparations of land for winter wheat plantings, and enhance pastures and haylands recovery.

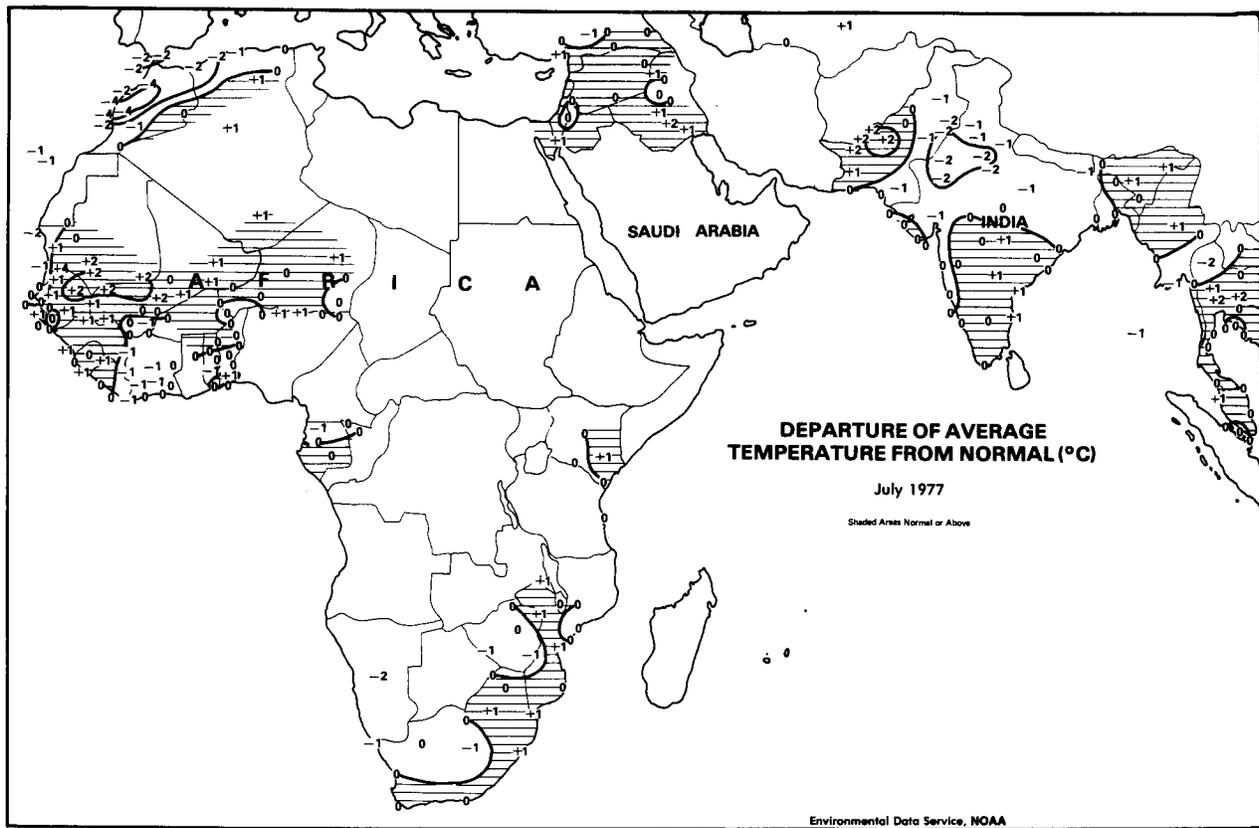
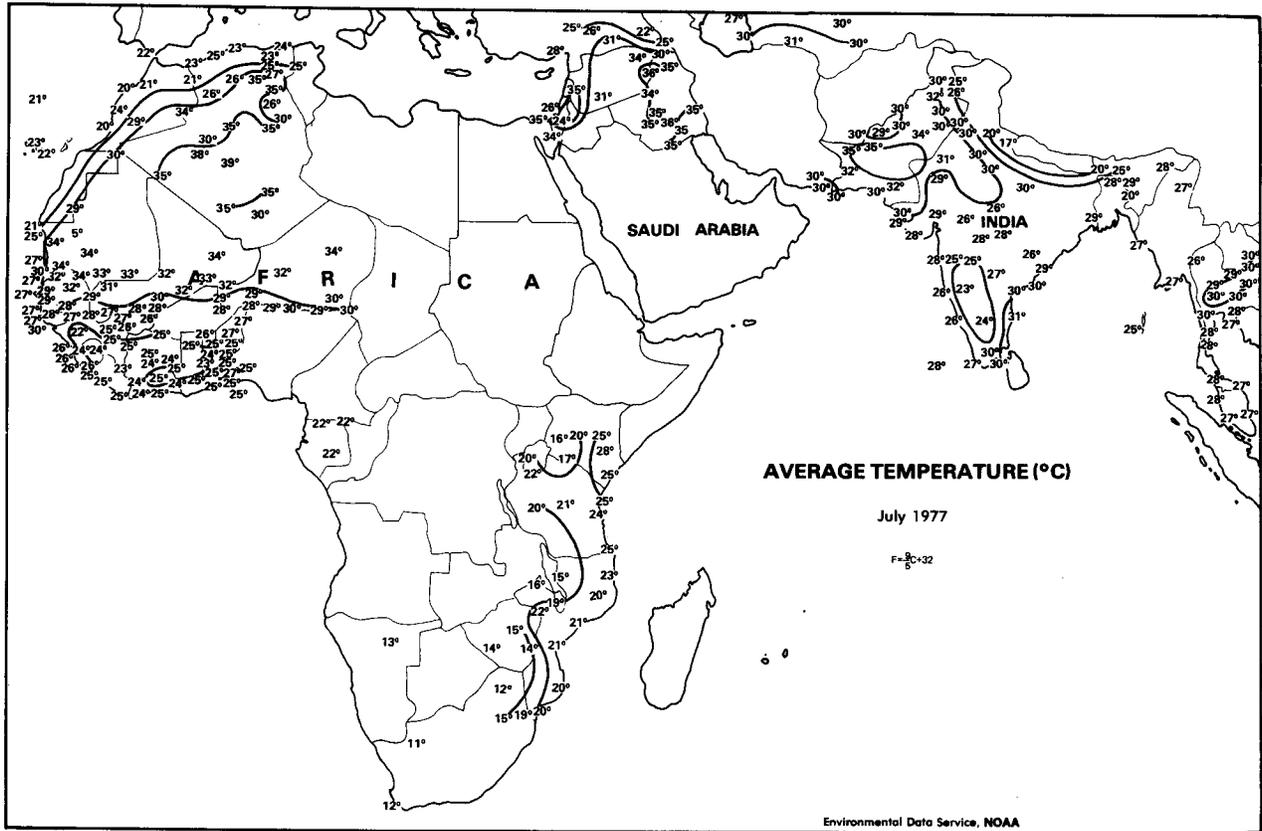
China Precipitation

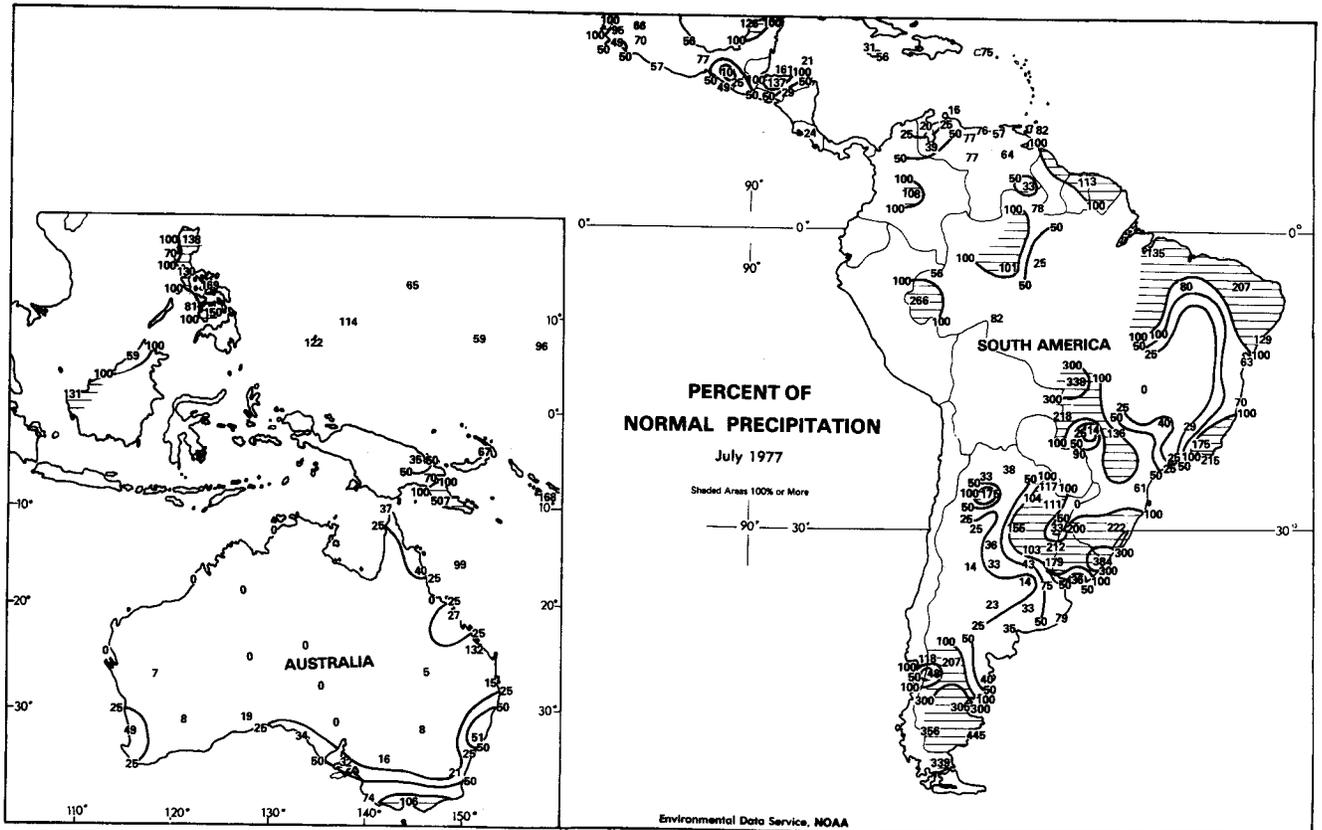
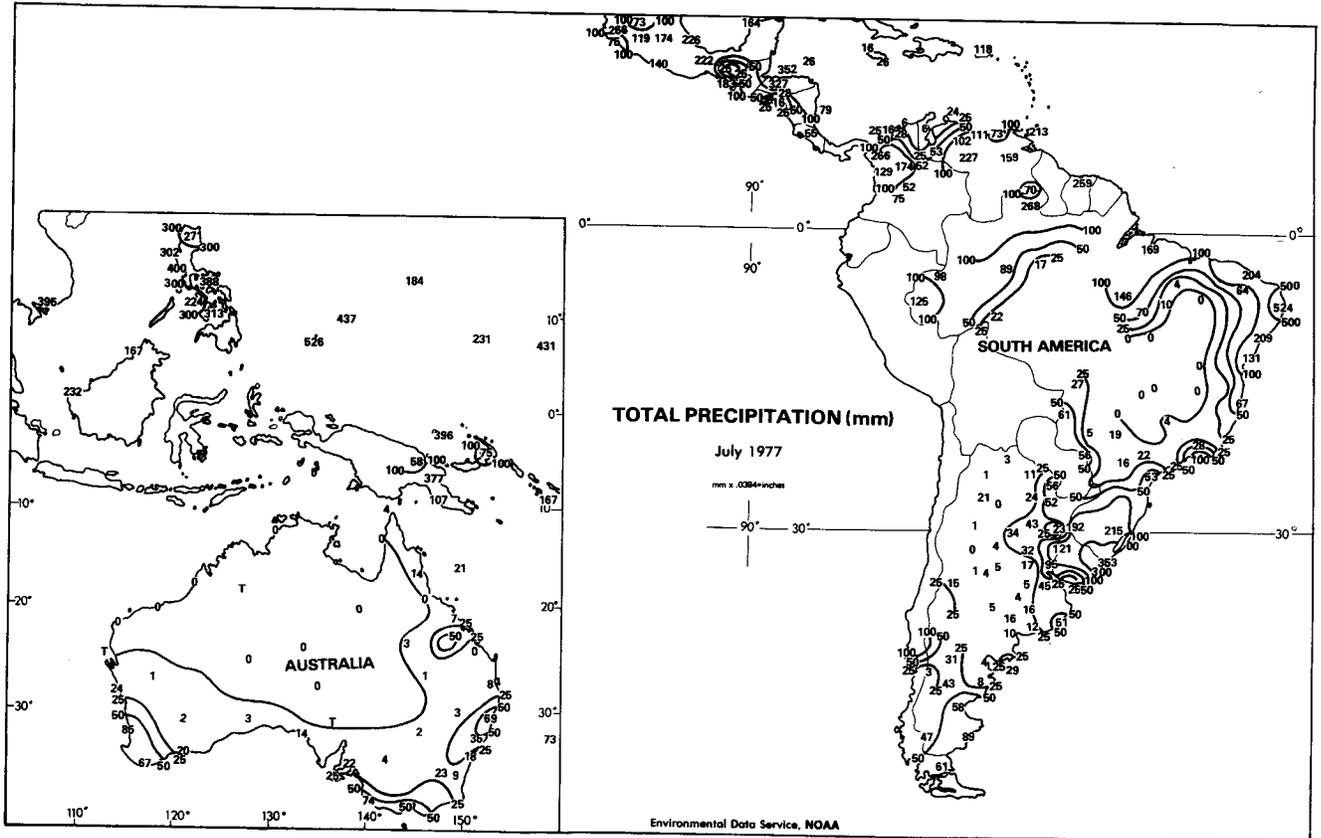


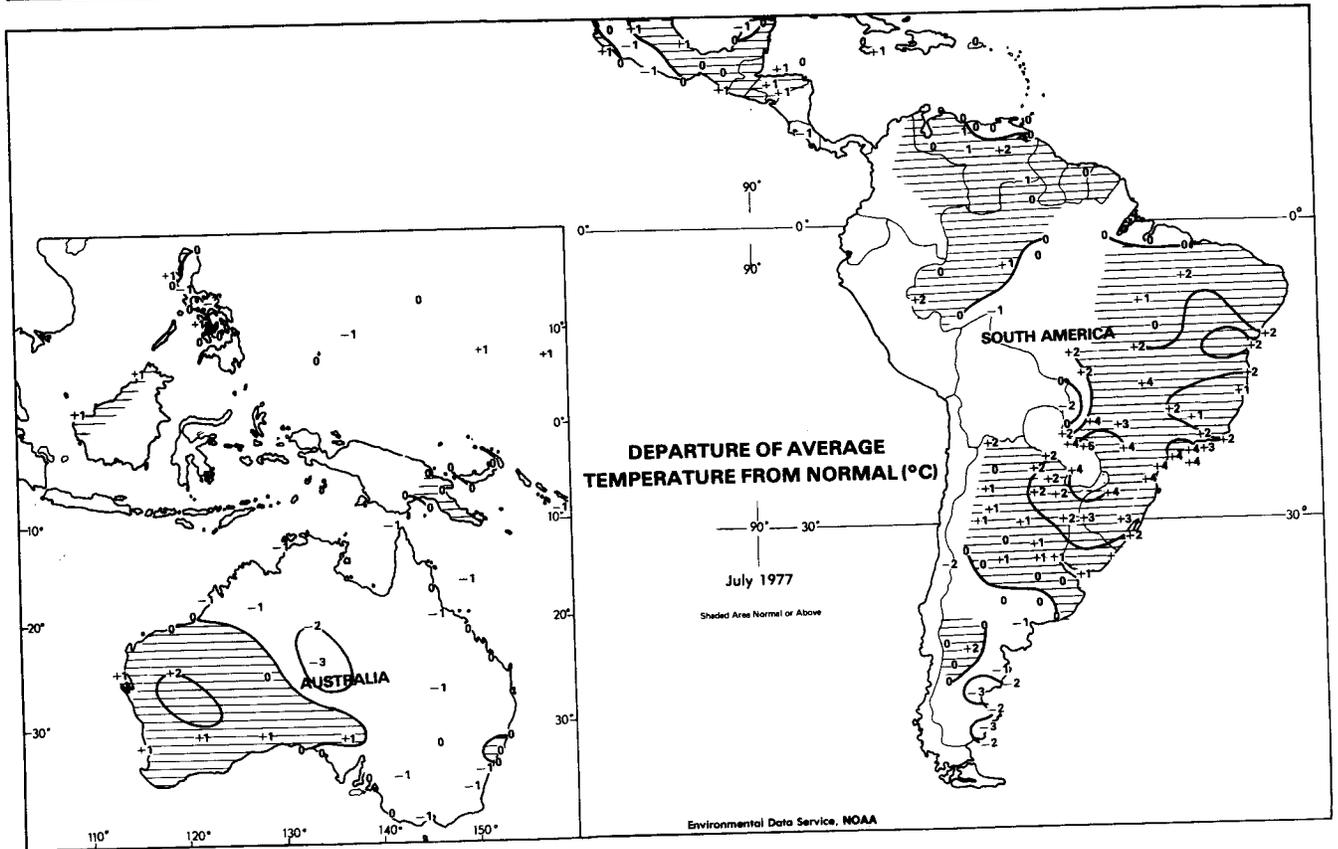
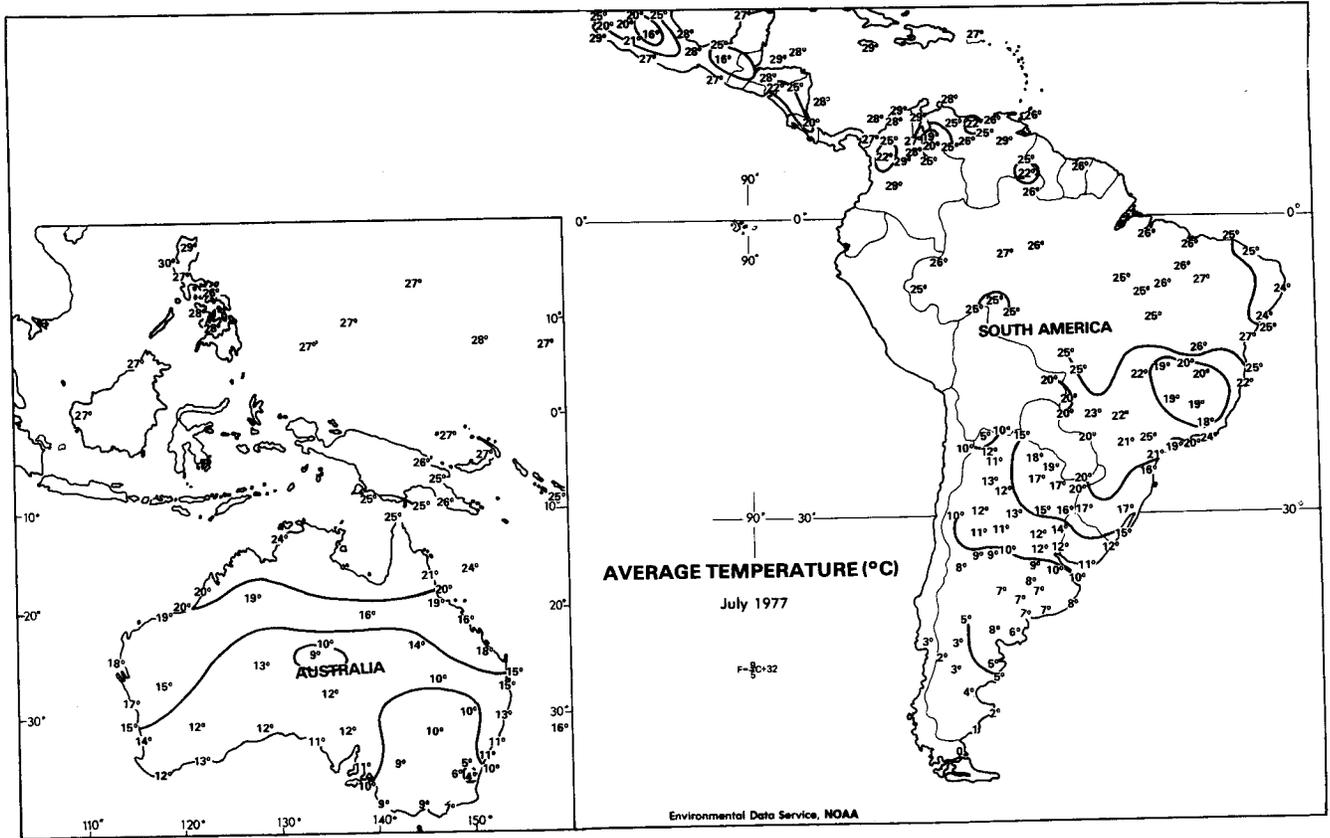


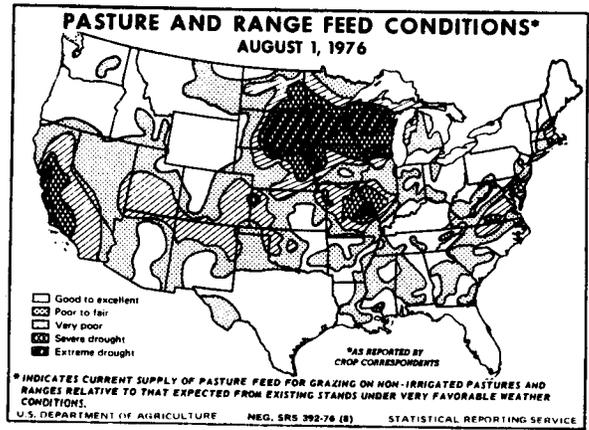
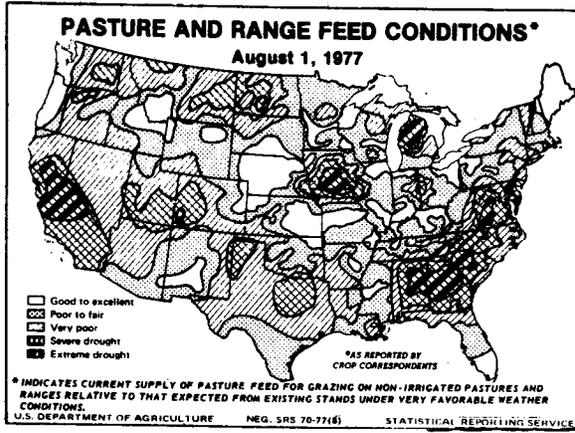




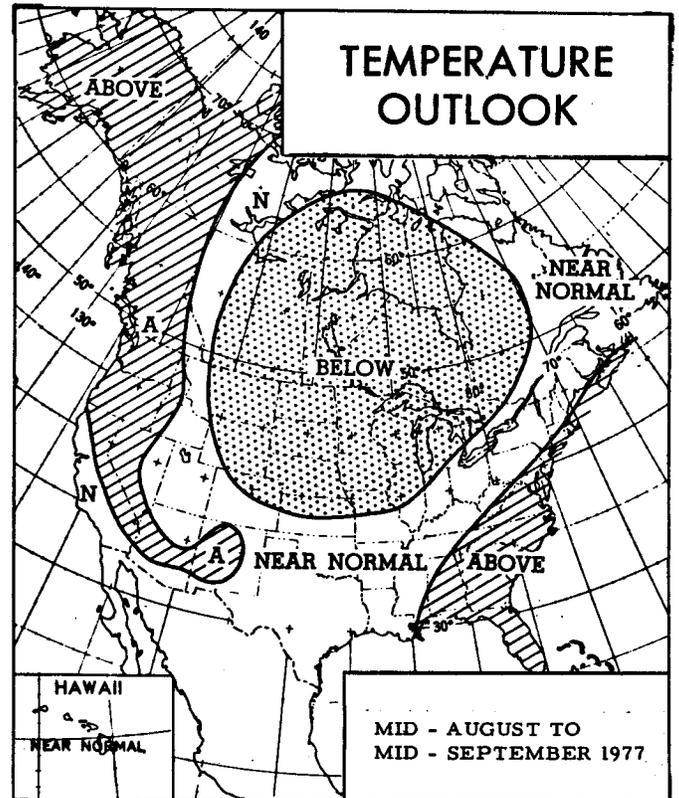
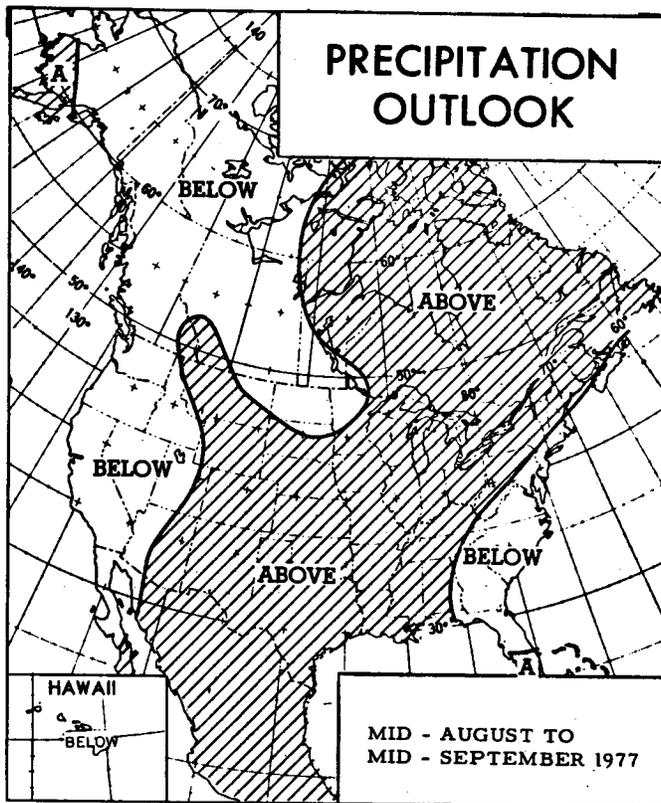




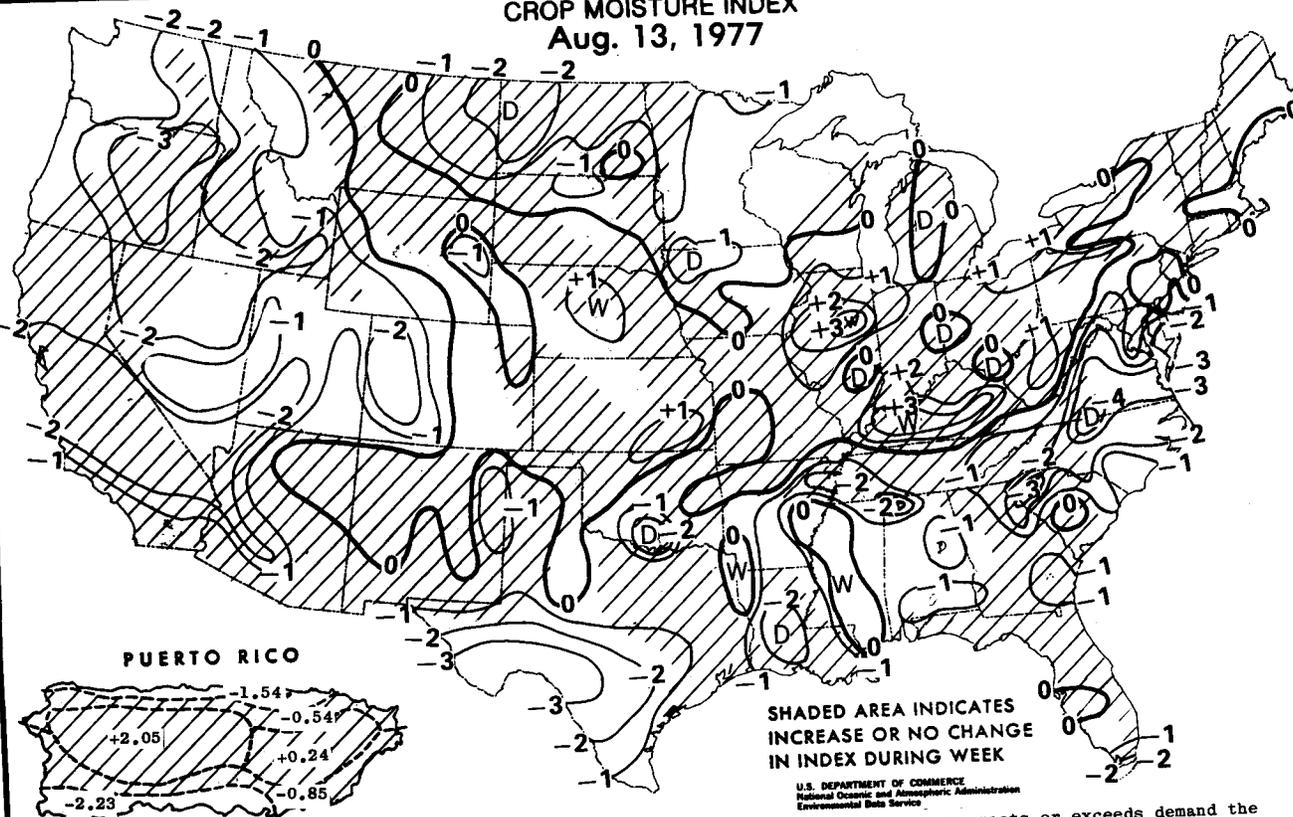




Average Monthly Weather Outlook



**CROP MOISTURE INDEX
Aug. 13, 1977**



SHADED AREA INDICATES INCREASE OR NO CHANGE IN INDEX DURING WEEK

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Environmental Data Service

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 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.

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 1.0	FAVORABLE FOR NORMAL GROWTH AND FIELDWORK
	0 to -1.0	TOPSOIL MOISTURE SHORT GERMINATION SLOW
	-1.0 to -2.0	ABNORMALLY DRY, PROSPECTS DETERIORATING
	-2.0 to -3.0	TOO DRY, YIELD PROSPECTS REDUCED
	-3.0 to -4.0	POTENTIAL YIELDS SEVERELY CUT BY DROUGHT
BELOW	-4.0	EXTREMELY DRY, MOST CROPS RUINED

SHADED AREA: INDEX INCREASED OR DID NOT CHANGE		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



FIRST CLASS MAIL

CROP DEVELOPMENT EARLIEST EVER

Corn continued to develop very rapidly although Corn Belt precipitation has been subnormal in some areas. Above normal temperatures pushed the corn along, and the extremely high readings at mid-month apparently did not unduly stress corn in the north central States. Denting was widespread in the southern States and harvesting was underway in Texas and Florida; some farmers diverted grain acreage to forage uses. Denting was observed by August 1 in the Corn Belt, about 2 weeks earlier than normal.

Soybean podding ranged from 20 to 75 percent in the north central States by August 1; development was 10 to 20 points ahead of 1976's rate. Podding was around 30 percent or less in the south central States. Cotton boll set was almost complete except in Oklahoma; completion ranged from 77 to 98 percent by the end of July. Texas growers picked about 1 percent of 1977 crop. The sorghum harvest extended from the Texas Blacklands southward and reached 39 percent by August 1, ahead of 1976's 26 percent and the 34 percent average. In other

major States, heading ranged from 30 to 76 percent, significantly ahead of most recent years.

Most of the winter wheat crop was harvested while combining was active only in the Pacific Northwest and northern Mountains States. Spring wheat combining surpassed the average pace. Harvesting ranged from 5 percent complete in Montana to 68 percent in South Dakota. Oats harvesting was nearly complete in the southern portions of the major production area, however, damp weather delayed operations in North Dakota.

Soil moisture rated short in the West, the Atlantic Coast States from Virginia to the Florida Panhandle, Alabama, Tennessee, and in several western north central States at the end of July; elsewhere soil moisture was short to adequate. Above normal temperatures around mid-July stressed crops and put a heavy demand on soil moisture. Timely precipitation fell to keep most crops in fair to good condition except in the Southeast where crops rated poor to fair. Above normal July precipitation fell over much of the Southeast, but it came too late for most crops.