

Weekly Weather & Crop Bulletin

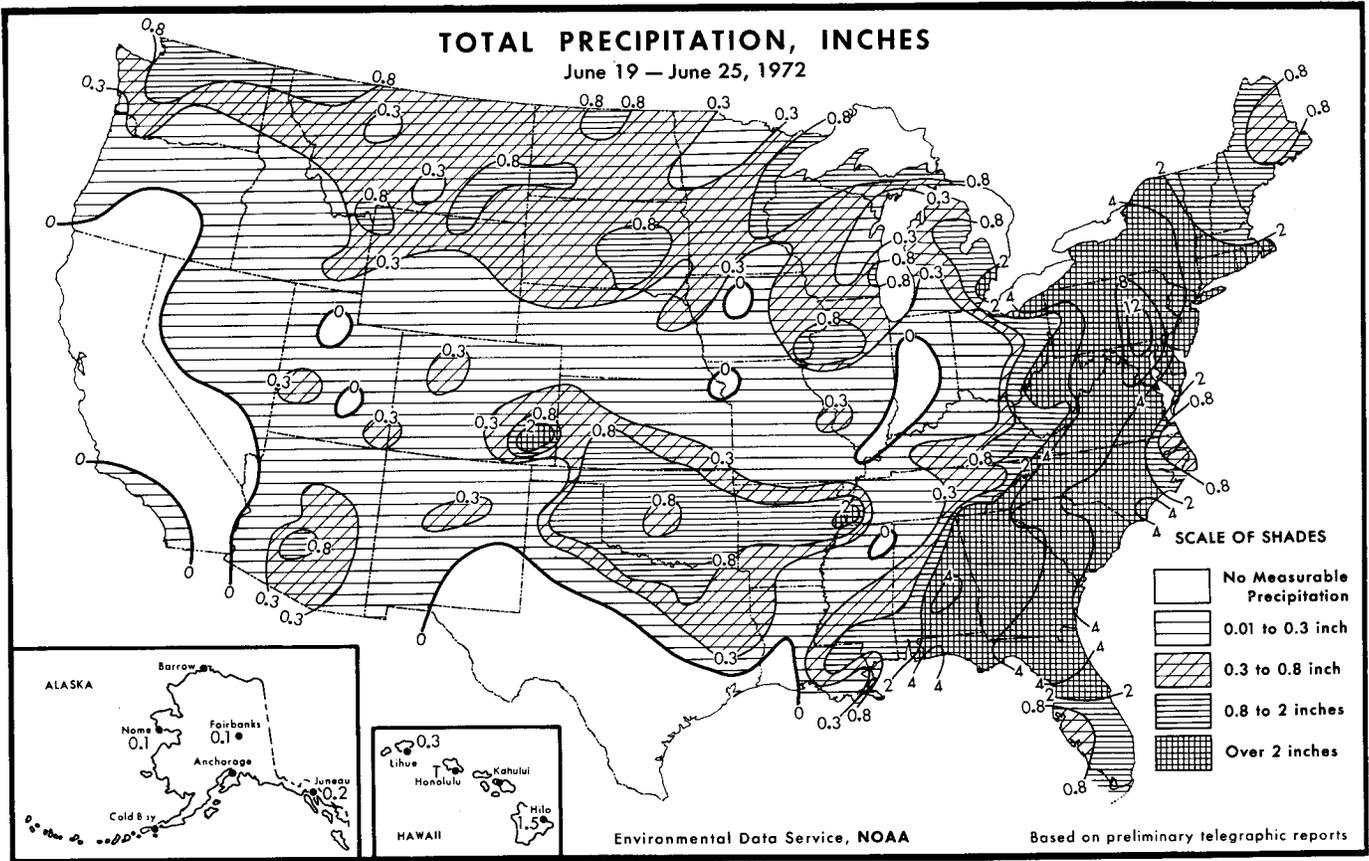
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Edited by Lucius W. Dye

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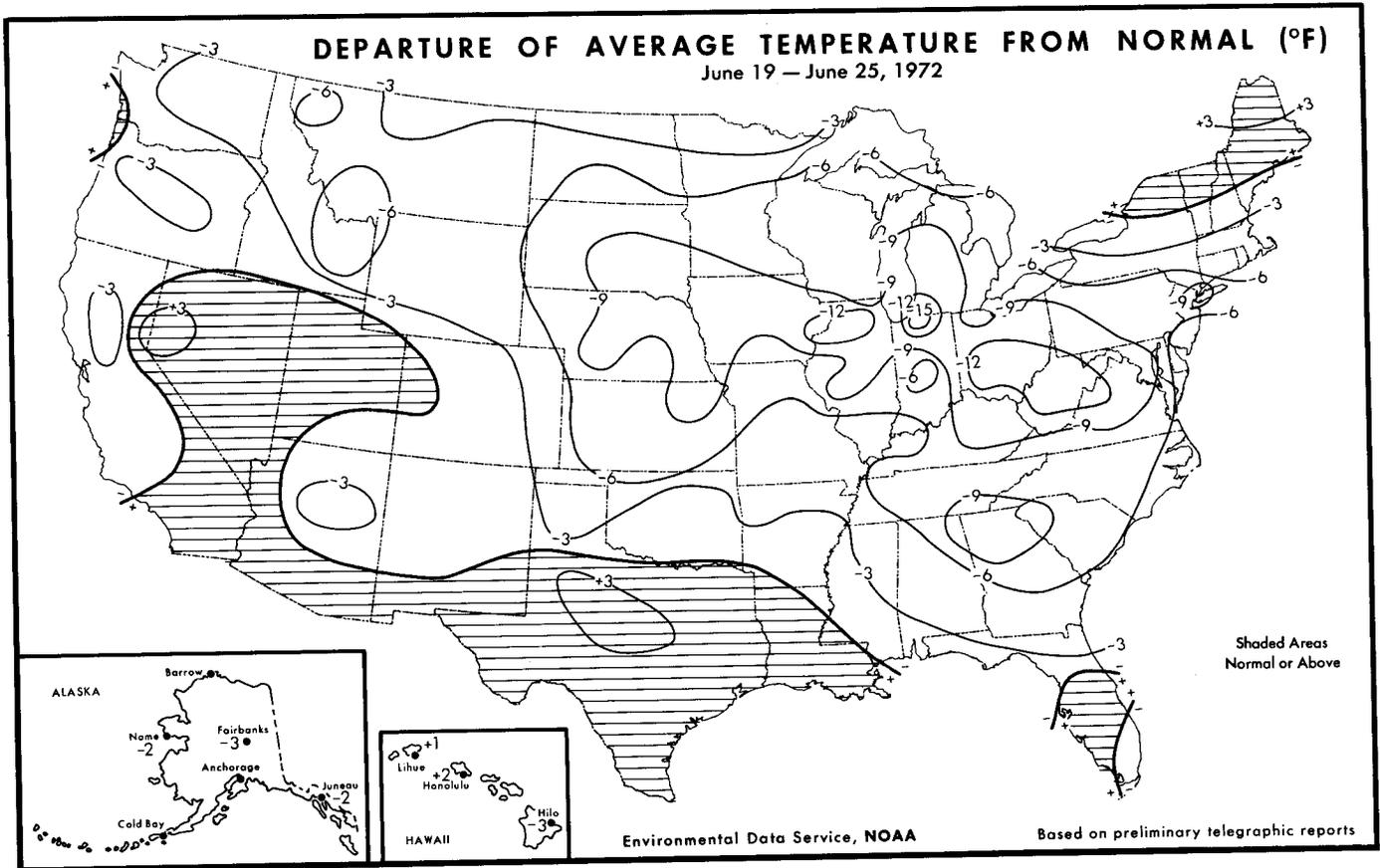
NATIONAL WEATHER SUMMARY

HIGHLIGHTS: Hurricane Agnes caused over 100 drownings, 44 in Pennsylvania; made thousands of people homeless; caused many millions of dollars property damage, over \$1 billion in Pennsylvania.

PRECIPITATION: Hurricane Agnes played the star roll in the weather news last week. She reached hurricane strength Saturday, June 17, about 300 miles southwest of Key West, Fla. She crossed the Florida Panhandle Monday. The winds decreased and she was downgraded to "Tropical Storm" Agnes. This powerful storm continued northward dumping 6.00 to 12.00 inches of rain over the Appalachians and eastward to the Atlantic Ocean.

Agnes deluged the central and southern Appalachians and their eastern slopes and foothills early in the week and by midweek was soaking northern Virginia before continuing on to Pennsyl-

vania, New York, and New England. The torrential rains forced thousands of persons from their homes; dozens were drowned. Roads became flooded and bridges were washed away. Property damages were estimated in the hundreds of millions of dollars. Losses in Pennsylvania were estimated at over \$1 billion. Scattered rains continued in the Northeast late Sunday evening. Rivers were receding slowly. Thunderstorms rumbled through the Great Plains early in the week. Showers fell over the northern and central Great Plains Monday and Tuesday and north-central and northeastern Texas Wednesday. On Monday evening, a thunderstorm damaged aircraft, homes, and mobile homes at Stillwater, Okla. Sprinkles spatted southern California Tuesday and Utah, Colorado, Arizona, and New Mexico Wednesday. A few sprinkles fell in the Great Lakes Region. Powerful



thunderstorms occurred in the Tucson, Ariz., vicinity Wednesday afternoon damaging homes, mobile homes, and other property.

Phoenix, Ariz., received 1.64 inches of rain Wednesday and Thursday. This is more rain that ever fell in the month of June at Phoenix. A locality a few miles north of the Phoenix Airport received 4.20 inches in 2 1/2 hours. This is one of the vagaries of desert climate - that the wettest June of record can follow the driest 5-month period in weather history.

By Sunday evening there were three areas of light showers: The Pacific Northwest; the Northeast from remnants of Agnes; and from Missouri to Florida.

TEMPERATURE: The Southwestern Deserts continued hot, typical for this time of year. Maximum temperatures neared or exceeded 100° on several afternoons. Blythe, Calif., registered 114° Monday and 112° Tuesday and Wednesday.

A large High was centered over southwestern Saskatchewan Monday morning. By Wednesday it had moved to eastern South Dakota. It was responsible

for the chilly weather over the Montana, Wyoming, the Dakotas, and Minnesota. Dickinson, N. Dak., and Big Piney, Wyo., recorded 33° Tuesday and Leadville, Colo., 30° Wednesday. The mercury fell to 43° at Grand Island and Lincoln Nebr., Wednesday morning. These temperatures are 17° and 21° colder than the respective normals for Grand Island and Lincoln for June 21, the date of the summer solstice. The cold air spread southward and eastward. Temperatures in the 40's were common from Washington to Wisconsin and northern Indiana Thursday morning. Friday morning Evansville, Ind., and Louisville, Ky., registered 45° and 47° respectively. Duluth recorded 35° Friday morning, the coldest temperature of record for so late in the season. As cold air poured southward over the Great Lakes to the Ohio River, holding minimum temperatures in the 40's and 50's, 45° at Cincinnati, Ohio, Monday morning, hot moist Gulf air warmed Texas to near or above 100° on several days late in the period. Abilene, Childress and Ft. Worth registered 105° Sunday afternoon.

L. W. Dye

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Hurricane Agnes caused untold damage in Northeast, but rains from the storm benefited some areas in the Southeast and northward through the Carolinas. * Below-normal temperatures prevail over Corn Belt. * **Texas** cotton growers picked first bale of cotton. * California pastures remain dry.

SMALL GRAINS: Wheat harvest continues on the Southern Great Plains. Progress has been fairly good in Oklahoma which now has 93 percent harvested. Texas has 72 percent harvested, but combining has been slowed somewhat by showers in the Eastern Panhandle and north-central areas. Kansas has only 24 percent harvested which is below average of 35 percent at this time of year. Wheat in South Dakota is progressing about normal with fields turning color. However, considerable lodging has occurred in the main growing areas.

Wheat, oats, and barley harvest is nearing completion in the South with Mississippi and Georgia over 90 percent complete, Louisiana complete and Alabama nearly complete except for a few northern counties.

Small grain harvest about normal in the Southwest where wheat and barley harvest is active. Harvest operations continue in California and will be moving into Oregon soon, where wheat is turning color and barley about ready for harvest.

CORN: Temperatures have been 5° to 10° below normal over most of the Corn Belt area during the past week. This is the 3d consecutive week that temperatures have been below normal in Wisconsin, Illinois, Indiana, Ohio and the eastern parts of Iowa and Minnesota. Replanting of some Michigan and Wisconsin fields was necessary after the effects of the June 11 frost became more apparent. Only limited amounts of precipitation were recorded, mostly on the northern areas. Corn is in good to excellent condition in Iowa and is in generally good condition in most other Corn Belt States; however, cooler than normal weather and lack of moisture have caused growth to be slow in most areas.

The Corn crop in the southern States is progressing well and is tasselling in many areas. On the East Coast corn is in fair to good condition but was damaged somewhat from wind and heavy rain from Hurricane Agnes.

COTTON: Cotton has progressed very well and Texas cotton growers picked their first bale in the Lower Rio Grande Valley on June 20th. Cotton is squaring and setting bolls in the southern States as far east as Alabama. Cotton is in fair to good condition in Georgia, South Carolina, and North Carolina but has been held back by lack of moisture. Recent rains from Hurricane Agnes have added the moisture needed in this area.

Cotton harvest is getting underway in the Yuma, Arizona area.

SOYBEANS: Soybean planting has picked up in the South where 80 to 90 percent has been planted. Moisture received from Hurricane Agnes was quite beneficial in the southeast where rain was badly needed. The northern east coast states extending down through Virginia received rain in flood proportion and planting has not yet resumed in these areas.

Planting in the North-central States is nearing completion. Light rain fall scattered over this area should help germination of late planted soybeans considerably. Soybeans, although slightly later than normal, are in good condition and progressing favorably.

OTHER CROPS: Sorghum planting continues in the major producing areas. Texas is nearly complete with 97 percent planted and Kansas has about 89 percent planted. Harvest has started in South Texas. Haymaking made good progress in most areas except the East Coast where hurricane conditions hampered activities.

Potatoes are up and looking good in Maine. Storm Agnes caused some damage to the potato crop in New York. Tobacco harvest; underway in North Carolina, 5 percent complete in South Carolina, and 20 percent complete in Georgia. Damage from the storm was slight in the major producing States. Dry beans, 78 percent planted in Michigan and nearly complete in Colorado with about 3/4 emerged and excellent condition.

Fruits and Nuts: Peach harvest continues in the South, picking was slowed by the storm but the rains were needed for fruit sizing and no appreciable amount of damage resulted from the winds. Cherry harvest continues in Oregon and Washington. Apples will soon be ready for harvest in Arkansas.

Vegetables: Strawberry picking continues active throughout the North. Cantaloupe harvest is active in Arizona and California. Pea harvest is in full swing in Wisconsin.

PASTURES AND LIVESTOCK: Ranges in the West and Midwest are supplying generally good feed supplies and cattle and sheep are in good to excellent condition. Ranges in the Southwest have been short of moisture and range feed has been somewhat limited; however, recent rains in parts of Texas, Oklahoma, and Arizona should help these areas. Screwworms have been reported in southeastern Arizona. Ranges and pastures in California continue to be very dry and heavy supplemental feeding has been necessary. Pasturing of grain stubble and sugarbeet fields has been active.

Archie J. Olson
Agricultural Statistician

Temperature and Precipitation Data for the Week Ending Midnight, L.s.t., JUNE 25, 1972

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 . . .	71	-10	1.5	+ .5	New Orleans . . .	83	+ 2	.3	- .8	OKLA, Okla. City . . .	79	- 1	.7	- .3
Mobile . . .	82	- 1	1.4	- .2	Shreveport . . .	83	+ 1	.7	- .0	Tulsa . . .	77	- 2	1.9	+ .8
Montgomery . . .	77	- 4	5.1	+3.9	MAINE, Caribou . . .	66	+ 5	.8	- .2	OREG, Astoria . . .	59	+ 1	.2	- .3
ALASKA, Anchorage . . .	---	---	---	---	Portland . . .	59	- 5	.5	+ .3	Burns . . .	59	- 3	0	- .3
Barrow . . .	---	---	---	---	MD, Baltimore . . .	66	- 8	7.0	+6.3	Medford . . .	65	- 1	0	- .2
Fairbanks . . .	57	- 3	.1	- .3	MASS, Boston . . .	64	- 5	1.2	+ .3	Pendleton . . .	66	- 1	.1	- .2
Juneau . . .	52	- 2	.2	- .6	Chatham . . .	58	- 1	3.7	---	Portland . . .	62	- 1	.1	- .3
Nome . . .	46	- 2	.1	- .2	MICH, Alpena . . .	56	- 7	.6	0	Salem . . .	58	- 4	T	- .3
ARIZ, Flagstaff . . .	58	- 4	.7	+ .5	Detroit . . .	62	- 8	2.3	+1.7	PA, Allentown . . .	65	- 7	4.9	+3.9
Phoenix . . .	86	0	1.6	+1.6	Flint . . .	60	- 8	1.0	+ .3	Erie . . .	59	- 7	4.6	+3.8
Tucson . . .	84	0	.5	+ .4	Grand Rapids . . .	56	- 10	.2	- .6	Harrisburg . . .	66	- 7	12.9	+12.1
Winslow . . .	72	- 5	.7	+ .6	Houghton Lake . . .	60	- 9	1.1	+ .4	Philadelphia . . .	67	- 6	3.9	+ 2.9
Yuma . . .	88	0	T	0	Lansing . . .	58	- 11	.4	- .3	Pittsburgh . . .	60	- 11	2.6	+ 1.7
ARK, Fort Smith . . .	78	- 3	.8	- .1	Marquette . . .	55	- 7	1.3	+ .4	Scranton . . .	62	- 8	4.4	+ 3.5
Little Rock . . .	79	- 2	.9	+ .1	Muskegon . . .	59	- 10	.4	- .2	R.I, Providence . . .	64	- 4	2.8	+ 2.1
CALIF, Bakersfield . . .	78	- 1	0	0	S. Ste. Marie . . .	58	- 3	1.1	+ .3	S.C, Charleston . . .	74	- 6	2.6	+ 1.4
Eureka . . .	55	- 1	T	- .1	MINN, Duluth . . .	55	- 6	1.2	+ .1	Columbia . . .	74	- 7	4.8	+3.8
Fresno . . .	75	- 1	0	0	Internatl Falls . . .	61	- 1	T	- 1.0	Greenville . . .	70	- 10	5.9	+5.2
Los Angeles . . .	71	+ 2	T	0	Minneapolis . . .	61	- 8	1.2	+ .2	S. DAK, Aberdeen . . .	61	- 7	.7	- .2
Red Bluff . . .	75	- 4	T	- .1	Rochester . . .	61	- 8	.1	- 1.0	Huron . . .	60	- 10	.8	+ .2
San Diego . . .	67	0	.3	+ .3	St. Cloud . . .	60	- 7	.7	- .4	Rapid City . . .	60	- 8	.7	0
San Francisco . . .	61	- 1	T	- .1	MISS, Jackson . . .	80	- 1	.5	- .4	Sioux Falls . . .	60	- 11	.2	- .8
Stockton . . .	71	- 3	0	0	Meridian . . .	78	- 3	.6	- .5	TENN, Chattanooga . . .	68	- 11	2.4	+1.5
COLO, Denver . . .	68	- 1	T	- .3	MO, Columbia . . .	69	- 5	.1	- .8	Knoxville . . .	69	- 8	.3	- .5
Grand Junction . . .	75	+ 1	.2	+ .1	Kansas City . . .	71	- 7	.2	- 1.0	Memphis . . .	77	- 3	2.1	+1.3
Pueblo . . .	73	- 1	.8	+ .6	St. Louis . . .	70	- 6	.2	- .4	Nashville . . .	70	- 9	0	- .7
CONN, Bridgeport . . .	64	- 6	9.3	+8.5	Springfield . . .	72	- 5	T	- 1.1	TEX, Abilene . . .	86	+ 4	T	- .6
Hartford . . .	66	- 4	3.3	+2.4	MONT, Billings . . .	63	- 5	.1	- .5	Amarillo . . .	76	- 4	1.0	+ .4
D.C, Washington . . .	64	- 12	8.3	+7.6	Glasgow . . .	61	- 4	.4	+ .2	Austin . . .	85	+ 1	0	- .7
FLA, Apalachicola . . .	80	- 1	3.7	+2.3	Great Falls . . .	60	- 3	.1	- .5	Beaumont . . .	82	+ 1	T	- 1.1
Ft. Myers . . .	83	+ 1	.9	+ 1.2	Helena . . .	62	- 1	.4	- .3	Brownsville . . .	83	0	0	- .7
Jacksonville . . .	78	- 4	5.0	+3.4	Havre . . .	56	- 6	.4	- .1	Corpus Christi . . .	84	0	0	- .5
Key West . . .	83	+ 1	2.0	+1.0	Helena . . .	54	- 7	.9	+ .5	Dallas . . .	85	+ 2	1.5	+ .8
Lakeland . . .	81	0	1.3	- .7	Kalispell . . .	57	- 4	1.3	+ .6	Del Rio . . .	87	+ 1	0	- .4
Miami . . .	80	- 1	1.0	- .8	Miles City . . .	63	- 5	.5	+ .1	El Paso . . .	84	+ 2	T	- .2
Orlando . . .	83	+ 1	2.7	+ .9	Missoula . . .	57	- 4	.5	+ .1	Fort Worth . . .	85	+ 2	.5	- .1
Tallahassee . . .	78	- 3	7.5	+5.9	NEBR, Grand Island . . .	65	- 8	T	- .9	Galveston . . .	84	+ 1	0	- .6
Tampa . . .	82	0	.4	- 1.3	Lincoln . . .	67	- 9	.2	- .9	Houston . . .	84	+ 2	0	- .9
GA, Atlanta . . .	70	- 10	3.2	+2.3	Norfolk . . .	63	- 11	.5	- .6	Lubbock . . .	82	+ 3	T	- .5
Augusta . . .	73	- 9	4.6	+3.8	North Platte . . .	62	- 10	T	- .8	Midland . . .	85	+ 2	T	- .3
Macon . . .	74	- 7	3.2	+2.3	Omaha . . .	65	- 9	T	- 1.1	San Angelo . . .	87	+ 3	T	- .4
Savannah . . .	77	- 4	4.0	+2.7	Valentine . . .	61	- 9	.4	- .3	San Antonio . . .	84	+ 1	0	- .6
HAWAII, Hilo . . .	75	- 3	1.5	- .1	NEV, Ely . . .	61	0	.2	+ .1	Victoria . . .	85	+ 3	0	- .7
Honolulu . . .	80	+ 2	T	- 1.1	Las Vegas . . .	86	0	T	0	Waco . . .	87	+ 3	T	- .5
Kahului . . .	---	---	---	---	Reno . . .	66	+ 4	0	- .1	Wichita Falls . . .	84	0	1.0	+ .3
Lihue . . .	78	+ 1	.3	0	Winnemucca . . .	66	+ 2	0	- .1	UTAH, Blanding . . .	66	- 2	.2	+ .1
IDAHO, Boise . . .	65	- 2	T	- .2	N.H, Concord . . .	64	- 2	1.1	+ .2	Salt Lake City . . .	71	+ 1	T	- .2
Lewiston . . .	66	0	.4	0	N.J, Atlantic City . . .	67	- 5	2.1	+1.4	VT, Burlington . . .	68	+ 2	1.1	+ .2
Pocatello . . .	59	- 7	.5	+ .3	Trenton . . .	65	- 8	3.3	+2.4	VA, Lynchburg . . .	66	- 9	7.4	+6.3
ILL, Cairo . . .	74	- 6	T	- .9	N.MEX, Albuquerque . . .	75	- 2	.3	+ .2	Norfolk . . .	69	- 8	.3	- .7
Chicago . . .	63	- 11	.4	- .5	Roswell . . .	83	+ 4	T	- .3	Richmond . . .	68	- 9	3.3	+2.3
Moline . . .	60	- 14	1.1	0	N.Y, Albany . . .	66	- 3	2.4	+1.6	Roanoke . . .	66	- 9	4.9	+4.0
Peoria . . .	65	- 9	1.8	+ .8	Binghamton . . .	61	- 4	5.5	+4.6	WASH, Colville . . .	58	- 5	1.1	+ .8
Rockford . . .	62	- 14	.7	- .3	Buffalo . . .	64	- 3	4.0	+3.4	Omak . . .	62	- 4	1.4	+1.1
Springfield . . .	68	- 10	.2	- .8	New York . . .	63	- 11	2.8	+2.0	Quillayute . . .	56	- 1	.4	- .3
IND, Evansville . . .	69	- 4	T	- .9	Rochester . . .	66	- 3	4.2	+3.6	Seattle-Tacoma . . .	58	- 3	1.2	+ .8
Fort Wayne . . .	62	- 11	.3	- .7	Syracuse . . .	68	- 1	6.2	+5.5	Spokane . . .	60	- 4	.5	+ .1
Indianapolis . . .	66	- 5	0	- 1.1	N.C, Asheville . . .	66	- 7	4.0	+3.2	Walla Walla . . .	65	- 4	.5	+ .2
South Bend . . .	58	- 16	.3	- .6	Charlotte . . .	70	- 7	2.9	+1.9	Yakima . . .	63	- 3	.7	+ .5
IOWA, Burlington . . .	65	- 9	.9	- .1	Greensboro . . .	68	- 8	5.4	+4.6	W.VA, Beckley . . .	57	- 12	1.7	+ .7
Des Moines . . .	65	- 9	.2	- .9	Hatteras . . .	74	- 3	.4	- .6	Charleston . . .	61	- 13	2.3	+1.6
Dubuque . . .	63	- 10	.4	- .5	Raleigh . . .	70	- 7	2.9	+1.9	Huntington . . .	63	- 10	.9	- .1
Sloux City . . .	66	- 11	.8	- .2	Wilmington . . .	74	- 5	5.5	+4.4	Parkersburg . . .	61	- 13	2.5	+1.5
KANS, Concordia . . .	68	- 9	.1	- .8	N.DAK, Bismarck . . .	59	- 8	.7	- .1	WIS, Green Bay . . .	62	- 6	.1	- .7
Dodge City . . .	70	- 7	1.7	+1.0	Fargo . . .	62	- 5	.3	- .4	La Crosse . . .	64	- 7	.6	- .4
Goodland . . .	66	- 6	.7	+ .1	Williston . . .	62	- 4	.5	- .4	Madison . . .	60	- 8	.1	- .8
Topeka . . .	68	- 9	T	- 1.0	OHIO, Akron-Canton . . .	62	- 9	1.3	+ .3	Milwaukee . . .	58	- 7	.8	- .1
Wichita . . .	72	- 7	.8	- .2	Cincinnati . . .	62	- 12	.1	- .9	WYO, Casper . . .	62	- 4	.2	0
KY, Lexington . . .	65	- 10	.1	- 1.0	Cleveland . . .	60	- 10	4.8	+3.9	Cheyenne . . .	62	- 3	.3	- .2
Louisville . . .	68	- 8	0	- 1.0	Columbus . . .	60	- 13	.1	- .9	Lander . . .	60	- 5	.1	- .2
LA, Baton Rouge . . .	84	+ 2	.8	+ .2	Dayton . . .	67	- 12	.2	- .8	Sheridan . . .	61	- 3	.9	+ .3
Lake Charles . . .	84	+ 2	T	- 1.1	Toledo . . .	62	- 8	.5	- .4	P.R. San Juan . . .	86	+ 6	.5	- .7
					Youngstown . . .	59	- 10	1.9	+1.1					

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

Based on preliminary reports

CONDENSED STATE SUMMARIES

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

ALABAMA: Generous rains from Hurricane Agnes over south and east-central sections early in period, then fair and unseasonably cool until end of week. Numerous showers and thundershowers with heavy rain over all but extreme north Sunday. Average temperatures much cooler than normal. Rainfall heavy except light or none extreme north. Rains benefited crops south and parts of central and north. Crops in northwestern quarter, however, need water. Most cotton crop squaring. Few small bolls south Alabama. Control insects underway few fields. Young corn made good recovery from earlier dry weather, especially south. Wind damage from hurricane light. Corn northwestern corner of State needs rain. Planting remaining soybean acreage made good progress most areas. Peanuts made excellent growth after rain. Wheat harvest active northern counties, nearly complete other areas. Few early summer potatoes harvested on Sand Mountains. Moisture adequate for sizing. Quality peaches moving to market in volume. Limited amount of hay saved. Pastures made good recovery from drought over wide area.

ALASKA: Precipitation in Tanana Valley occurred mostly early in week with heavy amounts upper portion. In Kenai Peninsula most rainfall was during latter part of week with amounts generally above normal. Rain in Matanuska Valley also late in week, and generally below normal. Temperatures continue cool. A reading of 28° at Clearwater during first part of week. Warmest temperatures early in week. Soil moisture supplies generally adequate throughout Railbelt. Hay and silage chopping underway Tanana Valley and expected to begin this week in Matanuska Valley. Excellent prospects of feed on meadows and pastures, but only fair prospects reported on Kenai Peninsula. Season growing degree days continue much below normal in most of agricultural areas.

ARIZONA: Temperatures above normal early in week falling to below normal most areas after 21st. Thundershowers many parts of State on 21st and 22d with heaviest rain in Salt River Valley on 22d. Although only 1.37 inches on 22d at Phoenix Airport, unofficial totals in excess of 4.00 reported northern parts of town. Strong winds many sections on 21st with tornadoes in Eloy, Maricopa, and Paradise Valley on 22d. Cotton making good progress statewide. Yuma area flowering, setting bolls. Salt River Valley, squaring, flowering. Yuma harvesting small grains nearing completion. Salt River Valley harvest active. Delayed some areas by high winds and rain. No unusual damage to crop. Harvest limited southeast area. Yuma early sorghum planting nearing maturity. Salt River Valley and Safford planting active. Cutting, baling, alfalfa hay active. Cantaloupe harvest continued Yuma. Harvest past peak. Cantaloupe and watermelon harvest active Salt River Valley. Central Arizona delayed slightly by rainfall. Potato harvest active Salt River Valley but delayed by rainfall. Picking Valencia oranges, grapefruit Salt River Valley, slowed due to rainfall. Ranges return to fair condition. Past week's rainfall should increase desert growth of browse. Southeastern ranges reported fair to good. Northern counties continue in fair condition. Central desert areas becoming

fair as new vegetation appears. Southwest areas remain fair to poor. Range soil moisture and stock tank water have improved past few weeks. Cattle and calves fair to good. Sheep and lambs generally fair. Screwworm fly problems reported in southeastern portion of State.

ARKANSAS: Scattered light showers early in week followed by widespread shower activity weekend. Largest rainfall totals occurred in 50 to 75 mile wide band from northwest corner to southeast corner of State with amounts ranging from 1.00 to a little over 2.25 inches. North-central and north-east driest sections with amounts generally less than 0.25 inch. Mean temperatures in range +1° -4° from normal. Greatest negative departures in north-central and northeastern sections of State. Near or slightly above normal along western border. Warm first part of week followed by cooling latter part of week and rising temperatures on weekend. Fairly general showers late in week greatly relieved stress from dry weather most areas. Precipitation quite variable and more needed many localities. Cotton good and fruiting well. Few blooms reported. Insect damage light. Rice mostly good and growing well. Midseason application of nitrogen begun. Showers will permit significant planting of late soybeans. Seeding now 85% to 90% complete. Early soybeans satisfactory condition, but late beans under stress from dry weather, seedling diseases and nematodes. Recent rains expected to alleviate moisture problem. Combining small grains virtually finished. Yields mostly good. Corn and sorghums greatly improved by showers. Haying active during week but yields short. Peach harvest continues. Early apples will soon be ready. Peak harvest of tomatoes next week in southeast. Cucumber harvest active. Pastures short over nearly all of State. Some feeding in driest counties. Recent showers should permit some regrowth but more rain generally needed.

CALIFORNIA: Temperatures near normal to 5° above normal. Dry except light precipitation in southern coast range. Amounts 0.10 to 0.30 inch. Harvest small grain, alfalfa continues. Sugarbeets, field corn, dry beans, milo, rice good growth. Deciduous fruit, nut crops good progress. Grape harvest Coachella declining. Light picking table grapes commencing San Joaquin. Bunch sizes appear large. Packing deciduous fruit active, quality good, sizes smaller normal some varieties. Limited picking clingstone this week. Almond, walnut crops developing well. Valencia orange harvest continues, re-greening problem. Lemon, grapefruit, avocado harvests continue. Broccoli, cauliflower harvest moderate Salinas, Santa Maria. Cantaloupe increasing Kern County, nearly complete Imperial, Palo Verde Valleys. Carrot digging Salinas, San Joaquin Valley. Sweet corn picking increasing Kern County, steady south coast, slowing deserts. Celery cutting active Salinas, Santa Maria. Onion digging active San Joaquin Valley. Green pepper harvest underway Merced area. Potato digging moderate Kern County. Strawberry harvest southern California limited amounts to processing. Slow central coast due to limited bloom. Market tomatoes active Visalia,

underway Merced, San Diego County light, nearly complete Imperial Valley. Small acreage processing tomatoes lost due to flooding. Watermelon harvest nearly complete Imperial Valley, past peak Palo Verde, underway Kern County. Range grass conditions variable throughout California. Fire danger is high. Stockwater supplies dwindling. Supplemental feeding heavy. Pasturing of grain stubble and sugarbeet fields active. Honey bees active.

COLORADO: Temperature variable, averaged near or somewhat below normal. General shower and thunderstorm activity, decreasing over weekend. Light to moderate rains mountains and west, light snow some higher mountain areas. Moderate to locally heavy rains east. Some local hail. Light hail damage to crops many areas Eastern Plains. Heavy damage scattered fields. Top soil moisture adequate east and northeast, very short to short other areas. Rain delayed fall grain harvest southeast. Winter wheat 71% turning color, 11% ripe. Winter barley 74% turning color, 9% ripe. Mature acreage southeast. Dry bean seeding nearly complete, 3/4 acreage emerged, condition excellent. Sorghum 94% planted, 77% emerged, condition very good most areas. Final corn cultivation 1/3 complete. Condition corn very good, decline slightly due to hail damage. Alfalfa harvest 68% complete 1st cutting, 2% 2d cutting. Beets 79% thinned. Range and pasture conditions very good east and northeast, fair to good other areas. Livestock conditions very good.

FLORIDA: Hurricane Agnes brought rain to most of State early part of week. Temperatures near normal under cloudy skies. Rainfall 3.00 to 5.00 inches. Panhandle and north and central sections of State, 1.00 inch in south Florida, and 2.00 inches Keys. Heavy rain showers again on weekend of 24th and 25th in Panhandle and northern sections of State with several tornadoes. Sustained winds of 20 m.p.h. experienced most of State Monday and Tuesday with gusts to 50 m.p.h. Field crops were improved as a result of rain. Soybean planting about completed. Some damage to corn fields resulted from high winds. Pastures improved by favorable temperatures and soil moisture. Cattle and calves good to excellent. Citrus tree condition excellent. Abundance of new growth. Moisture adequate to surplus. Excellent growth on new crop fruit. Watermelon supplies continue at a high level. Sweet corn volume is good but declining. Celery and green pepper supplies expected to be light this week. Eggplant volume has passed peak.

GEORGIA: Widespread moderate to heavy rains from Hurricane Agnes ended dry period that had persisted for several weeks. Rainfall totals ranged from just under 2.00 inches extreme north to over 6.00 inches much of southeast and southwest. The Brunswick Airport had storm total of about 9.00 inches. Agnes caused little damage in State except in two or three areas where tornadoes occurred. Benefits from rains far exceeded damage. Temperatures continued unusually mild. Rain and cloudiness kept highs in 70's early in week and cold front brought near record lows many places late in week. Averages ranged from 4° to 9° cooler than late June normals. Soil moisture adequate entire State for first time since early April. Some areas reported surplus. Winds blew mature tobacco leaves from stalks, but most were salvaged. Other crops suffered minor wind damage. Only emergency fieldwork first of week, but operations reached full swing on Friday and Saturday. Cotton condition fair to good, insect infestation

normal. Overall condition of corn improved to mostly good. Peanut condition good to excellent. Disease and insect control measures active. Tobacco 20%, wheat 91%, oats 92%; and peaches 38% harvested. Soybeans 85% planted, sorghums 74%. Cantaloupe harvest approaching peak. Watermelons increasing. Most summer vegetables in good supply southern part of State. Pasture and cattle condition good.

HAWAII: Weather continued clear and dry but favorable for crop growth. Irrigation in full swing all areas. Crop condition fair to good. Pineapples in peak harvest. Sugarcane harvesting normal. Production near last year's level. Watermelons and papayas in ample supply but bananas light. Vegetable harvest adequate. Condition of cattle and pastures fair to good. More moisture needed in low-lying pastures.

IDAHO: Temperatures averaged near normal. Precipitation totaled mostly less than normal but locally heavy northern Panhandle, eastern highlands, and upper Snake River Plains. Sandpoint recorded 1.08 inches, the largest for week. Cool weather slowed crop growth. Scattered showers have helped but many dryland areas still need moisture. Grasshopper damage central part of State. Alfalfa weevil damage all areas. First cutting alfalfa about complete in southwest, about 65% done in irrigated areas of south Idaho, and only 10% complete in north. Winter wheat in north mostly headed; in the southwest, winter grains headed and turning. In southcentral and eastern sections, winter grains headed. Spring grains less advanced except in southwest where many fields turning. Cherry harvest underway and crop light. Potatoes in bloom many fields of southwest, 10 inches high in east except for higher elevation seed areas where crop is 3 and 4 inches high.

ILLINOIS: Weather turned cool and sunny early in period under influence of dry, cool Canadian winds. Record low temperatures of 44° on June 24 at Peoria. After 90's in south early in period, afternoon highs mostly in pleasant 70's or low 80's. Exception: Chicago area some readings 58° to 60°. Corn average 42 inches high most advanced fields, average 36 inches across the State. Soybean replanting in some areas. Wheat 80% ripe, harvest underway, in south 1/4 complete. Oats 95% headed and 80% filled, 10% turned yellow, 2% ripe. Barley harvest 30% complete. Alfalfa 87% first crop cut. Red clover hay 82% cut. Soil moisture short 44% adequate 44%, surplus 12%.

INDIANA: Cool and sunny after some rain first of week. Temperatures 7° to 15° below normal with some minimums in low 40's, near record low for so late in June. Some 90's early in week. Relative humidity low and drying rates high. Six days suitable for field work. Topsoil and subsoil moisture short to mostly adequate. Dry in north central and southern Indiana. Soybeans 95% planted, same last year. Five inches high, 7 inches year ago. Corn 15 inches high, last year 24 inches. Wheat 5% harvested. Barley 15% cut. Rye 5% combined. Alfalfa 85% cut, clover 60%. Pastures fair to good.

IOWA: Cool dry week. Temperatures 8° to 11° subnormal. Coolest 37° at Cherokee on 21st. Precipitation light. Growing crops good to excellent condition. Major farm activities corn and soybean cultivating and haying, with over 5 days suitable for fieldwork. Condition

corn crop mostly good to excellent. Weed control in corn fields mostly good. Stands of soybeans 92% of normal. Soybean crop in generally good condition. Weed control good to fair. Oats 85% headed, condition mostly good to excellent. First cutting alfalfa hay 80% complete with clover hay 55%. Condition hay crops and pastures good to excellent. Topsoil moisture reports indicated 80% adequate, 11% surplus, and 9% short.

KANSAS: Temperatures averaged 6° to 9° below normal. Maxima 60's to 80's near midweek warming to 80's and 90's after 23d. Minima in high 40's locally northern Kansas June 20 to 22. Mostly locally northern Kansas June 20 to 22. Mostly 50's and 60's rest of week. Significant precipitation much of southeast and western 2/3. Generally 0.25 to 1.25 inches both areas. Parts southwest had over 2.50 inches. Dry eastcentral and northeast. Damaging hail western Sherman County, southern Hamilton County, and few other local areas. Wheat harvest only fair progress because of intermittent rains many areas. By June 24th wheat 24%. Harvested compared with 25%. Last year and average of 35%. Wheat harvest nearly finished south-central and southeast, moving rapidly central areas and extending into some northern sections. Wheat 60% ripe compared 52% year ago and 63% average. Some rank wheat lodged as result of wind and rain. Hail damage local areas. Barley and oat harvest made considerable progress with good to excellent yields. Corn growing well with some fields tasseling southern counties. Sorghum 89% planted compared 88% last year and average 85%. Few sorghum fields to be replanted due to washing rains. Soybeans 83% planted compared 86% last year and average 84%. Cattle doing well with good pasture feed and ample water supply. Cattle marketing slowed due to wheat harvest. Pink eye noticed some cattle herds.

KENTUCKY: Rainfall on first 6 days of week totaled 0.25 inch to about 2.00 inches in east, with little or no rain balance. Continued dry in west; rainfall totals first 25 days of June less than 1/3 inch a number of locations. Cool week, temperatures averaging 7° to 13° below normal. Early morning temperatures in 40's and 50's last 4 days, near or record low readings on several of these days. Five days favorable for fieldwork. Dry weather western and central areas, but adequate moisture east. Soil moisture 56% short, 42% adequate, 2% surplus. Corn 22 inches tall, 63% laid-by. Wheat harvest 1/4 complete. Soybean planting about complete. Dry conditions and poor stands. Average height 7 inches. Tobacco setting and resetting about complete, 48% up 6 inches in height, 45% 6 to 12 inches and 7% 12 inches or more. Conditions dry west, favorable in east. Pasture condition declining. Second cutting alfalfa 20% complete.

LOUISIANA: Hot and dry first of week. Slightly cooler north midweek but continued hot and humid south. Temperatures averaged normal to slightly below north and central, mostly 1° to 4° above normal south. Daily extremes: 99° Mamou and Hammond and 64° at Leesville. Scattered showers north with weekly amounts 0.30 to more than 1.50 inches. Showers fewer in south where several areas rainless. Other places 0.30 to near 1.00 inch. Greatest 1-day rain 1.19 measured Friday morning at St. Joseph. Cultivation of row crops active except interruptions from showers. Planting soybeans continued and is 90% to 95% complete. Insufficient moisture delayed planting scattered areas. Corn

suffering some, but, moisture generally adequate for most crops. Cotton growing rapidly. Insect control programs started. Most corn silking and forming ears, some in dough state. Sorghum and sweet potato planting nearing completion. Flooding and top dressing of rice continued, stands and growth good to excellent. Early rice heading, some maturing. Sugarcane making good growth, dusting for borer controls started. Harvest of peaches, tomatoes and green peppers active. Haying active. Grass growing fast. Pasture feed about average. Livestock in good condition.

MARYLAND AND DELAWARE: Tropical Storm Agnes will make this week memorable for its record breaking rainfalls and devastating floods. Preliminary figures indicate 15 dead in Maryland, 1 dead in Delaware, damages estimated at \$50 million. Many storm totals, June 21 to 23, 10.00 inches or more, especially in north-central Maryland. Weekly rainfall ranged from 11.00 to 14.00 inches in north-central Maryland to less than 5.00 inches in parts of Garrett County and southern Eastern Shore of Maryland. Heaviest reported total 14.21 inches at Westminster. Weekly temperatures averaged 5° to 9° below normal. Rains halted work. Severe local crop damage flooded bottomland. Erosion silting and lodging were widespread, but damage less than anticipated. Delay in completion of planting and harvest of hay and grain may be more important. Barley fields damage from lodging. Soybean seeding now two weeks late.

MICHIGAN: Warm early turning unseasonably cool by midweek. Cloudy intermittent light rain, locally heavy, through end of period. Temperature averages: 2° to 7° below normal Upper Peninsula, 6° to 11° below normal Lower Peninsula with largest departures interior sections. Precipitation totals generally over 1.00 inch Upper Peninsula, 0.50 locally, over 2.00 inches Lower Peninsula except 0.25 to 0.50 inch southwest quarter. Cool cloudy weather slowed crop growth and hay making. Soil moisture supplies vary from short to adequate Lower Peninsula, to surplus east-central and southeast. State averaged 4.1 days suitable for fieldwork. Soybeans 96%, dry beans 78% planted. Replanting frost damaged corn continues. Corn development slowed by cool weather, average height 11 inches. Wheat nearly all headed, 16% turning yellow. Nearly 1/4 oats headed. Hay-making slowed or halted by rains and cool cloudy weather. About 1/2 first cutting made. Pasture feed supplies below average. Fruit developing well. Set of Jonathan and McIntosh apples above average. Delicious, below average. Pear set average. Vegetable development slowed by cool weather and generally below average. Asparagus harvest about finished. Strawberry harvest continues in volume.

MINNESOTA: Temperatures normal across north to 10° below normal in south. Extremes: 87°, 32°. Precipitation early in period. The east-central received 1.00 to 2.00 inches, central and south central districts 0.50 to 1.00 inch and rest of State less than 0.50 inch. Crop conditions are good in south, fair to good in north, but vary widely in west-central and central. Corn height 17 inches, normal 13. Cultivated once 81%, normal 80, cultivated twice 38%, normal 25. Soybean height 7 inches, normal 6 inches. First crop alfalfa cut 86%, normal 60%. Topsoil moisture adequate except short to adequate northwest and southeast. Small grains headed; winter wheat 89%, normal 76%, rye 96%, normal 92%, spring wheat 11%, normal 24%, oats 23%, normal 35%, barley 11%, normal 27%.

MISSISSIPPI: One or 2 days rain with totals mostly under 1.00 inch. Greatest 1-day amount of 3.10 inches at State University on 18th. Temperature averages below normal except at a few stations in coastal division. Extremes: 100° and 46°. Over weekend: A few showers until Sunday when severe thunderstorms produced extensive power line and tree damage across State. A few houses were damaged but no injuries reported. Soil moisture adequate north-central, northeast, and east-central counties, generally short other areas. Average 5.6 days suitable for fieldwork. Soybeans 92%, corn 98%, sorghum 90% and sweet potatoes 84% planted. Wheat 95%, oats 97%, potatoes 75% and peaches 30% harvested. About half cotton acreage squaring with 5% setting bolls.

MISSOURI: Except for spotty showers on Monday, week was dry. Lack of rain now critical many areas south of Missouri River where rainfall is 6.00 to 8.00 inches below normal since May 15. North of river, rainfall is 2.00 to 5.00 inches below normal for same period. Temperatures averaged 3° to 8° below normal as cool dry air settled over State early in week. Warmed to near normal by weekend. Six days suitable for fieldwork. Corn condition mostly good. Soybean condition fair to good. Wheat 73% ripe, 44% harvested. Oats fair to good, 54% turning color. Second cutting alfalfa 26% harvested. Clover timothy hay 57% harvested. Soil moisture getting short except northwest and north central.

MONTANA: Cool week with temperatures below normal across State. Precipitation above normal west of Divide and in extreme east; below normal elsewhere. Spring grains and winter wheat growth and condition fair to good most areas, except localities where poor to good east. Winter wheat 50% headed, 40% boot. First cutting hay slowed by rain some areas, 30% complete. Hay and range growth rate average northwest, rapid far east, slow to average elsewhere. Irrigation water and stockwater mostly adequate. Irrigation full swing. Topsoil moisture short to adequate western 2/3, mostly adequate east. Crops in portions north-central and central suffering from dry soil.

NEBRASKA: Temperatures averaged 4° to 13° sub-normal last week, with scattered light frost noted in low spots of Sandhills mornings of 20th and 21st. Thunderstorms deposited local rainfall in excess of 1.00 inch from southwest into east-central, as well as eastern portion of Sandhills. Precipitation beneficial to crops with 90% of reports indicating adequate topsoil moisture. Wheat maturity advanced 70% turning color, few fields ripe. Harvest beginning extreme southeast. Condition row crops mostly good to excellent. Few cornfields infested with corn borers spraying necessary. Sugar beets, potatoes, and dry beans excellent growth. About 95% first crop alfalfa cut, limited acreage second crop harvested. Livestock conditions are good.

NEVADA: Temperatures all divisions averaged near normal. In northwest, Yerington only station reporting measurable precipitation. Elsewhere, light to moderate precipitation Thursday and Friday from trace at Las Vegas and Elko to 0.52 inch at Tonopah. Tonopah also received 1/4 inch of hail. Moisture provided relief from dry spell more needed. Locally heavy winds Friday. Alfalfa hay harvest in progress throughout most northern areas. Condition reported fair to good. Cotton progressing well in Pahrump Valley. First irrigation has started. Cattle

and sheep remain in generally good condition with ranges needing more moisture.

NEW ENGLAND: Mild nights all week. Days hot first half north but cool nearly all week central and south. Means ranged from 2° to 8° above normal in extreme north to 1° to 6° below normal most of area. Rain daily except in north where dry first half of week. Showers frequent, some rather heavy in thunderstorms latter half of week. Totals variable but mostly 0.50 to 2.00 inches, except mostly 2.00 to 5.00 inches in Connecticut. Cloudy, wet, cool weather continues. Rhode Island and Connecticut received heavy rain and high winds from Agnes. Hay prospects poor. No curing weather. Lodging and tangled stands add to problem. Very little in barn to date. Corn for silage planting ranges from 75% to complete. Lettuce and strawberries being harvested with effects of water damage. Control of disease in apple orchards becoming more difficult. Flooding caused some damage to cranberry bogs. Potatoes in Aroostook County, Maine, up and looking good.

NEW JERSEY: Very wet and very cold for late June. Rainfall, chiefly from Tropical Storm Agnes, varied from 1.52 inches at Long Branch to 6.26 inches at Woodstown. North Jersey averaged 4.20 inches, central and southern interior 3.60 inches, and coastal division 1.80 inches. The greatest 24-hour rainfall total was 4.55 inches at Woodstown. Temperatures averaged from 6° to 10° below normal with readings ranging from upper 40's to the mid-80's. Property damage from flooding confined mainly to northern 1/3 State. One fatality by drowning resulted from flooding when a woman drove into a creek while trying to bypass a detour. Soil moisture excessive in almost all areas as result of Agnes. Some crop loss resulted from flooding. Extent of loss not known as yet. Future disease and rot losses are possible. Most vegetables were coming along nicely before the rain. Snapbean harvest had just begun. Light blueberry harvest was underway. Mechanical harvest will not be possible until fields dry off. Strawberry losses heavy northern areas. Hay and grain harvest behind schedule. Some lodging has resulted.

NEW MEXICO: Light showers midweek. Temperatures averaged below normal northwest and much above normal southeastern plains. Moisture short to adequate. Few areas very short. Rain, hail damage to crops some areas. Extensive damage Lea County. Wheat harvest active. Dryland yields below normal. Grain sorghum fair to good. Alfalfa hay fair to good. Second cutting underway south. First cutting complete all areas. Cotton progressing well. Crop fair to good condition. Cool nights hamper growth. Barley harvest active. Lettuce harvest active Velencia County. Ranges fair to good. Improving as rains covered many areas. Livestock fair to good. Supplemental feeding continues most areas.

NEW YORK: Weather dominated by catastrophic effects of Tropical Storm Agnes during period of June 20 to 23. Preliminary and sketchy reports indicate total storm rainfall of 10.00 to 14.00 inches in southwestern tier with devastating floods from Cataraugus to Tioga Counties. Totals 4.50 to over 7.00 inches in Finger Lakes where lesser but crippling floods also occurred. Amounts decreased to 1.00 to 2.00 inches Hudson Valley and northwest and on Long Island to 0.50 inch in northeast. Preliminary death toll 23. Warming early week with highest in 80's on 19th and

20th. Cool days and mild nights remainder of week. Averages below normal especially coastal sections. Heavy rains and floods seriously damaged some low-lying field crops and vegetables in southwestern and south-central areas. No significant livestock losses. Statewide field conditions poor, soil water logged. Cool wet weather with heavy overcast preventing good drying and growing conditions. Corn growing very slowly. Oats and wheat in good condition, but some lodging. Dry bean planting stopped. Some fields lost due to heavy rain and flooding. Planting and re-planting to continue as weather permits. Haying operations severely hampered, quality poor. Western New York acreage losses sustained on potatoes, snap beans, sweet corn and cabbage. Too early to evaluate over-all loss. No severe flooding in the major mucklands of Orange, Orleans and Genesee counties. However, some heavy flooding occurred in smaller muckland areas. Sizing of fruit crops in Hudson Valley and western New York continues. Fruit damage not expected to be significant. Brown rot conditions posing potential loss to stone fruits. Some loss of grape set in Finger Lakes expected due to heavy rain during bloom stage.

NORTH CAROLINA: Rain daily from Hurricane Agnes until clearing began after storm moved northward 22d. Some 24-hour amounts over 5.00 inches, greatest totals over 10.00 inches. Sectional averages 4.00 to 7.00 inches Mountains and Piedmont 2.00 inches Coastal Plain. Much flooding of low grounds. Wind damage slight. Temperatures below normal. Rains beneficial to all crops. Rains excessive some places Piedmont and Mountains. Average 2 days fieldwork. Flue cured tobacco mostly fair. Harvest border and eastern belts. Corn fair to good. Cotton poor to good, mostly fair. Peanuts mostly fair. Soybeans, hay crops, Irish and sweet potatoes, apples, pasture conditions mostly good. Peaches mostly fair. Small grain harvest interrupted, now active. Wheat harvest 22% complete, compared with 25% this time last year. Oats 32% and 43%, barley 43% and 61%, rye 25% and 41%.

NORTH DAKOTA: Cool first of week followed by warming trend. Scattered light frost Tuesday morning. Temperatures averaged 3° to 8° below normal. Sunny except scattered showers mostly on weekend. Precipitation totals varied from none to about 1.00 inch. Crop development made good progress past week. Crop planting virtually complete. Over 3/4 millet in ground. Most winter wheat and rye headed. About 1/4 small grains in boot or beyond. Topsoil moisture short several areas. First cutting alfalfa making good progress.

OHIO: The remnants of Hurricane Agnes made themselves felt over eastern Ohio from 20th to 25th. Temperatures were much below normal on 21st to 25th. The lows range from the mid-40's to the upper 50's. In the north, highs were mostly in the 50's and 60's while in south they were in 60's and 70's. Northeastern Ohio counties were affected the most by Agnes. From evening of 22d to evening of 23d, Cleveland Hopkins Airport had 4.08 inches of rain. Some of eastern suburbs of Cleveland had nearly 5.00 inches of rain. Rainfall amounts deminished on 24th and 25th. Crop maturity and development retarded as cool temperatures prevailed throughout the week. Soil moisture supplies reported 58% adequate, and 42% surplus. Corn average height is 13 inches, and 9 inches below last year, 3 inches below 1967 to

1971 average. Soybeans averaged 4 inches in height, 1 inch below the 5-year average and 4 inches below last year's height. Tobacco about 95% set. Wheat crop 65% turning or beyond compared with 75% last year. First cutting alfalfa 85% complete, clover-timothy 65%.

OKLAHOMA: Rainfall averaged from 0.20 inch southwest to 1.80 inches northeast. Substantial showers northeast 2/3 of State over weekend. Temperatures averaged near normal southwest and south-central and 1° to 6° below normal elsewhere. Temperatures, 100° or above common in southwest on 25th. Wheat harvest 93% completed. Harvest essentially finished all areas except Panhandle where rains have delayed progress. Only few scattered fields oats and barley remain to be harvested. Farmers plowing stubble fields all areas. Surface soil moisture rated 78% short. Subsoil 71% short. Weekend rains will help improve conditions several localities. Most row crops remain fair to good condition. Considerable hail damage past week several western areas especially Panhandle. Western area; corn, sorghum, cotton to be replanted where damaged by washout and hail. Planting row crops essentially completed except where replanting necessary or sorghum following small grain. Corn 1/4 tasseling small acreage dough. Few fields cotton beginning to square. Pasture and ranges need additional moisture but most livestock remain good condition.

OREGON: Mostly mild dry week with warm days mid-period. Temperatures averaged near normal with 2° to 5° below normal north-central, northeast and 1° to 6° above normal south-central. Minima 33° to 52°, maxima 65° to 88°. Light precipitation 1 to 2 days northeast totaled less than 0.10 inch; north coast 2 to 5 days, 0.10 to 0.22 inch. Moderate weather ideal for pea and strawberry harvest. Cherry harvest gaining momentum, strawberry harvest 80%. Picking just starting red raspberries. Few blue grass and fescue fields swathed. Wheat starting to turn color, barley approaching harvest rapidly. Vegetables and field-crops good condition.

PENNSYLVANIA: Devastating floods many areas followed torrential rains from Tropical Storm Agnes. Precipitation totals ranged from 3.00 to 4.00 inches extreme east and west, to 10.00 to over 13.00 inches Susquehanna Valley regions. Harrisburg measured 13.59 inches. Heaviest amounts fell late Wednesday through Thursday night. 24-hour totals exceeded 7.00 inches some stations. Rains continued over weekend many areas. Major disaster flood-stricken areas of State. Death toll has (Tuesday, June 27) reached 44. Preliminary damage estimated at over \$1 billion, with nearly \$40 million in crop loss. Temperatures unseasonably cool after midweek, averaging 6° to 12° below normal. Crops, farm buildings, equipment, and feed supplies have been inundated by flood waters in low-lying areas along major streams and rivers. Winter grains have lodged. Row crops washed by heavy rains. Fieldwork at virtual standstill. Hay crops over matured and cherry crop damaged.

PUERTO RICO: Below-normal rainfall and record high temperatures. Rainfall averaged 0.32 inch or about 1.00 inch below normal. No rain north-central coast through western interior to west coast. Generally good showers southeast and south-central coast with highest weekly total of 1.59 inches. Agricultural drought continued intensifying in central sections of island but has eased in south and north coastal zones. Dry

southerly winds brought record high temperatures along northern coast where maximum temperatures equalled or exceeded 90 degrees most of week. Highest maximum 96° lowest minimum 60° with mean departure of about 1.0 degree above normal and with most northern stations averaging 2 to 5 degrees above normal. Sugar cane harvesting ended most zones. Only few plantations completing harvesting operations under favorable weather conditions. Yellow aphids still active in southwest plantations. Coffee plantations report drought affecting bean development in central zones. Herbicides been applied in most zones. Tobacco harvesting of second crop now underway with recent rains causing some erosion damage in northeast. Pasture zones report drought causing damage islandwide. Major loss of pastures reported in central zones. Some losses of cattle also reported. Minor crop zones report conditions too dry for good development. Only cultivating operations presently underway but no seeding due excess dryness.

SOUTH CAROLINA: Tropical depression Agnes traversed State early in week. Latter part of week mostly clear and cool. Rainfall amounts ranged from 6.00 to 9.00 inches in mountains and 5.00 to 6.00 inches in upper Piedmont to less than 3 inches in parts of central and northeast. Temperatures averaged about 4° below normal. This is 9th consecutive week of below-normal temperatures. Tobacco crop improving, 5% harvested, 38% topped. Corn good to excellent condition, cotton fair. Hay crops, pastures good condition. Wheat, oats fair condition. Wheat harvest 68% complete, oats 78% compared with 64% and 85%, respectively, a year earlier. Barley 80% harvested. Soybean planting 83% complete compared with 85% a year ago. Stands good. Sorghum planting 76% complete compared with 80%. Peaches fair to good condition. Harvest 9% complete. Grapes good condition. Tomato harvest continuing, cucumber harvest near completion. Peanut planting essentially complete. Sweet potato planting 88% complete compared with 86%. Watermelons good condition.

SOUTH DAKOTA: Cool and relatively dry most of week over much of State. Weekly temperatures averaged from 7° to 10° below normal. Extremes ranged from 31° at Shadehill Dam on 20th to 91° at Belle Fourche and Hot Springs on 23d. Precipitation fell as general showers and thunder-showers at end of week. Totals ranged from less than 0.10 inch to over 1.00 inch. Fieldwork good progress most areas, some localities slowed by previous rains. Seeding small grains and planting row crops nearing completion, considerably behind normal. Early-planted crops making rapid growth, but many fields just emerging. Recent showers delayed alfalfa hay harvest some areas but improved crop prospects. Corn ranged from just planted to about 16 inches high and making good progress. Winter wheat and rye near normal maturity, many fields turning color. Considerable lodging winter wheat occurred main growing areas. Spotted hail damage apparent many local areas across State. Alfalfa weevil damage heavy western parts. Some spraying being done to control green bug population in sorghum fields.

TENNESSEE: Rainfall moderate east to light to none most other areas. Totals none parts of central and west to over 2.00 inches mountains and extreme southeast. Unseasonably cool weekend; extremes: 96° and 43°. On the average 4.9 days suitable for fieldwork. Soybean planting over 90% complete. Wheat and oats 50%, barley 70%,

and second cutting alfalfa hay 35% harvested. About 25% cotton acreage squaring. Pastures declined for the 3d consecutive week. Supplemental feeding some dry areas.

TEXAS: Drought parched north-central Texas received good rains for 2d week in row as moderate to locally heavy showers fell in eastern Panhandle, Low Rolling Plains, north-central and east Texas Wednesday. Showers continued in northeast Texas Thursday. Much hotter than previous week with maxima of 100° or above common in west and central Texas. Wichita Falls recorded 111° Sunday. Harvest of wheat, oats moving toward completion. Yields and test weights better than expected. Planting cotton, sorghum, peanuts, soybeans nearing completion. Some cotton on High Plains replanted to soybeans. Harvest of sorghum started in South Texas. First bale of cotton picked in Lower Rio Grande Valley June 20th. Percent planted major crops: cotton 99, 98 last year, sorghum 97, 96 last year, peanuts 72, 70 last year, soybeans 94, 92 last year. Percent harvested; wheat 72, 73 last year, oats 99, 99 last year. On the High Plains onions and potato harvest get underway this week. Carrots, cucumbers continue to make good growth. In central and East Texas light supplies of watermelons available. Tomato harvest continues. Sweet potato planting complete. In the Winter Garden-San Antonio area, carrot harvest nearing completion. Light supplies of melons remain available. At Laredo watermelon harvest underway again after delay due to rain. Cantaloupes damaged due to excessive rains. In the Lower Rio Grande Valley land preparation continues for fall crops. Only green peppers being harvested. Peach harvest gaining momentum. Some damage to pecans by casebearers and aphids. Citrus trees in good condition.

UTAH: One rose does not make a summer, nor did the few heavy scattered thunderstorms past week break the drought. Accumulated amounts of moisture quite variable, ranging from little or none to well over 1.00 inch. Local heavy thunder-shower activity produced some flash flooding with damage to crop and range land. Maximum benefits from rainfall not received because of heavy runoff and lack of infiltration, but moisture of last several weeks should help to relieve severe drought conditions in some areas of southern Utah. Much non-irrigated crop and rangelands still very short of moisture, and summer range feed. Supplies continue only fair. Temperatures averaged near normal. Soil temperatures, at 4-inch depth, ranged from upper 60's Cache Valley, to mid-70's Salt Lake City and Richfield, and the low 80's Utah's Dixie. Accumulation of growing degree days, since March 1, continues well above normal. Weather very favorable for cutting first crop alfalfa hay last week. About 80% acreage cut June 25th. Some clover-timothy and wild hay cutting will start this week in lower valleys. Condition of potatoes reported good, sugar beets fair to good, corn fair to excellent.

VIRGINIA: Rainfall from 0.50 inch to over 13.00 inches with Hurricane Agnes resulting in record high damage to property and crops mostly from flooding. Temperatures were mostly below to much below normal. Farmwork schedule shattered by tropical storm Agnes. Rainfall heaviest in west and Piedmont areas. In drainage basins of James River and other rivers in northern portion of State. Strong gusty winds on June 21. Streams reached record flood levels inundating lowland crops and pastures. Extent of loss not known.

Flooded farmers faced awesome task of moving livestock, feed, machinery, and equipment. Extensive damage to fencing farm roads, buildings, and machinery. Some livestock lost. Most corn planted but condition below earlier. Strong winds downed considerable acreage but this may "lift" if favored by warm sunny weather. Insect infestation continues but spraying at standstill. Undetermined acreage lost to flooding. Older corn in east and southeast reaching silk stage. Soybean planting brought to a halt. Considerable lowland acreage flooded. Some replanting may be done. Sunny warm weather needed. Combining small grains, stopped by storm. Barley 1/3 complete, oats 1/5. Wheat harvest starting. Severe lodging of small grains. Peanuts generally escaped the onslaught of Agnes. Tobacco received much needed rain. Lot of hay on ground when rains began. Large tonnage lost during week.

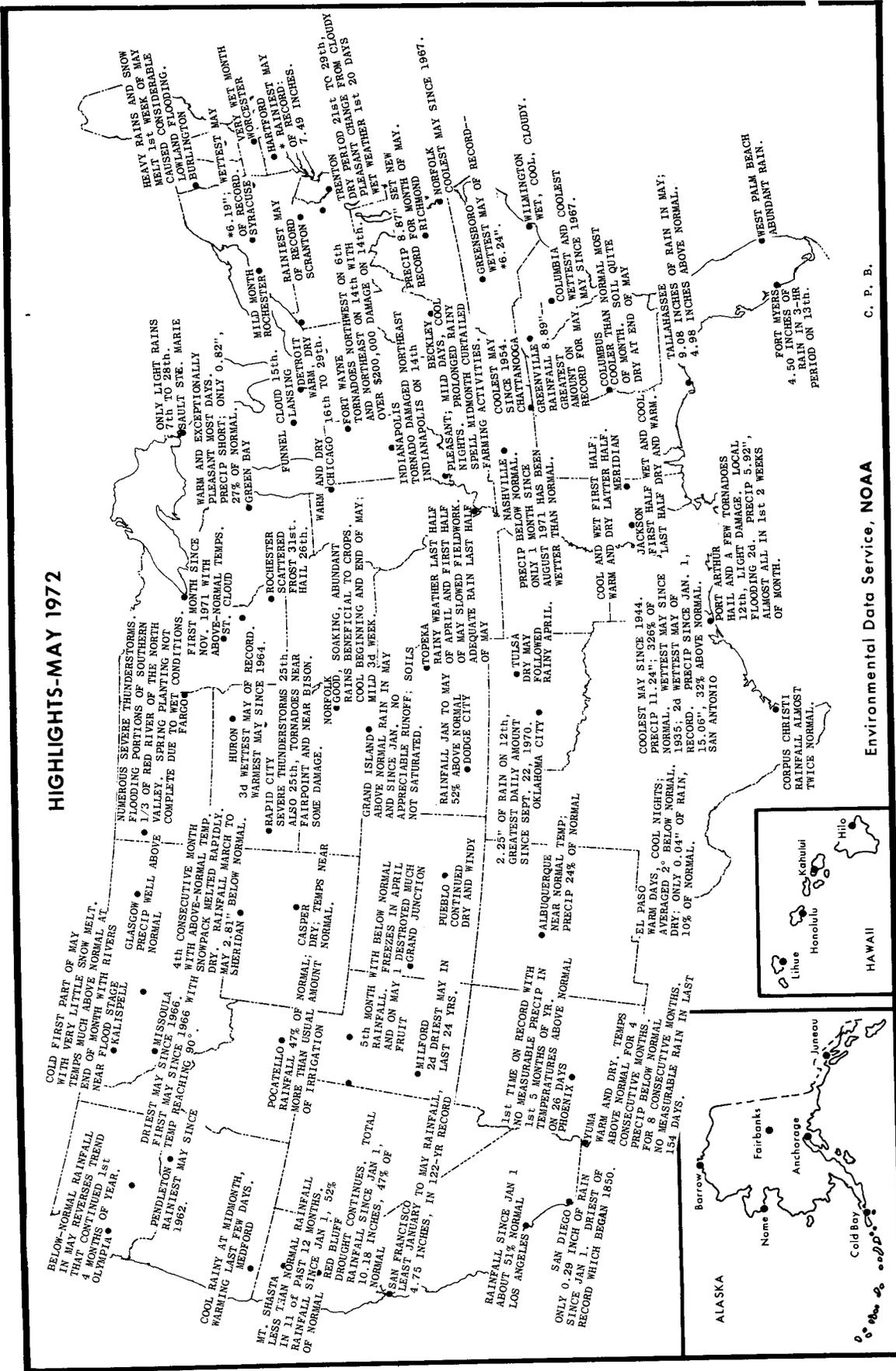
WASHINGTON: Western Washington: Cool, cloudy, showery weather prevailed throughout period with most of the rain falling over the northern sections. Haying interrupted and downed hay suffered from showers. Green peas looking well along with raspberries. Shearing of pine Christmas trees begun and tulip bulb digging underway. Pastures in good condition with adequate range and pasture feed. Eastern Washington: Moderate daytime and cool nighttime temperatures prevailed with heavy showers over the northern districts. Haying activities delayed by showers while grains prospered in the precipitation areas. Corn continued to grow slowly. Asparagus and green pea harvests nearing completion in Yakima Valley and cherry harvest proceeding. Orchard cleanup underway in previously flooded areas. Summerfallow work continuing and swathing of bluegrass underway.

WEST VIRGINIA: Exceptionally large amounts of rainfall from remnants of Hurricane Agnes. Particularly in southern and eastern sections. Average temperatures over 20° below normal after midweek. Too wet, only 1 day favorable for fieldwork. Farmers activities primarily routine chores, fencing, and repairing machinery. Tobacco growing areas setting and resetting very active. Warm sunny days needed for crop development.

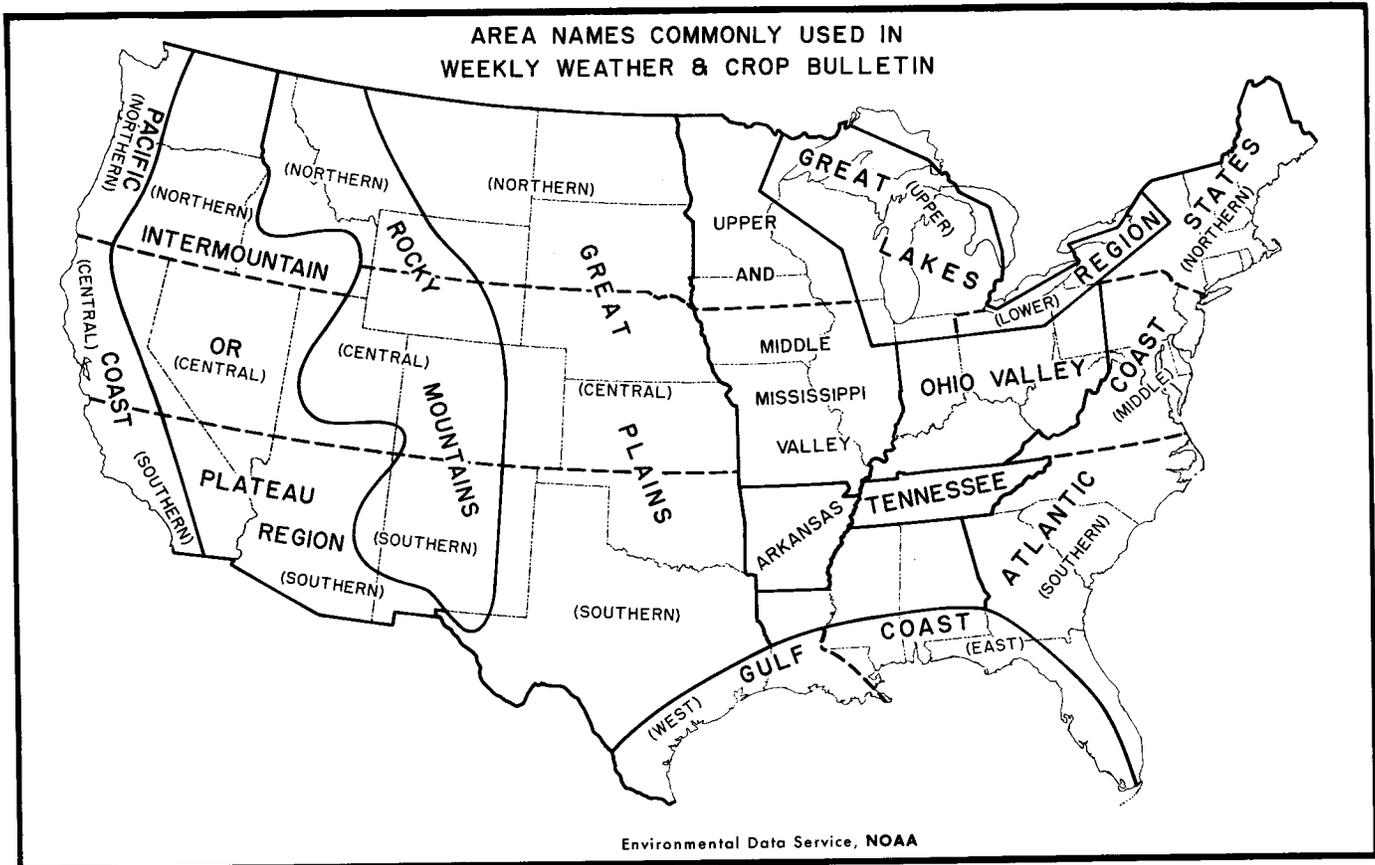
WISCONSIN: Mostly sunny and cool week. Several nights of near freezing temperatures. Brisk northerly winds most days made for good haying weather. First cutting 60% harvested. Yields very light generally but quality excellent. Soaking rains needed most areas to assure growth for second crop. Corn doing good, but slowed by cool temperatures and lack of moisture. Average height 11 inches. Corn fields quite variable due to large spread in planting dates and poor germination late-planted fields. Oats heading out on short straw. Crop improving, but yields only expected to be fair due to earlier hot and dry weather and carryover Atrazine damage. Pea harvest in full swing. Tobacco transplanting completed. Strawberry harvest going on. Much winter-kill hurt prospects. Soil moisture 1/3 short and 2/3 adequate.

WYOMING: Showers general over Wyoming. Amounts varied from light to heavy. Some snow higher elevations. Some areas suffered severe hail losses and some frosts reported. Kaycee reported the most moisture with 2.68 inches. Temperatures averaged near normal. Maxima mostly 70's west of Divide, 70's and 80's east. Minima were mostly 30's west of Divide, 35° to 45° east. Temperature extremes: 90° at Basin and Torrington and 25° at Bondurant. Agricultural activities included irrigating, cultivating, haying and sugar beet thinning. Movement cattle and sheep nearing completion. About 2/3 spring wheat and 1/2 barley headed. Sugar beets 88% thinned. Livestock and pasture good condition. Surface and subsoil moisture supplies short to adequate.

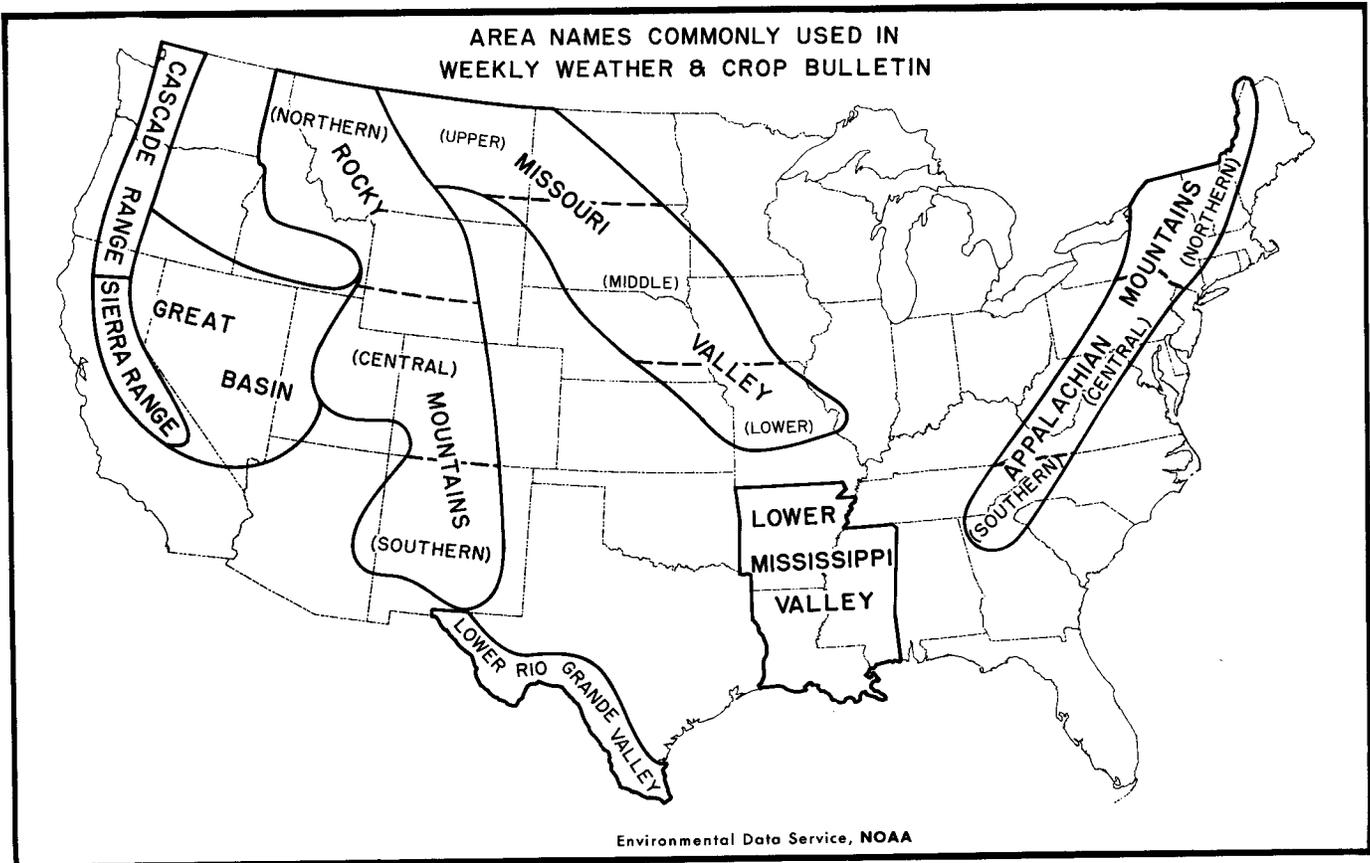
HIGHLIGHTS-MAY 1972



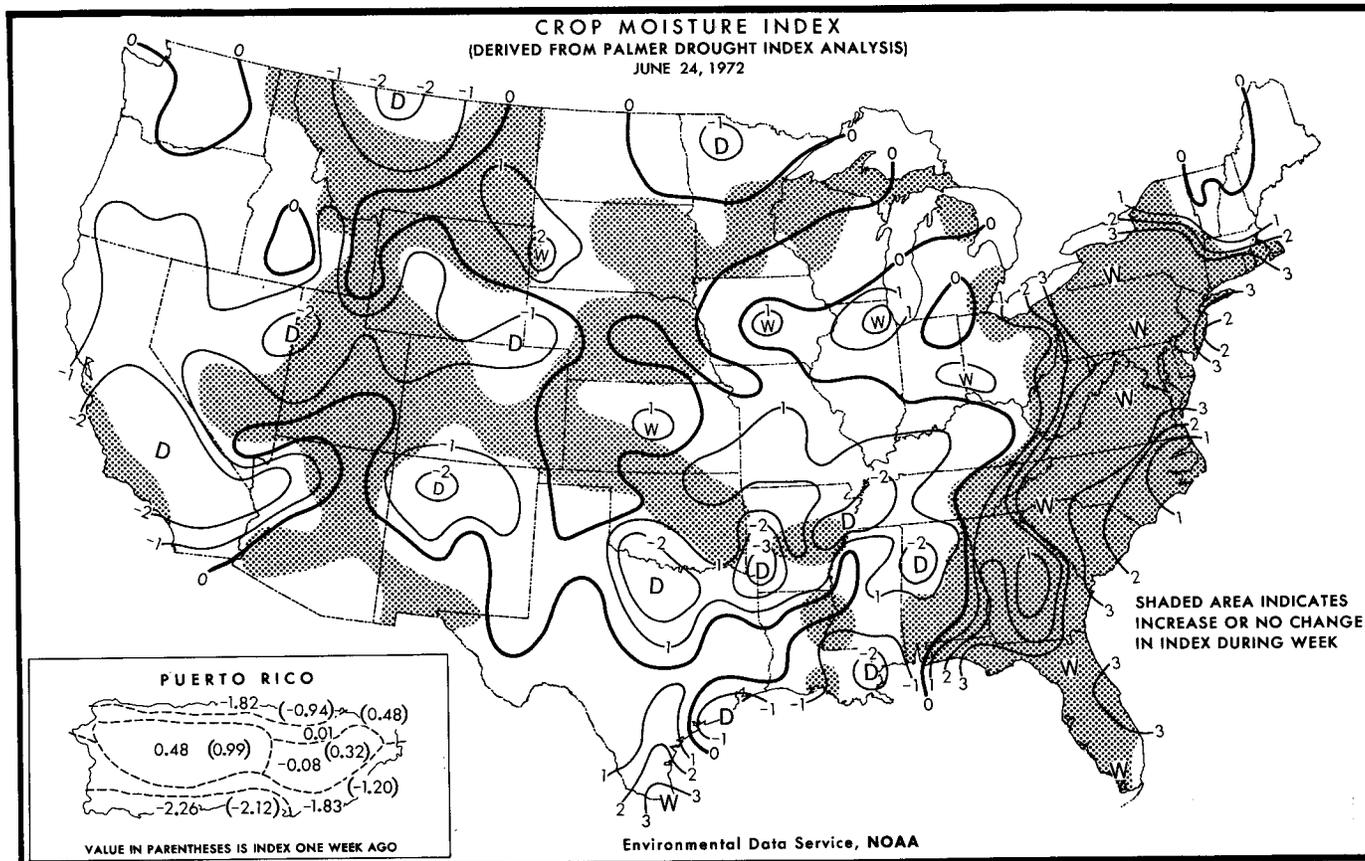
Environmental Data Service, NOAA C. P. B.



REVISED JUNE 1972



REVISED JUNE 1972



INDEX DECREASED DURING WEEK
(Unshaded Areas)

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

INDEX

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

INDEX

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

The map above is based on weekly areal mean values of temperature and precipitation for 350 climatological divisions. Weather during previous weeks has been taken into account through successive weekly computations of both topsoil and subsoil moisture. The map shows recent crop moisture conditions; i.e., areas in which crops have been hindered by abnormal dryness or wetness, and areas where moisture conditions have been favorable.

This is a generalized picture; local variations caused by the occurrence or absence of heavy rain or by soil differences are not shown. Shallow rooted crops and crops in areas with poor soils are likely, on occasion, to suffer more than indicated. Conditions may be better than shown in areas having exceptionally good soils.

The legend applies primarily to growing rather than matured vegetation. Interpretation of the

effects on crops and native vegetation must, therefore, take account of the stage of growth as well as the status and trend of moisture conditions. The trend is indicated by the shading which denotes areas where the index did not decrease below its value of a week previous; i.e., conditions did not become noticeably drier during the week. A trend toward drier occurred in the unshaded regions. The lines show the crop moisture situation according to the computed index values which may be interpreted using the legends above. One legend applies to the unshaded areas, the other to the shaded. Centers of relative maximum and minimum index values are marked for easier recognition - W for wet and D for dry. In irrigated regions the index values merely reflect departures from ordinary irrigation requirements.



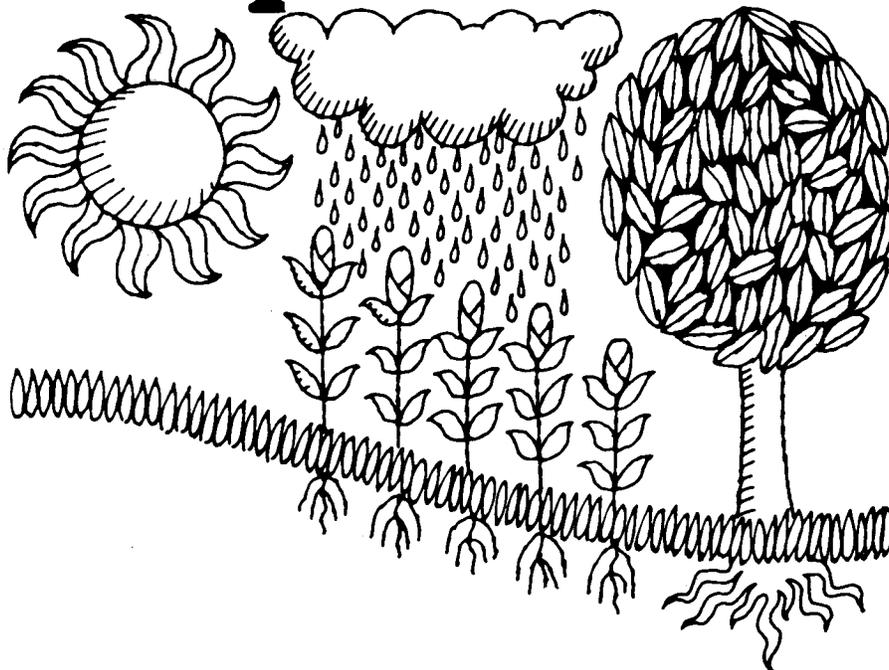
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