

# WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration,  
National Weather Service

U.S. DEPARTMENT OF AGRICULTURE  
Statistical Reporting Service  
and World Agricultural Outlook Board

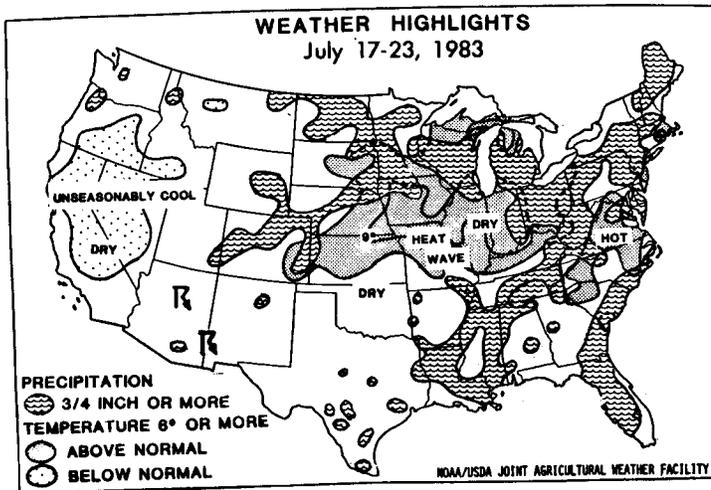
Volume 70, No. 30

WASHINGTON, D.C.

July 26, 1983

## National Weather Summary

July 17 to 23



**HIGHLIGHTS:** Hot, dry weather prevailed over most of the Corn Belt. High temperatures averaged 8-110 above normal over the Corn Belt. Afternoon temperatures rose to over 100° over the western Corn Belt on most days, and moved eastward to western Ohio during the week. Cooler air moved southward into the area as the week ended. Cool weather dominated the West. Little or no rain fell from western Texas into the central Plains and eastward through southern Iowa and Missouri to Indiana. The hot, dry weather aided harvest of winter wheat but severely stressed corn and soybeans.

**SUNDAY...**Thunderstorms continued to rumble from eastern New Mexico and Colorado through Nebraska to Minnesota, and then spread westward through Montana and eastward through Wisconsin and Michigan to the upper Ohio Valley. Widely scattered storms developed across the South and through the southern and central Appalachians. Hot weather continued in much of the East, and temperatures in the nineties spread over the central Plains and most of the Corn Belt.

**MONDAY...**Showers and thunderstorms reached from southeastern Texas to the upper Ohio Valley, and over most of the Southeast. A near stationary front triggered showers from northern Montana through North Dakota and Minnesota, and from northern Iowa to southern Michigan and Ohio. Afternoon temperatures reached 100° in the central Plains and readings in the middle to high nineties spread through most of the Corn Belt.

**TUESDAY...**Temperatures reached 100° or more again in the central Plains and spread into Montana and the western portion of the Corn Belt. Readings in the high nineties reached into Indiana. Showers and thunderstorms were widely scattered across the South, through the east coast states, and along a line from North Dakota to the central and upper Ohio Valley.

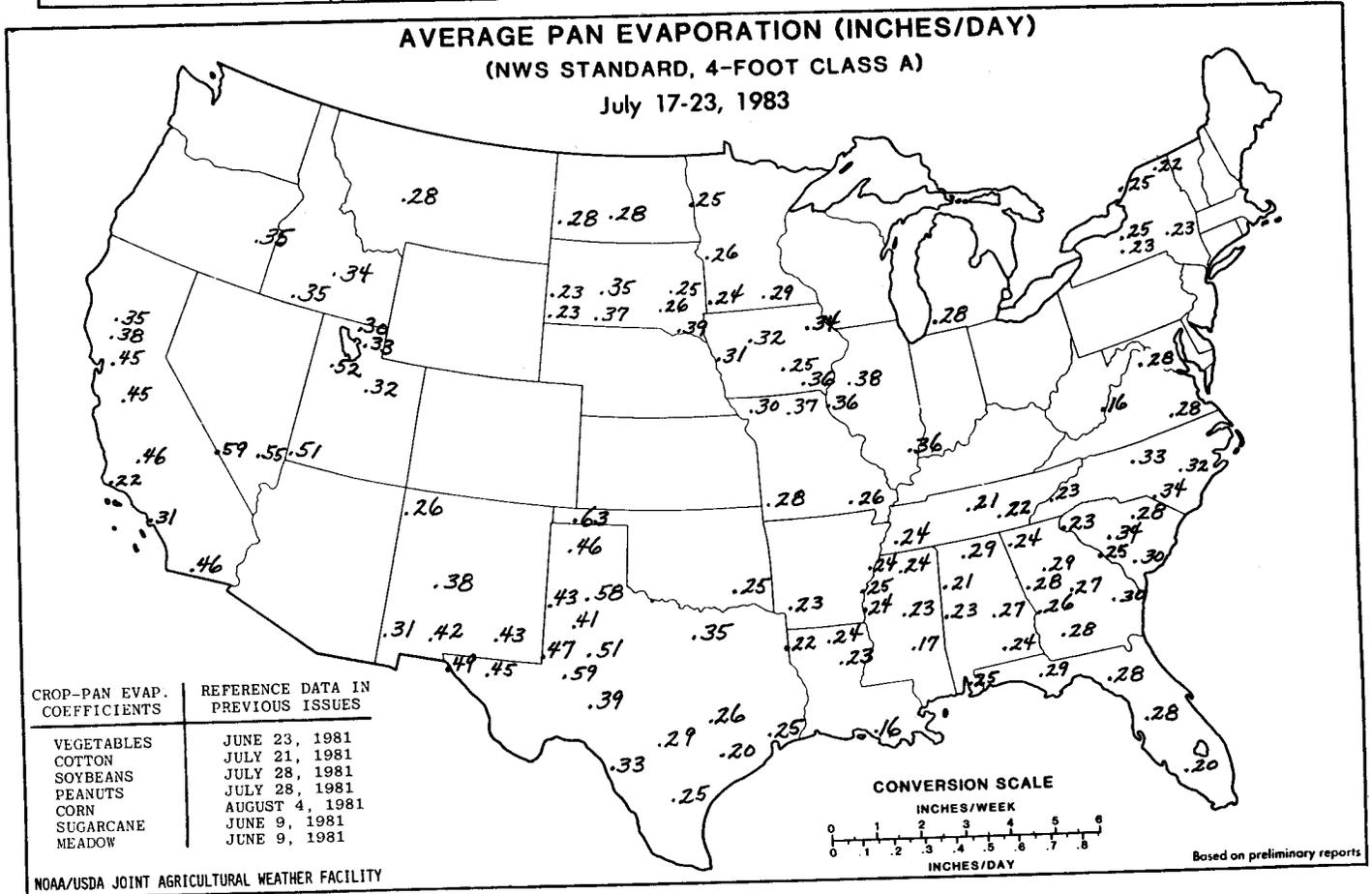
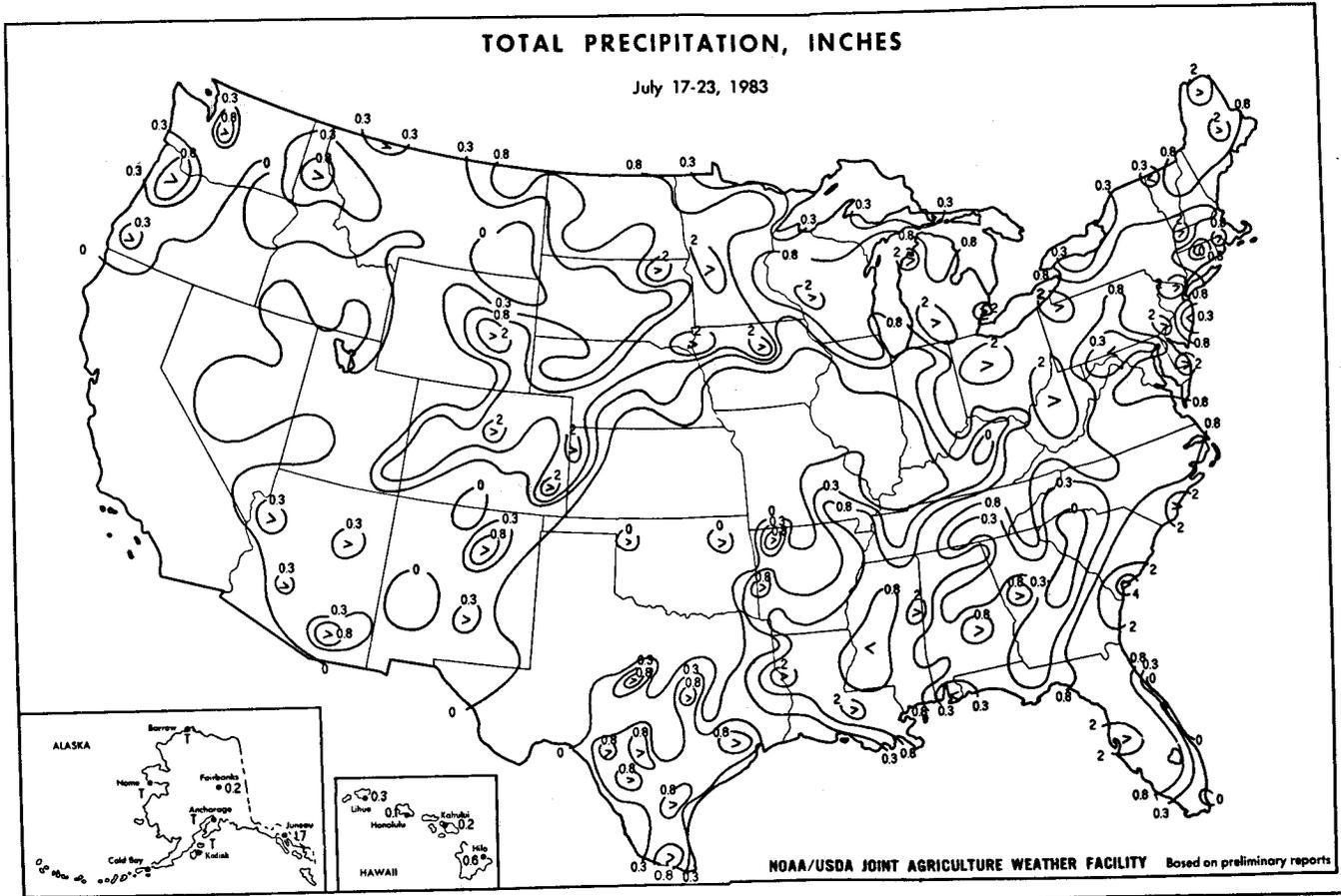
**WEDNESDAY...**Hot, dry weather reached from the southern Plains to South Dakota and eastward through Indiana. High temperatures of 100° or higher reached from Kansas to South Dakota and western Indiana. Showers fell along the eastern gulf coast, the western side of the southern and central Appalachians, and through Maryland. Monsoon showers reached through the Southwest to Utah and western Colorado, and showers fell from Washington eastward to northern Minnesota.

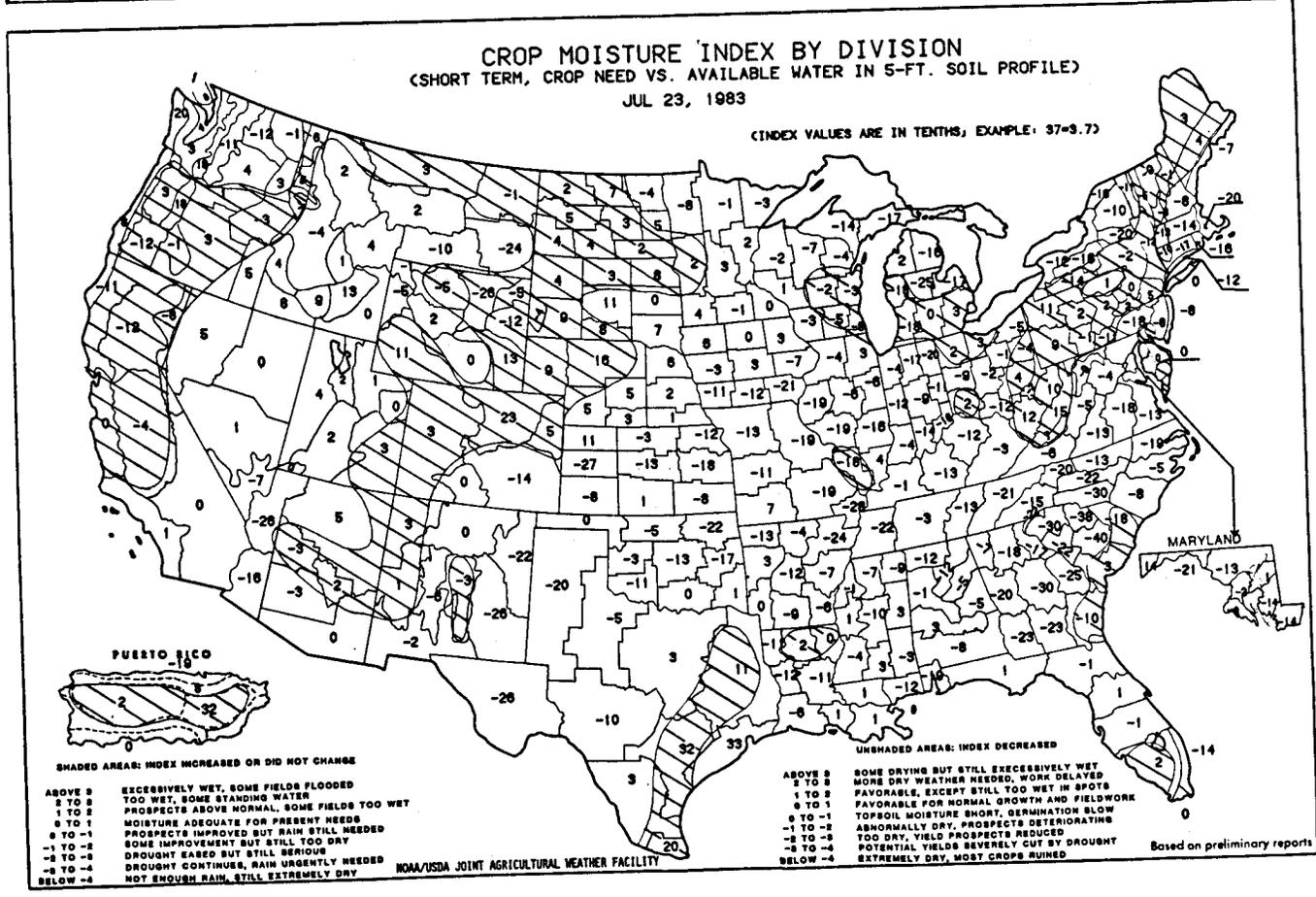
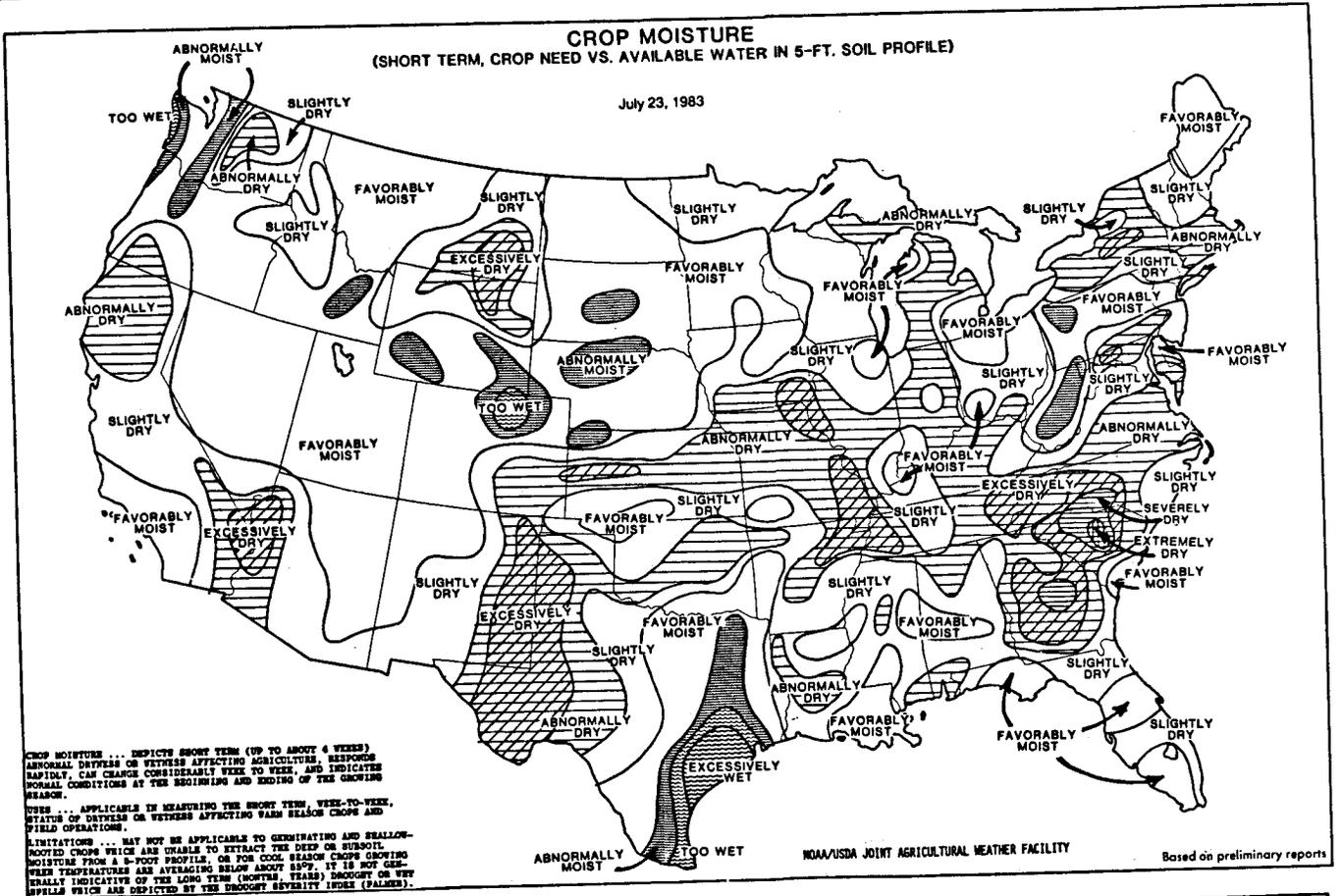
**THURSDAY...**High temperatures in excess of 100° covered the central Plains and eastward into western Ohio. This was the third day of 100+ temperatures over much of the Corn Belt. Cooler weather was pushing into the Rockies and the northern Plains. Showers and thunderstorms covered the Northeast from Michigan to Virginia and New England. A few showers continued along the gulf coast and the monsoon was active in the Southwest.

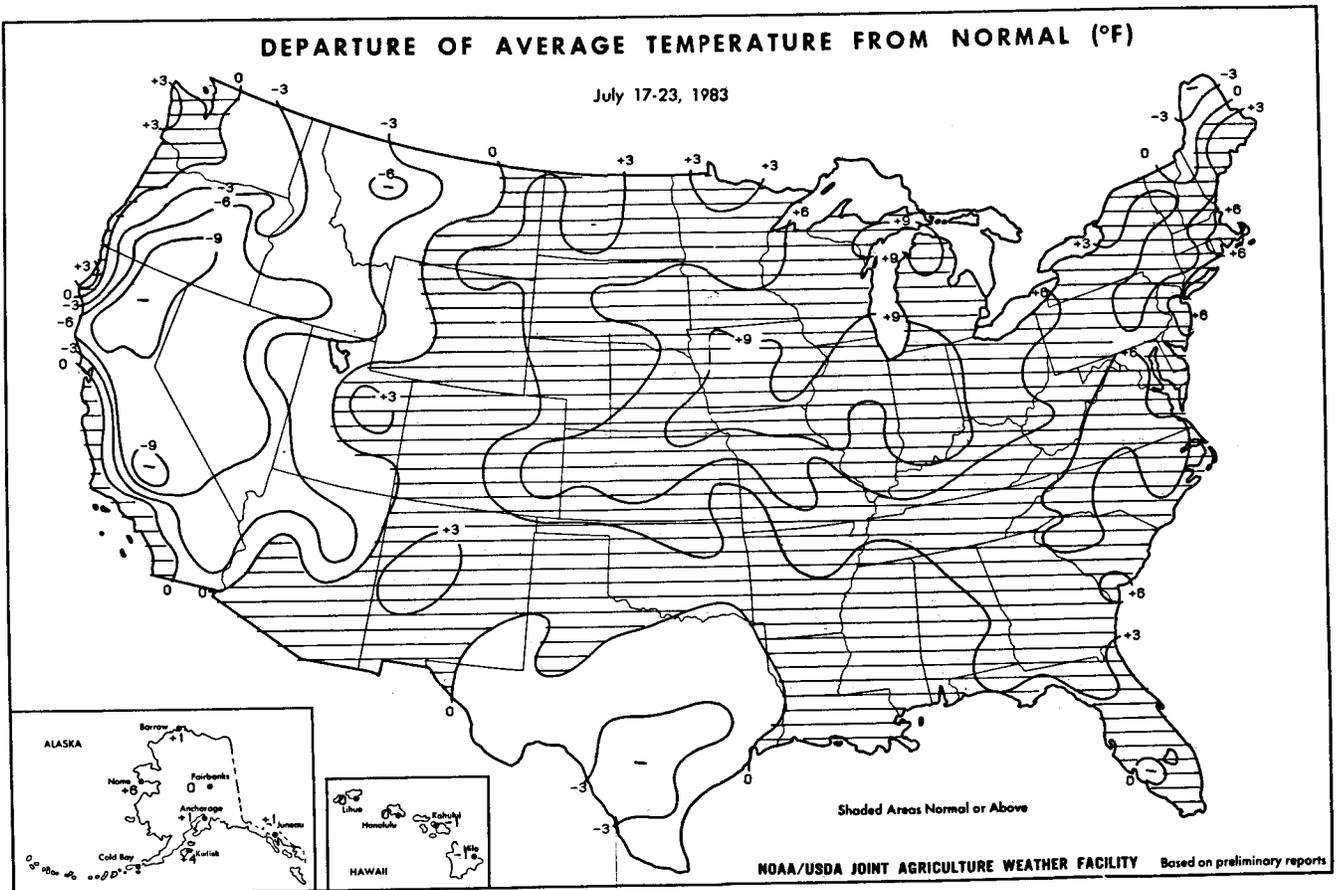
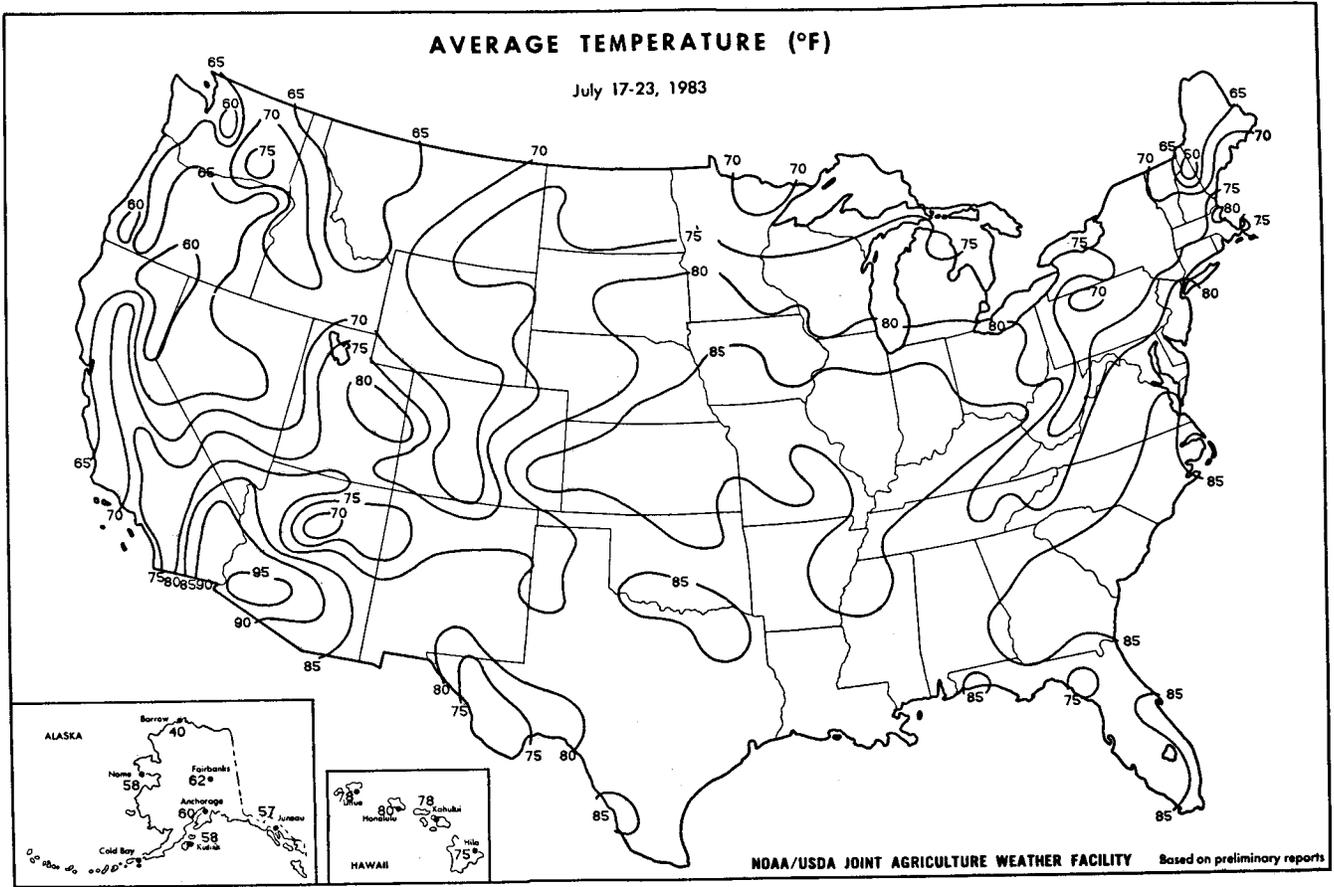
**FRIDAY...**The very hot weather in the central Plains, the Corn Belt, and the Southeast persisted, but cooler temperatures were slowly spreading from the North. Showers and thunderstorms fell ahead of the cooler air from northern Iowa into Wyoming and

(continued on p. 5)

Contents	Page
National Weather Summary . . . . .	1
Precipitation & Pan Evaporation . . . . .	2
Crop Moisture & Crop Moisture Index . . . . .	3
Average Temperature & Departure . . . . .	4
Weather Data for Selected Cities . . . . .	5
June Streamflow . . . . .	8
National Agricultural Summary . . . . .	9
Crop Progress . . . . .	10
State Summaries of Weather & Agriculture . . . . .	11
International Weather & Crop Summary . . . . .	17
Subscription & Mailing Permit Information & Growing Degree Days . . . . .	20







Weather Data for the Week Ending July 23, 1983

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAY 29	PCT. NORMAL SINCE MAY 29	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	94	72	97	69	83	3	.3	-1.0	.3	3.9	49	38.2	117	93	50	6	0	1	0
MOBILE	93	72	95	71	83	1	.2	-1.6	.1	9.2	82	47.9	126	88	49	7	0	5	0
MONTGOMERY	96	73	100	69	84	2	1.1	0	1.1	8.3	111	45.9	152	92	48	7	0	1	0
AK ANCHORAGE	66	53	69	46	60	1	T	T	T	1.2	52	3.7	66	80	53	0	0	2	0
BARROW	48	32	65	29	40	1	T	T	T	.2	18	.5	21	95	70	0	4	4	0
FAIRBANKS	71	52	79	48	62	0	T	T	T	.2	2	.5	81	39	0	0	4	0	0
JUNEAU	64	50	71	44	57	1	1.7	.8	.9	4.9	79	18.7	80	98	67	0	0	4	1
KODIAK	66	50	72	45	58	4	T	T	T	10.7	162	48.7	150	91	58	0	0	1	0
NOME	65	50	71	47	58	6	T	T	T	1.2	40	3.0	45	92	60	0	0	1	0
AZ PHOENIX	104	84	110	79	94	1	T	T	T	.3	43	5.5	162	46	20	7	0	1	0
PRESOTT	86	64	92	57	75	1	.1	-.7	.1	.3	11	5.2	64	65	33	3	0	4	0
TUCSON	99	74	105	71	86	0	.9	.3	.5	1.4	74	5.6	119	57	25	6	0	1	0
YUMA	106	83	110	78	95	1	0	-.1	0	0	0	1.3	130	46	21	7	0	0	0
AR FORT SMITH	92	72	94	69	82	0	T	T	T	6.1	95	19.0	79	91	48	6	0	0	0
LITTLE ROCK	96	76	99	72	86	4	.1	-.6	.1	3.5	57	25.4	86	85	47	7	0	2	0
CA BAKERSFIELD	90	60	97	56	75	-10	0	0	0	0	+100	6.9	192	71	22	4	0	0	0
EUREKA	66	55	69	52	60	4	0	0	0	1.6	200	36.7	162	94	68	0	0	0	0
FRESNO	92	60	97	57	76	-6	0	0	0	0	+100	16.3	243	66	20	4	0	0	0
LOS ANGELES	77	63	82	61	70	0	0	0	0	0	+100	20.6	261	87	51	4	0	0	0
RED BLUFF	88	58	96	55	73	-10	0	0	0	.2	40	29.3	234	70	21	4	0	0	0
SACRAMENTO	84	53	92	50	69	-7	0	0	0	.4	400	23.7	730	90	29	1	0	0	0
SAN DIEGO	79	69	84	67	74	3	0	0	0	0	+100	14.2	233	80	54	0	0	0	0
SAN FRANCISCO	72	56	76	51	64	2	1.1	.7	.6	4.9	158	14.8	154	81	33	4	0	3	1
CO DENVER	89	61	96	57	75	1	1.1	.7	.8	3.4	486	8.6	205	70	30	5	0	5	1
GRAND JUNCTION	92	68	98	63	80	0	1.5	1.4	.8	3.4	86	8.3	126	69	20	7	0	2	0
PUEBLO	98	64	101	59	81	4	.2	-.3	.2	2.8	104	8.3	126	69	20	7	0	2	0
CT BRIDGEPORT	85	66	90	61	75	1	.6	-.2	.4	5.4	93	35.1	160	85	49	1	0	2	0
HARTFORD	89	64	94	60	77	3	0	-.7	0	4.5	75	33.4	141	76	34	3	0	0	0
DC WASHINGTON	93	75	99	65	84	5	1.2	.3	1.0	9.7	149	30.1	161	77	41	5	0	1	1
FL APALACHICOLA	92	74	95	73	83	1	.6	-1.1	.6	9.6	91	36.7	134	90	57	7	0	1	1
DAYTONA BEACH	94	73	96	71	84	2	T	-1.2	T	9.8	89	32.5	134	91	54	7	0	0	0
JACKSONVILLE	95	74	98	72	85	3	1.4	-.1	.7	11.1	105	36.4	129	90	51	6	0	3	2
KEY WEST	89	80	91	78	85	0	.2	-.6	.2	9.8	118	39.4	223	81	65	1	0	2	0
MIAMI	93	79	95	78	86	3	T	-1.2	T	10.6	73	28.8	98	87	51	7	0	1	1
ORLANDO	94	76	97	75	85	2	1.5	-.2	1.2	13.6	99	32.8	117	91	47	7	0	2	0
TALLAHASSEE	95	73	97	72	84	3	.2	-1.8	.2	11.3	82	46.0	124	98	51	7	0	2	0
TAMPA	91	74	94	72	83	0	2.2	.5	1.4	14.8	133	33.9	136	97	60	5	0	4	2
WEST PALM BEACH	93	76	95	74	84	2	.1	-1.2	.1	15.5	114	43.7	145	88	57	7	0	2	0
GA ATLANTA	96	73	99	69	84	5	.1	-1.0	.1	2.5	35	23.2	78	88	43	7	0	1	0
AUGUSTA	99	73	105	71	86	5	.2	-.8	.2	6.2	81	30.0	115	75	41	7	0	3	0
MACON	98	75	102	71	86	5	0	-1.0	0	8.0	107	32.7	116	86	44	7	0	0	0
SAVANNAH	99	76	102	74	88	7	3.3	1.6	1.3	9.6	81	36.0	123	82	42	7	0	5	3
RI HILLO	82	67	83	66	75	-1	.6	-1.4	.2	9.9	75	33.1	47	89	65	0	0	5	0
HONOLULU	87	73	88	71	80	0	.1	0	.1	.4	40	1.9	14	85	50	0	0	1	0
KAHULUI	87	69	90	65	78	-1	.2	.1	.2	.4	80	3.2	29	81	56	1	0	2	0
LIHUE	83	74	84	68	78	0	.3	-.2	.2	2.3	70	7.7	32	76	58	0	0	3	0
ID BOISE	88	55	95	49	72	-4	T	0	T	1.4	117	11.5	155	69	17	3	0	0	0
LEWISTON	87	59	96	52	73	-2	.5	-.4	.5	2.4	120	8.6	118	77	26	3	0	1	0
POCATELLO	88	50	93	39	69	-3	T	-.1	T	2.1	124	9.6	139	72	17	2	0	1	0
IL CHICAGO	94	72	100	69	83	10	1.4	-.6	.4	8.6	121	28.0	144	99	58	6	0	5	0
MOLINE	97	75	103	72	86	11	T	-1.1	T	8.2	99	19.8	90	84	44	7	0	0	0
PEORIA	99	73	102	70	86	11	T	-.9	0	5.4	73	23.3	112	84	41	7	0	1	0
QUINCY	99	75	102	71	87	10	0	-1.0	0	1.4	19	15.7	72	77	17	7	0	0	0
ROCKFORD	94	73	96	72	84	10	1.2	-.2	.7	5.7	67	18.9	85	95	55	6	0	1	1
SPRINGFIELD	99	72	101	69	86	9	0	-.8	0	3.1	46	17.6	88	87	41	7	0	0	0
IN EVANSVILLE	100	76	102	73	88	9	0	-.9	0	5.4	79	31.6	120	84	36	7	0	0	0
FORT WAYNE	95	73	100	70	84	10	.1	-.7	T	4.4	67	16.7	80	88	48	7	0	2	0
INDIANAPOLIS	96	74	99	71	85	10	.4	-.6	.2	6.4	84	20.5	87	85	46	7	0	1	0
SOUTH BEND	93	74	100	71	83	10	.2	-.6	.1	3.8	56	17.5	86	89	51	6	0	4	0
IA DES MOINES	98	76	104	73	87	10	T	-.7	T	5.4	78	19.9	109	75	38	7	0	0	0
SIoux CITY	94	72	100	68	83	7	.6	-.2	.3	5.2	75	17.8	115	73	44	6	0	1	0
WATERLOO	93	72	98	69	83	9	.2	-.8	.2	7.7	92	21.5	109	88	50	5	0	2	0
KS CONCORDIA	102	74	104	69	88	9	0	-.7	0	3.7	51	14.9	97	77	29	7	0	0	0
DODGE CITY	101	74	105	72	88	7	0	-.7	0	5.6	98	15.7	123	55	22	7	0	0	0
GOODLAND	98	67	101	62	83	6	3.2	2.6	1.6	6.2	124	13.6	178	77	23	7	0	0	0
TOPEKA	96	74	99	69	85	6	0	-.8	0	6.6	78	23.6	122	74	42	7	0	0	0
WICHITA	99	71	102	70	85	3	0	-.8	0	11.2	153	26.1	157	81	31	7	0	0	0
KY BOWLING GREEN	97	74	102	69	86	7	T	-1.0	T	6.4	77	34.5	109	91	43	7	0	0	0
LEXINGTON	95	74	99	71	85	9	T	-1.1	T	5.3	62	24.8	88	80	39	7	0	1	1
LOUISVILLE	98	77	102	73	87	9	.7	-.3	.7	5.5	75	28.4	104	82	39	7	0	1	1
LA ALEXANDRIA	93	73	94	71	83	0	1.2	.1	1.2	4.3	53	32.7	96	94	49	7	0	1	1
BATON ROUGE	91	73	93	72	82	0	.9	-.9	.6	12.4	141	48.5	147	91	53	6	0	2	1
LAKE CHARLES	92	76	93	75	84	2	.2	-1.1	.1	5.9	67	30.8	104	94	60	7	0	3	0
NEW ORLEANS	91	73	93	72	82	0	1.1	-.5	.8	12.2	121	51.3	151	93	54	5	0	3	1

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

+100 = NORMAL & ACTUAL NEAR THE SAME

National Weather Summary (continued from front cover)

merged with the monsoon showers which covered the southern and central Plateau and Rockies. Showers fell along the southeast coast and through North Carolina to the upper Ohio Valley and southern Michigan.

SATURDAY...The cooler air pushed southward through the western end of the Corn Belt and in the East to

North Carolina. Excessively hot weather persisted from the southern Plains to Kansas and northeastward through Indiana and southern Ohio and into the Southeast. Moderate showers fell in the central Rockies and light to very light showers reached through Nebraska to northern Ohio. Moderate to heavy showers covered the upper Ohio Valley and central Appalachians.

Weather Data for the Week Ending July 23, 1983

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAY 29	PCT. NORMAL SINCE MAY 29	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
ME SHREVEPORT	92	74	94	73	83	0	.2	-.6	.2	8.2	122	32.2	118	95	56	7	0	0	0
ME CARIBOU	73	53	80	49	63	-3	1.5	-.6	.6	7.1	111	24.2	132	87	49	0	0	1	0
ME PORTLAND	83	58	86	55	71	-2	.6	0	.4	5.8	104	35.6	155	90	38	0	0	3	0
MD BALTIMORE	92	70	97	59	81	4	.2	-.7	.1	7.2	106	32.4	144	84	39	5	0	2	0
MD SALSIBURY	90	71	97	59	80	3	2.3	1.3	2.1	7.7	110	29.7	123	96	51	4	0	2	1
MA BOSTON	90	70	95	64	80	6	.3	-.3	.3	2.3	45	30.8	133	78	34	5	0	3	0
MA CHATHAM	79	65	84	61	72	4	.4	-.3	.2	4.3	84	35.1	142	88	66	0	0	2	0
MI ALPENA	87	58	89	47	72	6	.6	-.1	.6	4.0	68	19.5	122	95	41	0	0	1	1
MI DETROIT	88	68	91	65	78	6	1.8	1.1	1.2	7.7	128	20.5	114	90	52	5	0	3	1
MI FLINT	87	69	92	62	78	8	1.1	-.5	1.1	5.4	96	17.0	100	94	56	1	0	2	1
MI GRAND RAPIDS	88	67	93	64	78	6	2.1	1.4	1.2	4.8	73	19.7	104	98	58	2	0	5	1
MI HOUGHTON LAKE	86	64	90	53	75	8	.3	-.3	.3	3.0	54	14.4	97	91	48	2	0	1	0
MI LANSING	88	67	96	65	78	7	.4	-.1	.3	5.2	91	17.9	105	94	57	2	0	3	0
MI MARQUETTE	84	58	88	51	71	6	.1	-.7	.1	6.4	94	23.0	113	92	44	0	0	1	0
MI MUSKEGON	86	69	92	67	77	7	1.3	-.7	.8	4.1	87	14.9	88	96	59	1	0	5	1
MI SAULT STE. MARIE	86	57	89	47	71	7	T	-.6	T	5.1	86	16.7	102	92	47	0	0	2	0
MN ALEXANDRIA	84	67	92	63	76	5	2.4	1.8	1.7	7.9	122	11.9	86	96	57	1	0	3	2
MN DULUTH	80	62	85	58	71	5	.1	-.8	.1	5.6	78	13.6	84	84	53	0	0	2	0
MN INT'L FALLS	81	58	87	55	70	3	.2	-.7	.2	6.3	90	10.1	74	97	57	0	0	1	0
MN MINNEAPOLIS	89	70	95	66	80	6	.9	-.1	.5	8.4	118	23.2	156	86	60	4	0	3	0
MN ROCHESTER	89	69	96	64	79	8	.3	-.5	.3	7.9	105	18.1	131	97	55	6	0	1	0
MS GREENWOOD	94	74	99	71	84	2	.4	-.6	.4	8.5	116	43.3	131	97	55	6	0	1	0
MS JACKSON	94	74	96	72	84	2	.3	-.7	.3	4.4	67	49.8	156	96	52	7	0	2	0
MS MERIDIAN	93	71	94	68	82	0	.8	-.5	.8	8.9	113	47.3	144	100	60	7	0	1	1
MO CAPE GIRARDEAU	100	74	103	69	87	-1	0	-.9	0	3.3	48	26.9	101	88	38	7	0	0	0
MO COLUMBIA	97	71	100	67	84	6	0	-.8	0	4.2	61	21.6	103	90	37	7	0	0	0
MO KANSAS CITY	99	74	102	71	86	7	0	1.0	0	5.1	61	20.7	100	77	38	7	0	0	0
MO SAINT LOUIS	100	79	103	74	89	10	0	-.8	0	4.6	66	23.3	113	78	35	7	0	0	0
MO SPRINGFIELD	95	71	97	70	83	5	0	-.8	0	6.7	85	24.7	107	90	43	7	0	0	0
MT BILLINGS	89	59	99	51	74	1	T	-.1	T	1.5	50	5.5	58	67	24	2	0	1	0
MT CLASCOW	84	55	90	48	70	-1	1.0	-.6	.8	3.4	85	5.9	77	83	34	1	0	4	1
MT GREAT FALLS	79	49	87	43	64	-6	.2	0	.2	6.2	159	9.8	97	83	39	0	0	1	0
MT HAVRE	83	52	89	45	67	-3	T	-.3	T	5.0	147	9.5	123	86	33	0	0	1	0
MT HELENA	82	51	93	45	66	-3	.2	0	.2	5.2	173	7.9	114	79	29	1	0	2	0
MT KALISPELL	77	48	84	42	63	-4	.3	-.1	.2	5.1	159	11.7	127	94	46	0	0	0	0
MT MILES CITY	93	62	97	53	77	2	T	-.3	T	1.9	44	4.4	47	75	28	6	0	0	0
MT MISSOULA	77	48	88	42	63	-5	.5	-.4	.5	4.5	161	10.6	136	93	41	0	0	3	0
NE GRAND ISLAND	100	71	106	67	85	8	.3	-.3	.3	7.1	111	17.4	117	75	31	6	0	1	0
NE LINCOLN	98	73	103	71	86	8	T	-.7	T	7.7	115	19.2	121	78	37	6	0	2	1
NE NORFOLK	95	71	101	66	83	7	.6	-.1	.6	8.2	114	18.7	120	79	41	6	0	3	0
NE NORTH PLATTE	93	66	98	61	80	4	.6	-.1	.3	5.0	77	12.3	92	77	36	6	0	0	0
NE OMAHA	96	75	102	71	85	9	T	-.8	T	5.0	68	19.4	111	75	43	6	0	0	0
NE SCOTT'S BLUFF	92	60	102	55	76	1	.2	-.2	.1	2.6	52	11.1	108	88	29	4	0	2	0
NE VALENTINE	90	66	101	61	78	3	.2	-.3	.1	9.9	194	17.6	156	83	42	5	0	2	0
NV ELY	86	46	89	40	66	-2	.1	-.1	.1	2.4	171	8.7	158	58	18	0	0	1	0
NV LAS VEGAS	101	73	104	67	87	-4	.1	-.1	.1	.1	20	2.5	109	36	11	7	0	1	0
NV RENO	88	41	94	37	65	-6	0	-.1	0	.5	63	6.7	152	66	12	3	0	0	0
NV WINNEMUCCA	90	42	95	35	66	-7	0	0	.3	1.2	109	6.0	118	42	8	4	0	0	0
NH CONCORD	86	54	92	50	70	0	.4	-.3	.3	5.8	105	28.7	149	90	37	2	0	2	0
NH ATLANTIC CITY	93	68	96	58	81	5	.2	-.8	.2	4.0	67	27.3	117	86	34	5	0	1	0
NM ALBUQUERQUE	97	69	99	64	83	4	.1	-.2	.1	1.4	93	4.1	114	58	20	7	0	2	0
NM CLOVIS	91	65	95	62	78	0	0	-.7	0	2.7	53	5.8	62	73	28	4	0	0	0
NM ROSWELL	94	70	97	66	82	0	0	-.3	0	1.2	60	3.2	80	53	28	4	0	0	0
NY ALBANY	86	59	92	54	73	1	.9	-.3	.9	3.7	63	28.4	150	95	42	2	0	1	1
NY BINGHAMTON	84	61	89	54	72	3	1.8	1.0	1.5	6.9	105	25.6	128	87	38	0	0	2	0
NY BUFFALO	86	64	90	53	75	4	.1	-.6	.1	3.8	76	15.1	78	85	38	1	0	2	0
NY NEW YORK	89	70	94	64	80	3	2.4	1.6	1.6	5.9	97	35.3	153	81	40	2	0	3	2
NY ROCHESTER	86	61	90	53	74	2	.3	-.3	.3	3.3	67	14.9	87	90	39	2	0	1	0
NY SYRACUSE	84	59	87	53	71	0	.6	-.3	.6	3.2	47	17.4	81	91	38	0	0	1	1
NC ASHEVILLE	92	68	95	66	80	7	T	1.0	T	4.5	56	28.6	105	97	52	5	0	1	0
NC CHARLOTTE	97	73	101	70	85	6	.1	-.8	.1	3.9	57	22.8	91	85	38	7	0	1	0
NC GREENSBORO	94	71	99	69	82	5	1.3	-.3	1.0	8.5	112	28.0	115	89	41	7	0	3	1
NC HATTERAS	89	76	93	71	83	4	1.4	-.1	1.3	6.6	76	37.8	136	92	64	3	0	2	1
NC NEW BERN	93	75	96	72	84	5	.7	-.8	.5	7.9	75	33.9	118	88	54	7	0	3	1
NC RALEIGH	95	72	100	69	83	5	.7	-.3	.6	4.1	55	29.1	121	91	43	7	0	2	1
NC WILMINGTON	96	77	98	73	86	6	2.1	.3	1.7	11.9	102	36.6	125	90	56	7	0	2	1
ND BISMARCK	87	59	90	52	73	2	1.0	.5	.8	4.8	98	9.1	88	90	37	1	0	3	1
ND FARGO	83	64	88	58	74	3	1.6	.9	1.5	6.0	102	11.1	97	96	57	0	0	2	0
ND GRAND FORKS	85	62	89	56	73	4	.4	-.3	.4	5.9	111	10.3	100	92	51	0	0	3	0
ND WILLISTON	89	60	94	45	75	4	.3	0	.2	2.7	64	6.0	71	83	33	3	0	5	1
OH AKRON-CANTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0	5	1
OH WILLISTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0	5	1
OH AKRON-CANTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0	5	1
OH WILLISTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0	5	1
OH AKRON-CANTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0	5	1
OH WILLISTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0	5	1
OH AKRON-CANTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0	5	1
OH WILLISTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0	5	1
OH AKRON-CANTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0	5	1
OH WILLISTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0	5	1
OH AKRON-CANTON	89	67	94	62	78	6	1.2	.3	.7	4.1	62	20.3	95	90	48	3	0		

Weather Data for the Week Ending July 23, 1983

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAY 29	PCT. NORMAL SINCE MAY 29	TOTAL, IN., SINCE JAN. 1	PCT. NORMAL SINCE JAN. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	92	70	96	67	81	6	3.1	2.4	1.5	9.6	141	23.3	107	81	44	7	0	5	2
TOLEDO	89	69	96	67	79	7	1.3	.6	.9	6.5	102	17.6	96	92	54	3	0	3	1
YOUNGSTOWN	89	65	94	55	77	7	.8	.2	.4	7.0	99	20.7	94	88	44	4	0	4	0
OK OKLAHOMA CITY	95	71	98	69	83	0	0	.7	0	4.6	67	19.4	101	86	36	7	0	0	0
TULSA	97	77	100	74	87	4	T	.8	T	2.5	32	20.0	88	86	43	7	0	1	0
OR ASTORIA	69	55	73	51	62	2	.6	.4	.6	9.1	253	47.5	135	97	72	0	0	2	1
BURNS	78	45	87	39	61	-9	0	.1	0	1.8	138	10.6	174	90	31	3	0	3	0
MEDFORD	86	52	94	46	69	-5	.4	.4	.2	1.3	144	13.0	125	90	31	3	0	1	0
PENDLETON	89	58	97	52	73	-1	T	.1	T	1.6	160	8.2	174	66	71	3	0	2	1
PORTLAND	78	60	86	56	69	1	.9	.8	.9	4.1	216	28.1	143	86	49	0	0	2	1
SALEM	80	55	85	47	67	0	1.3	1.2	1.3	5.0	294	34.4	158	90	43	0	0	3	1
PA ALLENTOWN	89	67	93	58	78	4	1.1	.2	.7	6.6	97	29.2	123	82	39	4	0	2	1
ERIE	83	66	86	55	75	5	2.6	1.9	1.0	7.3	111	19.8	97	86	51	0	0	4	1
HARRISBURG	89	67	95	54	78	2	.9	.2	T	4.2	64	27.6	128	83	35	4	0	4	0
PHILADELPHIA	91	69	100	60	80	3	.7	.2	T	3.2	45	31.0	137	90	39	4	0	4	0
PITTSBURGH	85	65	90	61	75	3	1.7	.8	.7	8.6	130	24.0	109	97	56	1	0	2	1
SCRANTON	84	62	90	51	73	1	1.7	.9	1.3	7.3	114	25.5	135	84	46	1	0	2	1
RI PROVIDENCE	89	67	95	63	78	5	.8	.1	.7	5.8	112	38.9	163	75	33	3	0	2	1
SC CHARLESTON	96	76	100	73	86	5	2.0	.3	1.5	9.6	76	36.4	121	92	51	7	0	3	1
COLUMBIA	101	74	106	71	88	6	.2	1.1	.2	3.6	40	26.4	95	90	35	7	0	2	0
FLORENCE	96	75	99	73	86	5	1.5	.2	.6	10.8	116	34.9	140	96	56	7	0	3	2
GREENVILLE	96	72	101	67	84	6	T	.9	T	5.2	61	29.9	98	90	42	7	0	0	0
SD ABERDEEN	87	67	97	61	77	4	3.4	3.0	2.5	10.2	180	15.5	134	95	61	2	0	2	2
HURON	91	71	98	67	81	6	.1	.4	.1	6.4	119	11.4	97	96	54	3	0	1	0
RAPID CITY	89	64	103	61	76	3	.1	.3	.1	3.2	59	7.7	68	78	33	3	0	2	0
SIoux FALLS	92	71	99	67	82	8	1.2	.7	.7	8.2	134	18.1	124	96	56	5	0	4	1
TN CHATTANOOGA	96	72	99	68	84	5	T	1.0	T	5.1	71	28.6	90	81	40	7	0	2	0
KNOXVILLE	92	71	95	66	81	3	1.3	.3	.6	5.5	73	23.4	79	97	54	5	0	4	1
MEMPHIS	94	77	97	73	86	3	1.3	.4	1.3	5.5	79	32.5	100	93	52	6	0	1	1
NASHVILLE	97	73	101	67	85	5	1.6	.7	1.0	5.9	84	32.3	108	96	42	6	0	3	1
TX ABILENE	93	72	96	70	83	-2	T	.4	T	7.3	162	12.6	98	79	32	7	0	0	0
AMARILLO	95	67	98	65	81	2	0	.6	0	2.3	38	9.6	85	74	26	7	0	0	0
AUSTIN	91	73	94	71	82	-3	.1	.4	.1	6.9	135	23.2	123	89	49	5	0	1	0
BEAUMONT	89	76	91	74	83	0	.1	1.2	.1	14.9	180	40.7	147	100	69	5	0	1	0
BROWNSVILLE	91	75	92	72	83	-1	.3	0	.2	8.8	215	13.7	125	91	57	7	0	3	0
CORPUS CHRISTI	90	74	92	72	82	-3	T	.4	T	11.2	220	21.1	146	90	55	4	0	0	0
DEL RIO	96	73	99	70	85	-1	.1	.3	T	1.5	44	5.5	59	81	30	7	0	2	0
EL PASO	97	68	100	64	83	0	.3	.2	.2	.5	25	3.4	100	70	25	7	0	2	0
FORT WORTH	94	74	96	72	84	-3	0	.4	0	5.0	109	18.5	98	84	39	7	0	0	0
GALVESTON	91	80	93	76	85	2	T	.9	T	10.0	149	23.9	117	88	67	6	0	1	0
HOUSTON	91	73	93	71	82	-1	.1	.6	.1	10.8	150	28.0	109	97	56	6	0	2	0
LUBBOCK	93	67	96	66	80	0	0	.5	0	2.2	45	7.8	76	78	32	7	0	0	0
MIDLAND	96	69	98	67	82	0	0	.4	0	.5	17	2.6	35	74	26	7	0	0	0
SAN ANGELO	94	70	97	67	82	-2	.1	.2	.1	5.3	171	10.0	102	79	30	7	0	1	0
SAN ANTONIO	91	72	94	71	82	-3	.2	.3	.1	3.9	78	15.3	97	88	46	5	0	2	0
VICTORIA	90	75	92	73	83	-2	.6	.1	.5	13.2	181	24.9	127	97	60	6	0	2	1
WACO	95	74	96	72	84	-2	.7	.3	.6	5.9	134	16.0	83	88	46	7	0	2	1
WICHITA FALLS	100	72	104	70	86	0	0	.4	0	5.6	114	15.5	97	82	29	7	0	0	0
UT BLANDING	88	57	93	56	72	-2	1.4	1.1	.8	2.6	717	8.4	168	74	36	4	0	3	1
CEDAR CITY	89	60	93	53	74	-1	T	.3	T	.5	36	7.4	132	41	18	3	0	0	0
SALT LAKE CITY	92	65	99	60	79	0	T	.1	T	1.8	120	12.4	136	57	19	4	0	0	0
VT BURLINGTON	84	58	86	54	71	1	.1	.7	.1	3.5	55	23.2	133	83	36	0	0	1	0
VA NORFOLK	94	74	98	67	84	5	.3	.9	.3	4.8	63	27.3	112	86	40	5	0	1	0
RICHMOND	94	69	98	61	82	3	.5	.7	.4	6.1	79	25.4	110	95	43	5	0	3	0
ROANOKE	94	71	100	69	83	7	.6	.2	.3	3.9	62	26.8	121	85	59	6	0	3	0
WA COLVILLE	80	50	86	45	65	-4	.2	.1	.1	4.0	190	16.0	165	85	45	0	0	3	0
QUILLAYUTE	70	54	79	48	62	2	.2	.3	.2	14.4	277	68.7	127	96	61	0	0	3	0
SEATTLE-TACOMA	75	56	79	55	65	0	T	.1	T	3.6	164	22.2	113	90	49	0	0	1	0
SPokane	81	55	87	50	68	-3	.4	.3	.2	3.8	238	12.2	124	78	30	0	0	3	0
YAKIMA	87	54	95	47	71	0	T	0	T	.9	129	7.3	183	72	24	2	0	3	0
WV BECKLEY	82	66	86	63	74	4	2.8	1.8	2.4	10.9	147	21.8	86	91	61	0	0	4	1
CHARLESTON	91	70	96	67	81	6	3.3	2.0	1.6	7.2	96	23.9	96	95	55	4	0	5	3
HUNTINGTON	94	74	100	71	84	8	.4	.7	.2	5.0	68	21.0	86	90	47	5	0	2	0
PARKERSBURG	88	69	94	68	79	4	3.2	2.2	1.4	6.2	75	24.8	95	91	54	2	0	6	2
WI GREEN BAY	85	67	89	62	76	6	1.6	.9	1.0	4.2	70	14.0	91	95	54	0	0	4	2
LA CROSSE	90	71	100	67	80	7	.8	0	.6	4.1	56	13.7	78	97	58	5	0	2	1
MADISON	91	68	94	65	79	8	1.1	.2	.7	4.3	60	15.7	89	92	54	5	0	3	1
MILWAUKEE	89	70	99	68	80	9	.6	.2	.4	3.3	50	20.4	117	85	52	3	0	3	1
WAUSAU	87	67	94	63	77	7	1.5	.7	1.1	3.8	52	12.7	71	96	47	2	0	2	1
WY CASPER	90	58	99	49	74	2	2.1	1.9	1.8	6.0	273	12.5	164	75	25	4	0	2	1
CHEYENNE	83	56	91	50	70	0	1.1	.7	.8	5.3	147	14.4	167	88	40	2	0	4	1
LANDER	86	56	93	48	71	-1	.1	.1	.1	1.6	70	10.4	113	59	25	3	0	2	0
SHERIDAN	93	57	101	44	75	4	T	.2	T	.6	18	4.7	47	65	21	5	0	0	0
PR SAN JUAN	90	77	91	75	84	2	1.6	.5	1.1	7.9	93	22.4	88	91	66	7	0	6	1

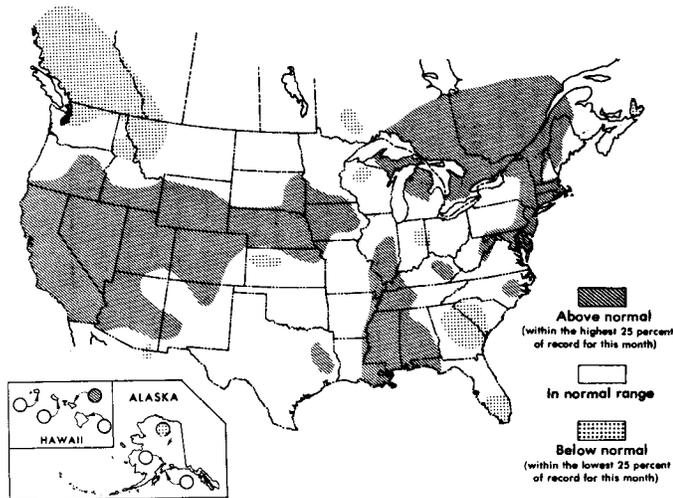
BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

Major activities include harvesting hay and irrigating, some winter wheat harvested. Sweet cherry picking winding down. Tart cherry harvest started. Corn growth increased 7 in. still rated in only fair condition. Range fire danger still high but some relief through local showers. Livestock condition excellent but may be slow to move onto summer ranges. Some areas still inaccessible because of high water damage.

VIRGINIA: Scattered showers Statewide brought mostly below normal amounts and averaged about 0.25 in. The maximum was 1.70 in. at Warrenton in the north with the minimum less than 0.10 in. at many spots in the southeast. Temperatures averaged about 5° above normal before a cooling trend developed late in the week. The highest reading was 103° at Hopewell in the central division and the lowest 57° at Blacksburg in the southwest.

## STREAMFLOW DURING JUNE

Department of the Interior Geological Survey



The nation was unusually wet during June, with more than 90 percent of the key index gaging stations across the country reporting average to well-above average flows and new record high flows set on streams in Mississippi, Kansas, Nevada and California, according to a month-end summary of water-resources conditions by the U.S. Geological Survey, Department of the Interior.

USGS hydrologists said that the unusually wet conditions were also evident in the combined flow of the three largest rivers in the lower 48 states -- Mississippi, St. Lawrence and Columbia rivers -- which averaged 1,298 billion gallons a day (bgd) during June, 49 percent above the long-term average. The combined flow of these major rivers has been above average now for 16 of the past 17 months. These three large river systems, which include the flow of the Missouri and Ohio rivers, account for runoff from more than half of the conterminous United States and provide a quick check on the status of the nation's surface-water resources.

Only 14 of the 173 (8 percent) key index gaging stations reported below-average flows during June. The below-average flows were reported at individual stations in Florida, Georgia, South Carolina, Indiana and Wisconsin in the eastern half of the country and in a regional band across the Northwest. Well-above average flows were reported by 70 stations.

At the end of June, the Great Salt Lake, which had been rising steadily over the past 10 months, reached a high point for the year of 4205.0 feet above sea level. This is the highest annual peak since 1924 when the lake rose to 4205.1 feet. The highest recorded level was set in 1873 at about 4211.5 feet. The lake

rose 5.2 feet from September 15, 1982, to June 30, 1983, the greatest seasonal rise ever recorded, topping the previous record of 3.4 feet for the same period in 1906-07.

The record snowmelt runoff from the heavy snow accumulations in the western states pushed 11 major streams to new record high flows at USGS gaging stations in Arizona, California, Colorado, Nevada, Utah, and Wyoming. The severe snowmelt flooding produced 100-year flows along portions of the Colorado River. The gaging station on the Colorado River along the Colorado-Utah border reported a peak flow of 42 bgd on June 26. Flows of this magnitude are not expected to occur on the long-term average of more than once in a hundred years. Melting snowpack also contributed to extensive flooding in Nebraska along the North Platte River.

In the lower Mississippi River basin, flow of the Mississippi River at Vicksburg, Miss., set a new daily high flow on June 1 of 1,140 bgd. For the month, flow of the Mississippi at this gaging station averaged 805 bgd, 136 percent above average and the second highest June flow in 54 years of record. Elsewhere in the Mississippi basin, a new record daily flow was set on the Big Black River near Bovina, Miss. In Louisiana, the flow of the Pearl River near Bogalusa set a new record for the month, averaging 15.7 bgd, the highest June flow in 45 years of record.

Record or near-record high ground-water levels at individual wells in several states, including California, New York, Massachusetts and Maine, also indicate the generally wet conditions throughout the country. The water level in one well at Granville, Mass., west of Springfield, stood at 28.06 feet below the land surface, the highest level ever recorded in this well in almost 20 years of record.

Working in cooperation with federal, state and local officials, USGS hydrologists routinely gather information on the nation's surface- and ground-water resources at more than 45,000 sites across the country. Additional highlights of June water conditions include:

- o FLOWS OF "BIG FIVE" RIVERS -- Mississippi River at Vicksburg, Miss., 805 bgd, 136 percent above average for June, but down seasonally by 22 percent from May; Columbia River at The Dalles, Ore., 301 bgd, 3 percent less than the June average, but up 12 percent from last month; St. Lawrence River near Massena, N.Y., 192 bgd, 6 percent above average for June and 6 percent above May's flow; Missouri River at Hermann, Mo., 98 bgd, 76 percent above average for June, but down 27 percent from the previous month; and Ohio River at Louisville, Ky., 54 bgd, 33 percent above the June average, but 75 percent below May's flow.
- o NEW RECORD JUNE FLOWS IN CALIFORNIA -- Five major streams in California set new high June flows for the period of record: Flow of the West Walker River near Coleville, Calif., averaged 1.3 bgd, the highest monthly flow since April 1938; flow of the Merced River at Happy Isles Bridge near Yosemite, Calif., averaged 2.2 bgd, the highest June flow in 68 years of record; flow of the North Fork American River at North Fork Dam, Calif., averaged 1.9 bgd, the highest monthly flow since June of 1941; flow of the Sacramento River at Verona, Calif., averaged 25.7 bgd, the highest June flow in 54 years of record; and Arroyo Seco near Pasadena, Calif., averaged 10 million gallons a day, the highest June flow since 1911.
- o IOWA HIGH FLOWS CONTINUE -- In Iowa, the four key index gaging stations in the state registered above average flows, marking the tenth straight month that flows on these streams have been above average. Flow of the Big Sioux River at Akron, Iowa, averaged 3.8 bgd during the month, the highest June flow in 55 years of record.

Hot, humid conditions with few scattered thunderstorms did little to improve topsoil moisture 96% short, 4% adequate. Days suitable for fieldwork averaged 6.0. Corn reported fair. Yield prospects reduced unless irrigated. Percent silked 64%, 78% last year and 69% average. Percent in dough stage 14% compared to 30% in 1982 and 27% average. Soybeans fair to good condition. Germination and growth slowed by low moisture. Crop was 12% in bloom and 20% in 1982. Percent setting pods 1 compared to 9% in 1982. Irrigation, weed control active. Tobacco in good condition, where irrigated. Topping, sucker control active. Flue-cured harvest 3% complete, 6% last year and average. Peanuts in good condition. Growth slowed. No damage reported.

WASHINGTON: Low pressure aloft over Gulf of Alaska and high pressure to east directed southwesterly flow of marine air into State. Weak disturbances brought less than 0.33 in. rainfall Statewide. Temperatures averaged 5° below normal east of Cascades and near normal west of Cascades.

Wheat and barley harvest underway with fields average to above average condition. Some lodging in barley and wheat fields Whitman County. Localized hail damage to fields Douglas County. Early potato fields starting to be dug. Dry pea harvest continues. Second cutting alfalfa hay continues. Raspberry harvest

winding down with harvest of Willamette variety completed. Blueberry harvest continues full swing. On eastside, peach harvest started and apricot harvest near completion. Apple and pear sizes look good. Harvest of leafy vegetables continues. Green pea harvest at peak. Sweet corn in tasseling stage and bars forming. Cucumber harvest expected near August 1st Skagit County. East of Cascades, harvesting of seed crops, radishes, carrots in two weeks. Ranges and pasture excellent condition. Grass silage being made. Livestock on pasture and good condition. Winter wheat harvested 8%, 1982 10%, average 8%.

WEST VIRGINIA: Temperatures averaged 3 to 8° above normal. Precipitation averaged above normal except in the northeast. Range: 0.02 to 6.19 in.

Soil moisture short to adequate. Days worked averaged 4.7. Main activities: Hay harvesting, gardening, maintenance. Small grains in good to fair condition. Wheat: 14% headed, 41% ripe, and 45% harvested; 6%, 24%, and 70% in 1982. Barley: 1% headed, 31% ripe, and 68% harvested; 6%, 13% and 81% in 1982. Oats: 3% pre-headed, 57% headed, 17% ripe, and 23% harvested; 1%, 51%, 18% and 30% in 1982. Corn in fair to good condition. Tobacco in fair to good condition. Pastures in fair to good condition. Hay in good to fair condition. First cutting; 95% complete,

(continued on p. 10)

## National Agricultural Summary

July 18 to 24

**HIGHLIGHTS:** Hot, dry weather continued stressing crops and livestock, except in the extreme West. Scattered showers brought some relief to the eastern third of the Nation, but additional moisture was still needed in many areas. Mostly open weather allowed winter wheat and hay harvesting to progress rapidly. Hot temperatures in most areas of the Nation pushed small grains and vegetables to maturity. Dry conditions slowed germination of double-cropped soybeans and stressed corn development. Farmers had 5 to 7 days available for fieldwork in nearly all areas of the Nation. Soil moisture supplies were short to adequate across all regions. Winter wheat combining advanced to 80% completion, 2 points behind the average. Spring wheat was 97% headed. Corn was silking on 31% of the acreage and reached the dough stage on 4% of the acreage. Limited harvesting was underway in the South. Soybeans bloomed on 42% of the acreage and 6% of the fields were setting pods. Cotton squaring reached 77% and 30% was setting bolls. Sorghum was 33% headed. Fruit picking and vegetable harvesting increased in northern areas. Vegetable growers began planting fall crops. Pastures and ranges continued in fair to good condition. However, hot, dry weather caused deterioration in many areas. Livestock showed slow weight gains because of heat stress. Some poultry mortality from heat was reported.

**SMALL GRAINS:** Warm temperatures continued to promote small grain development across northern producing areas. Winter wheat combining in the 15 major producing States was 80% completed, 2 points behind the average. Although harvesting advanced rapidly, it still lagged behind the average because of the cool, wet spring. Progress was 43 percentage points behind normal in Colorado, 26 points behind in South Dakota, and 15 points behind in Nebraska. Open weather permitted producers to spend many hours combining fields. Producers in South Dakota harvested 33% of their acreage during the week, while those in Colorado combined 32%. In Nebraska 25% of the acreage was harvested in 1 week. Harvesting was finished in Kansas, Missouri, Oklahoma, and Texas.

Spring wheat headed on 97% of the acreage, compared with 84% last year, and the 91% average. Progress ranged from 90% headed in Montana to 100% in Idaho and South Dakota.

**CORN:** Corn remained in fair to good condition, but additional moisture is needed for crop development. Scattered showers brought some relief to portions of the Corn Belt, but dry conditions continued stressing crops in those areas not receiving precipitation. In the 17 major producing States, corn was silking on 31% of the acreage and reached the dough stage on 4% of the acreage. Development progressed behind normal across all of the Corn Belt. In the eastern region 36% of the corn was silking and 2% had reached the dough stage, while last year 68% was silking and 14% had reached the dough stage. In the western area 23% of the corn was silking and 1% had reached the dough stage, compared with 21% silking and 2% dough a year earlier. Many fields in the South were in the dent stage, and warm temperatures were pushing maturity. Harvesting increased from Florida to South Carolina.

**SOYBEANS:** Hot, dry weather slowed germination of double-cropped soybeans, limited growth of plants, and caused some bloom loss. The crop continued in

fair to good condition, but the weather stressed fields in many areas. In the 18 major producing States, 42% of the acreage was blooming and pod set was evident on 6% of the acreage. The average for this date is 48% blooming and 15% setting pods. Blooming ranged from 9% in Arkansas to 67% in Illinois. Eighteen percent of the acreage in Illinois has set pods.

**SORGHUM:** Sorghum was in fair to good condition. However, some areas showed moisture and heat stress. In the 7 major producing States, 33% of the acreage headed, 3 points behind last year. Heading was 68% finished in Texas and had just begun in Colorado, Kansas, and South Dakota. In Texas, excessive rain in the upper coast and Coastal Bend areas caused seeds to sprout in the heads. Texas harvesting advanced to 19% completed, well behind the 37% average for this date.

**COTTON:** In the 14 major producing States, 77% of the cotton was squaring and 30% was setting bolls. A year ago, 81% was squaring and 40% was setting bolls. Growers monitored insect populations and began spraying in many areas. Dryland cotton on the Texas Plains began showing signs of moisture stress, while irrigated fields exhibited excellent growth.

**OTHER CROPS:** Favorable moisture in Texas has encouraged peanut growth. Fields were blooming and pegging across the Southeast. The crop was generally in fair to good condition.

Tobacco harvests gained momentum. The Georgia crop was 44% harvested, and the South Carolina crop was 14% harvested. The flue-cured harvest in North Carolina was 12% complete, while the Virginia flue-cured harvest was 3% finished. Topping and sucker control continued. Growers sprayed to control increasing insect populations. Hot, dry conditions stressed plants and kept top leaves from filling out in some areas.

In the 5 major rice producing States, 24% of the acreage had headed, compared with the 34% average. In Texas, 87% of the stands were headed, while in Louisiana 49% were headed.

**FRUITS AND NUTS:** Peach picking advanced to 91% completion in Georgia and 61% in South Carolina. Apples were being picked in Georgia; progress reached 9%. Sweet cherry picking was 60% complete in Michigan, while tart cherry harvesting was 40% finished. California producers harvested apricots, avocados, table grapes, nectarines, peaches, plums, grapefruit, and Valencia oranges. Growers sprayed to control insects on almonds and walnuts. Irrigation was active in Florida's citrus groves; some afternoon wilt from high temperatures was evident. Fruit sizes were near normal.

**VEGETABLES:** Vegetable harvests increased in extreme northern areas and were virtually finished in the extreme South. Growers prepared land for planting fall crops in most areas. A variety of crops continued to be harvested in California.

**PASTURES AND LIVESTOCK:** Pastures and ranges were in mostly fair to good condition. However, hot, dry weather caused deteriorating conditions in most areas. Livestock continued in mostly good condition, although heat stress caused slow weight gains. Some poultry losses were reported due to the hot temperatures.

**CROP PROGRESS**

FOR WEEK ENDING JULY 24

	SOYBEANS % BLOOMING		
	1983	1982	AVG.
ALA	33	33	36
ARK	9	20	21
GA	31	44	41
ILL	67	75	66
IND	55	75	55
IOWA	65	32	63
KANS	20	15	30
KY	15	46	29
LA	25	40	43
MICH	29	45	36
MINN	60	40	63
MISS	13	46	46
MO	40	28	31
NEBR	65	25	55
N C	16	22	23
OHIO	50	70	60
S C	10	19	21
TENN	22	29	38
18 STATES	42	43	48

THESE 18 STATES PRODUCED 94% OF THE 1982 SOYBEAN CROP.

	SOYBEANS % SETTING PODS		
	1983	1982	AVG.
ALA	10	16	15
ARK	0	5	8
GA	9	14	14
ILL	18	33	24
IND	5	15	10
IOWA	0	10	34
KANS	5	4	10
KY	0	10	6
LA	9	13	16
MICH	1	7	4
MINN	3	1	7
MISS	0	12	14
MO	10	6	12
NEBR	5	1	20
N C	0	3	0
OHIO	10	10	10
S C	1	3	0
TENN	4	7	10
18 STATES	6	12	15

THESE 18 STATES PRODUCED 94% OF THE 1982 SOYBEAN CROP.

	CORN % SILKING		
	1983	1982	AVG.
COLO	5	2	6
GA	99	100	100
ILL	57	87	75
IND	30	80	45
IOWA	30	27	53
KANS	20	40	50
KY	36	80	60
MICH	10	50	33
MINN	11	6	31
MO	38	56	53
NEBR	25	15	55
N C	81	94	91
OHIO	30	70	55
PA	0	0	0
S DAK	10	8	26
VA	64	79	70
WIS	13	11	26
17 STATES	31	44	50

THESE 17 STATES PRODUCED 93% OF THE 1982 CORN CROP.

	CORN % DOUGH		
	1983	1982	AVG.
COLO	0	0	0
GA	83	94	95
ILL	5	23	16
IND	0	17	5
IOWA	0	0	0
KANS	1	10	10
KY	0	12	8
MICH	0	1	0
MINN	0	0	0
MO	12	20	25
NEBR	0	0	4
N C	56	71	68
OHIO	3	10	2
PA	0	0	0
S DAK	0	0	0
VA	14	30	27
WIS	0	0	0
17 STATES	4	10	8

THESE 17 STATES PRODUCED 93% OF THE 1982 CORN CROP.

	COTTON % SQUARING		
	1983	1982	AVG.
ALA	88	97	95
ARIZ	99	98	99
ARK	96	100	100
CALIF	85	90	96
GA	99	99	99
LA	81	98	98
MISS	96	99	99
MO	73	100	96
N MEX	95	95	98
N C	72	97	91
OKLA	30	10	60
S C	96	100	96
TENN	79	100	92
TEX	69	74	82
14 STATES	77	81	88

THESE 14 STATES PRODUCED 99% OF THE 1982 COTTON CROP.

	COTTON % SETTING BOLLS		
	1983	1982	AVG.
ALA	34	60	61
ARIZ	90	93	93
ARK	56	88	68
CALIF	40	45	41
GA	75	84	90
LA	38	76	73
MISS	35	70	58
MO	60	88	67
N MEX	27	49	48
N C	34	61	61
OKLA	0	0	10
S C	88	95	87
TENN	12	52	43
TEX	19	18	36
14 STATES	30	40	46

THESE 14 STATES PRODUCED 99% OF THE 1982 COTTON CROP.

	WINTER WHEAT % HARVESTED		
	1983	1982	AVG.
CALIF	97	90	94
COLO	46	78	89
IDAHO	4	1	1
ILL	98	100	99
IND	99	85	95
KANS	100	96	98
MO	100	91	89
MONT	1	0	0
NEBR	75	70	90
OHIO	95	90	85
OKLA	100	98	100
OREG	10	18	13
S DAK	34	17	60
TEX	100	100	100
WASH	8	10	8
15 STATES	80	79	82

THESE 15 STATES PRODUCED 80% OF THE 1982 WINTER WHEAT CROP.

	SPRING WHEAT % HEADED		
	1983	1982	AVG.
IDAHO	100	100	100
MINN	99	93	96
MONT	90	55	80
N D	97	85	90
S DAK	100	100	100
5 STATES	97	84	91

THESE 5 STATES PRODUCED 96% OF THE 1982 SPRING WHEAT CROP.

	SORGHUM % HEADED		
	1983	1982	AVG.
COLO	1	4	NA
KANS	1	3	10
MO	32	36	28
NEBR	5	1	25
OKLA	15	15	25
S DAK	1	0	6
TEX	68	74	71
7 STATES	32	35	NA
EXCL. STATES WITH NA	33	36	40

THESE 7 STATES PRODUCED 90% OF THE 1982 SORGHUM CROP.

	RICE % HEADED		
	1983	1982	AVG.
ARK	5	10	10
CALIF	0	2	9
LA	49	58	64
MISS	4	20	22
TEX	87	100	98
5 STATES	24	32	34

THESE 5 STATES PRODUCED 98% OF THE 1982 RICE CROP.

NA - NOT AVAILABLE

(continued from p. 8)

90% of normal; 91% and 83% in 1982. Second cutting: 30% complete, 67% of normal; 25%, 82% in 1982. Fruit in fair to good condition. Peaches 8% harvested, 56% of normal; 18% and 43% in 1982. Gardens in fair to good condition. Storms late in the week caused some problems with heavy rain, wind, and some hail reported.

WISCONSIN: It was a hot and humid week with several reports of 100+ temperatures on 21st. Hottest readings were 102° at Watertown and Lafarge. The hot and humid air mass produced much severe weather through the week, with the largest outbreak occurring on the 19th. A massive storm moved rapidly southeast from North Dakota and through the State. Numerous tornadoes, funnel clouds and damaging winds were reported across the State. Severe weather also developed on the 20th and 21st in central and southern areas. Coolest reading of the week was 56° at Minong on morning of 18th.

Days suitable for fieldwork: 5.0. Soil moisture: 35% short, 62% adequate, 4% surplus.

(continued on back cover)

## 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 Statistical Offices in cooperation with the National Weather Service.

**ALABAMA:** Rainfall widely scattered none to 0.50 in. Temperatures above normal.

Soil moisture mostly short. Fieldwork: 6.0 days. Soybeans blooming 33%, 1982 33%, average 36%; soybeans setting pods 10%, 1982 16%, average 15%. Corn dented 40%, 1982 63%, average 57%. Cotton squaring 88%, 1982 94%, average 95%; cotton setting bolls 34%, 1982 60%, average 61%. Peanuts pegging 85%, 1982 92%, average 80%. Activities: Cultivation of row crops; harvesting of hay, vegetables, and fruit; pest and weed control on vegetables and crops; and routine care of livestock and poultry. Conditions: corn, soybeans, cotton, and sorghum fair to good; peanuts and livestock mostly good.

**ALASKA:** Small system moving in from the east brought cooler temperatures, heavy rain to much eastern Tanana Valley. Temperatures averaged near normal most agriculture areas. Eastern Tanana Valley wet, elsewhere seasonal precipitation totals below normal except Kodiak Island 10.00 in. above normal.

Rain and cloudy days with some sunshine general northern areas Railbelt; Southern areas enjoyed sunny, dry, warm conditions. Growers had 0 to 6 days suitable making hay or other fieldwork. Crop growth mostly moderate to rapid. Hay harvesting ranged just starting to virtually complete. Barley mostly good condition. Barley for grain virtually all headed, several fields reaching soft dough stage. Potato fields 50 to 90% in bloom. Soil moisture supplies generally adequate. Commercial vegetables becoming available.

**ARIZONA:** Showers, thunderstorms eastern 2/3 State. Precipitation amounts mostly between 0.25 and 1.00 in., locally over 2.00 in. White Mountains. Isolated light amounts over western 1/3 State. Temperature averaged 4° below to 2° above normal.

Citrus season virtually complete. Few cartons grapefruit moved Salt River Valley area, very limited basis. Production up from last year for Valencia oranges, navel and miscellaneous oranges, grapefruit, decline production noted lemons, tangerines. Citrus groves good condition, favorable new crop prospects. Vegetable movement slowing considerably. Honeydew melon harvest complete Parker-Poston area. Few watermelons, cantaloups being picked Phoenix area, watermelons Marana area all on limited scale. Cantaloup harvest relatively strong Aguila. Growers Elfrida, Willcox area harvesting dry onions, peaches steady rate. Apple harvest expected underway southeastern counties end July. Grape harvest complete except little movement Harquahala Valley. Cotton crop progressed normally although lagging somewhat behind in growth. Plants Maricopa County ranged different heights but many short as result both later plantings, cool April temperatures. Currently 99% cotton squaring, same as average, 98% last year. Cotton little behind boll set with approximately 90% reaching that stage maturity. This compares 93% both last year, average. Growers Statewide monitoring insect situation, southeastern growers spraying pink bollworm. Normal weeding, irrigation procedures applied as needed. Alfalfa hay average progress. Growers irrigating, cutting, baling.

Corn, sorghum crops made average progress, plants ranged maturity from stands established Statewide to sorghum heading, corn tasseling Yuma County.

**ARKANSAS:** Warmer than normal most sections. Hottest weather central and northeast. Numerous areas reached 100° or more. Highest 103°, lowest 61°. Rainfall was spotty. Most rainfall 1.80 in., least 0.

Fieldwork averaged 6.9 days. Soil moisture short. Heavy stress placed on non-irrigated crops. Cotton fair condition; squaring 96%, 100% 1982 and average; setting bolls 56%, 88% 1982, 68% average. Rice good condition; headed 5%, 10% 1982 and average. Soybeans fair condition; blooming 9%, 20% 1982, 21% average; setting pods 0 percent, 5% 1982, 8% average. Corn good condition. Sorghum fair to good condition. Pastures less than average. Some poultry losses due to hot weather. Cattle slow weight gain.

**CALIFORNIA:** With the exception of some light rainshowers near the Oregon border in the early part of the week, and some rather heavy drizzle due to fog and low clouds along the north and central coast areas, no rainfall was recorded during the week. A persistent upper-level trough was responsible for keeping most of State below normal in temperatures. The Sacramento and San Joaquin Valleys averaged 8° below normal, and the northeastern section of the State averaged 9° below normal. In contrast, the South Coast was 2° above normal.

Slightly cooler weather slowed crop development. Cotton is 1 to 2 weeks behind normal. Fifty-five percent of fields squaring and 40% setting bolls. Growers continue to irrigate and weed fields. Cooler temperatures slowed rice development. Small grain harvest virtually complete. Field corn beginning to tassel. Alfalfa being cut and baled. Plantings of dry beans complete. Apricots, avocados, table grapes, nectarines, peaches, plums, summer grapefruit, Valencia oranges being harvested. Almonds, walnuts insect control. Green bean harvest active Coastal Interior Valley. Harvest broccoli, cauliflower continues. Cantaloup harvest winding down Desert. Harvest complete by next week Desert, remains active San Joaquin Valley. Melons Kern district packed with good quality. Carrot harvest complete Desert. Sweet corn harvest continues active San Joaquin Valley. Lettuce harvest active along Central Coast. Harvest dry market onions active San Joaquin Valley, Riverside County. Harvest spring potatoes slowing Kern County. Fall potatoes growing rapidly Tularelake. Strawberry harvest slowing; harvest market tomatoes active South Coast, southern San Joaquin Valley. Harvest of processing tomatoes increasing San Joaquin Valley. Early fields Sacramento Valley turning. Sacramento harvest couple weeks off. Foothill and valley ranges and pastures continue dry. High fire hazard. Summer ranges providing good grazing. Stock water supplies generally adequate. Livestock good condition.

**COLORADO:** Precipitation along Front Range, 1.00 to 3.00 in. decreasing easterly. Temperatures averaged 3 to 7° above normal in northeast, 1 to 2° above normal elsewhere.

Winter wheat in very good condition; 94% turning color, 95% last year, 96% average; 75% ripe, 78% last year, 89% average; 46% harvested, 66% last year, 75% average. Corn in good to very good condition; 5% silked, 2% last year, 6% average; height 49 in., 52 in. both last year and average. Sorghum in good condition; 99% emerged, normal; 1% headed, 4% last year. Barley, oats, and spring wheat in good to excellent condition. Barley 91% headed, about normal; 48% turning color, 66% last year; 11% ripe, 27% in 1982. Statewide, 6.0 days suitable for fieldwork. Topsoil moisture short to adequate with subsoil mostly adequate. Range and pasture conditions mostly very good.

FLORIDA: Partly cloudy with below normal thunderstorm activity. This resulted in above normal temperatures. Record highs in the upper 90's along east coast on 24th. Rainfall amounts averaging under 0.25 in. Panhandle and north. Widely varying rainfall central and south with most locations below 1.00 in. but a few spots in excess of 3.00 in.

Soil moisture short most central, north, west areas, mostly adequate in many southern counties. Early planted corn continues rapid maturity. Late corn silking but needs rain for proper development. Soybeans making good progress. Hot, dry weather causing some bloom loss. Peanuts, cotton good condition. Tobacco harvest continues active but nearing completion some fields. Haymaking very active most areas. Open weather beneficial for haying. Sugarcane continues good progress. Pastures in north central and Panhandle were poor to fair condition due to hot dry weather. Pastures in south central and southern areas were good to excellent condition. Cattle condition ranged from fair to excellent but generally good. Citrus groves hot and dry last week, lots of irrigation, some afternoon wilt from high temperatures. New crop fruit progressing well, fruit sizes normal. Current Valencia harvest all but over. The season complete for spring vegetables. Limited supplies of summer vegetables and watermelons continue to move through local markets. Land preparation active for fall vegetable crops.

GEORGIA: Hot, hazy and humid with scattered afternoon and evening thundershowers. Rainfall averaged less than 0.25 in. in north, around 0.25 in. central and around 0.50 in. south. Temperatures averaged around 5° above normal. No significant changes in 23rd and 24th weather. Rainfall averaged less than 0.10 in. north to about 1.00 in. south. Temperatures averaged 5° above normal as hot days and warm nights continued.

Soil moisture 63% very short, 33% short, 4% adequate. Average days suitable for fieldwork 5.9. Heavy stress on crops and livestock from dry soils and high temperatures. Main activity spraying for insects and diseases and extra care for livestock and poultry. Some poultry mortality. Corn stressed, irrigation very active where available; condition 5% very poor, 30% poor, 48% fair, 15% good; 83% dough stage, last year 94%, average 95%; 57% dent, last year 76%, average 79%, 25% mature, last year 45%, average 50%; 2% harvested, last year 4%, average 5%. Cotton condition 18% poor, 55% fair, 25% good; 75% setting bolls, last year 84%, average 90%. Peanut condition 14% poor, 55% fair, 30% good; 98% blooming, last year and average 99%; 94% pegging, last year and average 95%. Soybean condition 14% poor, 63% fair, 21% good; 31% blooming, last year 44%, average 41%; 9% setting pods, last year and average 14%. Tobacco

condition 13% poor, 60% fair, 27% good; harvested 44%, last year 63%, average 48%. Grain sorghum condition 14% poor, 67% fair, 17% good. Watermelon condition 16% poor, 62% fair, 19% good; harvested 64%, last year 84%, average 80%. Peach condition 24% very poor, 16% poor, 38% fair, 22% good; harvested 91%, last year 89%, average 85%. Apple condition 21% very poor, 15% poor, 51% fair, 13% good; harvested 9%, last year 21%, average 13%. Hay crops condition 23% poor, 54% fair, 19% good. Pasture condition off sharply, 33% poor, 53% fair, 12% good.

HAWAII: Weather for the most part remained favorable throughout the Island Chain. The major growing areas received a beneficial mixture of sunshine and light showers. Irrigation was necessary to insure crop progress. Insect infestations, particularly on leafy crops, were on the increase. Supplies of most vegetables will hold at the previous week's level. Papaya production continues to decline.

IDAHO: Temperatures were down across the entire State last week. Readings were 6 to 8° below normal in the south and 2 to 6° below normal in the north. Departures ranged from 8° below normal at Parma and Burley to 2° below normal at Moscow and Ashton. Precipitation above normal in the Panhandle and below normal across the rest of the State. Many areas of the north were 0.50 in. or more above normal. Porthill reported the greatest difference with 0.69 in. above normal. The rest of the State reported little rainfall.

Farmers reported 6.3 days suitable for fieldwork. The winter wheat crop was 4% harvested compared to 1% for 1982 and 1% average. Spring wheat had turned color on 41% of the acres versus 45% a year ago. Nearly 50% of the barley had turned compared with 41% last year. Potatoes continued to progress well with 69% of the acres having closed the middles compared to 71% for 1982. The second cutting of alfalfa hay was 8% complete compared to last year's 5%. Ranges and pastures were in good shape as were the livestock.

ILLINOIS: Temperatures 7 to 15° above normal, highs in 100's. Precipitation 0.03 to 1.52 in.

Soil moisture 92% short, 8% adequate. Days suitable fieldwork: 6.8. Corn silking 57%, 1982 87%, average 75%; dough 5%, 1982 23%, average 16%. Condition 4% excellent, 40% good, 42% fair, 14% poor. Soybeans 67% blooming, 1982 75%, average 66%; 18% setting pods, 1982 33%, average 24%; condition 1% excellent, 42% good, 54% fair, 3% poor. Winter wheat 98% harvested, 1982 100%, average 99%. Oats 85% ripe, 1982 81%, average 78%; 50% harvested, 1982 33%, average 44%; alfalfa hay 2nd crop 84% cut, 1982 65%, average 75%; condition 36% good, 49% fair, 15% poor. Pasture condition 15% good, 50% fair, 31% poor, 4% failure. Livestock condition fair.

INDIANA: A week of extreme heat and moisture stress. Temperatures ranged 7 to 14° above normal. Highest 98 to 105° with southern and central stations reporting 100° readings 3 to 4 days. Precipitation from 0.10 to near 1.00 in. as scattered thunderstorms. Growing degree day accumulations highest of season at 191 to 221.

Fieldwork averaged 6.4 days. Topsoil and subsoil moisture short. Wheat 99% combined, 1982 85%, average 95%. Oats 35% harvested, 1982 35%, average 50%. Rye 75% combined, 1982 80%, average 85%. Corn 30% silked, 1982 80% ,

average 45%. Corn 0% in dough, 1982 17%, average 5%. Soybeans 55% in bloom, 1982 75%, average 55%. Soybeans 5% setting pods, 1982 15%, average 10%. Alfalfa hay 80% cut 2nd time, 1982 60%, average 75%. Pastures poor to fair.

IOWA: A very hot week with moderate precipitation north to little or none over southern and east central districts. Highest temperature was 107° at Shenandoah 21st and at Keosauqua 22nd. Daily pan evaporation averaged near 0.33 in.

Days suitable 6.6. Corn tasseled 60%; 54% last year; 74% normal. Corn silked 30%; 27% last year; 53% normal. Soybeans bloomed 65%; 32% last year, 63% normal. Second crop alfalfa hay harvested 70%; 54% last year; 70% normal. Second crop clover hay harvested 30%; 26% last year; 39% normal. Oats turning color 95%; oats harvested 25%; 23% last year; 54% normal. Winter wheat harvested 70%, 52% last year; 77% normal. Topsoil moisture 76% short; 24% adequate. Subsoil moisture 23% short; 74% adequate; 3% surplus.

KANSAS: Precipitation limited to northwest, 0.25 in. and southeast, 0.10 in. Temperatures averaged 84 to 89° - 4 to 9° above normal. Highs greater 100° common west 18th through 23rd.

Wheat 100% harvested, 96% last year, 98% average. Corn 20% silked, 40% last year, 50% average; 1% dough, 10% last year and average. Sorghum 1% headed, 3% last year, 10% average. Soybeans 20% bloomed, 15% last year, 30% average; 5% podded, 4% last year, 10% average. Row crops good to excellent except few scattered counties southeast half. Need relief from hot, dry weather. Alfalfa hay second cutting 90% complete, 80% last year, 90% average; third cutting 15% complete, 15% last year, 25% average. Surface moisture remains short; subsoil moisture adequate south central, east central, southeast, short to adequate elsewhere. Pastures and range generally good to excellent Statewide. Heat hard on livestock, slowed gains. All days suitable for fieldwork.

KENTUCKY: High temperatures ranged low 90's to low 100's. Lows ranged low 60's to low 70's. Mean temperatures in 80's. Precipitation ranged from trace in west to nearly 2.00 in. southeast.

Continued dry and hot causing problems for crops and livestock. Soil moisture 41% critically short, 51% short and 8% adequate. Hot dry weather slowed growth already late crop. Rain needed shortly to avoid considerable crop losses. All days favorable for fieldwork. Corn mostly fair but needs rain and cooler temperatures for pollination, 36% silked, 80% last year, 60% average. Soybeans 15% blooming, 46% last year, 29% average. Mostly fair condition. Tobacco growth slowed. Over half still under 2 feet tall. Burley 5% blooming, 33% last year, 8% dark tobacco blooming. Insect and disease problems moderate. Crop needs rain. Pastures and hay fair to good condition, needs rain and cooler temperatures.

LOUISIANA: Rainfall ranged 0.06 to 3.17 in. Temperatures averaged 1° above normal over the entire State. High 99°, low 68°.

Soil moisture short to adequate. Days suitable 5.4. Corn silked 98%, corn dough 71%, 97% 1982, 89% average. Corn mature 25%, 59% 1982, 51% average. Corn harvest 3%, 14% 1982. Condition fair to good. Cotton squaring 81%, 98% 1982 and average. Cotton setting bolls 38%, 76% 1982, 73% average. Condition fair. Rice headed 49%, 58% 1982, 64% average. Rice ripe

2%, 9% 1982, 14% average. Condition fair to good. Sorghum headed 73%, 77% 1982, 72% average. Sorghum turning color 9%, 38% 1982. Sorghum beginning to ripen, 4% 1982. Condition fair to good. Soybeans emerged 98%, 99% 1982. Soybeans blooming 25%, 40% 1982, 43% average. Soybeans setting pods 9%, 13% 1982, 16% average. Condition fair to good. Sweetpotato harvest just getting underway and behind last year's 2%. Sugarcane condition good. Pecans rated good. Peaches harvested 79%, 89% 1982. Condition good. Vegetables rated fair. Pastures and livestock rated good.

MARYLAND AND DELAWARE: Maryland: Soil moisture short. Corn silked 50%, 1982 65%. Corn doughed 10%, last year 10%. Soybeans bloomed 15%, last year 25%. Tobacco bloomed 10%. Oats 98% harvested, 45% 1982. Rye 90%, 1982 90%. Wheat harvested 95%, last year 95%. Lima beans 40% harvested. Snap beans 90% harvested, 85% last year. Sweet corn 15% picked, 35% 1982. Potatoes 20% harvested, 40% last year. Tomatoes 35% picked, 15% 1982. Cucumbers 30% harvested, last year 45%. Alfalfa 2nd cutting 80% complete, last year 75%. Other hays 75%, last year 75%. Days suitable for fieldwork: 6.0.

Delaware: Corn silked 70%, 1982 65%. Soybeans bloomed 5%, last year 15%. Rye and wheat 98% harvested. Last year rye 90% and wheat 95% harvested. Lima beans 20% harvested. Snap beans 30% harvested, last year 85%. Sweet corn 20% harvested, last year 35%. Potatoes 15% harvested, 1982 35%. Tomatoes 10% harvested, 20% last year. Cucumbers 50% harvested, 95% last year. Alfalfa 2nd cutting 90%, last year 100%. Other hays 85% cut, 50% last year. Topsoil moisture short, subsoil moisture short in New Castle County, adequate in rest of State. Days suitable for fieldwork 6.0.

MICHIGAN: Temperatures 7° above normal. Thunderstorms brought heavy precipitation to much of the southern lower Peninsula. Mostly light precipitation fell over the upper Peninsula and parts of the northern lower Peninsula.

Fieldwork active. Rains benefited crops, but more is needed. Statewide 5.8 days suitable for fieldwork. Soil moisture supplies improved slightly for most of the State. Winter wheat harvest picked up with 25% harvested, 25% last year, 40% average. Oats 2% ripe, 5% last year, 13% average. Corn 10% silked, 50% last year, 33% average. Corn 0% in dough, 1% last year, 0% average. Soybeans 50% blooming, 45% last year, 36% average. Soybeans 1% setting pods, 7% last year, 4% average. Dry beans 25% blooming, 40% last year, 50% average. Second cutting hay 30% complete, 35% last year, 32% average. Sweet and tart cherry harvest wrapping up in southwest and in full swing in the northwest. Sweet cherry harvest 60% complete, 65% last year, 70% average. Tart cherries 40% harvested, 50% last year, 49% average. Vegetable crops growing well and early crop harvest begun.

MINNESOTA: Very high temperatures again. Destructive windstorm on 19th from west central through east central. Temperatures averaged 3 to 8° above normal. High 100°, low: 52°. Precipitation averaged 0.31 to 0.61 in. below normal for northern third of State and south central, 0.12 to 0.71 in. above normal elsewhere. Greatest weekly total: 2.08 in.

Rains over much of State helped replenish topsoil moisture being evaporated away by extreme heat. Storm winds caused locally severe lodging in small grains and corn. Fields dried

out enough for delayed weed control and tillage to proceed. Days suitable for fieldwork: 4.5. Corn borers and armyworms widespread. Corn and soybeans making progress, but slow to catch up in major areas hit by cold, wet spring. Small grains ripening very fast, may have low test weights if too fast. Topsoil moisture: 16% short, 75% adequate, and 9% surplus. Tasseling: Corn 31%, 1982 35%, normal 56%. Blooming: Soybeans 60%, 1982 40%, normal 63%; sunflowers 3%, 1982 5%, normal 23%. Setting pods: Soybeans 3%, 1982 1%, normal 7%. Turning ripe: Spring wheat 59%, 1982 32%, normal 50%; oats 73%, 1982 54%, normal 65%. Cut or swathed: Spring wheat 1%, 1982 1%, normal 5%; oats 2%, 1982 5%, normal 13%; barley 6%, 1982 5%, normal 15%.

MISSISSIPPI: Weather hot, hazy and relatively dry. Temperatures slightly above normal. Highest 101°. Afternoon and evening thunder-showers heaviest in coastal areas. Greatest weekly total 2.53 in.

Soil moisture short to adequate. Fieldwork 5.8 days suitable, 5.0 last year, 4.2 average. Soybeans 13% blooming, 46% last year and average; 0% podding, 12% last year, 14% average; condition fair. Cotton 96% squaring, 99% last year and average; 35% setting bolls, 70% last year, 58% average; condition fair. Rice 4% headed, 20% last year, 22% average; condition fair. Sorghum 33% headed, 58% last year, 50% average. Corn 85% silked, 94% last year, 93% average; 38% in dough stage, 72% last year. Hay harvest 65%; peaches 62%; watermelons 24%. Pasture condition good to fair.

MISSOURI: Temperatures averaged 5 to 7° above normal. Only spotty showers were reported as a heat wave scorched State with above 100° readings.

Days suitable for fieldwork: 6.5. Corn 62% tasseled, 71% last year. Corn 38% silking, 56% last year and 53% normal. Grain sorghum 32% headed, 36% last year and 28% normal. Double-crop soybeans 98% planted, 100% last year. Soybeans 40% blooming, 28% last year and 31% normal. Oats 89% harvested, 74% last year and 78% normal. Alfalfa hay, 2nd cutting, 90% harvested, 75% last year and 78% normal. Third cutting alfalfa hay 15% harvested, 19% last year and 14% normal. Other hay 90% harvested, 81% last year. Cotton 73% squared, 100% last year and 96% normal. Cotton condition 50% fair, 50% poor. Corn condition 1% excellent, 29% good, 53% fair and 17% poor. Soybean condition 34% good, 45% fair and 21% poor. Grain sorghum condition 1% excellent, 24% good, 47% fair and 28% poor. Pasture condition 10% good, 58% fair and 32% poor. Topsoil moisture supplies 3% adequate and 97% short.

MONTANA: Thunderstorms dropped over 1.00 in. of rain in northeast on the 18th and 19th. Elsewhere showers and thundershowers were scattered but most areas received some precipitation except for south central and some areas in southwest. Temperatures below normal ranging 3 to 8° below in west to near normal to 3° below in east. Week started out cool and then warmed up some in middle and then cooled off a few degrees again at end.

Topsoil moisture short south central and southeast. Barley adequate central and northeast. Mostly adequate elsewhere. Fieldwork, 5.0 days suitable. All crops good condition Statewide. Crop progress percent this year, last year and average: Winter wheat harvested 1, 0, 0; ripe 14, 0, 5; turning 70, 25, 65; headed and green 15, 70, 30; boot 0, 5, 0; spring wheat harvested 0, 0, 0; turning 30, 0 15; headed and green 60,

55, 65; boot 10, 45, 20; barley harvested 0, 0, 0; ripe 0, 0, 5; turning 25, 5, 15; headed and green 65, 60, 60; boot 10, 35, 20; oats harvested 0, 0, 0; ripe 5, 0, 5; turning 35, 0, 15; headed and green 50, 50, 60; boot 10, 50, 20. Alfalfa hay first cutting 85%, 65%, 80%. Wild hay 55% cut.

NEBRASKA: High temperatures of 100° plus widespread. Average temperatures ranged 1° above normal west up to 8° above normal east. Rain showers spread across State at end of week with 0.25 to 1.50 in. common.

Wheat harvest 75% complete, 70% last year, 90% normal. Corn good to fair. Silking 25%, 15% last year, 55% normal. Dough stage 0% this year and last year, 4% normal. Sorghum fair to good. Headed 5%, last year 1%, normal 25%. Soybean condition good to fair. Blooming 65%, 25% last year, 55% normal. Setting pods 5%, 1% last year, 20% normal. Alfalfa good to fair. Second cutting 65%, last year 70%, normal 80%. Topsoil moisture short. Subsoil supplies adequate. Days suitable for fieldwork 6.7.

NEVADA: Dry and relatively cool weather characterized past week most areas. Isolated thunderstorms developed end of period. Activity showers started south midweek and eventually worked to northwest corner of State by weeks end. Average temperatures for all areas below normal. Extremes: 105 and 33°.

Alfalfa hay harvest hampered by scattered afternoon showers some localities. Small grains showing good development more northern areas. Ranges and pastures furnishing adequate forage.

NEW ENGLAND: Temperatures ranged from the mid 60's near Canadian border to upper 70's along southern coast. Low pressure systems across central New England produced rain late in the week, leaving 0.50 to 1.50 in.

Soil moisture supplies short, and 6.7 days suitable for fieldwork. Blossoms on early planted potato crop. Potato condition rated good. First cut hay complete. Second cut hay 45% harvested.

NEW JERSEY: Temperatures averaged 1° above normal. Extremes were 49° on the 23rd and 99° on the 19th. Weekly rainfall averaged 2.44 in. north, 0.61 in. central and 0.28 in. south. The heaviest 24-hour total was 3.10 in. on the 19th to 20th. Estimated soil moisture, in percent of field capacity, averaged 71% north, 34% central and 21% south. Four inch soil temperature today averaged 73° north, 78° central and 80° south.

Fieldwork: 6.0 days suitable. Main farm activities: Combining wheat, baling hay and harvesting of summer vegetable crops. Planting of fall vegetable crops now underway. Corn and soybean crops making good growth. Recent rain improved topsoil moisture supply to adequate and benefited all crops.

NEW MEXICO: Average temperatures few degrees above normal most locations, scattered showers north and west producing totals generally between 0.25 and 0.50 in. A few mountain locations received 1.00 to 2.00 in. Minimum temperature 44° central valley and highlands. Maximum temperature 102° southeastern Plains.

Cotton rates fair to good. Fields setting squares 95% current, same as last year, 98% average. Fields setting bolls 27% current, 49% last year, 48% average. Alfalfa rates good, third cutting 53% complete. Irrigated and dryland wheat harvest complete. Barley harvest also complete. Irrigated sorghum rated fair to

good, dryland rated poor to fair. Corn rated good to excellent. Peanuts, potatoes, chile, good condition. Cattle, sheep good to fair, some supplemental feeding. Range condition fair to poor southeast and southwest. Good north central and northwest.

NEW YORK: Warm and dry weather first of week. Showers and thunderstorms at end of week. One to two inches received at some locations.

Early corn starting to tassel. All corn showing stress from lack of moisture. Wheat harvest 15% complete, 18% 1982, 18% average. Second cutting alfalfa 38% complete, 20% 1982, 17% average. Clover-timothy haying nearing completion, 74% 1982, 81% average. Dry weather affecting sizing of apples. Snap bean harvest underway. Set onions being harvested. Potatoes in full bloom and filling in between rows. Irrigation being done by those with equipment.

NORTH CAROLINA: Temperatures 5 to 6° above normal. Precipitation spotty with heavy thunderstorms in a few areas.

Soil moisture: 55% very short, 43% short, 2% adequate. Days suitable for fieldwork: 6.3. Condition: Tobacco 15% poor, 22% fair, 8% good. Corn: 48% poor, 46% fair, 6% good. Cotton: 4% poor, 50% fair, 46% good. Peanuts: 6% poor, 63% fair, 31% good. Soybeans: 8% poor, 69% fair, 23% good. Irish potatoes: 5% poor, 76% fair, 19% good. Apples: 73% fair, 13% good, 14% excellent. Peaches: 32% poor, 58% fair, 5% good, 5% excellent. Phenological stages: Cotton squared: 72%, 1982 97%, 91% average. Cotton setting bolls: 34%, 1982 61%, 61% average. Corn silked: 81%, 1982 94%, 91% average. Corn soft-dough: 56%, 1982 71%, average 68%. Corn dent: 22%, 40% 1982, 38% average. Soybeans blooming: 16%, 22% 1982, 23% average. Harvests: Irish potatoes 85%, 89% 1982, 94% average. Flue-tobacco: 12%, 24% 1982, 20% average. Major farm activities: Topping and suckering tobacco, hay harvest, irrigating crops, cultivating and spraying for weed control on soybeans, tobacco and peanuts and truck crop harvesting.

NORTH DAKOTA: A severe storm system on the 17th and again on the 19th brought heavy rains and high winds from northwest to southeast. Less than 0.20 in. fell extreme northeast. Elsewhere most areas received from 0.75 to 1.50 in. Temperatures averaged 1 to 3° above normal. Extremes from 94° west to 38° also west. Humidity was unusually high first half of week but drier late week.

Warm temperatures continued to promote crop development. Swathing of winter wheat, rye and barley began, especially in southern areas. Some concern about heat stress, both small grains and row crops remained in mostly good condition. Soil moisture above normal. Crop development near normal for small grains and ahead of normal for most row crops. Percentage of acreage turning ripe and beyond compared to last year and average was: hard red spring wheat 19, 12, 23; durum 8, 5, 13; barley 40, 36, 42; and oats 28, 21, 30. Token percent of the sunflower acreage was in bloom or beyond compared to 3% last year and average of 8%. Same percentage for other crops were: flax 69, 51, 52; potatoes 67, 32, 65; and dry beans 56, 26, 49.

OHIO: Temperatures 5 to 7° above normal, south 7 to 8° above normal. Some 100°+ along southern border. Precipitation totals up to 3.33 in., most from 0.50 to 1.60 in. Soil temperatures averaged in 80's.

Crops under stress where showers have missed. Corn and soybeans fair to good condition.

Corn silked 30%, 70% 1982, 55% average. Corn dough 3%, 10% 1982, 2% average. Soybeans blooming 50%, 70% 1982, 60% average. Soybeans setting pods 10%, 10% 1982, 10% average. Wheat harvested 95%, 90% 1982, 85% average. Oats harvested 25%, 15% 1982, 20% average. Alfalfa 2nd cut 70%, 70% 1982, 60% average. Other hay 2nd cut 45%, 50% 1982, 35% average. Days favorable 5.0. Pasture condition fair. Soil moisture 49% short, 50% adequate, 1% surplus.

OKLAHOMA: Temperatures ranged from 1° below normal south central to 4° above normal northeast. No significant rainfall fell during the week.

Hot, dry weather has slowed crop progress. What harvest has been completed. Cotton in good condition but remained two weeks behind normal development. Non-irrigated sorghum has begun to show moisture and heat stress. Many areas in west and the Panhandle have not received any rainfall in four to six weeks. Cattle and ranges continued to remain in good condition. Little forage growth reported and many pastures beginning to show moisture stress. Cattle continued to be in good condition with the heat not yet causing any significant problems. Flies and grasshoppers have caused some damage, but not as much as usual. Wheat harvested: 100%; 98% 1982; 100% average. Sorghum headed: 15%; 15% 1982; 25% average. Cotton squaring: 30%; 10% 1982, 60% average. Cotton setting bolls: 0%; 0% 1982, 10% average.

OREGON: Temperatures were normal west of the Cascades; 6° below normal in extreme eastern areas; 11° below normal in the south and south central areas. Rainfall at beginning of week left 0.70 in. at coastal extremes; an average of 0.80 in. in Interior Valleys; up to 2.10 in. in northern Cascades; and less than 0.20 in. in eastern areas.

Winter wheat 10% harvested, 18% 1982; 13% average. Early reports indicate excellent yields in the northern Columbia Basin. Barley harvest still underway in many areas. Harvesting of grass seed hampered by showery conditions in the Willamette Valley. Some early ryegrass varieties severely damaged due to sprouting in the windrow. Haying activities continue throughout the State; some rain damage occurred. Sweet cherry harvest nearly complete in the Hood River Valley. Harvest of sour cherries in the Willamette Valley just beginning; the crop expected to be better than last year. Blackberries, blueberries, loganberries, and boysenberries continue to be picked in volume. Many filbert orchards showing a considerable amount of brown stain. Harvesting of early potatoes in the Hermiston area should be underway by 25th. In the Klamath Basin the potato crop is 7 to 10 days behind normal. Harvesting of snap beans, broccoli, and peas underway in the Willamette Valley. Some early broccoli has been severely affected by soft rot. Livestock, range and pasture condition good to excellent.

PENNSYLVANIA: Week began very warm. Ended rather cool. State average temperature 74°. This was 3° above normal. Second warmest week this year. Extremes, 99 and 36°. All of the State received much needed rainfall. Amounts ranged from around 0.25 to just over 4.00 in. State average 1.54 in.

Days suitable: 5.0. Moisture mostly short. Activities: Making hay and haylage; combining barley and wheat; baling straw; spraying corn and alfalfa fields; irrigating vegetables, picking cherries; trimming pastures and soil testing. Barley 88% harvested, last year 86% harvest. Wheat 15% turning yellow, 26% ripe and 56%

harvested, last year 5% turning yellow, 34% ripe and 60% harvested. Oats 30% headed, 43% turning yellow, 22% ripe and less than 5% harvested, last year 11% headed, 54% turning yellow, 24% ripe and less than 5% harvested. Average corn height 46 in., last year 60 in. Second cutting alfalfa 63% complete, last year 46% complete. First cutting clo-tim virtually complete, last year 94% complete. Quality of hay made good to fair. Feed from pastures below average to average.

PUERTO RICO: No island data due to Holiday.

SOUTH CAROLINA: Temperatures exceeding 100° were the rule. Scattered thunderstorms included locally heavy amounts in northeast, south, but drought prevails.

Fieldwork done in 5.9 days avoiding extreme heat. Soil moisture short to very short. Corn badly needs rain to develop crop, fair condition; 53% in dough stage, 92% last year, 81% average; some cutting silage early to avoid stress; 2% grain harvest now and year ago, 1% average. Cotton 95% squared now and average, 100% year ago; 88% setting bolls, 96% year ago, 87% average; insects near threshold, generally monitored well; conditions fair to good despite stresses. Soybean growth stressed, some have weed pressure, no insect distress; conditions fair; 10% blooming, 19% last year, 21% average; 1% setting pods, 3% last year, all ahead of average. Tobacco insect pressures near threshold, heat, dry stress keeping top leaves from filling in; some harvesting bottom leaves, 14% harvested, 47% year ago, 36% average, conditions fair to good. Peaches, fruit conditions poor to fair; peaches 61% harvested, 74% last year, 70% average. Hay crops, pastures rated fair to good.

SOUTH DAKOTA: Average temperatures 1 to 9° above normal. Extremes: 108° and 42°. Thunderstorms brought generally 0.50 to 1.50 in. in south and east.

Winter grain harvest in full swing. Above average yields and good quality indicated. Spring small grain harvest just starting. Uncertainty as to the effect of extreme heat on spring grain yields in drier north central and western areas. Days suitable for fieldwork: 5.0. Rust persists in oats throughout southeast. Corn borer infestations widespread and heavy. All crops showed rapid growth and development past 2 weeks. Winter wheat ripe 90%, 1982 82%, average 91%. Winter heat harvested 34%, 1982 17%, average 60%. Rye ripe 87%, 1982 95%, average 93%. Rye harvested 16%, 1982 17%, average 49%. Spring wheat ripe 28%, 1982 34%, average 59%. Spring wheat harvested 1%, 1982 4%, average 23%. Corn tasseled 20%, 1982 15%, average 42%. Corn silked 10%, 1982 8%, average 26%.

TENNESSEE: High pressure centered in the lower Mississippi Valley and dominated the weather all week. Showers Statewide occurred on 18th and 23rd to 24th. Temperatures averaged above normal for the week.

Days suitable for fieldwork: 5.8. Soil moisture 87% short, 13% adequate. Pastures fair. Corn silked 50%, 1982 87%, average 74%; dough 9%, 1982 31%, average 26%; dent 1%, 1982 4%, average 4%. Cotton squaring 79%, 1982 100%, average 92%; setting bolls 12%, 1982 52%, average 43%. Soybeans blooming 22%, 1982 29%, average 38%; setting pods 4%, 1982 7%, average 10%. Alfalfa hay 2nd cutting 95%, 1982 100%, average 94%. Tobacco 32% poor, 61% fair, 7% good. The hot, dry weather taking its toll on corn, soybeans, and tobacco.

TEXAS: First part of week was characterized by an easterly wave which gave South and Southeast Texas thunderstorms activity on 18th and 19th. Scattered to widely scattered thunderstorms continued along the coast each day the remainder of week. From 20th an upslope caused thunderstorms to develop over the mountainous region of the Big Bend. Storms on 24th built up over the side of the Rockies in New Mexico and moved into the Panhandle. Temperatures were very close to normal being just a bit warmer than normal over South Texas.

Crops: Field activity interrupted early in week as rain spread across most of eastern half of State. The rainfall interrupted and delayed sorghum harvest and caused some damage to both sorghum and open cotton in areas. The rainfall missed most of western half of State and dryland crops continue to show some signs of moisture stress. Irrigated crops doing well as irrigation continued with hot temperatures. Harvest of small grains about finished. Cotton continued to make good progress as warm temperatures prevailed. On Plains irrigated cotton making excellent growth with hot temperatures, however, dryland cotton showing signs of moisture stress. Cotton in eastern half of State had adequate moisture but boll weevils and boll worms caused some damage in North Texas. Some spotting of open cotton resulted from excessive rain in the Coastal area. Damage to mature sorghum resulted from excessive rain in Upper Coast and Coastal Bend area as needs sprouting in head. In Rio Grande Valley, harvest was also interrupted by rain. Sorghum is maturing from South central Texas into the Blacklands. The corn crop is maturing rapidly in South Texas and making good progress on High Plains. Wheat harvest is completed except for a few remaining fields, yields have been excellent. Peanuts continue to make good progress as moisture has been favorable. Rice progress continued to advance but remains behind normal. With slow maturity, only limited harvest may occur before the first of August. Soybeans continued to advance during week. Heavy rain in Upper Coast area provided needed moisture.

Cotton squaring 69%, 1982 74%, 82% average; cotton setting bolls 19%, 1982 18%, average 36%; cotton open bolls 2%, 1982 3%, average 7%; cotton harvested 0%, 1982 2%, average 1%. Rice headed 87%, 1982 100%, average 98%; rice turning color 43%, 1982 86%, average 72%; rice harvested 0%, 1982 22%, average 17%. Sorghum headed 68%, 1982 74%, average 71%; sorghum turning color 58%, 1982 59%, average 59%; sorghum mature 41%, 1982 46%, average 46%; sorghum harvested for grain 19%, 1983 39%, average 37%. Wheat harvested for grain 100%, 1982 100%, average 100%. Corn harvested for grain 2%, 1982 6%, average 5%. Oats harvested for grain 99%, 1982 100%, average 100%. Sunflowers planted 100%, 1982 100%, average 99%.

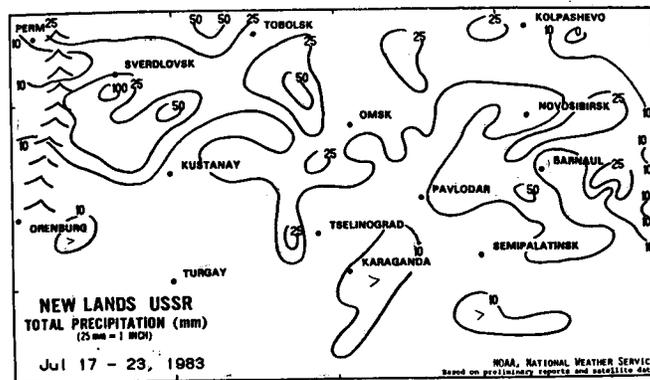
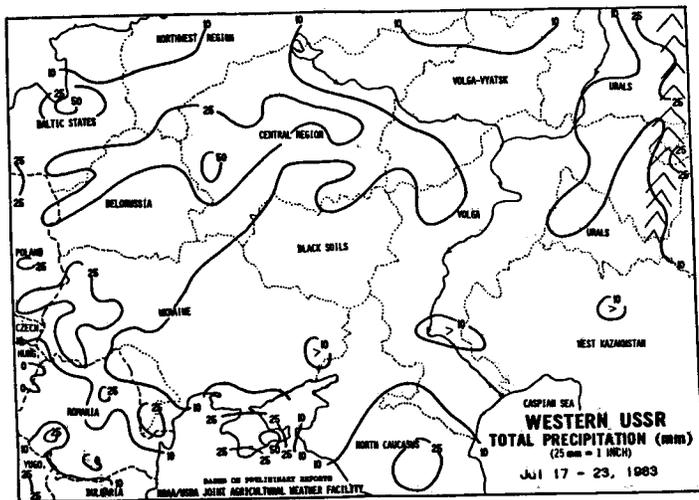
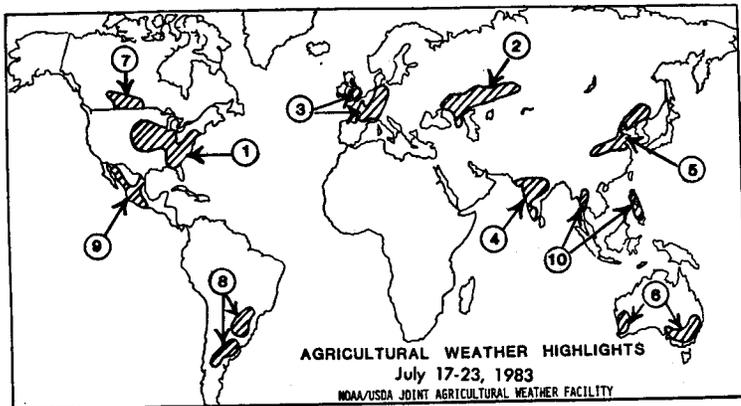
Commercial vegetables: In Rio Grande Valley vegetable harvest has ended. Rain interrupted most land preparation for fall vegetables. Care of citrus groves continued as conditions allowed. In San Antonio-Winter Garden area, harvest of cantaloups, watermelons continued. Limited supplies of tomatoes, cucumbers also available. East Texas received additional rain which helped most vegetables. Supplies plentiful for greens, onions, tomatoes, peas, beets, sweet corn, parsley and okra. In Trans-Pecos, harvest activity of cabbage, watermelons and cantaloups was active. In North Texas, supplies of squash, okra, melons, peas and beans plentiful. On Plains, harvest of onions, potatoes and cabbage continued to expand. Peach harvest continued to expand in North Texas. Pecans sizing rapidly, spraying for second generation casebearers continued.

(continued on p. 6)

# International Weather and Crop Summary

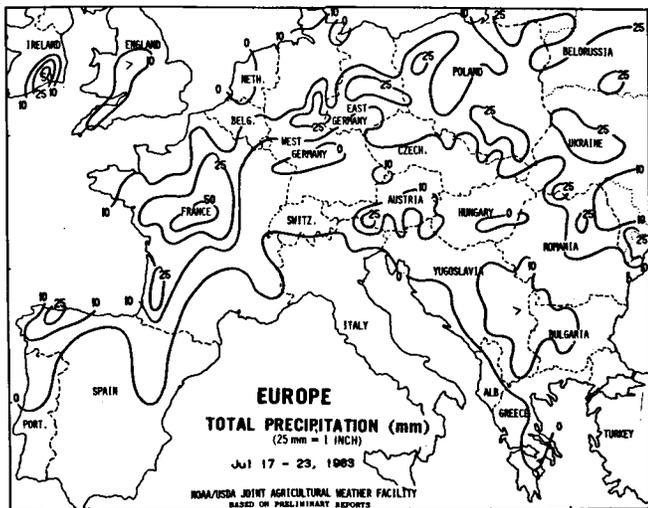
July 17 to 23

1. UNITED STATES ... Abnormally hot, dry weather deteriorates crops in parts of the Southeast; stresses corn, beans, and livestock in the central and southern Corn Belt; and accelerates winter wheat maturity and harvest in the central and northern Plains.
2. USSR ... Dry weather is stressing corn and sunflowers in the southeastern European USSR, as well as spring grains in the southern portion of the New Lands.
3. EUROPE ... Showers benefited summer crops in central France, but continued unseasonably hot, dry weather over remaining northwestern crop areas is reducing yield prospects.
4. SOUTH ASIA ... Monsoon activity is proceeding at a near-normal rate, with beneficial rains falling on the southwest coast and much of central India. Southeastern rice areas remain unfavorably dry.
5. EASTERN ASIA ... A persistent band of precipitation moved north of the Yangtze, bringing beneficial rain to previously dry areas. Moderate to heavy rain benefits northeastern crops in the reproductive stage.
6. AUSTRALIA ... Moderate showers are benefiting western Australia's wheat, in the early vegetative stage. Dry, cool weather is covering southeastern crop areas.
7. CANADA ... Precipitation is benefiting southern grain areas where warmer temperatures and developing crops are increasing the moisture demand.
8. SOUTH AMERICA ... Precipitation is shifting from the wheat area to the coffee region of Brazil. Argentina remains dry and cool during the wheat planting season.
9. MEXICO ... Heavy rains over most of the southern Plains corn belt is benefiting crops. Light showers are also helping northeastern orchards and crops, while the rest of the north remains mostly hot and dry.
10. SOUTHEAST ASIA ... Moderate rains benefit corn in the reproductive stage in central Thailand. A tropical depression is bringing more rain to the Philippines, benefiting rice areas.

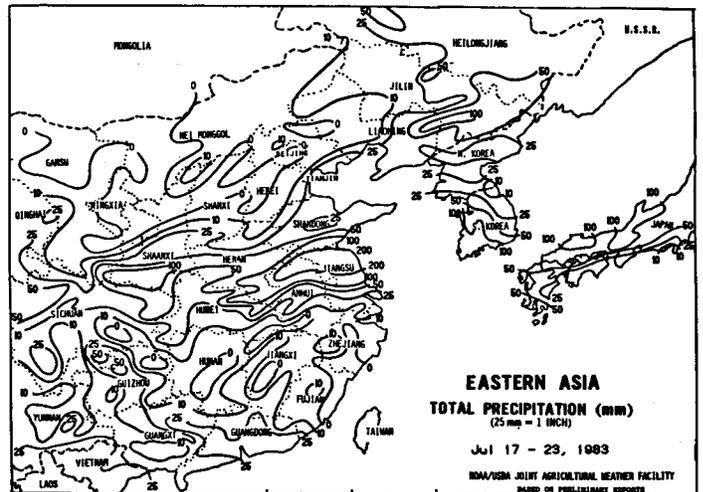


USSR...A cold front moved slowly eastward through Western USSR during the week. Most of the precipitation associated with the front fell on crops in the western Ukraine, Belorussia, and across the northern portion of the region. The moisture in these areas benefited spring sown crops in the filling stage. The front weakened as it moved eastward and, as a result, generally dry weather covered major grain producing areas in the eastern Ukraine, the southern Black Soils, the North Caucasus, and the southern Volga Valley. The dry weather stressed corn and sunflowers in the reproductive stage. Behind the front, temperatures fell to below-normal over most of the region by week's end.

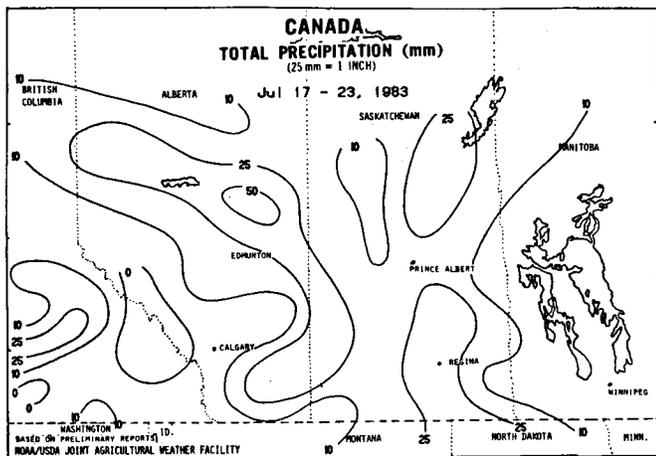
In the New Lands, a weak low-pressure system centered in the north produced widespread, generous rains in northwestern spring grain areas. Rainfall amounts generally ranged from 25 to 50 mm, benefiting spring grains in the heading stage. Remaining crop areas in the north also received showers, but precipitation amounts were generally light. In southern spring grain areas, spotty showers fell from Orenburg eastward through Pavlodar and Semipalatinsk. In addition, weekly temperatures were 2-4°C above normal in the south and east, increasing evaporation rates. As a result, crops in these areas had to rely on limited soil moisture for continued growth.



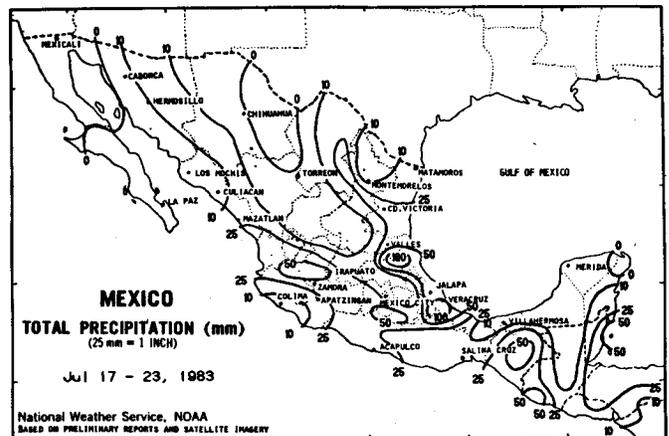
**EUROPE...**Generous amounts of precipitation in central France benefited spring sown crops in the reproductive stage. In contrast, unfavorably hot, dry weather continued over crops in England, the Netherlands, West Germany, and northern East Germany, reducing yield prospects. Beneficial showers fell on summer crops in southern East Germany and southern Poland, which improved moisture conditions. In the southeast, light showers maintained favorable soil moisture for summer crops. In addition, some dry weather benefited small grains, which normally are maturing, as well as early harvest activity. Elsewhere, unfavorably dry weather covered northern Italy, while seasonably dry weather continued over crop areas adjacent to the Mediterranean Sea.



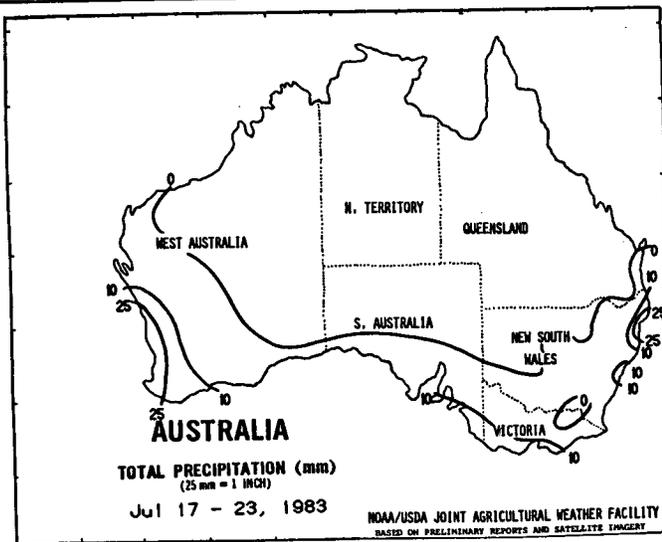
**EASTERN ASIA...**The southeastern rice area of China was relatively dry this week. Southwestern China received moderate amounts of rain as tropical storm Vera moved inland, bringing moisture to Guangxi, Guizhou, and Sichuan. Early rice in southern China is normally harvested in July and intermediate rice, in the reproductive stage, is benefiting from the moisture. The band of precipitation which had been inundating the Yangtze Valley, shifted slightly northward this week, with the heaviest amounts falling in Shandong and Jiangsu. The recent rains have relieved a persistent below-normal precipitation pattern in Shandong, where cotton is in the mid-reproductive stage. Moderate to heavy rain also fell in the corn and soybean region of northeastern China, benefiting crops which are in the reproductive stage. Temperatures have been slightly above normal in the southern rice areas, while below-normal temperatures prevailed from the Yangtze Valley northward.



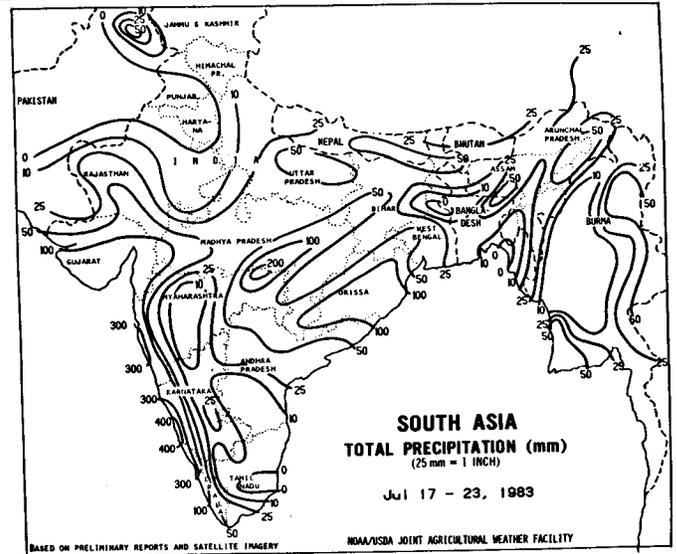
**CANADA...**Mostly light showers covered Canada this week. However, a band of moderate precipitation stretched from central Alberta, southeastward through the grain areas of Saskatchewan. The moisture was beneficial to southern crop areas where wheat is in the moisture-sensitive reproductive stage of development. Slightly above-normal temperatures in Saskatchewan have helped to dry some areas which were unfavorably wet. Below-normal temperatures in the southern grain area of Alberta decreased the moisture demand of crops, which received little precipitation in July. Crops have been reported in fair to good condition throughout Canada. Precipitation will continue to be needed as the crops progress through heading and grain filling stages.



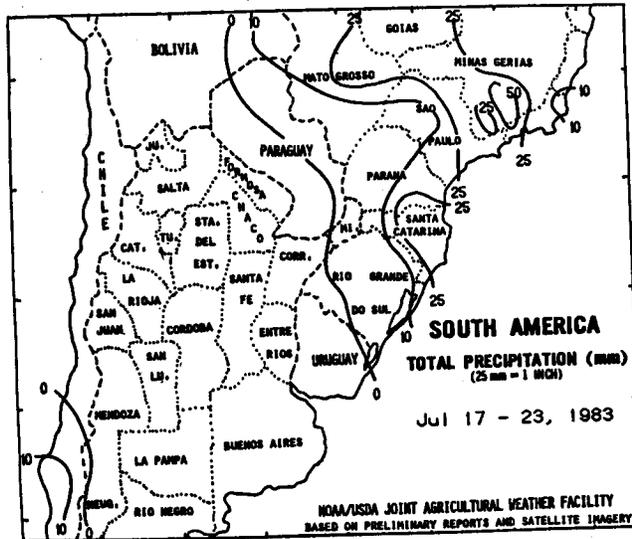
**MEXICO...**Heavy rains fell over most of the southern Plains Corn Belt, generally benefiting crops. A few fields may have received too much rain while a small number of others may still be slightly dry. Light rains continuing over the Northeast should decrease some of the stress on orchards, sugarcane, pastures, and livestock. Much more rain is needed to significantly improve soil moisture and crop conditions. Dryness generally remains over the rest of the north, while rainy weather dominated most of the south and extended into Central America.



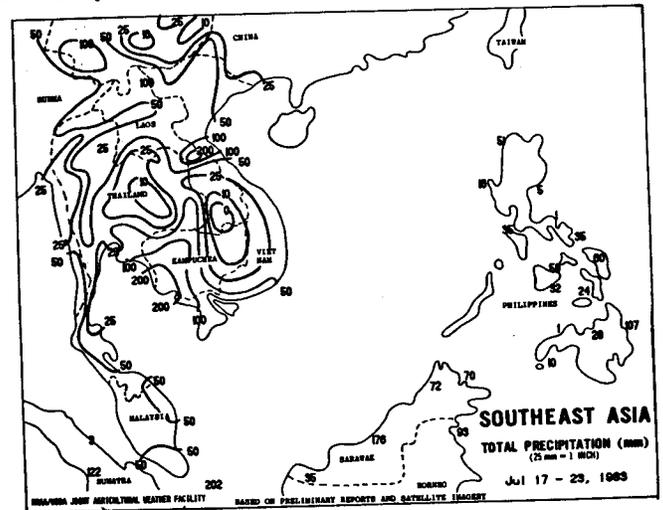
**AUSTRALIA**...Moderate showers fell in crop areas of West Australia, benefiting wheat in the early vegetative stage. Slightly above-normal temperatures during the past week helped establish early growth. Light precipitation fell in southeastern Australia; however, amounts were generally less than 5 mm. Soil conditions in some crop areas of South Australia, southern New South Wales, and Northern Victoria are unfavorably dry, due to less than normal precipitation. However, temperatures were below normal this week, decreasing crop moisture demand. Dry weather in Queensland and northern New South Wales has been favorable, following excessive precipitation in June.



**SOUTH ASIA**...Heavy rains fell on the southwest coast of India for the second week, following slightly below-normal earlier monsoon rains. Autumn rice in the area has benefited greatly from the recent rains. Moderate to heavy precipitation in central India benefited the rice areas of western Myaharashtra, western Madhya Pradesh, Orissa, and northern Andhra Pradesh. Southern Andhra Pradesh and Tamil Nadu remained dry this week, while above-normal temperatures over most of India increased the moisture demand of summer crops. Moderate to heavy rain aided cotton and groundnuts in the vegetative stage in Gujarat, while mostly light precipitation fell in southern areas. In the important winter rice areas of west Bengal and Bangladesh, below-normal precipitation for the past two weeks has been unfavorable.



**SOUTH AMERICA**...Precipitation decreased substantially in most wheat areas of southern Brazil, where conditions had been excessively wet. Santa Catarina, however, continued to receive amounts greater than 25 mm. Precipitation moved into the coffee region of Brazil this week, with amounts in excess of 50 mm in southern Minas Gerias, hampering the harvest. Temperatures were moderately warm in Brazil, helping to dry soils and create favorable conditions for early wheat growth. Argentina remained dry and seasonably cool this week. Moisture is needed in Argentina for the wheat planting season, which occurs during July and early August. Precipitation accumulations have been below-normal, delaying planting progress.

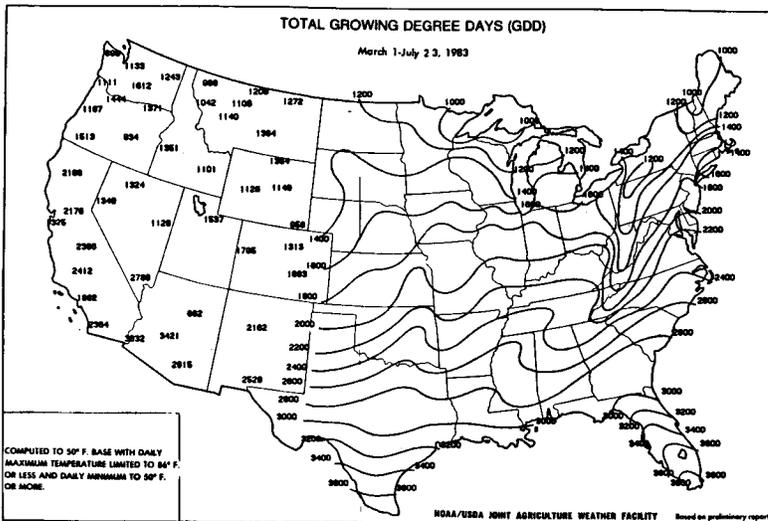


**SOUTHEAST ASIA**...Monsoon activity was varied this week as mostly light to moderate precipitation fell in Thailand. A band of moderate precipitation, stretching from the north, down through western Thailand, has helped alleviate dry conditions. The moisture also helped raise reservoir levels in the north. Precipitation in the relatively dry central corn region greatly benefited the crop as it progresses through the silking stage. Moisture conditions for the rice crop are generally favorable as it nears the heading stage. Moderate to heavy precipitation fell in the Philippines, benefiting rice planting as a tropical depression formed and moved over the islands. Relatively dry weather in central Luzon was beneficial after inundative rains last week.



OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

**WEEKLY NEWS BULLETIN  
SECOND CLASS**



(continued from p. 10)

WYOMING: Temperatures above normal east half. Northeast, few temperatures over 100 with highs in 80's in southwest. Nights rather cool with lows upper 20's northwest. Precipitation mostly above normal for north central and southeast. Topsoil moisture adequate 54% State. Days suitable for fieldwork: 7.0. Small grains maturity continues behind normal. Winter wheat; 55% turning color; 25% mature; small amount harvested. Normally 32% harvested. Barley; 30% turning color; small amount mature; small amount harvested. Spring wheat; 20% turned color; 5% mature. Normally 20% mature. Oats; 15% turned color; 5% mature. Normally 43% turned color. Corn 5% tasseled; normal 26%. Dry beans 50% bloom. Potatoes 55% bloom. Alfalfa 85% first cutting complete; normally 88% harvested. Other hay harvested 35%; normally 45% harvested.

The Weekly Weather and Crop Bulletin (ISSN 0043-1974) is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the Weekly Weather Chronicle. It is issued under general authority of the Act of January 12, 1895 (44-USC 213), 53d Congress, 3d Session. NOAA is responsible for managing, printing, and distributing the Bulletin. The contents may be reprinted freely, with proper credit.

Annual subscription: domestic \$25, foreign \$33 (in U.S. funds by international money order or check drawn on U.S. bank), payable to U.S. Department of Commerce, NOAA. POSTMASTER: Send address changes to NOAA/USDA Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, D.C. 20250. Order subscriptions from the office and address listed above. Second class postage paid at Washington, D.C. and additional mailing offices.

U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Weather Service/Climate Analysis Center  
Managing Editor . . . . . Don Haddock  
Meteorologists . . . . . Jim Williams  
Ray McInturff

Lyle Denny  
Wes Byrd  
Tom Tasselmyer  
Karen Brown

Subscriptions (202) 447-7917. . Cheryl Caleco

U.S. DEPARTMENT OF AGRICULTURE  
Economics Management Staff  
Editor . . . . . Gloria Ruggiero  
Statistical Reporting Service  
Agricultural Statistician . . . Bill Brannen  
World Agricultural Outlook Board  
Agricultural Weather Analysts . Ray Motha  
Tom Puterbaugh Ron Lundine