

WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
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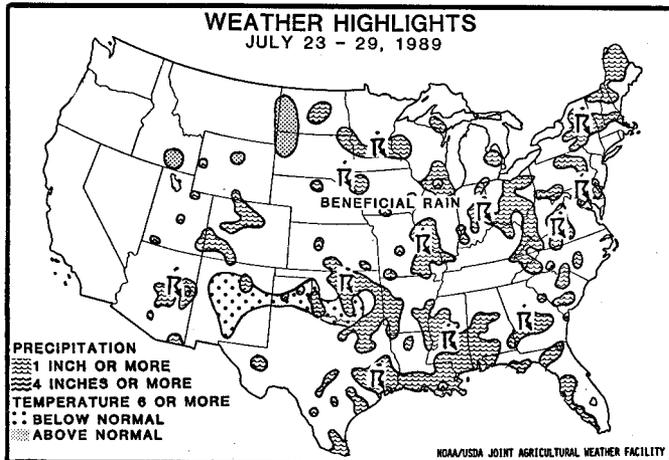
Washington, D.C.

Aug. 1, 1989



National Weather Summary

July 23-29, 1989



WEDNESDAY: Showers and thunderstorms were widespread across the Nation. Powerful thunderstorms with heavy rain developed from the Ohio Valley to the middle Atlantic coast and over eastern Texas. It was unusually hot from the Great Lakes to New England as a number of cities had high-temperature records for the date.

THURSDAY: Severe thunderstorms rumbled across the East. Torrential rains inundated central Mississippi. Scattered rain covered the Rockies and Southwest.

FRIDAY: Thunderstorms developed along and ahead of a cold front curving from New England, across the southern Ohio Valley, to the northern Plains. Showers and thunderstorms were scattered in the hot, humid air reaching from the Intermountain Plateau to the southern Atlantic coast.

HIGHLIGHTS: Thunderstorms dotted the Nation from the Intermountain Plateau to the Atlantic coast, with isolated storms causing heavy rain. Parts of the western Corn Belt received very beneficial rain at week's end, while a cold front brought relief from the heat and humidity to the northern Plains and northern and mid-Atlantic seaboard.

SUNDAY: Scattered showers and thunderstorms erupted from the Intermountain Plateau to the central and southern East coast. Locally heavy rain fell in central Oklahoma and central Indiana. Skies were sunny in the Far West, upper Mississippi Valley, and New England.

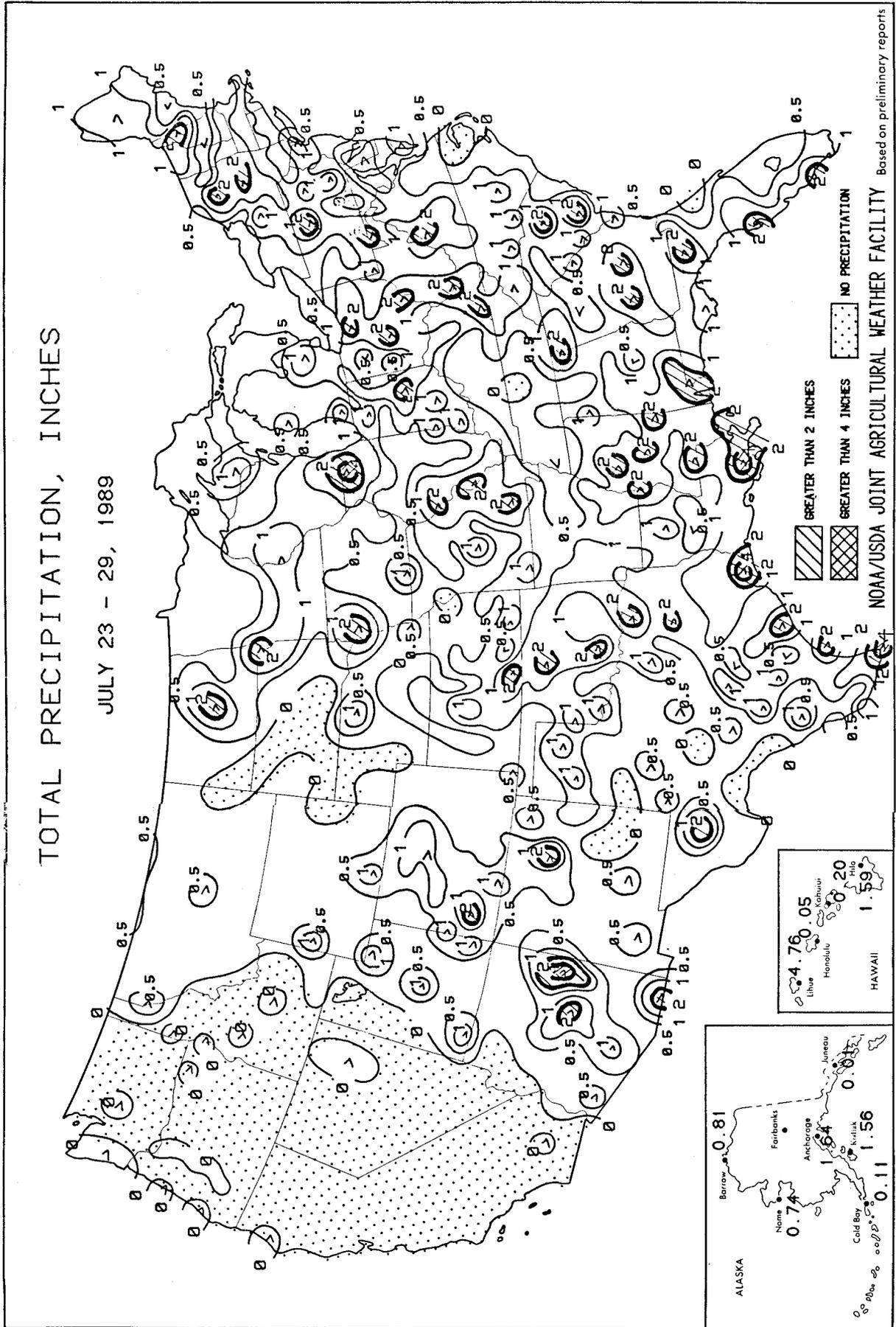
MONDAY: Widely scattered rain showers and thunderstorms persisted over much of the Nation. Skies remained clear over the Northeast, northern Plains, and Pacific Coast States.

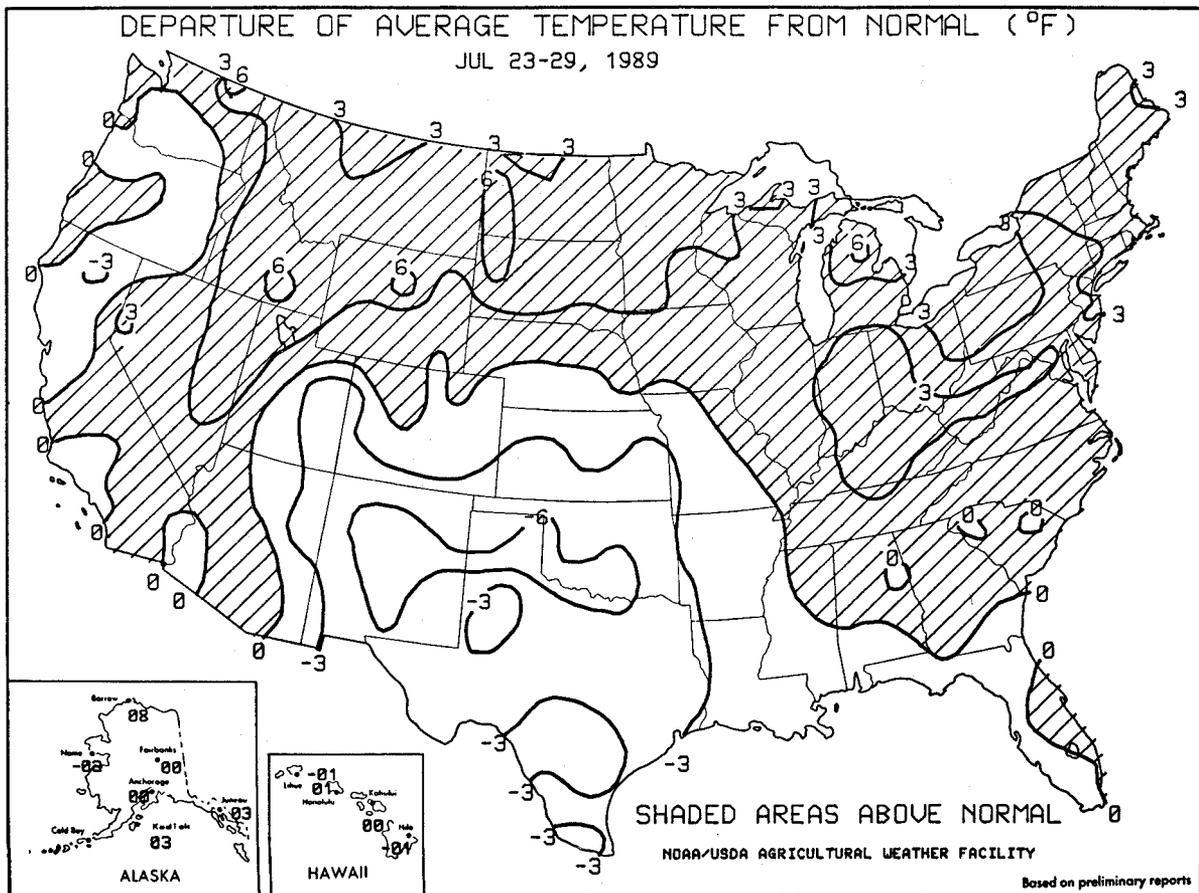
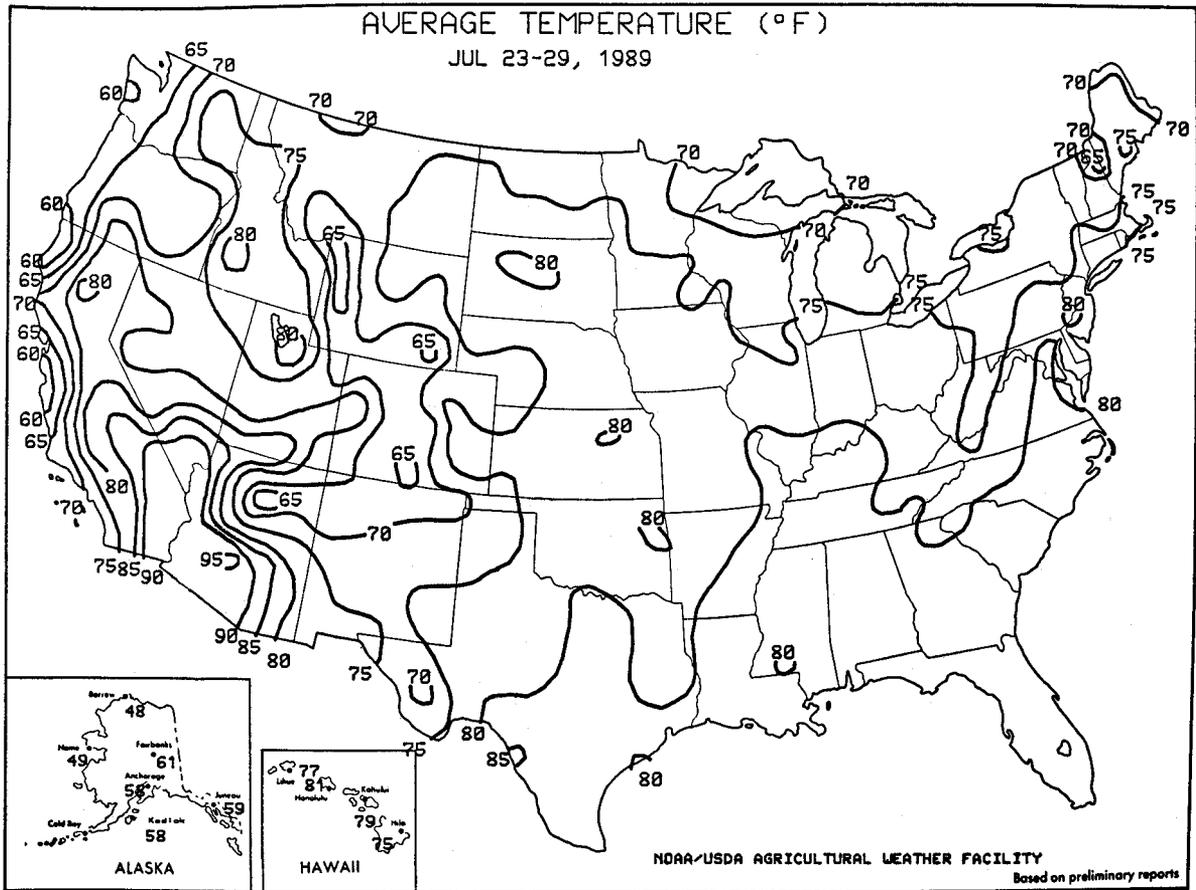
TUESDAY: Isolated rain showers continued to be widely spaced over the country. A few strong thunderstorms developed in the South.

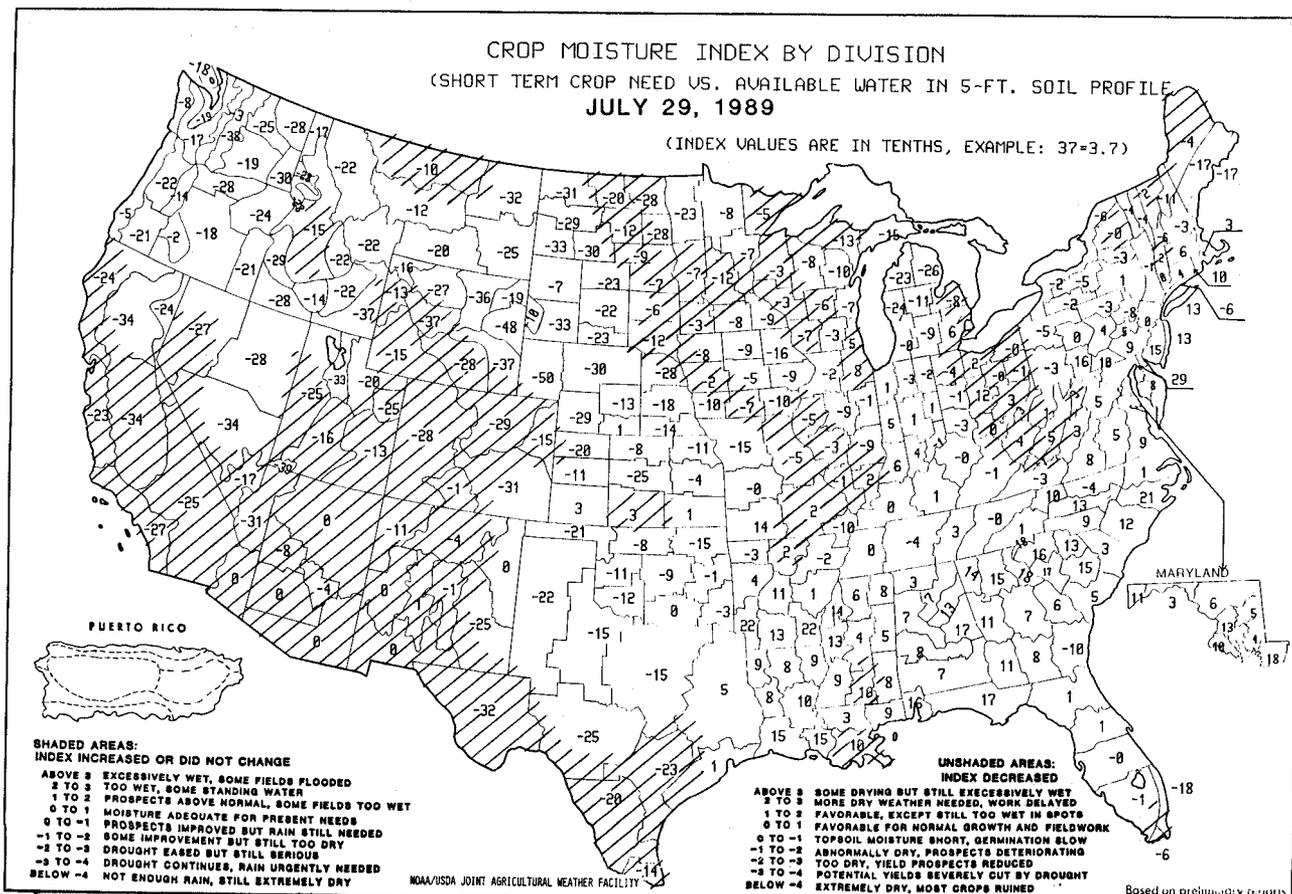
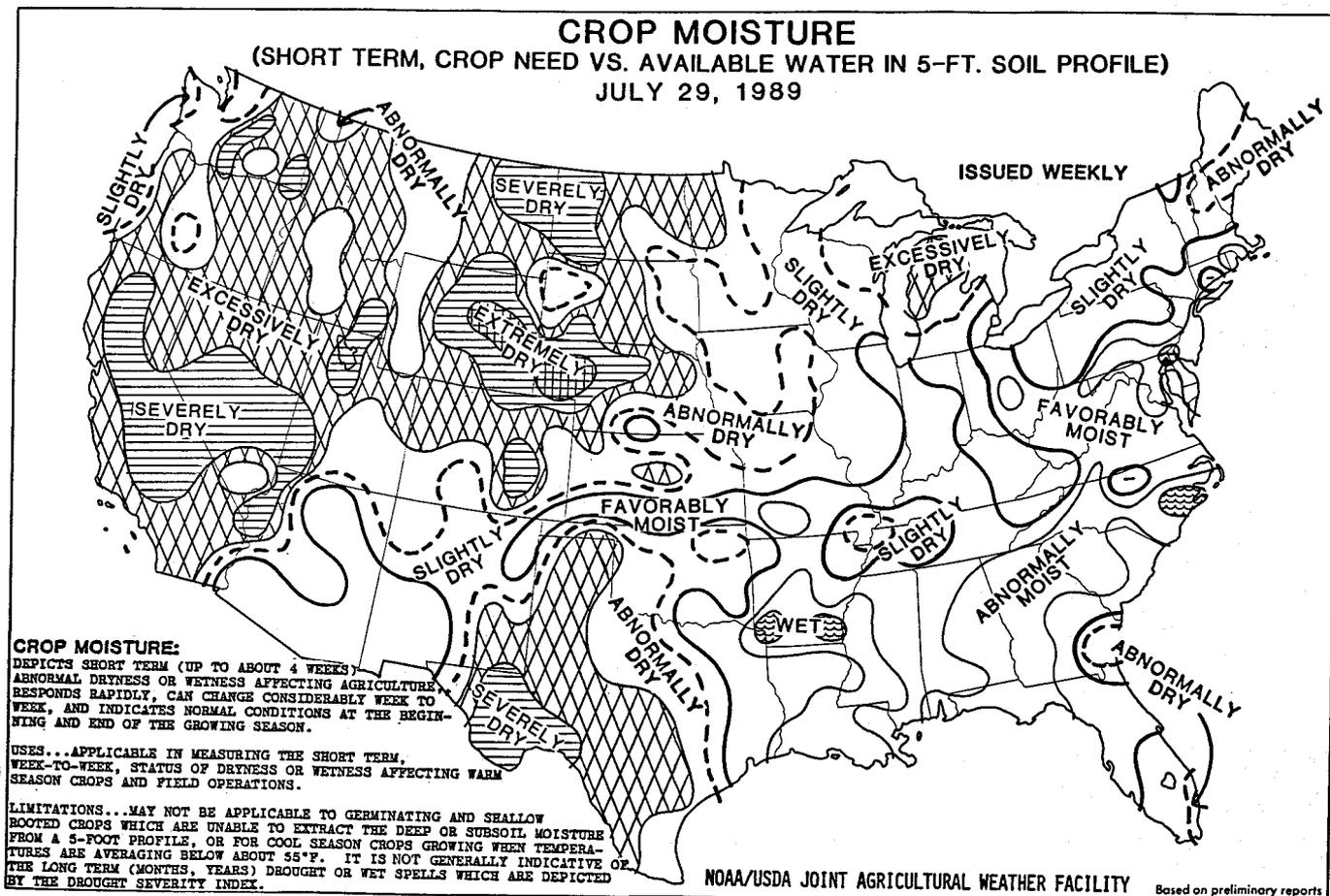
SATURDAY: A complex of thunderstorms brought generous rainfall to parts of the western Corn Belt and middle Missouri Valley. Showers remained widely spread over the Rockies into the Southeast. The passage of the cold front brought cooler and drier air into the Mid-Atlantic Coast States.

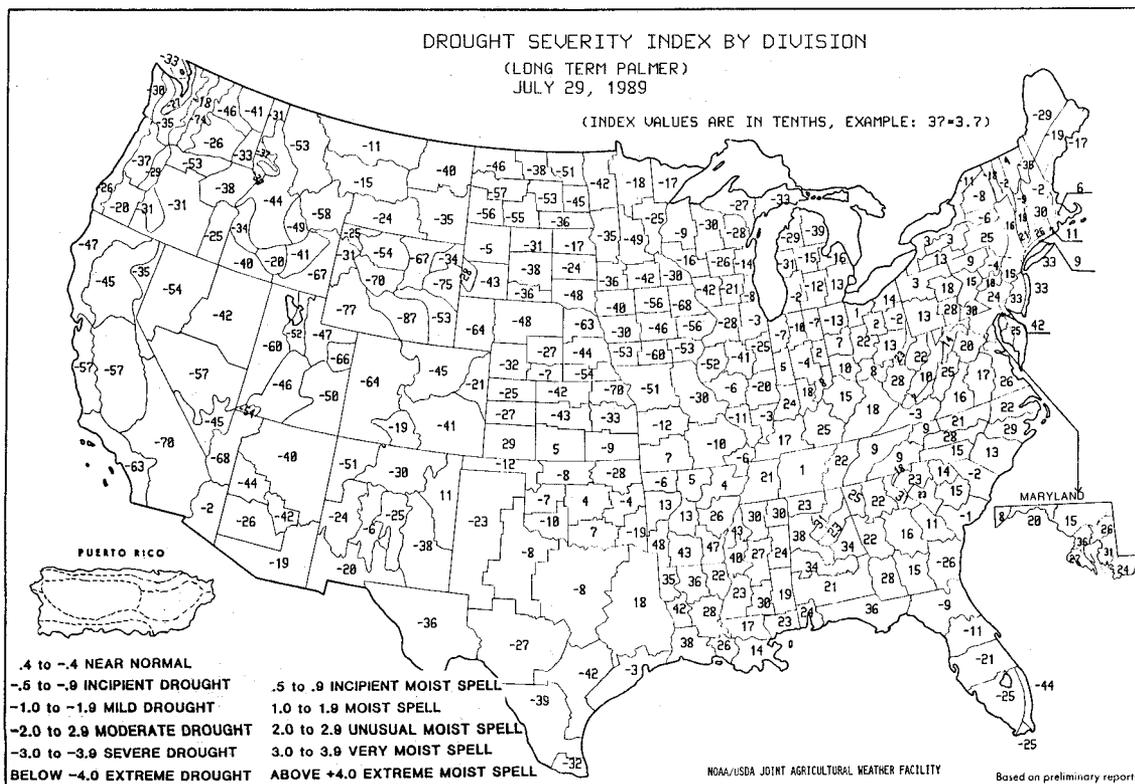
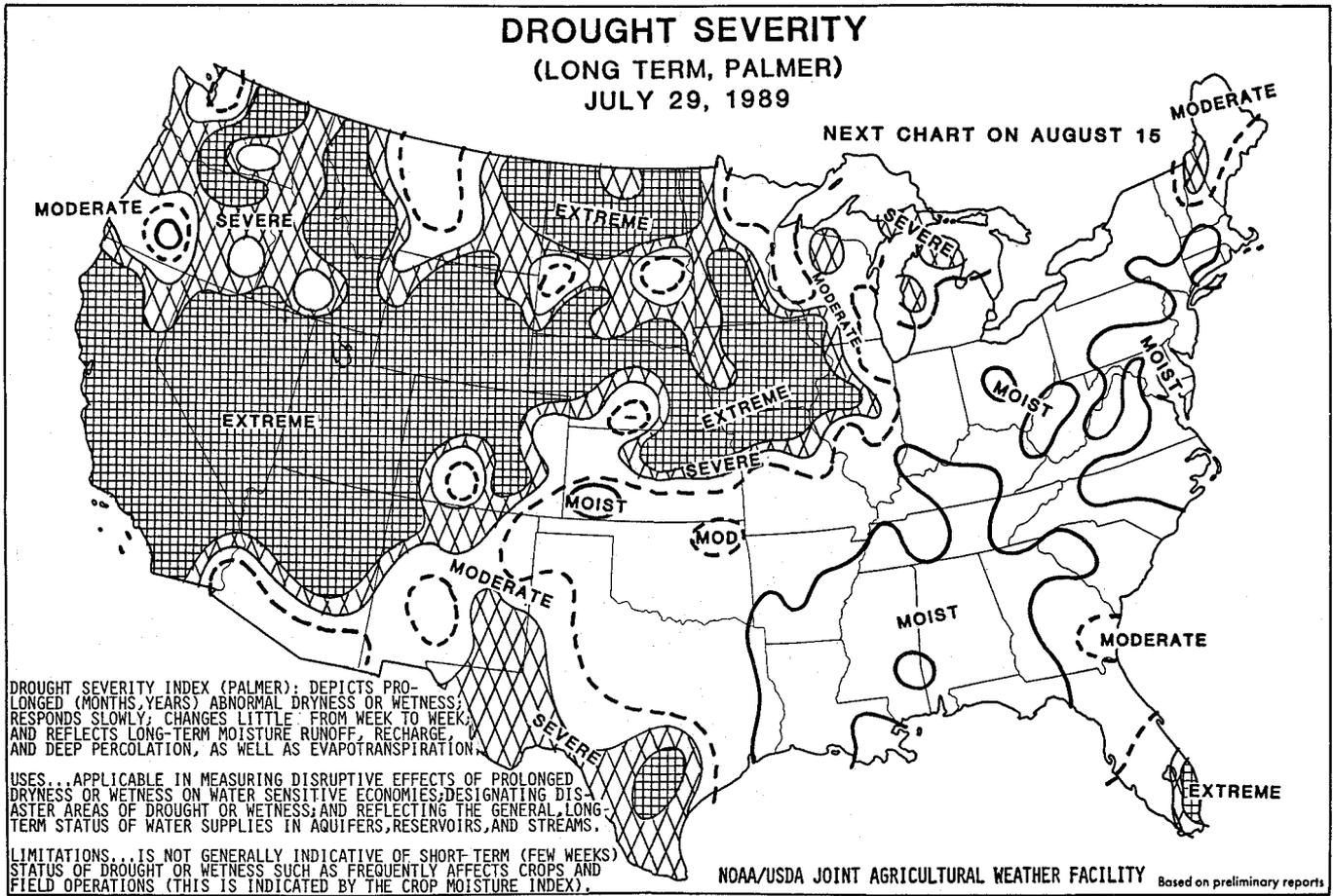
Contents

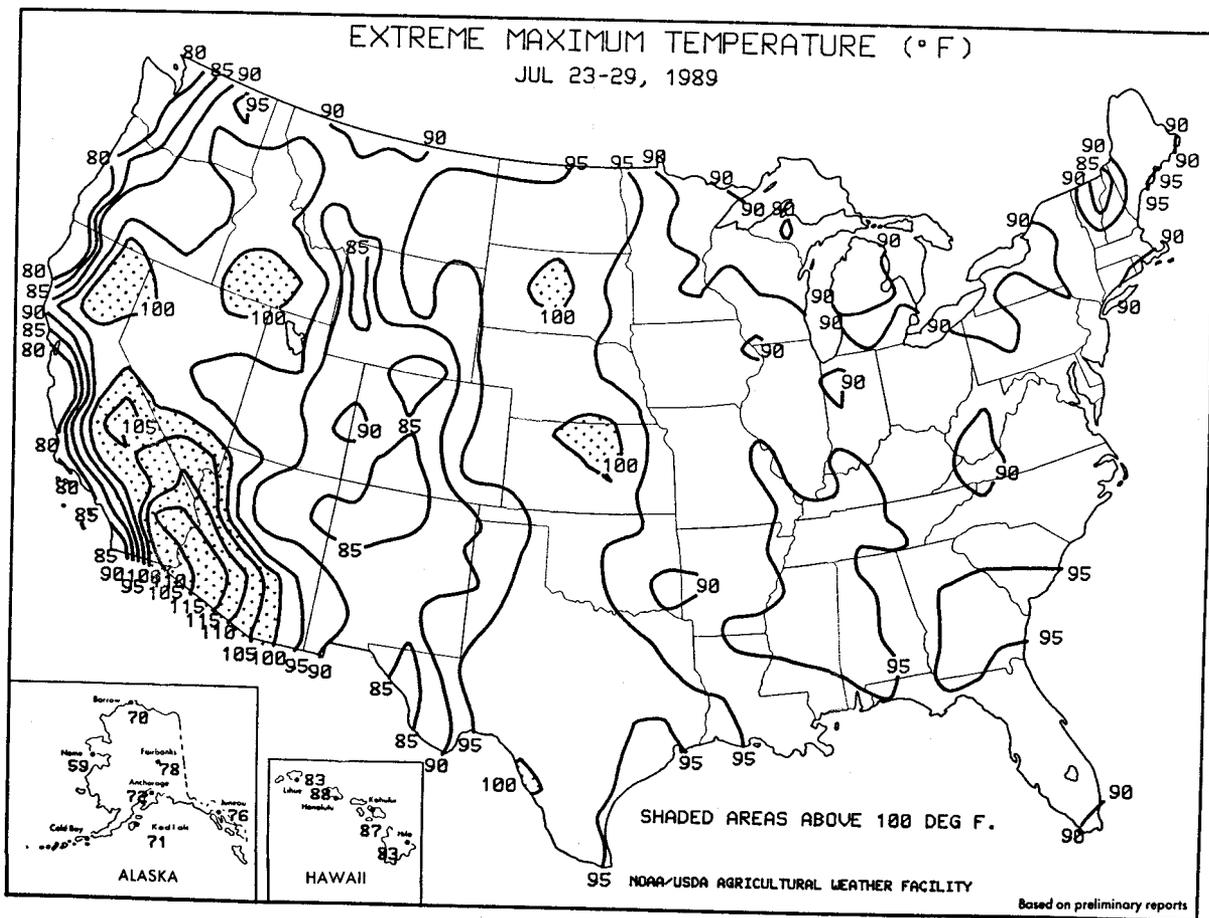
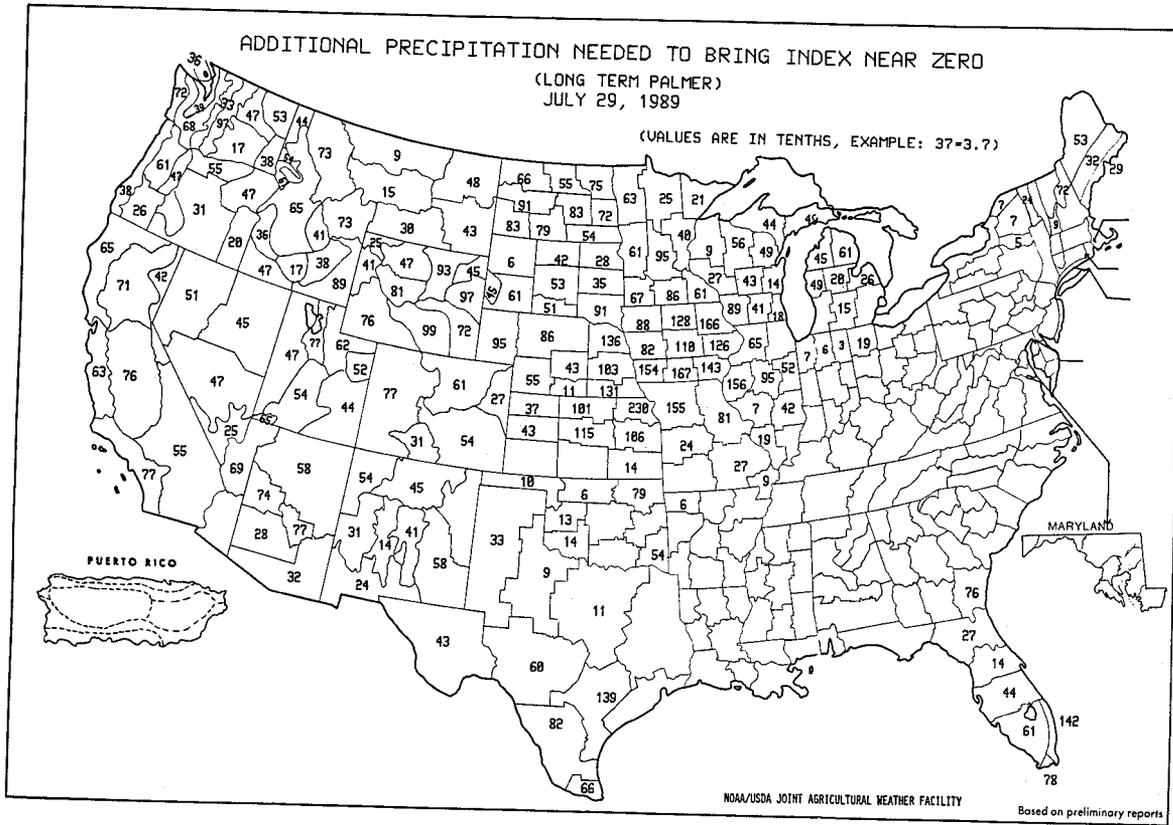
	Page
National Weather Summary	1
Total Precipitation	2
Average Temperature & Departure Maps	3
Crop Moisture Maps	4
Drought Severity Maps	5
Precipitation Needed to End Drought & Extreme Maximum Temperature Map	6
Total Growing Degree Days & Departure	7
National Weather Data for Selected Cities	8
National Agricultural Summary	11
Crop Progress and Condition Tables	12
State Summaries of Weather and Agriculture	14
International Weather and Crop Summary	20
Subscription and Mailing Permit Information	24

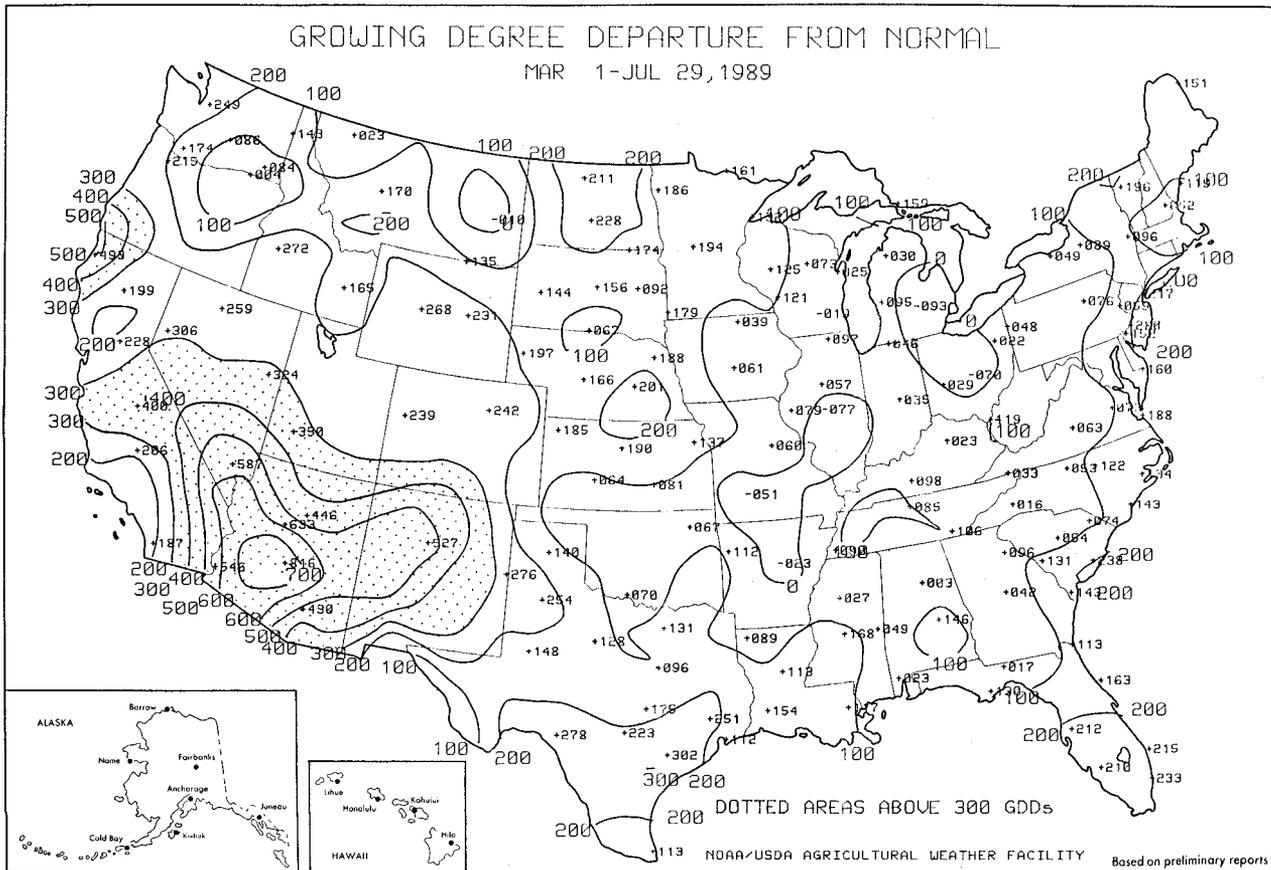
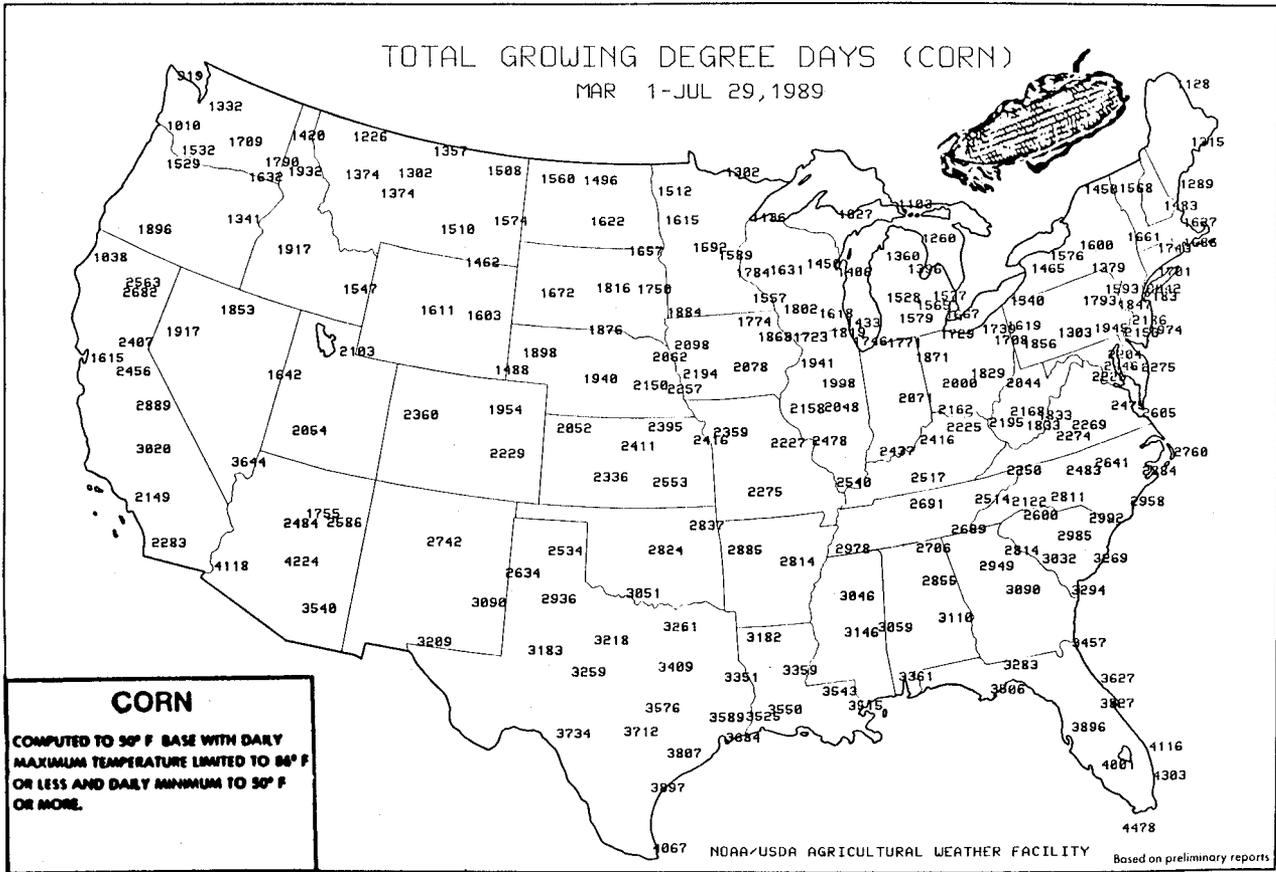












National Weather Data for Selected Cities

Weather Data for the Week Ending July 29, 1989

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 Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE			
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	92	70	95	68	81	1	.1	-1.2	.1	19.1	221	42.0	121	94	51	5	0	1	0
MOBILE	91	72	94	71	82	-1	2.0	.2	.8	16.7	137	35.9	92	98	57	4	0	4	1
MONTGOMERY	93	71	95	69	82	0	.4	-.6	.2	21.9	277	45.2	147	99	54	5	0	3	0
AK ANCHORAGE	64	52	72	48	58	0	1.6	1.2	1.1	4.0	138	7.6	120	94	61	0	0	4	1
BARROW	56	40	70	31	48	8	.8	-.6	.8	3.4	296	4.3	216	98	69	0	0	2	1
FAIRBANKS	72	50	78	46	61	0	.2	-.2	.2	3.3	111	6.0	116	91	41	0	0	2	0
JUNEAU	67	51	76	48	59	3	T	-1.0	T	4.1	60	16.4	69	92	56	0	0	1	0
KODIAK	66	50	71	44	58	3	1.6	-.7	.9	11.1	150	24.6	79	97	68	0	0	5	1
NOME	53	45	59	39	49	-2	.7	-.2	.2	4.5	141	11.5	188	100	77	0	0	6	0
AZ PHOENIX	107	84	111	76	95	3	.1	-.1	.1	.1	11	2.4	73	59	21	7	0	2	0
PRESCOTT	88	62	94	61	75	2	1.0	-.2	.4	1.8	52	4.6	48	75	31	4	0	4	0
TUCSON	100	75	104	70	87	1	.1	-.5	.1	1.2	50	3.2	63	71	23	7	0	2	0
YUMA	106	81	111	71	93	-1	0	-.1	0	T	0	.8	82	67	26	7	0	0	0
AR FORT SMITH	91	70	95	65	81	-2	1.3	-.6	1.3	11.4	173	38.2	161	100	52	5	0	1	1
LITTLE ROCK	88	72	93	69	80	-2	.4	-.4	.2	11.0	156	38.3	127	93	64	3	0	3	0
CA BAKERSFIELD	100	68	103	65	84	-1	0	0	0	0	0	2.3	59	58	20	7	0	0	0
EUREKA	63	54	66	53	58	2	T	0	T	.2	35	19.1	86	89	73	0	0	1	0
FRESNO	101	67	102	62	84	0	0	0	0	0	0	4.8	69	55	15	7	0	0	0
LOS ANGELES	73	63	77	61	68	-2	T	0	T	0	0	3.2	39	95	73	0	0	0	0
REDDING	98	60	100	58	79	-5	0	0	0	1.0	95	19.6	79	58	11	7	0	0	0
SACRAMENTO	94	57	96	55	75	-1	0	0	0	.4	331	8.9	84	82	20	7	0	0	0
SAN DIEGO	76	66	78	65	71	1	0	0	0	T	0	2.0	31	88	66	0	0	0	0
SAN FRANCISCO	70	52	73	50	61	-2	0	0	0	T	8	7.4	59	92	55	0	0	0	0
CO DENVER	89	60	93	58	75	0	1.5	1.0	1.4	3.7	110	10.9	109	76	27	2	0	2	1
GRAND JUNCTION	88	65	93	62	77	-3	.1	-.1	.1	.4	45	3.9	93	71	28	1	0	1	0
PUEBLO	91	60	97	56	75	-2	T	-.5	T	1.8	63	4.6	71	76	24	4	0	0	0
CT BRIDGEPORT	86	69	89	60	77	3	T	-.8	T	9.5	158	30.0	129	77	50	0	0	1	0
HARTFORD	89	65	95	56	77	3	.4	-.3	.4	9.7	156	30.8	126	93	47	4	0	1	0
DC WASHINGTON	91	73	94	65	82	3	1.6	-.7	1.2	11.6	168	32.4	147	88	53	5	0	4	1
FL APALACHICOLA	88	74	91	72	81	-1	1.5	-.2	1.4	15.8	138	30.1	104	93	63	2	0	3	1
DAYTONA BEACH	90	75	96	72	83	1	T	-1.2	T	4.2	36	18.6	72	94	56	2	0	0	0
JACKSONVILLE	91	73	94	69	82	-1	1.0	-.5	1.0	11.0	94	21.0	73	97	59	4	0	1	1
KEY WEST	88	76	90	73	82	-3	2.8	2.0	1.5	7.7	92	13.8	76	91	65	1	0	6	2
MIAMI	90	77	93	75	84	1	.2	-1.0	.2	13.7	93	19.1	63	86	57	5	0	3	0
ORLANDO	92	75	95	73	84	1	1.0	-.8	.9	11.4	78	21.4	73	95	50	7	0	2	1
TALLAHASSEE	92	71	97	67	82	0	.6	-1.4	.6	23.9	162	40.2	103	97	52	6	0	2	1
TAMPA	92	73	94	72	83	0	1.5	-.2	.9	15.5	128	20.2	78	94	54	7	0	5	2
WEST PALM BEACH	91	77	93	74	84	1	.4	-.8	.2	7.2	53	18.6	60	90	57	6	0	4	0
GA ATLANTA	91	72	95	70	82	3	.1	-1.0	.1	16.9	217	39.3	125	90	49	5	0	2	0
AUGUSTA	93	70	97	68	82	1	.5	-.5	.2	15.2	192	32.4	116	98	54	6	0	4	0
MACON	92	72	96	70	82	0	1.2	-.2	.9	11.2	141	32.5	112	98	52	5	0	2	1
SAVANNAH	92	72	98	70	82	1	1.5	-.2	1.5	11.2	89	20.3	67	95	53	6	0	3	1
HI HILO	81	69	83	67	75	-1	1.6	-.6	.7	28.8	204	27.1	174	96	65	0	0	7	1
HONOLULU	87	75	88	73	81	1	.1	-.1	0	2.4	251	15.1	112	81	50	0	0	2	0
KAHULUI	86	71	87	69	79	0	.2	-.1	.2	1.6	293	27.8	235	86	54	0	0	1	0
LIHUE	81	73	83	68	77	-1	4.8	4.3	3.8	7.7	219	38.0	158	86	73	0	0	3	2
ID BOISE	98	64	100	55	81	5	T	0	T	.1	10	6.5	91	47	16	7	0	0	0
LEWISTON	93	61	98	56	77	2	T	-.1	T	1.6	86	8.4	108	43	16	5	0	1	0
POCATELLO	96	59	99	53	77	5	T	-.1	T	.7	50	6.7	101	71	18	7	0	0	0
IL CHICAGO	86	66	93	58	76	2	2.0	1.3	1.6	7.9	107	14.1	71	94	56	1	0	2	1
MOLINE	87	67	94	61	77	2	.1	-1.0	0	6.4	72	17.7	78	94	58	1	0	2	0
PEORIA	86	67	91	61	76	1	.3	-.6	.2	3.5	46	13.4	64	98	60	1	0	3	0
QUINCY	89	69	93	65	79	2	.8	-.2	.8	2.8	35	9.6	43	93	58	3	0	1	1
ROCKFORD	85	66	90	57	75	2	4.4	3.4	2.0	10.0	114	17.7	81	96	63	1	0	3	3
SPRINGFIELD	85	68	89	63	77	0	1.4	-.6	1.1	4.0	58	17.5	85	99	67	0	0	2	1
IN EVANSVILLE	92	70	96	67	81	3	.6	-.3	.5	9.1	126	33.8	129	97	53	6	0	2	1
FORT WAYNE	87	67	92	58	77	3	.8	0	.5	7.8	115	20.5	98	98	55	2	0	2	0
INDIANAPOLIS	86	69	92	64	78	3	1.9	1.0	1.3	9.9	124	26.8	112	94	59	1	0	4	1
SOUTH BEND	86	66	91	57	76	3	T	-.8	T	9.2	124	19.6	91	94	57	2	0	1	0
IA DES MOINES	87	68	92	64	77	1	.3	-.4	.2	5.9	82	14.2	76	93	58	1	0	3	0
SIOUX CITY	88	66	94	61	77	1	2.7	2.0	2.7	7.6	106	12.2	76	85	49	3	0	2	1
WATERLOO	88	66	94	62	77	4	.8	-.3	.5	4.1	47	10.3	51	96	56	1	0	3	1
KS CONCORDIA	91	67	101	59	79	-1	T	-.7	T	7.1	96	13.2	78	88	39	4	0	0	0
DODGE CITY	87	64	98	57	76	-5	.6	-.1	.3	9.1	155	14.3	107	92	43	2	0	3	0
GOODLAND	89	60	98	52	74	-2	T	-.5	T	9.3	187	13.5	126	92	33	3	0	1	0
TOPEKA	88	65	93	59	77	-3	T	-.8	T	8.3	92	18.1	90	97	54	3	0	1	0
WICHITA	89	67	99	62	78	-4	T	-.7	T	11.9	161	20.7	120	94	46	3	0	1	0
KY BOWLING GREEN	92	71	97	70	82	3	T	-.9	T	15.5	179	45.9	148	96	53	5	0	2	0
LEXINGTON	89	69	91	63	79	3	.3	-.8	.3	7.8	88	35.9	125	94	53	3	0	1	0
LOUISVILLE	90	72	92	66	81	3	.1	-.8	.1	10.8	148	38.3	142	90	51	5	0	1	0
LA ALEXANDRIA	88	74	94	72	81	-2	.2	-.8	.2	16.0	197	48.1	147	89	58	3	0	1	0
BATON ROUGE	91	73	95	70	82	0	.9	-.8	.7	28.0	288	55.2	161	99	60	5	0	2	1
LAKE CHARLES	88	73	96	68	81	-2	1.7	.5	.9	30.5	338	50.5	171	96	63	4	0	3	2
NEW ORLEANS	89	72	93	69	80	-2	3.7	2.1	2.7	16.0	147	32.5	92	100	66	4	0	3	2

Based on 1951-80 normals

Weather Data for the Week Ending July 29, 1989

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 JUN 1	PCT. NORMAL SINCE JUN 1	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
SHREVEPORT	91	71	95	68	81	-2	1.0	.2	.7	21.7	318	48.9	178	98	56	4	0	4	1
ME CARIBOU	83	56	95	48	70	4	1.2	.3	.6	4.9	71	16.0	83	90	49	3	0	3	1
PORTLAND	87	62	95	57	75	6	.5	-.1	.3	6.8	119	24.1	100	91	45	3	0	2	0
MD BALTIMORE	89	71	94	62	80	3	1.9	1.0	.9	12.0	163	34.5	145	92	55	3	0	4	2
SALISBURY	87	69	93	62	78	1	.9	-.2	.5	11.6	152	28.9	116	96	52	2	0	1	1
MA BOSTON	88	68	96	62	78	4	1.4	.7	.7	7.6	140	20.9	86	91	41	3	0	3	2
CHATHAM	73	64	78	60	69	0	.6	-.2	.6	9.4	172	29.2	114	88	68	0	0	1	1
MI ALPENA	85	58	90	47	72	5	.1	-.6	.1	2.9	48	11.7	72	98	43	2	0	0	0
DETROIT	85	65	90	54	75	2	.9	-.2	.5	7.9	126	18.5	102	96	52	1	0	1	1
FLINT	84	62	90	48	73	3	1.3	.6	1.3	7.5	130	16.9	101	98	52	1	0	1	1
GRAND RAPIDS	85	63	89	51	74	2	.2	-.4	.2	6.2	97	16.8	89	97	52	0	0	3	0
HOUGHTON LAKE	85	61	91	43	73	6	.2	-.4	.2	3.3	57	12.1	78	92	44	3	0	2	0
LANSING	85	61	90	46	73	2	.1	-.4	.1	4.5	71	16.5	97	96	54	2	0	1	0
MARQUETTE	80	54	91	39	67	2	.4	-.3	.3	6.2	91	16.2	76	92	48	2	0	2	0
MUSKOGON	84	64	90	53	74	3	.1	-.5	.1	2.3	49	12.2	72	93	51	1	0	1	0
SAULT ST. MARIE	84	55	92	44	70	5	T	-.6	T	3.1	52	13.7	80	97	49	2	0	2	0
MN ALEXANDRIA	86	64	91	58	75	4	.1	-.5	.1	2.8	41	8.7	59	88	46	1	0	1	0
DULUTH	80	61	91	56	70	4	.8	-.1	.8	4.9	65	14.2	85	91	51	1	0	2	1
INT'L FALLS	80	60	91	54	70	3	.1	-.8	.1	7.9	109	12.9	93	93	53	2	0	1	0
MINNEAPOLIS	85	67	90	63	76	2	1.1	.3	1.1	7.0	96	16.8	106	89	49	1	0	1	1
ROCHESTER	83	63	88	57	73	2	.7	-.1	.7	5.7	78	13.4	81	96	58	0	0	1	1
MS GREENWOOD	93	72	95	71	82	0	3.1	2.2	2.6	22.7	298	49.5	146	95	56	7	0	4	1
JACKSON	92	71	96	70	82	0	.5	-.6	.3	12.7	171	34.1	104	100	58	5	0	3	0
MERIDIAN	93	70	97	70	82	0	3.1	1.9	2.8	17.4	205	44.6	130	98	54	5	0	4	1
MO CAPE GIRARDEAU	91	72	96	71	81	1	1.7	.9	1.0	14.4	204	38.3	141	97	52	4	0	3	2
COLUMBIA	89	68	93	62	79	0	.6	-.1	.5	4.7	70	17.3	79	97	55	3	0	3	1
KANSAS CITY	88	68	93	61	78	2	T	-.9	T	8.1	95	17.8	84	94	53	3	0	0	0
SAINT LOUIS	90	73	97	68	81	2	1.9	1.1	1.4	6.4	90	21.2	99	96	57	4	0	4	1
SPRINGFIELD	88	66	93	60	77	-1	.5	-.3	.3	5.4	67	21.0	89	97	55	3	0	2	0
MT BILLINGS	91	63	95	59	77	3	.3	.2	.2	1.7	62	10.0	102	73	27	4	0	3	0
GLASGOW	90	61	98	53	76	4	.2	-.2	.1	1.9	46	7.2	98	78	25	1	0	2	0
GREAT FALLS	87	57	90	54	72	1	.1	-.1	.1	4.8	127	13.1	127	87	32	4	0	2	0
HAVRE	87	59	91	52	73	2	.2	-.1	.2	2.6	77	7.3	94	61	27	2	0	1	0
HELENA	88	58	92	53	73	4	.3	.1	.2	2.5	84	7.8	103	84	27	3	0	2	0
KALISPELL	89	52	95	47	71	5	.2	0	.1	2.7	87	10.7	115	89	23	4	0	2	0
MILES CITY	93	65	98	59	79	3	.8	.5	.5	3.8	90	11.5	119	62	26	6	0	3	0
MISSOULA	93	66	98	51	75	6	.3	.1	.3	3.0	113	8.6	105	77	24	6	0	1	0
NE GRAND ISLAND	88	65	98	58	77	-1	0	-.6	0	6.8	109	10.5	69	92	47	4	0	0	0
LINCOLN	91	67	99	59	79	1	.2	-.6	.2	6.6	96	10.0	58	92	45	4	0	2	0
NORFOLK	89	65	93	59	77	1	T	-.8	T	5.5	75	10.8	67	93	48	4	0	1	0
NORTH PLATTE	90	59	98	49	74	-1	.1	-.6	T	4.7	73	9.5	70	93	36	4	0	1	0
OMAHA	88	69	93	63	78	0	.1	-.7	.1	7.2	96	11.8	65	89	58	2	0	1	0
SCOTTSBLUFF	92	60	98	57	76	1	.2	-.1	.2	1.5	31	5.8	54	87	24	5	0	2	0
VALENTINE	92	62	98	54	77	2	.5	0	.5	3.6	68	6.8	59	76	29	6	0	1	1
NV ELY	89	55	92	45	72	4	T	-.1	T	1.6	117	4.5	80	66	20	4	0	0	0
LAS VEGAS	106	81	110	77	93	2	0	-.1	0	.1	11	1.3	60	39	15	7	0	0	0
RENO	93	54	96	49	74	3	0	-.1	0	1.5	273	4.4	95	55	12	7	0	0	0
WINNEMUCCA	98	51	99	44	74	2	0	0	0	.3	29	2.7	57	32	9	7	0	0	0
NH CONCORD	88	59	95	50	74	4	.5	-.2	.3	7.8	138	21.3	107	97	41	3	0	2	0
NJ ATLANTIC CITY	89	66	93	57	78	2	T	-1.0	T	9.4	145	29.1	124	97	53	3	0	1	0
NM ALBUQUERQUE	81	60	86	58	71	-9	.8	.5	.4	1.1	66	2.5	67	87	39	0	0	5	0
CLOVIS	82	60	87	57	71	-7	.6	0	.4	6.7	126	7.9	82	89	44	0	0	2	0
ROSWELL	87	65	91	62	76	-5	T	-.4	T	.3	10	1.8	37	69	32	2	0	0	0
NY ALBANY	87	63	92	53	75	3	1.3	.7	1.3	12.4	206	25.7	130	94	46	3	0	2	1
BINGHAMTON	82	62	87	52	72	2	.8	0	.8	9.4	138	24.0	116	96	54	0	0	2	1
BUFFALO	83	65	90	52	74	3	T	-.7	T	8.8	162	25.3	129	92	51	2	0	2	0
NEW YORK	89	72	95	66	81	3	1.0	.1	1.0	12.2	187	33.1	139	85	44	4	0	1	1
ROCHESTER	88	64	94	50	76	4	.1	-.5	.1	6.7	130	20.8	119	96	44	4	0	1	0
SYRACUSE	85	61	91	50	73	2	.1	-.8	.1	7.6	107	19.3	88	94	47	2	0	2	0
NC ASHEVILLE	86	65	89	62	76	2	1.1	.2	1.0	16.3	224	34.2	132	99	58	0	0	3	1
CHARLOTTE	91	72	92	69	81	2	.8	-.1	.8	9.4	130	28.6	108	89	49	7	0	2	1
GREENSBORO	89	69	92	67	79	1	.1	-.9	.1	9.0	114	29.7	118	96	54	4	0	2	0
HATTERAS	87	72	89	69	80	1	T	-1.3	T	7.3	79	39.6	135	96	64	0	0	0	0
NEW BERN	90	71	93	68	80	1	T	-1.6	T	14.6	128	36.0	118	97	55	3	0	0	0
HALEIGH	90	69	94	68	80	1	.7	-.3	.4	11.8	153	33.8	136	97	55	4	0	2	0
WILMINGTON	91	71	95	68	81	1	.5	-1.2	.5	17.1	136	39.2	127	97	52	6	0	1	0
ND BISMARCK	90	62	99	57	76	5	1.3	.9	1.3	2.5	50	7.4	72	84	31	5	0	1	1
FARGO	88	64	96	58	76	5	.2	-.6	.2	2.1	34	9.3	77	87	40	3	0	1	0
GRAND FORKS	85	62	98	55	74	4	.3	-.3	.3	1.9	34	7.0	64	87	44	2	0	1	0
WILLISTON	91	63	96	55	77	6	.1	-.3	.1	2.4	54	7.4	83	85	29	5	0	3	0
OH AKRON-CANTON	86	65	93	54	75	3	1.6	.7	.9	10.8	155	27.4	126	98	53	3	0	4	2
CINCINNATI	88	69	91	63	79	3	1.5	.6	1.3	8.0	99	32.1	127	95	54	1	0	3	1
CLEVELAND	86	67	93	56	76	4	.6	-.1	.6	8.0	121	28.1	135	96	57	2	0	1	1
COLUMBUS	86	67	91	58	76	2	2.0	1.1	1.7	11.2	144	28.4	124	96	53	2	0	2	1

Weather Data for the Week Ending July 29, 1989

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 Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERA- TURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	88	68	92	59	78	3	.2	-.5	.1	8.3	119	34.7	160	93	49	4	0	3	0
TOLEDO	86	65	91	54	76	3	.6	-.2	.6	11.5	177	24.5	130	95	59	2	2	1	1
YOUNGSTOWN	85	62	91	51	74	3	.5	-.4	.3	13.4	185	28.7	130	98	54	2	0	2	0
OK OKLAHOMA CITY	86	68	94	63	77	-6	1.0	.4	.7	16.7	251	27.1	141	94	52	1	0	2	1
TULSA	89	71	95	66	80	-4	1.1	.4	.6	9.1	116	21.7	93	91	52	3	0	2	2
OR ASTORIA	88	56	70	47	62	1	T	-.2	T	4.1	117	34.4	93	91	62	0	0	1	0
BURNS	89	46	93	42	68	-3	0	-.1	0	1.2	143	6.8	119	63	12	2	0	0	0
MEDFORD	90	57	97	51	74	0	0	-.1	0	.2	18	10.4	100	76	23	4	0	0	0
PENDLETON	90	57	93	52	74	-1	0	-.1	0	.7	71	8.7	128	50	14	4	0	0	0
PORTLAND	77	56	83	52	66	-2	0	-.1	0	.8	44	18.7	94	90	46	0	0	0	0
SALEM	79	52	87	47	65	-2	0	-.1	0	1.3	84	16.3	75	95	40	0	0	0	0
PA ALLENTOWN	88	66	93	58	77	3	.2	-.8	.2	9.7	134	28.3	114	93	50	4	0	1	0
ERIE	82	65	87	54	74	3	.1	T	.1	6.5	92	24.3	115	90	56	0	0	1	0
HARRISBURG	88	67	92	57	77	1	T	-.7	T	12.3	182	30.9	135	94	51	2	0	0	0
PHILADELPHIA	90	70	94	62	80	3	.1	-.8	.1	13.8	184	32.9	138	93	49	5	0	1	0
PITTSBURGH	87	66	94	53	76	4	.3	-.6	.3	11.5	163	30.4	134	93	52	3	0	1	0
SCRANTON	85	63	89	51	74	2	T	-.7	T	8.2	124	22.2	113	97	52	0	0	1	0
RI PROVIDENCE	88	67	92	62	78	4	.2	-.5	.2	11.3	204	30.5	122	93	43	3	0	1	0
SC CHARLESTON	92	73	98	72	83	2	.4	-1.3	.2	9.2	69	22.2	71	96	54	5	0	4	0
COLUMBIA	93	71	95	67	82	1	.8	-.5	.5	13.8	146	32.4	107	98	50	6	0	2	1
FLORENCE	91	72	94	69	81	0	0	-1.3	0	11.9	120	28.5	105	96	49	4	0	0	0
GREENVILLE	92	69	94	65	81	2	.3	-.7	.1	9.3	109	27.0	86	93	48	6	0	4	0
SD ABERDEEN	92	63	98	57	78	5	.9	-.4	.8	4.1	74	11.0	91	91	38	4	0	2	1
HUON	91	64	97	60	78	3	.1	-.3	.1	4.3	80	10.1	81	94	40	5	0	2	0
RAPID CITY	96	63	99	59	79	6	.2	-.2	.2	1.9	35	6.0	51	68	21	7	0	2	0
STOUX FALLS	90	67	94	62	78	4	.2	-.4	.2	3.9	63	8.7	59	89	46	4	0	1	0
TN CHATTANOOGA	92	71	95	70	82	2	1.4	.4	1.4	19.1	252	46.0	142	93	50	5	0	1	1
KNOXVILLE	91	70	94	68	80	2	.6	-.3	.5	10.7	134	34.5	116	99	50	5	0	2	1
MEMPHIS	91	74	95	69	83	0	.1	-.8	.1	11.5	158	40.2	124	92	56	4	0	1	0
NASHVILLE	92	72	96	71	82	2	T	-.9	T	11.0	152	37.5	124	90	49	5	0	0	0
TX ABILENE	90	68	96	65	79	-5	.1	-.4	.1	10.6	236	19.7	150	85	35	4	0	2	0
AMARILLO	85	61	92	59	73	-6	.7	.1	.6	8.4	140	12.9	110	89	40	2	0	3	1
AUSTIN	94	71	98	67	83	-3	T	-.4	T	3.2	66	19.3	109	93	42	7	0	1	0
BEAUMONT	89	73	97	67	81	-3	2.0	.6	1.1	24.6	238	50.4	164	85	62	3	0	5	1
BROWNSVILLE	88	72	94	68	80	-4	2.1	1.8	1.6	4.5	110	11.7	107	100	61	3	0	3	1
CORPUS CHRISTI	91	72	94	68	82	-3	.9	.4	.6	4.2	69	11.0	73	99	53	4	0	3	1
DEL RIO	93	73	97	69	83	-3	0	-.4	0	.5	16	5.6	61	66	30	6	0	0	0
EL PASO	87	66	90	62	77	-6	.2	-.2	.2	1.3	65	3.4	97	83	36	1	0	3	0
FORT WORTH	90	71	97	65	81	-6	.2	-.3	.2	11.3	257	32.7	175	91	49	3	0	1	0
GALVESTON	87	75	95	70	81	-2	1.3	.4	.6	14.9	210	27.1	132	94	68	2	0	4	1
HOUSTON	88	71	95	70	80	-4	1.4	.6	1.2	19.6	252	44.3	172	98	63	2	0	3	1
LUBBOCK	90	65	96	62	78	-2	T	-.5	T	5.2	106	7.9	76	82	33	3	0	0	0
MIDLAND	91	67	97	64	79	-3	.2	-.2	.1	.9	31	3.8	52	75	31	3	0	2	0
SAN ANGELO	92	65	99	60	79	-6	T	-.3	T	2.9	98	10.6	113	82	34	5	0	0	0
SAN ANTONIO	94	71	98	67	83	-2	.6	.2	.5	4.7	98	12.0	76	94	38	6	0	3	1
VICTORIA	91	72	95	69	81	-3	.5	0	.3	6.8	98	14.7	76	94	54	4	0	2	0
WACO	93	70	101	65	81	-5	.4	0	.4	6.2	145	24.2	132	93	46	5	0	1	0
WICHITA FALLS	91	69	98	65	80	-6	.6	.2	.6	11.7	248	22.6	144	93	47	4	0	1	1
UT CEDAR CITY	90	60	93	55	75	0	.3	0	.2	1.5	101	4.2	73	82	24	3	0	5	0
SALT LAKE CITY	97	71	100	68	84	5	0	-.2	0	.6	37	6.7	69	51	18	7	0	0	0
VT BURLINGTON	87	63	94	51	75	5	1.1	.3	.7	7.3	108	16.1	88	92	43	3	0	2	1
VA NORFOLK	89	71	93	65	80	1	.9	-.4	.8	9.5	116	33.7	132	91	53	3	0	2	1
RICHMOND	90	70	93	63	80	1	.1	-1.1	.1	9.7	117	30.3	123	96	56	6	0	1	0
ROANOKE	90	68	93	61	79	2	.8	0	.8	16.6	254	31.9	140	97	54	4	0	2	1
WA QUILLAYUTE	69	53	74	46	61	1	T	-.6	T	6.6	124	47.6	85	92	56	0	0	2	0
SEATTLE-TACOMA	77	54	84	52	65	0	T	-.2	T	1.7	82	19.3	97	89	43	0	0	0	0
SPOKANE	88	56	93	52	72	1	0	-.1	0	.8	48	8.3	88	55	22	2	0	0	0
YAKIMA	90	51	92	43	71	-1	0	0	0	.1	17	3.5	79	73	20	4	0	0	0
WV BECKLEY	83	63	87	56	73	3	.9	-.2	.6	7.2	85	25.6	99	97	60	0	0	4	1
CHARLESTON	88	68	91	61	78	3	1.4	.2	.5	10.5	127	36.2	139	100	66	4	0	5	0
HUNTINGTON	89	69	91	63	79	3	1.0	-.1	.9	9.1	115	34.9	138	98	53	4	0	3	1
PARKERSBURG	87	68	93	60	78	2	1.1	.2	1.1	7.7	101	31.1	132	100	60	3	0	2	1
WI GREEN BAY	83	61	89	49	72	2	.2	-.5	.2	3.9	63	12.2	76	90	55	0	0	3	0
LACROSSE	86	66	93	61	76	3	.9	0	.9	3.9	51	11.9	66	95	52	4	0	1	1
MADISON	83	61	93	50	72	1	1.0	.1	.9	6.6	90	13.9	77	98	59	1	0	2	1
MILWAUKEE	82	65	90	56	73	2	.9	.2	.5	7.8	113	16.6	90	94	63	1	0	2	1
WAUSAU	82	63	88	54	72	3	.4	-.5	.3	5.6	74	13.9	77	93	49	0	0	2	0
WY CASPER	89	60	95	55	75	3	.2	0	.2	2.2	102	7.7	99	76	23	4	0	1	0
CHEYENNE	84	56	87	52	70	1	.1	-.3	.1	3.9	103	7.7	85	86	30	0	0	3	0
LANDER	88	61	92	55	74	3	.1	0	.1	3.0	144	10.6	115	84	22	3	0	2	0
SHERIDAN	92	58	98	52	75	4	T	-.2	T	2.2	68	8.5	84	72	22	5	0	1	0
PR SAN JUAN	89	78	89	76	84	2	0	-1.2	0	0	0	8.9	34	88	72	0	0	0	0

National Agricultural Summary

July 24-30, 1989

HIGHLIGHTS: Rain benefited crops in portions of the Corn Belt and the central and southern Great Plains. Soil moisture remained mostly adequate to short in those areas. Soil moisture was mostly adequate to surplus in the Delta and the East. The West continued seasonably dry, with soil moisture short to adequate in most areas.

Winter wheat harvest was 85 percent (%) complete, 2 percentage points behind the 5-year average. Spring wheat condition was mostly fair with harvest 12% complete, 2 points behind normal. Corn was mostly good to fair. Seventy-four percent of the acreage was silked, 8 points behind normal. Fourteen percent of the crop was in the dough stage, 11 points behind normal. Soybeans were mostly good to fair with 66% of the acreage blooming, 7 points behind normal. Twenty-nine percent of the acreage was setting pods, 8 points behind normal. Cotton was mostly fair to good with 88% of the acreage in the squaring stage, 6 points behind normal. Fifty-seven percent of the acreage was setting bolls, 9 points behind normal. Sorghum was mostly good to fair with 33% of the acreage headed, 9 points behind normal. Seventeen percent of the acreage was turning color, equal to the average. Pastures were generally good to excellent in the Delta and East and poor to fair in the West.

SMALL GRAIN: Winter wheat harvest was 85% complete, 2 points behind normal. Harvest was complete or nearly complete in 13 of the 20 major producing States. Harvest lagged behind normal in Montana, Oregon, and Washington. Harvest advanced 40 points in South Dakota, reaching 90% completion, 18 points ahead of normal. In Michigan, harvest advanced 45 points but was still 25 points behind the 90% average.

Spring wheat condition was mostly fair. Harvest was 12% complete, 2 points behind normal. Harvest was underway in three of the five major producing States. Harvest had not begun in Idaho and Montana. In South Dakota, harvest advanced 31 points and was 41% complete, 7 points ahead of normal. In North Dakota, spring wheat was mostly fair to poor with 8% of the crop harvested, 3 points behind normal.

CORN: Corn was mostly good to fair. Rain improved crop condition in Illinois, Indiana, Kansas, and Missouri. Seventy-four percent of the crop reached the silking stage or beyond, 8 points behind normal. The percentage of acreage silking advanced 30 or more points in Indiana, Michigan, Nebraska, South Dakota, and Wisconsin. Fourteen percent of the crop reached the dough stage, 11 points behind normal. In Illinois, 28% was in dough, 18 points behind normal. In Ohio, 2% of the acreage had reached the dough stage, 24 points behind normal. Harvest continued in Texas and was underway in Georgia.

SOYBEANS: Soybeans were mostly good to fair. Sixty-six percent of the acreage was blooming, 7 points behind normal. Twenty-nine percent of the acreage was setting pods, 8 points behind normal. Soybeans were mostly good in Illinois and Indiana and good to fair in Iowa. Excess moisture stressed soybeans in portions of the Delta. Crop condition was mostly fair to poor in Louisiana and Mississippi and mostly fair in Arkansas. In Ohio, crop condition was

mostly fair to good and the percentages of acreage blooming and setting pods were both more than 30 points behind normal.

COTTON: Cotton was mostly fair to good. Eighty-eight percent of the acreage was in the squaring stage, 6 points behind normal. Fifty-seven percent of the acreage was setting bolls, 9 points behind normal. The percentage of the acreage setting bolls lagged more than 20 points behind normal in Louisiana and Mississippi. Crop condition was mostly fair in Louisiana and fair to poor in Mississippi. In Texas, cotton was mostly fair. Harvest continued in the Rio Grande Valley and Coastal Bend area. In Arizona, cotton was mostly good to excellent. Heavy rains, hail, and wind damaged some fields in the southwestern area. In California, cotton was mostly good. Some fields were opening bolls in the southern area.

SORGHUM: Sorghum was mostly good to fair. Thirty-three percent of the acreage was headed, 9 points behind normal. Seventeen percent of the acreage was turning color, equal to the average. Sorghum was mostly good to excellent in Kansas and good to fair in Nebraska and Texas. In Texas, harvest was 41% complete, 8 points ahead of normal.

OTHER FIELD CROPS: Rice was mostly good to fair with 34% of the acreage headed, 9 points behind normal. Producers continued to apply fungicides to control sheath blight in Arkansas and Louisiana. Harvest continued in Texas. In North Carolina, tobacco was mostly fair to good with harvest 17% complete, 2 points ahead of normal. In Georgia, tobacco was mostly good to fair and harvest was 60% complete, 11 points ahead of normal. In Kentucky, tobacco was mostly fair to good. Wet field conditions continued to cause disease and insect problems. Peanuts were mostly good in Georgia. Peanut harvest was expected to begin soon in Texas.

FRUIT AND NUTS: Florida citrus groves were mostly good to excellent. Rain was needed in all areas. Peach harvest was 94% complete, 1 point behind normal in Georgia. Peach harvest was 68% and 72% complete in North and South Carolina, respectively. Peach harvest was nearly complete in Texas. In California, apple harvest began in Sonoma County. Table grape harvest continued in the San Joaquin Valley.

VEGETABLES: In Florida, wet fields slowed fall vegetable planting in the northern areas. In Texas, land preparation for fall planting continued in the Rio Grande Valley. Cantaloupe, honeydew, and watermelon harvests continued in the Trans-Pecos area. Melon harvest neared completion in central Arizona. In California, vegetable harvests continued in the Salinas-Watsonville and Santa Maria areas. Supplies of broccoli, cauliflower, celery, and lettuce were moderate with generally good quality. Processing tomato harvest was ongoing in the Sacramento and San Joaquin Valleys.

PASTURES AND LIVESTOCK: Pastures remained in generally good to excellent condition in the Delta and East. In the West, ranges continued to deteriorate due to lack of rainfall. Livestock was in good condition.

Crop Progress

FOR WEEK ENDING JULY 30, 1989

SOYBEANS
% BLOOM

	1989	1988	AVG.
ALA	40	43	49
ARK	25	17	32
GA	59	51	57
ILL	87	92	90
IND	75	92	86
IOWA	96	98	89
KANS	40	70	55
KY	50	64	55
LA	50	37	56
MICH	50	60	60
MINN	75	95	88
MISS	31	35	49
MO	72	82	71
NEBR	75	93	85
N C	20	30	21
OHIO	43	76	84
S C	28	22	27
S DAK	70	86	70
TENN	36	53	52

19 STATES 66 75 73

THESE 19 STATES PRODUCED 95%
OF THE 1988 SOYBEANS CROP.

SOYBEANS
% SETTING PODS

	1989	1988	AVG.
ALA	18	19	23
ARK	4	7	14
GA	29	26	26
ILL	50	60	59
IND	20	30	31
IOWA	54	68	55
KANS	20	30	25
KY	12	18	17
LA	18	17	30
MICH	5	10	20
MINN	36	69	39
MISS	13	20	19
MO	33	38	39
NEBR	25	41	38
N C	6	3	7
OHIO	6	24	37
S C	5	5	8
S DAK	21	42	21
TENN	12	25	15

19 STATES 29 41 37

THESE 19 STATES PRODUCED 95%
OF THE 1988 SOYBEANS CROP.

SPRING WHEAT
% HARVESTED

	1989	1988	AVG.
IDAHO	0	6	3
MINN	13	45	16
MONT	0	29	6
N DAK	8	47	11
S DAK	41	87	34

5 STATES 12 48 14

THESE 5 STATES PRODUCED 87%
OF THE 1988 SPRING WHEAT CROP.

WINTER WHEAT
% HARVESTED

	1989	1988	AVG.
ARK	100	100	100
CALIF	99	99	99
COLO	91	95	92
GA	100	100	100
IDAHO	5	26	15
ILL	100	100	100
IND	100	100	100
KANS	100	100	100
MICH	65	95	90
MO	100	100	100
MONT	5	70	22
NEBR	98	99	96
N MEX	100	100	NA
N C	100	100	100
OHIO	96	100	99
OKLA	100	100	100
OREG	30	20	38
S DAK	90	100	72
TEX	100	100	100
WASH	19	18	27

20 STATES 86 91 NA

EXCL. STATES WITH NA 85 91 87

THESE 20 STATES PRODUCED 90%
OF THE 1988 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

COTTON
% SQUARING

	1989	1988	AVG.
ALA	100	100	100
ARIZ	100	100	100
ARK	99	100	100
CALIF	100	100	100
GA	99	99	99
LA	98	97	99
MISS	91	98	100
MO	100	100	100
N MEX	99	98	99
N C	90	94	95
OKLA	65	98	70
S C	95	92	98
TENN	100	100	100
TEX	80	96	90

14 STATES 88 98 94

THESE 14 STATES PRODUCED 99%
OF THE 1988 COTTON CROP.

GRAIN SORGHUM
% HEADED

	1989	1988	AVG.
ARK	65	58	NA
ILL	52	51	NA
KANS	10	15	20
LA	72	74	88
MISS	69	71	67
MO	60	58	61
NEBR	20	57	45
OKLA	50	40	35
S DAK	17	51	21
TENN	68	77	75
TEX	67	69	72

11 STATES 34 44 NA

EXCL. STATES WITH NA 33 43 42

THESE 11 STATES PRODUCED 96%
OF THE 1988 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

GRAIN SORGHUM
% COLORING

	1989	1988	AVG.
ARK	8	7	NA
ILL	0	0	NA
KANS	0	0	0
LA	24	19	46
MISS	33	15	34
MO	12	12	12
NEBR	0	0	0
OKLA	10	10	10
S DAK	0	0	0
TENN	12	22	17
TEX	59	56	58

11 STATES 16 15 NA

EXCL. STATES WITH NA 17 16 17

THESE 11 STATES PRODUCED 96%
OF THE 1988 GRAIN SORGHUM CROP

NA - NOT AVAILABLE.

COTTON
% SETTING BOLLS

	1989	1988	AVG.
ALA	70	91	87
ARIZ	99	89	95
ARK	77	91	93
CALIF	90	90	87
GA	88	93	89
LA	66	84	87
MISS	57	85	88
MO	94	94	91
N MEX	80	70	75
N C	66	73	76
OKLA	15	60	30
S C	66	56	79
TENN	72	80	73
TEX	39	49	45

14 STATES 57 69 66

THESE 14 STATES PRODUCED 99%
OF THE 1988 COTTON CROP.

	CORN % SILKING		
	1989	1988	AVG.
COLO	42	68	74
GA	100	100	100
ILL	93	97	96
IND	77	88	89
IOWA	85	97	89
KANS	80	90	75
KY	84	82	84
MICH	55	70	70
MINN	65	90	67
MO	97	97	90
NEBR	80	95	84
N C	92	96	96
OHIO	39	70	80
PA	20	36	48
S DAK	50	72	45
TEX	88	95	96
WIS	50	76	64
17 STATES	74	88	82

THESE 17 STATES PRODUCED 94% OF THE 1988 CORN CROP.

	CORN % DOUGH		
	1989	1988	AVG.
COLO	3	2	12
GA	97	96	98
ILL	28	34	46
IND	10	5	25
IOWA	1	8	11
KANS	25	30	25
KY	16	13	27
MICH	0	0	10
MINN	15	42	26
MO	43	47	54
NEBR	3	14	12
N C	65	67	73
OHIO	2	11	26
PA	0	0	0
S DAK	1	0	0
TEX	72	76	77
WIS	0	8	8
17 STATES	14	20	25

THESE 17 STATES PRODUCED 94% OF THE 1988 CORN CROP.

	RICE % HEADED		
	1989	1988	AVG.
ARK	14	10	26
CALIF	5	5	7
LA	60	65	72
MISS	39	16	48
TEX	87	97	89
5 STATES	34	32	43

THESE 5 STATES PRODUCED 97% OF THE 1988 RICE CROP.

Crop Condition

PERCENT

FOR WEEK ENDING JULY 30, 1989

SPRING WHEAT						
STATE	VP	P	F	G	EX	
IDAHO	2	14	18	54	12	
MINN	1	14	66	19	0	
MONT	3	10	25	45	17	
N DAK	16	15	59	10	0	
S DAK	5	20	50	25	0	
5 STATE	9	15	52	21	3	
PREV YEAR	34	39	21	5	1	

SORGHUM						
STATE	VP	P	F	G	EX	
ARK	0	3	32	62	3	
ILL	0	0	7	86	7	
KANS	4	4	19	33	40	
LA	3	17	47	33	0	
MISS	0	5	60	35	0	
MO	0	2	26	67	5	
NEBR	0	9	54	37	0	
OKLA	0	0	15	35	50	
S DAK	1	25	38	34	2	
TENN	0	4	15	76	5	
TEX	3	8	26	44	19	
11 STATE	2	7	29	40	22	
PREV YEAR	1	5	38	46	10	

RICE						
STATE	VP	P	F	G	EX	
ARK	0	0	21	75	4	
CALIF	0	0	10	75	15	
LA	0	8	42	46	4	
MISS	0	0	75	25	0	
TEX	0	0	27	64	9	
5 STATE	0	2	29	63	6	
PREV YEAR	0	3	33	60	4	

CORN						
STATE	VP	P	F	G	EX	
COLO	0	5	21	63	11	
GA	0	0	11	57	32	
ILL	0	0	16	68	16	
IND	0	1	11	61	27	
IOWA	0	5	27	61	7	
KANS	0	16	2	30	52	
KY	0	0	5	60	35	
MICH	0	5	20	50	25	
MINN	4	8	25	56	7	
MO	2	11	37	43	7	
NEBR	0	10	34	40	16	
N C	0	1	13	73	13	
OHIO	3	10	35	45	7	
PA	3	11	28	39	19	
S DAK	1	6	34	50	9	
TEX	3	14	14	44	25	
WIS	0	1	14	65	20	
17 STATE	1	5	23	56	15	
PREV YEAR	15	33	33	16	3	

COTTON						
STATE	VP	P	F	G	EX	
ALA	0	20	29	51	0	
ARIZ	0	0	0	60	40	
ARK	0	15	66	19	0	
CALIF	0	0	5	90	5	
GA	1	4	18	72	5	
LA	4	8	71	17	0	
MISS	5	20	60	15	0	
MO	0	8	46	46	0	
N MEX	0	0	30	65	5	
N C	0	3	25	70	2	
OKLA	0	0	65	35	0	
S C	0	0	4	92	4	
TENN	3	0	38	55	4	
TEX	0	30	43	24	3	
14 STATE	1	18	40	37	4	
PREV YEAR	2	2	27	57	12	

SOYBEANS						
STATE	VP	P	F	G	EX	
ALA	0	5	36	54	5	
ARK	3	11	77	9	0	
GA	1	0	7	73	19	
ILL	0	0	10	79	11	
IND	0	2	17	63	18	
IOWA	0	1	25	66	8	
KANS	0	4	12	31	53	
KY	0	4	28	67	1	
LA	13	31	35	19	2	
MICH	0	5	20	50	25	
MINN	2	8	34	51	5	
MISS	8	21	60	10	1	
MO	0	5	40	49	6	
NEBR	0	4	57	39	0	
N C	0	1	24	71	4	
OHIO	3	13	39	40	5	
S C	0	0	10	84	6	
S DAK	2	2	27	61	8	
TENN	0	3	51	43	3	
19 STATE	1	6	31	53	9	
PREV YEAR	6	18	52	22	2	

VP - VERY POOR P - POOR F - FAIR G - GOOD EX - EXCELLENT

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 NASS State Statistical Offices in cooperation with the National Weather Service.

ALABAMA: Rainfall under 0.50 in.; 1.00 to 2.00 in. local areas. Temperatures 1 to 2° above normal.

Days suitable for fieldwork 4.0. Soil moisture 51% adequate, 49% surplus. Dry conditions allowed farmers to increase control of pests, diseases in row crops. Corn 98% silked, 100% 1988, 100% avg.; 65% dented, 66% 1988, 76% avg.; 44% mature, 40% 1988, 50% avg.; 18% harvested, 16% 1988, 11% avg.; 7% fair, 47% good, 46% excellent. Cotton 100% squaring, 100% 1988, 100% avg.; 70% setting bolls, 91% 1988, 87% avg.; 20% poor, 29% fair, 51% good. Soybeans 92% planted, 100% 1988, 100% avg.; 40% blooming, 43% 1988, 49% avg.; 18% setting pods, 19% 1988, 23% avg.; 5% poor, 36% fair, 54% good, 5% excellent. Peanuts 98% pegging, 98% 1988, 94% avg.; 75% good, 25% excellent. Winter wheat 90% harvested, 100% 1988, 100% avg. Sorghum 31% fair, 60% good, 9% excellent. Livestock, pastures good to excellent. Primary activities: Controlling insects, weeds in row crops; applying fungicides to peanuts; harvesting vegetables, preparing land for fall crops; cutting, baling hay; clipping pastures; harvesting peaches, other fruits; routine care of livestock, poultry, catfish.

ALASKA: Scattered, frequent rain showers, growers nearing completion of first round hay harvest. Highs normal to 1° above normal. Lows normal to 3° above normal. Seasonal precipitation 0.83 in. below at PMC Butte to 2.37 in. above normal Anchorage.

Days suitable for fieldwork 3.0. Topsoil 6% short, 80% adequate, 14% surplus. Subsoil 4% short, 81% adequate, 15% surplus. Barley 75% soft dough stage, 25% hard dough, small percent turning color. Barley good to excellent. Potato 25% in bloom. Commercial potato fields average, 90% bloom. Second crop hay stands average 9 in.

ARIZONA: Scattered thunderstorms east, central 24th, most intense activity over Mogollon Rim, White Mountains. Thunderstorms eastern two-thirds 25th; monsoon increased 26th with scattered thunderstorms all areas. Scattered, numerous afternoon, nighttime thunderstorms Statewide 27th with heavy rains, hail, damaging winds southwest; hardest hit Yuma with 2.50 in. Afternoon thunderstorms scattered over eastern half 28th, 29th; west activity reduced. Rainfall for period 0.50 to 2.00 in. Temperatures 4° below to 2° above normal.

Cotton squaring 100%, 100% 1988, 100% avg.; bolls setting 99%, 89% 1988, 95% avg.; 60% good, 40% excellent. Heavy rains, hail, damaging winds southwest caused flooding of cotton fields. Fruit loss from beet army worms continued Avra Valley. Alfalfa good; wind, rain damage La Paz, Yuma counties; harvest progress moderate to active. Watermelons harvested, shipped west, central; cantaloupe harvested Aguila area; honeydew, mixed melon harvest nearing completion central; cabbage harvest progressed east. Ranges very poor, desperate need of additional rains; feed supplies below average to average, soil moisture short; cattle, sheep fair to good.

ARKANSAS: Temperatures near to slightly above normal eastern sections, slightly below normal western sections. Rainfall light to moderate. Extremes 62°; 96°. Rainfall none to 2.37 in.

Days suitable for fieldwork 5.0. Soil moisture

5% short, 57% adequate, 38% surplus. Soybeans 96% planted, 99% 1988, 100% avg.; 93% emerged, 97% 1988, 98% avg. Wheat 100% harvested, 100% 1988, 100% avg. Corn 10% fair, 65% good, 25% excellent. Main activities: Soybean planting; cotton, soybean cultivation; applying fungicides, insecticides; scouting for rice diseases, cotton insects; cutting, baling hay; spraying pastures for weeds; bush hogging; harvesting fruits, vegetables. Crop growth moderate, but stunted in low-lying areas. Rice fungicides applied to control sheath blight, blast. Soybeans suffering severely from water logged soils, standing water southeastern sections. Rains further delayed final soybean plantings. Watermelons, cantaloupes average size, quality below average. Peach harvest slowing, hail damage southwest. Livestock good.

CALIFORNIA: Gradual cooling developed later in the week, with temperatures near normal.

Irrigation, fertilization, other activities normal. Early rice fields heading. Armyworm, stem rot problems. Late, high elevation grain maturing. Safflower harvest increased. Cotton good boll sets. Open bolls southern California. Sugarbeets mildew treated, harvest continued. Alfalfa seed harvest began Fresno County. Bermuda grass seed harvest Imperial County. Alfalfa, Sudan grass harvests normal progress. Harvesting gravenstein apples began, Sonoma County; sunburn damage. Avocado picking slowed, Ventura County. Dates bagged, Riverside County. Harvesting Flame Seedless, Perlette, Thompson Seedless table grapes San Joaquin Valley. Picking Freestone peaches, plums, nectarines about two-thirds completed. Clingstone peach harvest active. Asian, Bartlett pear harvests continued. Prunes maturing well; harvest nearing. Picking grapefruit, non-desert areas. Valencia orange harvest slow. Almond orchards being prepared for harvest; spraying for pests. Pistachios, walnuts maturing. Vegetable harvests continued Salinas-Watsonville, Santa Maria areas. Supplies of broccoli, cauliflower, celery, lettuce moderate with generally good quality. Soil preparation underway, Blythe, Kingsburg areas for fall lettuce. Processing tomato harvest ongoing Sacramento, San Joaquin valleys. Fields treated worms, mites. Potato fields Tulelake-Butte Valley continued good growth. Summer potatoes Perris-Hemet area yielding well, fall planting continued. Sweet potato harvest underway Merced-Atwater area. Cantaloupe harvest remained active, good yields, quality. Desert melon harvest complete; harvests remain active San Joaquin, Sacramento valleys. Strawberries Salinas area remained moderate supply. Supplies Santa Maria area fairly light, quality remained variable. Cucumbers, peppers, onions, squash, eggplant, carrots, sweet corn, miscellaneous oriental vegetables harvested Statewide. Livestock good condition. Range, pasture conditions Sacramento, San Joaquin Valley poor due to hot weather. Cattle movement to higher-elevations continued as feed summer range areas short. Water supplies valley well below normal, stocks northern counties, foothills fair to adequate. Supplemental feeding continued.

COLORADO: Warm, coupled with widely scattered, locally heavy thunderstorms dominated the weather pattern over the State. Temperatures were normal

in the mountains, east, 3 to 5° below normal west. Precipitation 0.01 to 3.22 in.

Days suitable for fieldwork, 6.1. Soil moisture 41% very short, 47% short, 12% adequate. Alfalfa 2nd cutting 43% complete. Spring barley 80% turning color, 54% ripe, 41% harvested. Oats 88% headed, 75% turning color, 39% harvested. Summer potatoes 11% harvested. Sorghum 1% headed. Spring wheat 76% turning color, 21% harvested. Livestock, good; pasture, range, poor to fair.

FLORIDA: Temperatures within 1° normal, most locations. Extremes 63° Gainesville; 98° Crestview. Rain under 1.00 in., west, under 0.50 in., north, mostly 1.00 in. elsewhere. Greatest weekly total, 3.08 in., Fort Myers.

Soil moisture Panhandle, northern Peninsula adequate to surplus. Central, southern Peninsula topsoil adequate; more rain needed to improve subsurface, many areas. Tobacco markets opened, harvest nearly completed. Cotton starting to fruit. Peanuts good progress, heavier disease problems than normal. Early soybeans began setting pods. Corn for grain harvest became more active. Hay harvest active. Sugarcane good progress. Panhandle grazing excellent, good to excellent northern Peninsula, good south. Cattle good to excellent, Panhandle, generally good elsewhere. Citrus groves very good to excellent. Rains scattered, needed all areas. New crop fruit progressing well; both large, small fruit most locations. Caretakers busy spraying, fertilizing, cleaning canals. Hot days, warm nights prevailed over vegetable producing areas. Land preparation active. Wet fields delayed planting, northern areas. Limited supply summer vegetables continued available.

GEORGIA: Thunderstorm pattern more typical of summer, widely scattered, few areas 1.00 to 2.00 in., much of State little or no rain. Heaviest total 5.32 in. Effingham County. Temperatures 1 to 3° above normal. High 90s common, 98° Savannah Airport 29th. Coolest temperature 62° Blairsville 26th.

Days suitable for fieldwork 4.0. Soil moisture 3% short, 63% adequate, 34% surplus. Corn 80% dent, 83% 1988, 89% avg.; 37% mature, 42% 1988, 61% avg.; harvest underway extreme south, slightly behind normal. Cotton 1% bolls open, 1% 1988, 3% avg. Sorghum Grain 14% fair, 72% good, 14% excellent. Peanuts 10% fair, 84% good, 6% excellent; 100% pegging, 98% 1988, 96% avg.; white mold showing up. Tobacco 25% fair, 74% good, 1% excellent; 60% harvested, 43% 1988, 49% avg. Watermelons 92% harvested, equal last year, avg. Apples 74% fair, 26% good; 2% harvested, 4% 1988, 15% avg. Peaches 2% very poor, 29% poor, 36% fair, 33% good; 94% harvested, 94% 1988, 95% avg. Pecans 2% poor, 33% fair, 64% good, 1% excellent. Hay harvest more active, but still behind normal. Hay, pasture good to excellent. Hogs, cattle good to excellent.

HAWAII: High pressure system NNE island chain caused variable weather. Sunny skies, intermittent showers provided fair to good growing conditions. Temperatures high 60s to upper 80s with variable winds 10-25 mph. Daily rainfall none to 3.80 in.

Days suitable for fieldwork 7.0. Papaya production continued seasonal decline. Sugar, pineapple harvesting continuous. Many vegetable crops seasonally low levels. Banana production increased.

IDAHO: Temperatures up to 5° above normal. Up to quarter inch of rain in south central, east. Little to no precipitation in north, southwest.

Days suitable for fieldwork 7.0. Soil moisture

5% very short, 25% short, 69% adequate, 1% surplus. Hot, dry temperatures stressed dry land crops, kept irrigators busy. Aphid populations increased; various levels of infestation. Winter wheat 5% harvested, 26% 1988, 15% avg. Spring wheat fair, good; 60% turned; none harvested, 6% 1988, 3% avg. Spring barley 66% turned; 1% harvested, 8% 1988, 5% avg. Oat harvesting just beginning. Potatoes good, 90% closing middles. Dry peas 2% harvested. Peaches 8% harvested. Mint 45% harvested. Rain needed soon to sustain pasture. Low elevation rangeland dry; ranchers using late summer rangeland. Livestock good.

ILLINOIS: Temperatures 1 to 2° above normal. Precipitation 0.01 to 1.00 in., some isolated areas 2.00 to 4.00 in.

Days suitable for fieldwork 5.3. Soil moisture 43% short, 56% adequate, 1% surplus. Alfalfa 3rd crop cut 21%, 29% 1988, 23% avg.; 3% poor, 28% fair, 62% good, 7% excellent. Oats harvested 85%, 89% 1988, 85% avg. Pasture 1% very poor, 14% poor, 44% fair, 33% good, 8% excellent.

INDIANA: Temperatures average to 5° above normal. Lows mid 60s to near 70, highs mid 80s to low 90s. Precipitation spotty. Totals up to 1.00 in.

Days suitable for fieldwork 3.9. Topsoil 7% short, 78% adequate, 15% surplus. Subsoil 7% short, 84% adequate, 9% surplus. Corn, soybean remain good. Corn 76 in. high, 67 in. 1988, 76 in. avg. Soybean 22 in. high, 25 in. 1988, 24 in. avg. Alfalfa hay 74% cut twice, 90% 1988, 87% avg. Pasture 2% poor, 20% fair, 61% good, 17% excellent. Growth, development of late planted corn has made good progress in some areas.

IOWA: Temperatures 1 to 4° above normal. Extremes 57°; 96°. Rainfall totals 0.02 to 3.09 in., average 0.67 in.

Days suitable for fieldwork 6.5. Topsoil 71% short, 29% adequate; subsoil 99% short, 1% adequate. Corn 98% tasseled, 100% 1988, 97% avg.; 20% in milk stage, 40% 1988, 37% avg. Second crop alfalfa 95% harvested, 93% 1988, 87% avg. Second crop clover 80% harvested, 69% 1988, 62% avg. Hay 6% very poor, 22% poor, 47% fair, 23% good, 2% excellent. Oats 98% harvested, 100% 1988, 89% avg. Livestock good. Pasture 24% very poor, 37% poor, 29% fair, 9% good, 1% excellent.

KANSAS: Temperatures near normal except southwest 4° below normal; remainder of areas within degree or 2 of normal.

Days suitable for fieldwork 6.0. Topsoil 46% short, 54% adequate; subsoil 39% short, 61% adequate. Wheat harvest complete. Corn silking stage 80%. Most corn stands making good growth, 25% dough stage. Sorghum headed reached 10%. Soybean blooming underway; 40%. Second cutting alfalfa 96%; third cutting 35%.

KENTUCKY: Typical summertime weather. Highs 90°, 2° above normal, lows near 70°, 2° above mean. Rain widely scattered. Most areas well below mean. Rainfall 0.50 in., 0.50 in. deficit.

Days suitable fieldwork 5.6. Soil moisture 3% very short, 25% short, 71% adequate, 1% surplus. Corn 95% good to excellent. Soybeans 95% fair to good. Weed, insect problems. Tobacco 88% fair to good; problems with yellowing, insects, disease due to wet conditions. Hay crops 84% good to excellent. Good drying week. Pastures 82% good to excellent.

LOUISIANA: Temperatures 2 to 3° below normal. Extremes 65°; 96°. Rainfall 1.00 to 3.00 in. South, 0.50 to 1.00 in. rest of State.

Days suitable for fieldwork 3.3. Soil moisture 50% adequate, 50% surplus. Corn dough stage 93%, 97% 1988, 97% avg.; mature 50%, 41% 1988, 52% avg.; harvested 2%, 5% 1988, 7% avg.; 3% poor, 30% fair, 59% good, 8% excellent. Cotton squaring 98%, 97% 1988, 99% avg.; setting bolls 66%, 84% 1988, 87% avg.; 4% very poor, 8% poor, 71% fair, 17% good. Hay first cutting 86%, 97% 1988, 99% avg. Showers slowing harvest, reducing quality. Peaches harvested 88%, 89% 1988, 92% avg.; 36% poor, 55% fair, 9% good. Rice headed 60%, 65% 1988, 72% avg.; ripe 13%, 10% 1988, 16% avg.; harvested 3%, 5% 1988, 12% avg.; 8% poor, 42% fair, 46% good, 4% excellent. Spraying for stink bug control in fields; sheath blight still evident in southwest with control measures being taken. Sorghum headed 72%, 74% 1988, 88% avg.; turning color 24%, 19% 1988, 46% avg.; ripe 2%, 3% 1988, 8% avg.; 3% very poor, 17% poor, 47% fair, 33% good. Soybeans planted 99%, 100% 1988, 100% avg.; emerged 97%, 100% 1988, 100% avg.; blooming 50%, 37% 1988, 56% avg.; setting pods 18%, 17% 1988, 30% avg.; 13% very poor, 31% poor, 35% fair, 19% good, 2% excellent. Many weedy fields; condition too poor in some fields to justify control measures; aerial blight showing up southwest; fungicides being applied; many beans that survived flooding conditions appear stunted. Sugarcane 6% poor, 18% fair, 76% good. Bore population continued to increase with control measures underway; preparing for planting. Sweet potatoes planted 95%, 100% 1988, 100% avg.; harvested 2%, 2% 1988, 4% avg.; 11% poor, 33% fair, 56% good. Rotting potatoes, low yields. Vegetable 11% very poor, 27% poor, 46% fair, 16% good. Vegetable harvest; seeding cabbage, preparing for fall plantings. Pasture 1% poor, 12% fair, 80% good, 7% excellent. Pasture growth excellent most areas, however, maturity is passing optimum stages for haying. Livestock 10% fair, 85% good, 5% excellent. Mosquitoes, deer flies increasing among cattle, spraying for external parasites underway.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.76 in. Temperature 81°, normal 77°. Extremes 60°; 96°.

Days suitable for fieldwork 4.4. Topsoil 65% adequate, 35% surplus. Subsoil 65% adequate, 35% surplus. Field corn good; silked 59%, 70% 1988, 78% avg.; dough stage 13%, 19% 1988, 38% avg. Soybeans good; planted 97%, 100% 1988, 100% avg.; bloomed 35%, 32% 1988, 38% avg.; set pods 8%, 5% 1988, 11% avg. Tobacco fair to good; bloomed 38%, 44% 1988, 43% avg. Oats fair to good; harvested 54%, 73% 1988, 81% avg. Wheat harvested 95%, 100% 1988, 100% avg. Pasture good to excellent.

DELAWARE: Precipitation 1.23 in. Temperature 81°, normal 78°. Extremes 63°; 97°.

Days suitable for fieldwork 4.5. Topsoil 57% adequate, 43% surplus. Subsoil 86% adequate, 14% surplus. Soybeans good; bloomed 23%, 17% 1988, 31% avg. Field corn good; silked 88%, 84% 1988, 83% avg.; dough stage 20%, 8% 1988, 25% avg. Pasture good. Peaches fair. Peaches 39% harvested, 32% 1988, 35% avg. Apples good.

MICHIGAN: Temperatures 2 to 6° above normal. Extremes 42°; 94°. Precipitation 0.08 to 2.66 in. across State.

Days suitable for fieldwork 5.5. Soil moisture 40% short, 50% adequate, 10% surplus. Corn 55% silked, 70% 1988, 70% avg.; dough 0%, 0% 1988, 10% avg.; 5% poor, 20% fair, 50% good, 25% excellent. Soybeans 50% bloomed, 60% 1988, 60% avg.; setting pods 5%, 10% 1988, 20% avg.; 5% poor, 20% fair, 50% good, 25% excellent. Wheat 65% harvested, 95% 1988, 90% avg. Dry beans 25% bloomed, 35% 1988, 50% avg. Oats 5% harvested, 40% 1988, 25% avg. Major activities: Winter wheat, oats combining,

cutting hay, baling straw, row crop cultivation. Tart cherry harvest proceeded in the northwest. Blueberries, plums, peaches being picked. Vegetable growers busy harvesting crops including tomatoes, sweet corn, cucumbers, snap beans, peas.

MINNESOTA: Temperatures 2 to 5° above normal. Extremes 48°; 100°. Precipitation 0.12 to 1.19 in. Greatest weekly total 2.44 in.

Days suitable for fieldwork 6.4. Topsoil 49% very short, 33% short 17% adequate, 1% surplus. Spring wheat 87% turning ripe, 99% 1988, 81% avg.; 27% cut, 66% 1988, 29% avg.; 13% combined, 45% 1988, 16% avg. Oats 97% turning ripe, 99% 1988, 93% avg.; 73% cut, 85% 1988, 59% avg.; 43% combined, 82% 1988, 41% avg. Barley 98% turning ripe, 99% 1988, 90% avg.; 56% cut, 70% 1988, 49% avg.; 28% combined, 61% 1988, 29% avg. Corn 65% silking, 90% 1988, 67% avg.; 15% in milk, 42% 1988, 26% avg. Soybeans 75% blooming, 95% 1988, 88% avg.; 36% setting, 69% 1988, 39% avg. Winter Wheat 70% harvested, 96% 1988, 59% avg. Rye 66% harvested, 96% 1988, 56% avg. Soybean 2% very poor, 8% poor, 34% fair, 51% good, 5% excellent. Corn 4% very poor, 8% poor, 25% fair, 56% good, 7% excellent. Spring Wheat 1% very poor, 14% poor, 66% fair, 19% good.

MISSISSIPPI: Temperatures 1° below normal. Extremes 63°; 98°. Rainfall 1.02 in., 0.08 in. below normal.

Days suitable for fieldwork 3.8, 4.9 1988, 5.4 avg. Soil moisture 60% adequate, 30% surplus, 10% excessive. Corn good; 91% silked, 93% 1988, 97% avg.; dough 65%, 68% 1988, 83% avg.; dent 40%, 48% 1988, 58% avg.; silage 19%, 26% 1988, 29% avg. Cotton fair; squaring 91%, 98% 1988, 100% avg.; 57% setting bolls, 57% 1988, 88% avg. Hay harvested 40%, 60% 1988, 64% avg. Rice fair; 39% heading, 16% 1988, 48% avg. Sorghum fair; 69% heading, 71% 1988, 67% avg.; 33% turning color, 15% 1988, 34% avg.; 14% silage harvested, 20% 1988, 16% avg. Soybeans fair; 95% planted, 100% 1988, 100% avg.; 78% emerged, 100% 1988, 100% avg.; 31% blooming, 35% 1988, 49% avg.; 13% podding, 20% 1988, 19% avg. Watermelons 57% harvested, 50% 1988, 63% avg. Pasture, livestock good. Activities; applying insecticides, cultivating.

MISSOURI: Temperatures 4° below normal southwest to 2° above normal northeast. Precipitation variable, under 0.50 in. some northwestern, southwestern, southeastern counties, over 3.00 scattered central counties.

Days suitable for fieldwork 5.7. Topsoil 56% short, 44% adequate. Subsoil 69% short, 31% adequate. Crops variable, fair to good most areas, lower ratings north, particularly northwest. Corn dough stage 25% northeast to 83% southeast. Soybeans 50% or more blooming all areas. Podding varies 20% south central to 41% southeast. Sorghum heading 26% north central to 93% southeast. Third cutting alfalfa 25%, 39% 1988, 41% avg. Other hay harvested 90%, 99% 1988, 94% avg. Pasture 7% very poor, 12% poor, 43% fair, 38% good. Livestock water supply 21% critically short, 16% short, 63% adequate, main shortage north.

MONTANA: Temperatures 3 to 7° above normal west, 1 to 6° above normal east. Thunderstorms across State. Few reports over 1.00 in. precipitation, generally less than 0.50 in.

Days suitable for fieldwork 5.9. Topsoil 46% short, 48% adequate, 6% surplus. Subsoil moisture 47% short, 51% adequate, 2% surplus. Winter wheat 1% very poor, 6% poor, 20% fair, 56% good, 17% excellent. Barley 2% very poor, 6% poor, 22%

fair, 43% good, 27% excellent; harvested 2%, 23% 1988, 7% avg. Oats 4% very poor, 10% poor, 28% fair, 44% good, 14% excellent; harvested 2%, 27% 1988, 7% avg. Second cutting alfalfa 18% harvested, 39% 1988, 27% avg.

NEBRASKA: Temperatures 1 to 4° above normal except in Panhandle which was normal. Extremes 52°; 100°. Rainfall a few tenths to 3.00 in.

Days suitable for fieldwork 6.9. Topsoil 85% short, 15% adequate. Subsoil 87% short, 13% adequate. Oats 90% harvested, 97% 1988, 87% avg. Alfalfa hay 12% poor, 59% fair, 29% good; 10% third cutting, 21% 1988, 9% avg. Crown rot central area. High humidity, heavy dew, moderate temperatures in east helped reduce water use, allowed irrigators to catch up. In Panhandle irrigators had trouble keeping up with needs of crops. Spider mites, western bean cutworms in Panhandle. Corn rootworms beetles in south central. Grasshoppers in northeast. Spider mites, greenbugs, corn leaf aphids in east central. Pasture, range feed 27% very short, 62% short, 11% adequate. Hay, roughage 10% very short, 62% short, 28% adequate. Ranchers in Panhandle, southwest culling herds, selling yearlings early. Feed hay to supplement pastures in east.

NEVADA: Hot, dry weather continued. Widely scattered thunderstorms south midweek failed to produce measurable precipitation. Trough moved inland end of period causing an increase in gusty winds all areas.

Baling second crop hay most areas. Small grain harvest moving northward. Stockwater sources drying.

NEW ENGLAND: Precipitation 1.00 to 1.50 in. northern Maine, western Vermont, Massachusetts, 0.50 to 1.00 in. northern New Hampshire, less than 0.50 in. remainder. Temperature near 70° northern Maine to upper 70s coastal south. Temperatures 2 to 3° above normal.

Days suitable for fieldwork 6.5. Fieldwork progress 2.5 days behind. Soil moisture north 59% short, 41% adequate; south 71% adequate, 29% surplus. Grazing availability north 54% short, 46% adequate; south 88% adequate, 12% surplus. Maine potato fair to good. Connecticut River Valley potato fair to good. Maine oat good. Field corn fair to good. Sweet corn 13% harvested, 15% 1988, 18% avg.; fair to good. Shade tobacco fair to good; 25% harvested Massachusetts. Outdoor tobacco fair to good; harvest just beginning Massachusetts. First crop hay 95% cut, 98% 1988, 95% avg.; fair. Second crop hay 30% cut, 33% 1988, 36% avg.; good. Apple fair to good; medium size. Peach good; pear good. Raspberries 65% harvested; fair to good; small to medium size. Blueberries 20% harvested; fair to good; medium to large size. Cranberry sizing good. Major farm activities: Harvesting vegetables, weed, pest control, haying.

NEW JERSEY: Temperatures near normal. Extremes 50°; 96°. Rainfall 0.19 in. north, 0.61 in. central, 1.08 in. south. Heaviest 24-hour total 1.77 in. on 26th, 27th. Estimated soil moisture percent field capacity 74% north, 69% central, 66% south. Four inch soil temperatures 74° north, 75° central, 77° south.

Soil moisture levels varied; daytime temperatures ranged widely. Fieldwork very active. Summer vegetable harvest active; yields, quality reduced. White potatoes dug. Blueberry picking declined. Peach harvest general. Summer cooking apple picking began. Early planted field corn, soybean prospects very good. Late plantings look fair to poor. Small grain combining active.

Hay, straw baling also active as conditions permitted. Pasture growth very good.

NEW MEXICO: Rain fell throughout entire State. Temperatures below normal. Moderate to severe hail.

Days suitable for fieldwork 6.5. Soil moisture 85% short, 15% adequate. Cotton squaring 99%, 80% setting bolls; 30% fair, 65% good, 5% excellent. Cattle 8% poor, 75% fair, 17% good. Sheep 17% poor, 66% fair, 17% good. Ranges, pastures 70% poor, 30% fair.

NEW YORK: First half of week warm, dry. High temperatures near 90. Lows 60s UpState, 70 to 75° in New York City area. Cold front moved across the State late in the week setting off severe thunderstorms. Rainfall of 1.00 to 1.50 in. was common in eastern areas. Western areas about 0.50 in. Weekend much cooler. Highs in the 70s UpState, lows in 40s, 50s inland, 60 to 65° along coast.

Days suitable for fieldwork 6.2. Soil moisture short to adequate. Pastures fair to good, hay fair to good, wheat fair to good. First cutting of alfalfa nearly complete, second cutting well underway. Clover-timothy harvest 86% complete. Apple growers hand thinning, summer pruning. Tart cherry harvest continued. Apple, pear drop due to thunderstorms in eastern areas. Early fresh market peaches available. Sweet corn harvest picking up. Orange County onions bulbing. Tomato, pepper harvest getting underway.

NORTH CAROLINA: Temperatures 1 to 3° above normal across State. Extremes 55°; 95°. Precipitation none to 2.49 in.

Days suitable for fieldwork 5.1. Soil moisture 4% short, 79% adequate, 17% surplus. Pasture 14% fair, 75% good, 11% excellent. Livestock feed from pasture 82%. Crop conditions: tobacco 1% very poor, 5% poor, 47% fair, 47% good; sweet potatoes 33% fair, 65% good, 2% excellent; peaches 3% very poor, 20% poor, 26% fair, 48% good, 3% excellent; apples 4% very poor, 4% poor, 32% fair, 56% good, 4% excellent; truck crops 7% poor, 33% fair, 60% good; peanuts 38% fair, 62% good; sorghum 1% poor, 25% fair, 72% good, 2% excellent; hay 1% poor, 18% fair, 78% good, 3% excellent. Hay second cutting 56% complete, third cutting 17% completed. Hay, roughage 2% short, 81% adequate, 17% surplus. Harvesting completed: peaches 68%, 64% 1988, 69% avg.; irish potatoes 90%, 92% 1988, 95% avg. Tobacco 17%, 18% 1988, 15% avg.; 82% topped. Major activities: Cultivating crops; topping tobacco; cutting hay. Other activities: Spraying crops; harvesting peaches, tobacco, truck crops; tending livestock; general farm maintenance.

NORTH DAKOTA: Temperatures 3 to 6° above normal. Extremes 44° north central; 102° west central. Precipitation 0.07 in. northwest to 1.14 in. central.

Days suitable for fieldwork 6.1. Soil moisture supplies well below average. Topsoil 36% very short, 57% short, 7% adequate. Subsoil 68% very short, 26% short, 6% adequate. Small grains, row crops fair. Spring wheat 16% very poor, 15% poor, 59% fair, 10% good; durum 11%, 24%, 59%, 6%; oats 21%, 21%, 49%, 9%; barley 11%, 23%, 60%, 6%; flax 7%, 33%, 50%, 10%; corn 6%, 10%, 59%, 25%; soybeans 1%, 8%, 56%, 35%; sunflower 11%, 15%, 37%, 37%; dry edible beans none, 21%, 59%, 20%; potatoes none, none, 80%, 20%. Small grain harvest progressed near average. Spring wheat 8% combined, 47% 1988, 11% avg.; durum 3%, 21% 1988, 5% avg.; oats 14%, 53% 1988, 16% avg.; barley 25%, 55% 1988, 20% avg.; flax 80% bloom or beyond, 82% 1988, 85% avg.; sunflower 22%, 61% 1988, 29% avg.;

soybeans 90%, 98% 1988, 91% avg.; dry edible beans 79%, 91% 1988, 82% avg. Pastures 10% very poor, 53% poor, 37% fair; furnished 97% roughage requirements. Second cutting alfalfa 36% completed.

OHIO: High temperatures mid to high 80s, near average. Low temperatures mid to high 60s. Rainfall 0.23 in. southwest to 3.97 in. central, with most areas receiving over 1.00 in. Base 50 growing degree days ranged between 160, 190, 10 to 15 above normal.

Days suitable for fieldwork 4.3. Soil moisture 9% short, 73% adequate, 18% surplus. Activities included harvesting wheat, oats, making hay, cultivating row crops, spraying insects, preparing for forage seeding, preparing for State fair. Corn, soybeans, pasture, oats fair to good. Hay fair; infestations of potato leaf hoppers, yellow nuts edge lowered yields of second cut alfalfa. Storms damaged oats, tomatoes in southeast. Good yields, high quality in harvests of apples, peaches, blueberries, raspberries in northeast.

OKLAHOMA: Temperatures 4° below normal south central to 1° normal northeast, east central. Precipitation none west central to 0.52 in. southwest.

Days suitable for fieldwork 5.6. Topsoil 25% short, 70% adequate, 5% surplus. Subsoil 10% short, 90% adequate. Wheat 100% harvest, 100% 1988, 100% avg.; 5% seedbed prepared, 20% 1988, 3% avg. Cotton 65% fair, 35% good; 65% squaring, 98% 1988, 70% avg.; 15% setting bolls, 60% 1988, 30% avg. Sorghum 15% fair, 35% good, 50% excellent; 50% heading, 40% 1988, 35% avg.; 10% turning color, 10% 1988, 10% avg. Soybeans 30% flowering, 25% 1988, 40% avg. Peanuts 30% setting pods, 40% 1988, 30% avg. Corn 2% mature, 3% 1988, 15% avg. Cool temperatures aided row crop development. Pastures good. Cattle good; marketings stable, prices up slightly.

OREGON: Temperatures slightly above normal, except Willamette Valley slightly below. Very little precipitation. Madras highest departure from normal temperature 4° above. Ontario five consecutive days with highs of 100° or more. Newport 0.10 in. rain, other coastal stations less. Less than 0.05 in. northeast.

Soil moisture 81% short, 19% adequate. Winter wheat 38% poor, 41% fair, 6% good, 16% excellent; poor to good east, fair to excellent west. Barley 27% harvested, 37% 1988, 48% avg. Lack of moisture east. Harvesting grains most areas. Grass seed harvest continued Willamette Valley, underway northeast. Mint doing well central area. Mint, hops fair to good Willamette Valley. Pears are sizing well, good Jackson County. Sweet cherry harvest completed except high elevation orchards Union County. Red raspberry harvest completed except late varieties west; also harvested Boysenberries, Marionberries, blueberries, everbearing strawberry varieties. Cranberry crop developing well south coast. Harvest of sweet corn, snap beans, cucumbers, continued Willamette Valley. Second or third plantings of green peas, snap beans, cauliflower, broccoli in the ground. Potatoes developing well central area, Klamath Basin; early digging continued Hermiston-Boardman region. Livestock good to excellent east, fair to good west. Range, pasture fair to excellent east, fair to good west. Ranges drying out east, several range fires in far eastern areas. Pasture drying out north Willamette Valley, slightly better than normal south valley.

PENNSYLVANIA: Hot, humid. Bermuda high persisted into middle of week. Week ended cooler,

with precipitation. Temperature 75°, 4° above normal. Extremes 43°; 95°. Precipitation 0.39 in., 0.47 in. below normal.

Days suitable for fieldwork 5.0. Soil moisture 6% short, 76% adequate, 18% surplus. Corn 20% silk, 36% 1988, 48% avg.; height 53 in., 44 in. 1988, 60 in. avg.; 3% very poor, 11% poor, 28% fair, 39% good, 19% excellent. Soybean 1% very poor, 6% poor, 27% fair, 54% good, 12% excellent. Barley 3% turning yellow, 5% 1988; 22% ripe, 9% 1988; 75% harvested, 86% 1988. Wheat 6% turning yellow, 4% 1988; 37% ripe, 26% 1988; 57% harvested, 70% 1988; 3% very poor, 20% poor, 32% fair, 35% good, 10% excellent. Oats 17% heading or headed, 7% 1988; 34% turning yellow, 21% 1988; 37% ripe, 42% 1988; 12% harvested, 30% 1988; 1% very poor, 10% poor, 25% fair, 48% good, 16% excellent. First cutting alfalfa 95% complete, 100% 1988. Second cutting alfalfa 45% complete, 74% 1988. First cutting clover-timothy 91% complete, 100% 1988. Hay quality fair. Fruit average. Feed from pastures mostly average. Activities: Planting soybeans; harvesting hay, haylage, barley, wheat, oats, vegetables; weed control; maintaining machinery; caring for livestock.

PUERTO RICO: Rainfall 1.27 in. was 0.02 in. below normal. Highest 4.99 in. Maricao, 3.76 in. Adjuntas Aes, 3.62 in. Pico Del Este Luquillo. Highest 24 hour total 1.30 in. Lares. Temperatures 81 to 83° on coast, 76 to 77° Interior with Mean station temperatures 68° Pico Del Estg Luquillo to 88° San Juan City. Extremes 53°; 96°.

SOUTH CAROLINA: Rainfall less than 0.10 to 3.00 in. Temperatures 1 to 3° cooler than usual in western central, 1 to 2° above normal near coast.

Days suitable for fieldwork 4.8. Soil moisture 9% short, 82% adequate, 9% surplus. Cotton 4% fair, 92% good, 4% excellent; 95% squaring, 92% 1988, 98% avg.; 66% setting bolls, 56% 1988, 79% avg. Soybeans 10% fair, 84% good, 6% excellent; 28% blooming, 22% 1988, 27% avg.; 5% setting pods, 5% 1988, 8% avg. Tobacco good; 97% topped, 98% 1988, 98% avg.; 30% harvested, 33% 1988, 32% avg. Corn good; 97% silked, 100% 1988, 100% avg.; 76% dough stage, 77% 1988, 84% avg.; 33% matured, 22% 1988, 36% avg.; 1% harvested, 1% 1988, 4% avg. Sorghum good; 95% planted, 93% 1988, 98% avg.; 5% harvested, 5% 1988, 5% avg. Watermelons good; 76% harvested, 77% 1988, 84% avg. Peaches fair to good; 72% harvested, 62% 1988, 76% avg. Peanuts good. Pastures good.

SOUTH DAKOTA: Temperatures 1 to 6° above normal. Extremes 52°; 102°. Growing season precipitation below normal. Rainfall 3.28 in. above normal to 5.39 in. below normal.

Days suitable for fieldwork 6. Topsoil 28% critically short, 58% short, 14% adequate. Subsoil 43% critically short, 49% short, 8% adequate. Small grains fair. Row crops good to fair. Livestock good. Major activities: Combining, baling straw, summer fallow work, working stubble ground.

TENNESSEE: High pressure dominated, weak front east over weekend. Temperatures above normal. Extremes 64 Bristol; 97 Dyersburg. Precipitation scattered, below normal all areas.

Days suitable for fieldwork 4.9. Soil moisture 4% short, 84% adequate, 12% surplus. Corn 48% dough, 52% 1988, 52% avg.; 18% dent, 40% 1988, 21% avg.; 2% poor, 11% fair, 59% good, 28% excellent. Tobacco 24% topped, 15% 1988, 28% avg. Alfalfa 96% 2nd cutting, 92% 1988, 98% avg. Hay 4% poor, 20% fair, 68% good, 8% excellent. Fields dried well. Spraying, cultivating main activities.

TEXAS: Early week pair easterly waves triggered showers, thunderstorms coast, spreading east, north central. Showers, associated cloudiness kept temperatures below normal much eastern half State. Beginning week, showers developed Panhandle because upper air disturbance. Latter part week dry. Temperatures below normal, except near normal Blacklands. Rainfall above normal along coast, east, far south; below normal elsewhere.

Crops: Winter wheat harvest complete Plains, oat harvest practically over. Corn harvest slowed by rain Coastal Bend, central, northeast. Aflatoxin testing continued Valley, Coastal Bend. Maturity Plains slightly behind schedule because cooler temperatures, late plantings. Spraying started. Corn 60% dented, 65% 1988, 63% avg.; 40% mature; 56% 1988; 47% avg.; 24% harvested, 19% 1988, 14% avg. Grain sorghum harvest progressed southern, central areas, minor delays from scattered showers. Because lack of moisture, yields fair. Showers delayed harvest eastern half; midge damaging late crop. Plains irrigation continued, producers spraying for insects. Grain sorghum mature 35%, 45% 1988, 46% avg.; harvested 41%, 35% 1988, 33% avg. Cotton progress Plains slowed because cooler nighttime temperatures. Boll weevils increasing, producers started spraying. Late planted cotton needs warmer temperatures, more moisture. Central boll weevils, bollworms, spraying begin soon. Valley producers reported low yields early harvest. Cotton open bolls 10%, 10% 1988, 7% avg.; harvested 3%, 3% 1988, 2%. Rice harvest progressed rapidly, despite rainy weather. Fields continue mature, look good. Rice 8% harvested, 4% 1988, 5% avg. Peanut harvest start soon south, earlier than usual. Producers expecting low yields nonirrigated crop. Fields Cross Timbers benefitted from last weeks showers. Good crop progress Plains, central. Soybeans setting pods northeast. Irrigation steady Plains, good growth reported. Early beans almost ready for harvest Coastal Bend. Other field crops: Oats 98% harvested, 100% 1988, 99% avg. Sunflowers 98% planted, 100% 1988, 100% avg.

Commercial Vegetables: Rio Grande Valley, land preparation for fall vegetables continued. Tomato planting begin shortly. East Texas, late season vegetables, melons being harvested. Some disease, insect damage occurred because wet weather, crops generally good shape. Trans-Pecos, cantaloupe, honeydew, watermelon harvest continued. Peppers looked good. Chile harvest started. Peach harvest nearing completion many areas, some late maturing varieties still remain on trees. Pecan progress slowed by variety disease, insect problems. Some areas, pecan trees premature shedding.

Range and Livestock: East pastures very good shape. Ranges, pastures most other areas declined because lack of moisture. Livestock fair to good across State; many drier areas, supplemental feeding necessary.

UTAH: Precipitation moderate south central, southeast, light elsewhere. Temperatures 3° above normal.

Days suitable for fieldwork 6.5. Moisture 89% short, 11% adequate. Winter wheat 92% ripe, 100% 1988, 91% avg.; 55% harvested, 77% 1988, 35% avg. Barley 72% ripe, 88% 1988, 63% avg.; 30% harvested, 43% 1988, 18% avg. Spring wheat 68% ripe, 81% 1988, 54% avg.; 18% harvested, 43% 1988, 18% avg. Oats 39% ripe, 69% 1988, 31% avg.; oats grain 11% harvested, 12% 1988, 11% avg.; oats hay 60% harvested, 62% 1988, 61% avg. Corn height 60 in., 69 in. 1988, 61 in. avg.; 47% tasseled, 76% 1988, 48% avg. Alfalfa 2nd cutting 69% complete, 74% 1988, 52% avg. Tart cherry, apricot harvests

completed, peach harvest beginning. Range, pasture poor, irrigation water supply short, stockwater short, hay, roughage short to adequate. Major farm activities: Hay harvest, irrigating corn, alfalfa, combining wheat, barley.

VIRGINIA: Temperatures 3° above normal. Rainfall 0.08 in.; none to 2.70 in.

Days suitable for fieldwork 6.5. Topsoil moisture 4% short, 75% adequate, 21% surplus. Soybean planting 99% complete; 34% bloomed, 11% 1988, 18% avg.; setting pods 22%, 2% 1988, 3% avg. Wheat, oat harvest near completion. Corn 70% silked, 55% 1988, 65% avg.; dough stage 33%, 14% 1988, 24% avg.; dent stage 14%. Peach harvest 38% complete, 31% avg. Corn 14% fair, 62% good, 24% excellent. Soybeans 4% poor, 18% fair, 61% good, 17% excellent. Tobacco 11% poor, 5% fair, 84% good. Pastures 50% good, 50% excellent. Alfalfa 4% fair, 71% good, 25% excellent. Other hay 17% fair, 39% good, 44% excellent. Livestock 65% good, 35% excellent.

WASHINGTON: Temperatures 2° above normal to 3° below normal, east; none to 3° above normal, west. Precipitation none to 0.04 in., west.

Days suitable for fieldwork, 6.8. Soil moisture 45% short, 55% adequate. Range, pasture 25% short, 75% adequate. Hay, other roughage 8% short, 85% adequate, 7% surplus. Cereal grain harvest was in full swing. Winter wheat harvested 19%, 18% 1988, 27% avg. Spring wheat harvested 10%, 10% 1988, 16% avg. Barley harvested 20%, 28% 1988, 30% avg. Other crops harvested: Potato 5%, 5% 1988, 4% avg.; Second cutting alfalfa hay 75%, 68% 1988, 71% avg.; Third cutting alfalfa hay 5%, 6% 1988, 3% avg. Major activities: Cutting hay; controlling weeds; spraying for Russian wheat aphids; harvest of cherries, apricots, peaches, raspberries, blueberries, green peas, seed onions, seed vegetables, cauliflower, broccoli, carrots, spinach, lettuce, mint, bluegrass seed, dry peas, lentils.

WEST VIRGINIA: Temperature 75°, 1 to 3° above normal. Extremes 53° Terra Alta; 96° Creston. Precipitation 1.31 in., 0.47 in. below to 0.88 in. above normal.

Days suitable for fieldwork 3.5. Soil moisture 62% adequate, 38% surplus. Corn excellent to good; 56% silked, 6% dough stage. Wheat, barley fair to good. Wheat 75% harvested; barley 90% harvested. Oats good to fair; 89% ripe, 39% harvested. Tobacco fair to poor. Apples fair, peaches poor. Hay good to fair, 1st cut 80% complete, 2nd cut 21% complete. Farm activities: Hay harvesting, combining small grains, clipping pastures, general farm maintenance.

WISCONSIN: Humid, temperature 71°. Extremes: 48°; 97°. Precipitation 0.30 to 1.70.

Days suitable for fieldwork 5.5. Soil moisture 55% short, 43% adequate, 2% surplus. Pasture 64% of normal, 31% 1988, 65% 5-year avg. General condition of crops 2% very poor, 1% poor, 19% fair, 68% good, 10% excellent. Soybean 13% fair, 71% good, 16% excellent. Corn 1% poor, 14% fair, 65% good, 20% excellent; height 72 in., 62 in. 1988, 69 in. avg.; 50% silked, 76% 1988, 64% avg. Oats 20% harvested, 53% 1988, 30% avg. Second cut hay 60% completed, 68% 1988, 61% avg. Winter wheat harvest 51% completed, 85% 1988, 71% 3-year avg.

WYOMING: Temperatures above normal. Precipitation below normal. Days suitable for fieldwork 7.0. Topsoil 84% short, 16% adequate. Winter wheat 15% turning color, 5% 1988, 5% avg.;

International Weather and Crop Summary

July 23-29, 1989

HIGHLIGHTS

USSR ... In Western USSR, cool weather and occasional showers slow crop development and cause local harvest delays. In the New Lands, hot, dry weather intensifies over the western two-thirds of the spring grain area, placing moderate to severe stress on crops in the filling stage.

EUROPE ... Abnormal warmth and dryness continue across sections of the northwest.

SOUTH ASIA ... Widespread rains improve summer crop growing conditions but cause local flooding.

EASTERN ASIA ... Typhoon Judy hits southern Japan on the 20th and South Korea on the 21st, causing torrential rains and flooding. Heavy rain helps relieve dryness in southeastern China.

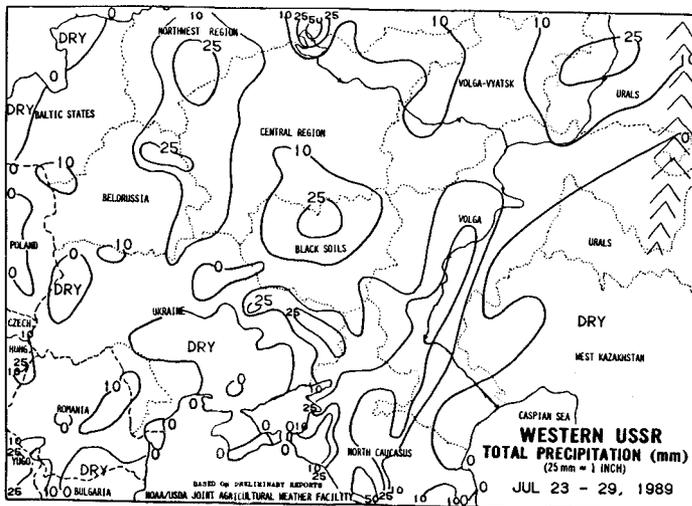
SOUTHEAST ASIA ... Scattered showers benefit rainfed Thai grains although dry, warm weather persists in western corn areas.

SOUTH AMERICA ... Beneficial rain spreads across Argentina's Buenos Aires province, Uruguay, southern Brazil, and central Chile.

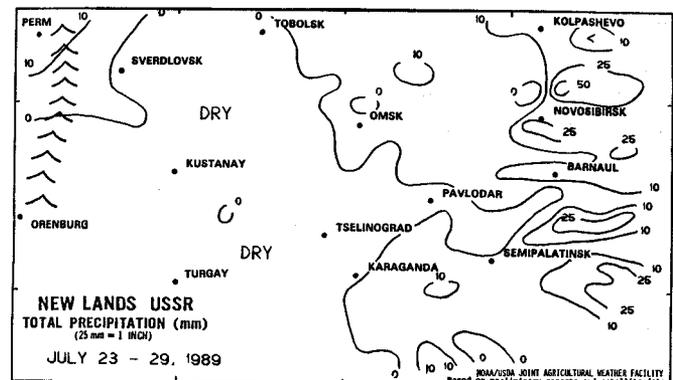
AUSTRALIA ... Seasonal moderate to heavy rains continue in crop areas of Western Australia.

CANADA ... Dry, warm weather persists over Manitoba, but scattered showers elsewhere boost moisture reserves for immature grains.

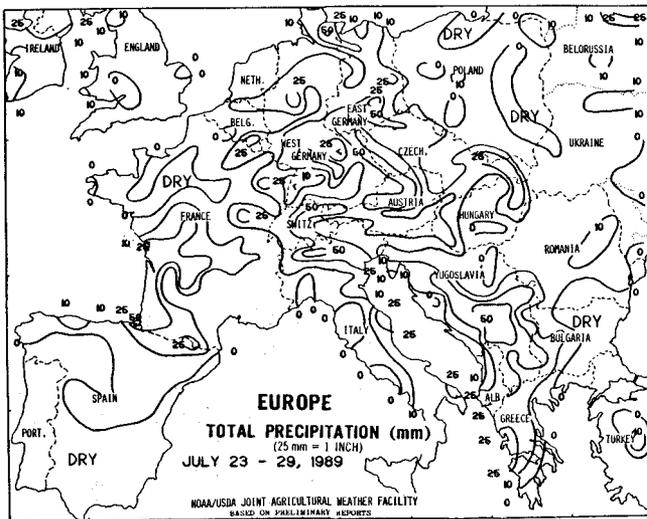
MEXICO ... Widespread showers help summer crop development.



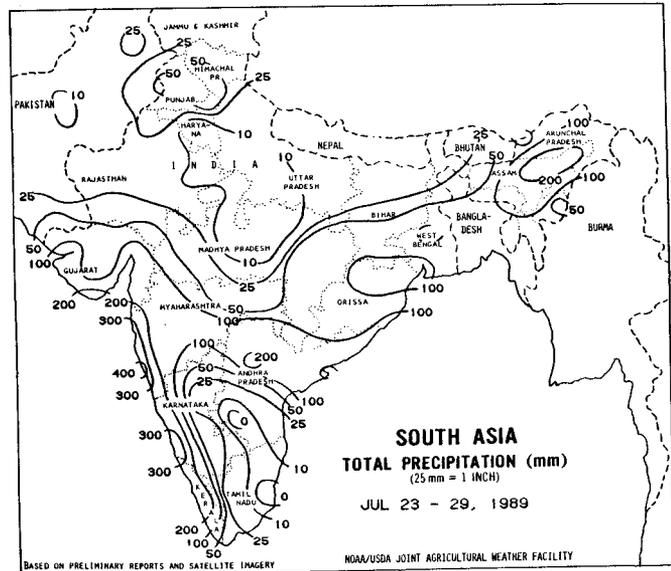
USSR ... In Western USSR, winter grain harvesting was underway over most of the region, with spring grain harvest occurring in the southern and eastern Ukraine, the North Caucasus, and the lower Volga. Moderate showers (21-48mm) in the North Caucasus, the eastern Ukraine, and the lower Volga caused some harvest delays. Frequent, light precipitation in Belorussia, the western portion of the Central Region, and the Black Soils Region slowed harvesting. Mostly dry weather in the central and southern Ukraine helped harvesting. Weekly average temperatures were 2-4 degrees Celsius below normal over the southern half of the region, slowing crop growth and development.



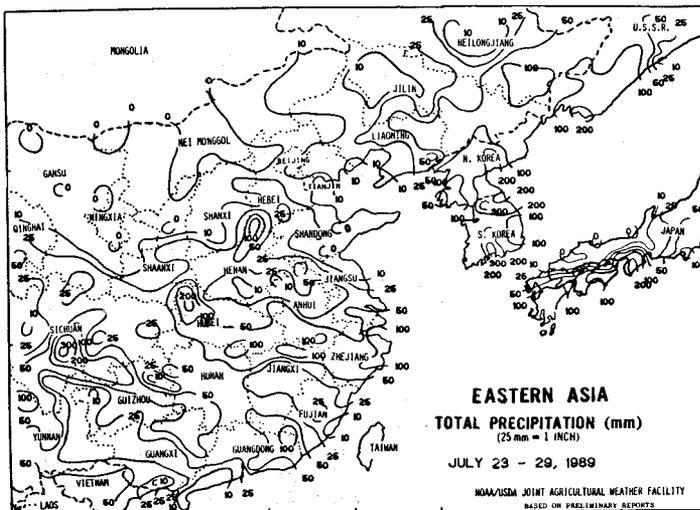
In the New Lands, persistent dryness, which began in June, continued this past week over the western two-thirds of the region. In addition, hot, dry weather intensified early in the week, placing moderate to severe stress on spring grains in the filling stage. High temperatures ranging from 33 to 39 degrees C were accompanied by low humidities and windy weather, causing further deterioration in crop condition. The continued hot, dry weather pattern has adversely affected yield prospects in areas where historically about 65 percent of spring wheat and 35 percent of spring barley are grown. On July 27, a cold front brought cooler weather which relieved heat stress on crops, but precipitation remained light and scattered. Further east, light showers (10-32mm) continued to benefit spring grains around Barnaul and Novosibirsk.



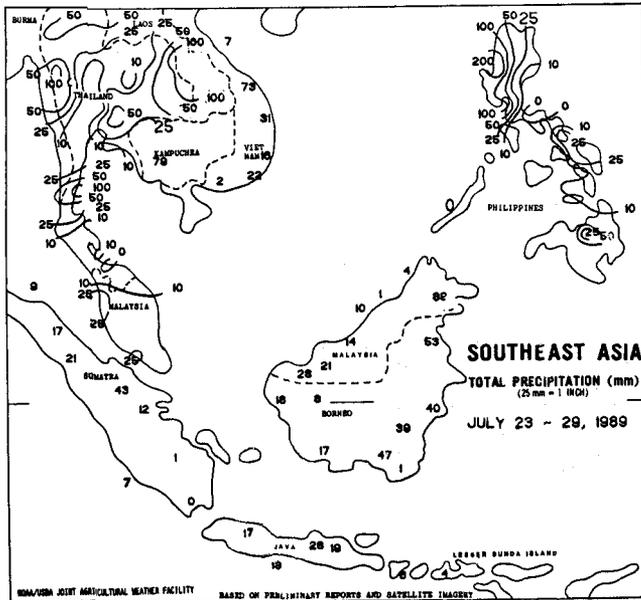
EUROPE ... Abnormally warm temperatures (from 2-5 degrees C above normal) continued from the Iberian Peninsula northeastward to western Poland, favoring winter grains harvest but causing stress in reproductive and filling summer crops. An early week frontal system brought timely moderate to heavy rain (15-40mm, with isolated amounts in excess of 40mm) to sections of southern and eastern France, West Germany, and East Germany. Scattered mostly light rain (less than 10mm) fell over the remainder of western Europe, providing only limited recharge to unfavorably low soil moisture levels. In the east, strong thunderstorms caused scattered very heavy rain (50-81mm) in portions of Austria and southern Yugoslavia, while light to moderate rain (5-20mm) covered other eastern growing areas. The rain benefited crops in the northeast which have entered or are entering reproductive stages.



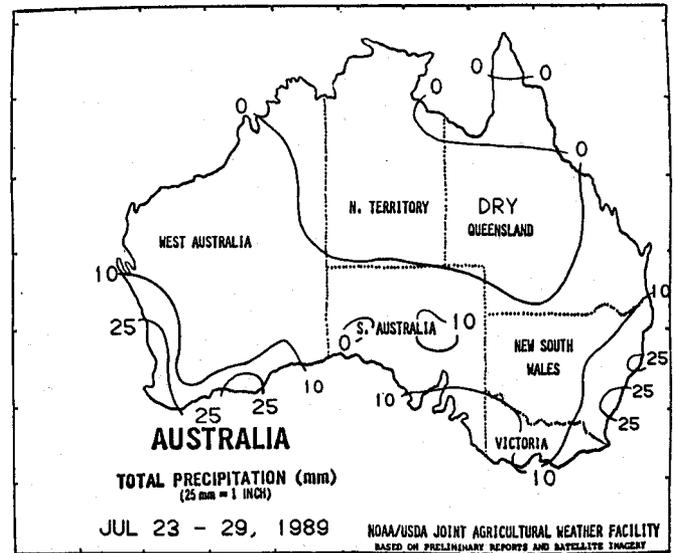
SOUTH ASIA ... Widespread showers continued across much of central and southern India, benefiting summer crops ranging from the vegetative to filling stages of development. Heaviest rain (100-200mm) continued along the southwest coast and portions of central Maharashtra and northern Andhra Pradesh, causing more flooding. Lighter rain (10-50mm or more) fell elsewhere in the south, but much of Tamil Nadu was mostly dry. Early in the week, a slow moving storm brought scattered showers (1-45mm) to southern Pakistan and moderate to heavy rain (65-220mm) to Gujarat, causing coastal flooding. Moderate to heavy rain (50-100mm or more) covered a large area from eastern Madhya Pradesh eastward with excessive rain (150-245mm) over much of Assam, causing some flooding but greatly increasing irrigation reserves. Mostly dry weather covered central Madhya Pradesh and much of Uttar Pradesh and Haryana, but much needed variable, light to moderate rain (10-65mm) improved conditions in northern Pakistan and India's Punjab state.



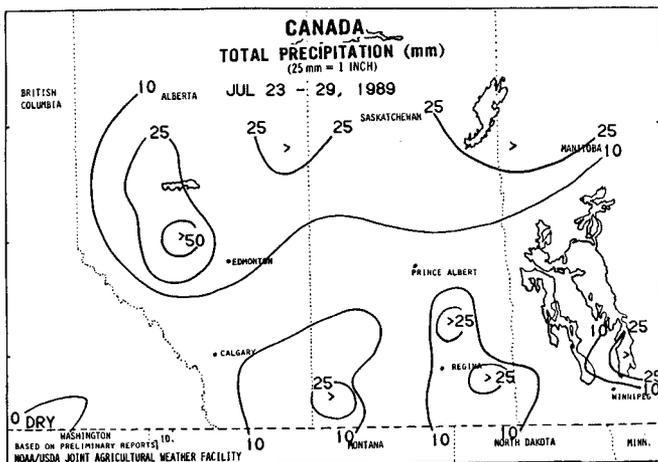
EASTERN ASIA ... Typhoon Judy hit Kyushu Island in southern Japan late on the 20th, reaching southern South Korea as a Tropical Storm on the 21st. The storm brought high winds, heavy rains (100-200mm, with scattered amounts in excess of 200mm), and flooding, especially in South and North Korea, where earlier week heavy rains brought weekly totals to 150-300mm or more. Elsewhere, a slow moving frontal system brought widespread heavy rain (25-100mm, with isolated amounts greater than 100mm) to much of Taiwan and central and southern China. The rain helped relieve dryness in sections of southeastern China and ended more than 1 week of unseasonably hot temperatures in the central Yangtze Valley. In Manchuria, widespread heavy rain (25-80mm, with isolated rainfall in excess of 100mm) continued for the third consecutive week across Heilongjiang, Jilin, and eastern Liaoning, benefiting filling corn, soybeans, and single crop rice, but slowing maturation of spring wheat.



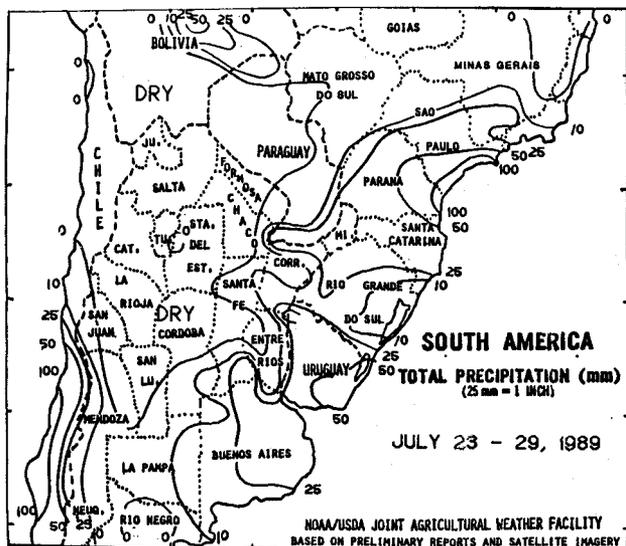
SOUTHEAST ASIA ... Moderate to heavy showers (35-100mm or more) covered rainfed crop regions of northern and eastern Thailand, improving conditions for immature rice and corn. Beneficial rain (20-40mm) also brought relief to immature corn in central Thailand, but minimal rain (1-10mm) and periodic hot weather dominated western corn producing regions, continuing the trend of dry, warm weather that has reduced available moisture for normal development of immature crops. In the Philippines, heavy rain (100-200mm or more) induced by nearby tropical storm activity covered the west coast of Luzon, causing flooding and possibly damaging crops. Rainfall was generally below normal elsewhere over the islands.



AUSTRALIA ... Seasonal moderate to heavy rain (15-37mm) continued in crop areas of Western Australia, keeping soil moisture at favorable levels for semidormant winter grains. Occasional light to moderate rain (5-20mm) fell across growing areas in South Australia, Victoria, and New South Wales, causing further winter grains planting delays, especially in Victoria. Below-normal rainfall over the past 2-3 weeks, however, has allowed some excessively wet soils to dry to more normal levels. Crop areas in Queensland were mostly dry except for coastal areas, where scattered light showers (less than 10mm) caused only minor delays in sugarcane harvest. Mean temperatures were above normal over most crop areas, ending a trend of below-normal temperatures over the past several weeks.

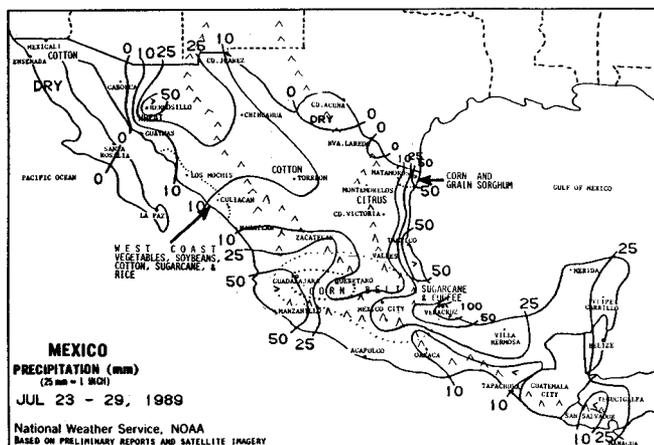


CANADA ... Dry, warm weather dominated Manitoba's growing regions, further reducing moisture reserves for immature grains and oilseeds. Daily high temperatures early in the week were in the middle 30's C over much of Manitoba and central and eastern Saskatchewan, continuing last week's hot weather outbreak ahead of a slow moving cold front. Cooler weather and scattered, variable showers (2-25mm or more) associated with the passage of the front brought some relief to immature crops. Amounts ranged from 10 to 31mm over much of northern and southern Alberta and large portions of western and southeastern Saskatchewan. The rain was especially welcome in southeastern Saskatchewan where the recent hot, dry weather stressed reproductive crops already experiencing limited moisture for normal development.



SOUTH AMERICA ... In Argentina, showers spread across Buenos Aires province, following the previous week's rain in western wheat areas. Weekly rainfall averaged 25-45mm in eastern Buenos Aires and 10-25mm in extreme southern Santa Fe. During the past 2 weeks, beneficial rain for crop growth has covered nearly all but far northern wheat areas. Soaking rain also spread into southern Brazil's wheat areas and into Uruguay, where weekly rainfall averaged 20-54mm. In south-central Brazil, total rainfall averaged 25-50mm in northern Rio Grande do Sul, Santa Catarina, most of Parana, and eastern Sao Paulo. Locally heavier rain (50-115mm) fell along coastal areas of Parana and Sao Paulo, while amounts diminished to 10mm or less in extreme western Parana, western Sao Paulo, Mato Grosso do Sul, and Minas Gerais. Locally heavy rain also fell over central Chile.

MEXICO ... Substantial, widespread showers (25-73mm) fell in the northwest, bringing welcome moisture for both the mountain watersheds and crop growth along the west coast and in the north-central region. Showers diminished over southern portions of the west coast farming region, but another area of substantial rain (25-92mm) benefited the western Plateau Corn Belt. Light rain (1-10mm) fell over north-central portions of the Southern Plateau, where moisture is limited. Elsewhere in the Corn Belt, beneficial rain (10-50mm or more) promoted crop development. Locally heavy rain (50-76mm) also fell along the northeast coast where mostly dry, hot weather had prevailed thus far in the summer wet season. Tropical shower activity covered southern Mexico this week as well.



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(Continued from p. 19)

40% mature, 30% 1988, 35% avg.; 45% harvested, 65% 1988, 60% avg. Barley 20% headed, 5% 1988, 10% avg.; 45% turning color, 15% 1988, 30% avg.; 30% mature, 40% 1988, 40% avg.; 5% harvested, 40% 1988, 20% avg. Spring wheat 5% headed, 0% 1988, 10% avg.; 45% turning color, 20% 1988, 35% avg.; 35% mature, 50% 1988, 35% avg.; 15% harvested, 30% 1988, 20% avg. Oats 15% headed, 10% 1988, 20% avg.; 45% turning color, 35% 1988, 40% avg.; 35% mature, 40% 1988, 30% avg.; 5% harvested, 15% 1988, 10% avg. Alfalfa second-cutting 25% complete, 40% 1988, 25% avg. Other hays 60% harvested, 75% 1988, 70% avg. Dry beans 75% in bloom, 85% 1988, 80% avg.; 20% setting pods, 55% 1988, 50% avg. Potatoes 70% in bloom, 90% 1988, 90% avg. Corn 40% tasseled, 65% 1988, 65% avg.; 15% silked, 35% 1988, 35% avg. Row crops good. Stockwater supplies 60% short, 40% adequate. Livestock feed now obtained from pastures 90%. Hay, roughage supplies for remainder of season 20% very short, 40% short, 40% adequate.

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