

WEEKLY WEATHER AND CROP BULLETIN

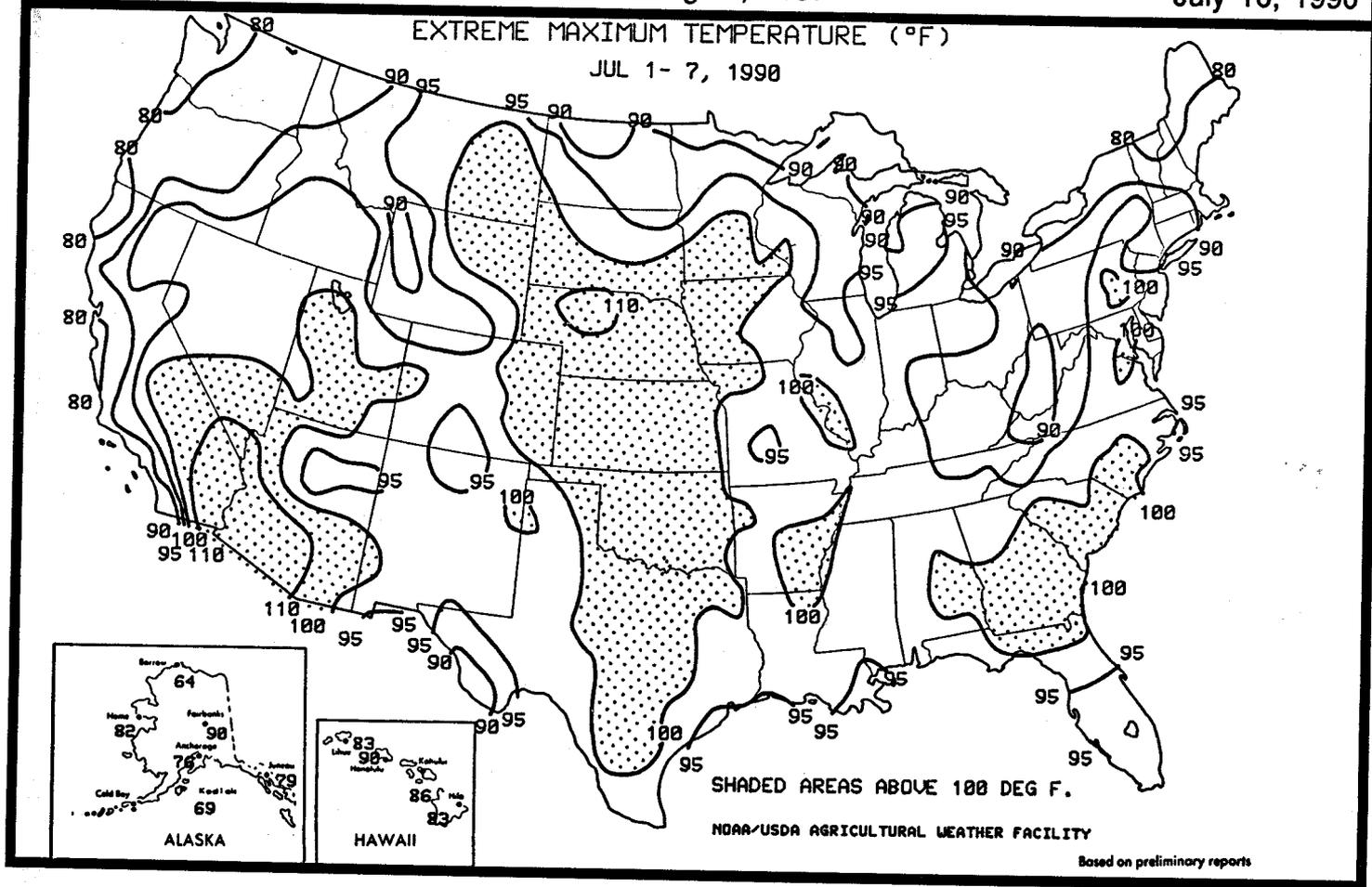
U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration, National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service and World Agricultural Outlook Board

Volume 77, No. 27

Washington, D.C.

July 10, 1990



HIGHLIGHTS July 1-7, 1990

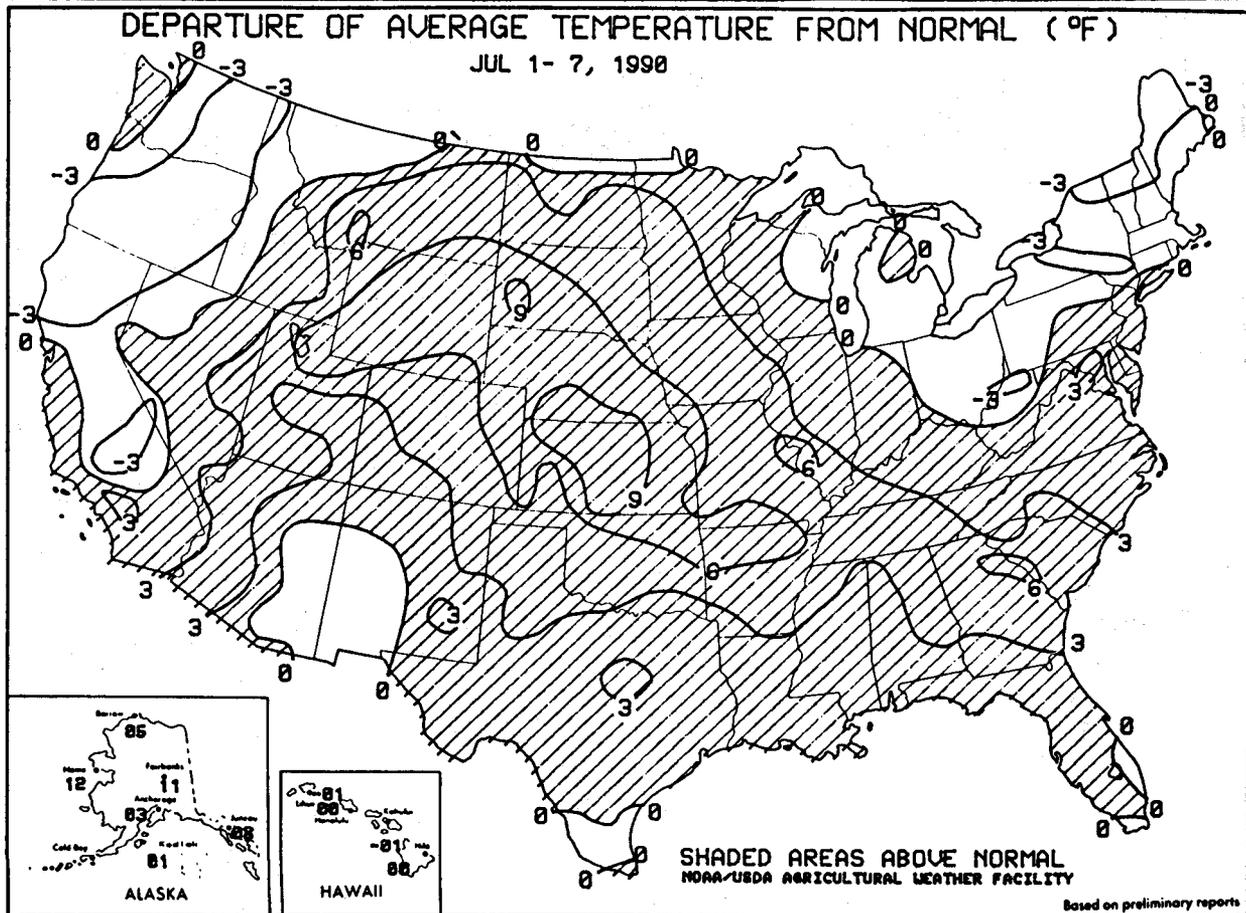
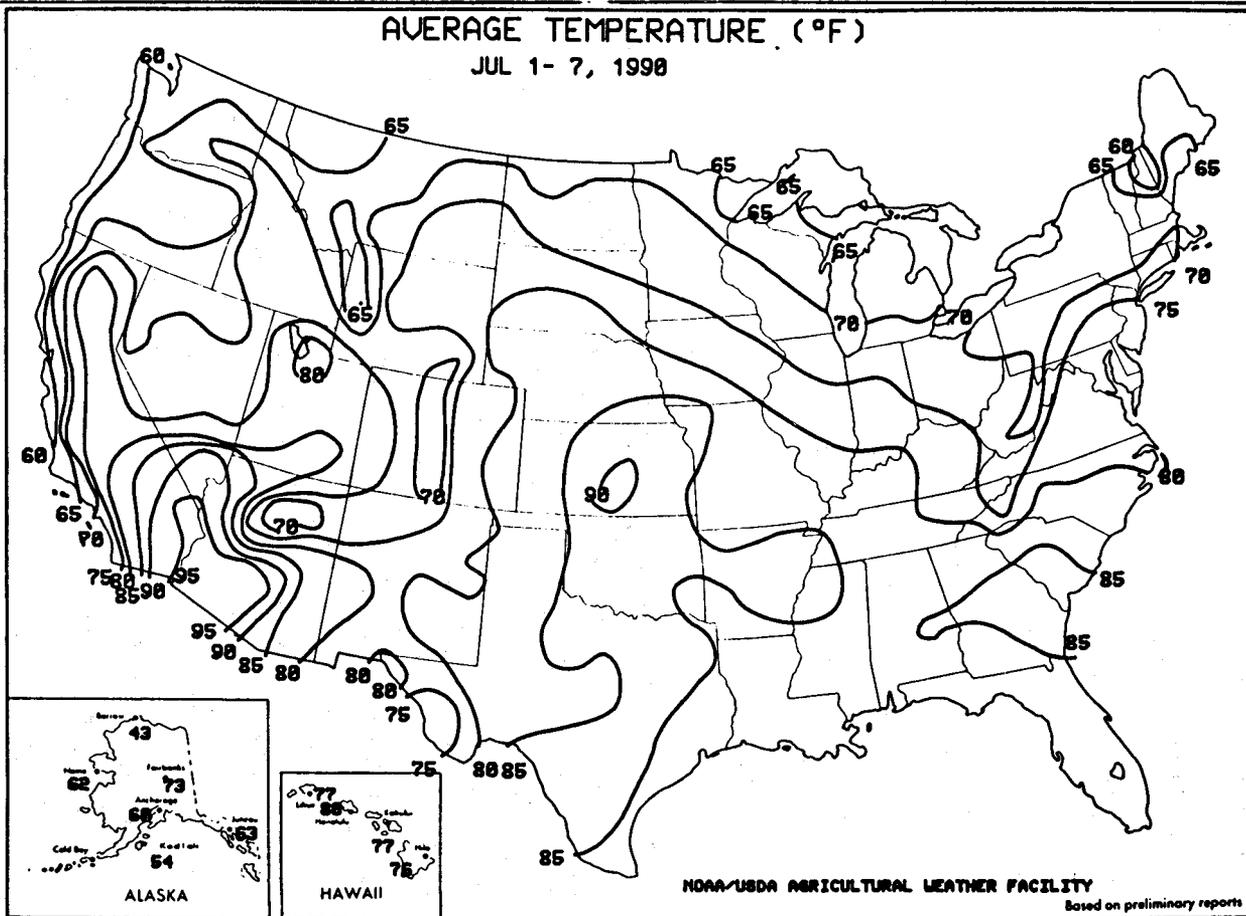
Oppressive heat again dominated much of the Nation as record-high temperatures for the date progressed from the northern and central Rockies and central Plains early in the week to the middle and southern Atlantic coast at week's end. Parts of Alaska also experienced record warmth early in the week. On July 2, Valentine, NE smashed their alltime record high with a reading of 114° F. The 108° F at North Platte, NE was their hottest on record for so early in the season.

Scattered showers and thunderstorms developed throughout the week across the Gulf Coast States and in the Southwest, producing some heavy rain. At the first of the week, showers and thunderstorms covered the Atlantic

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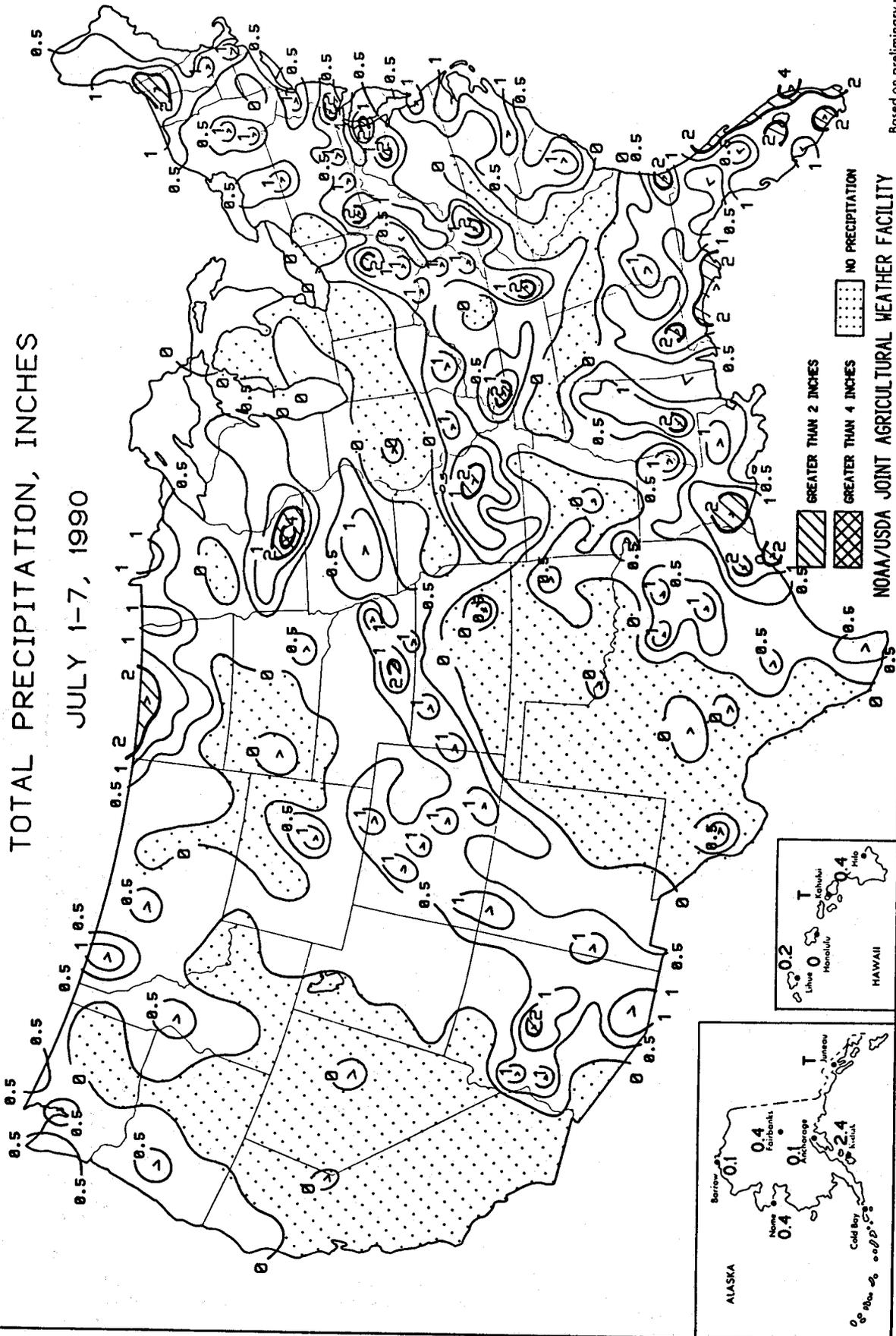
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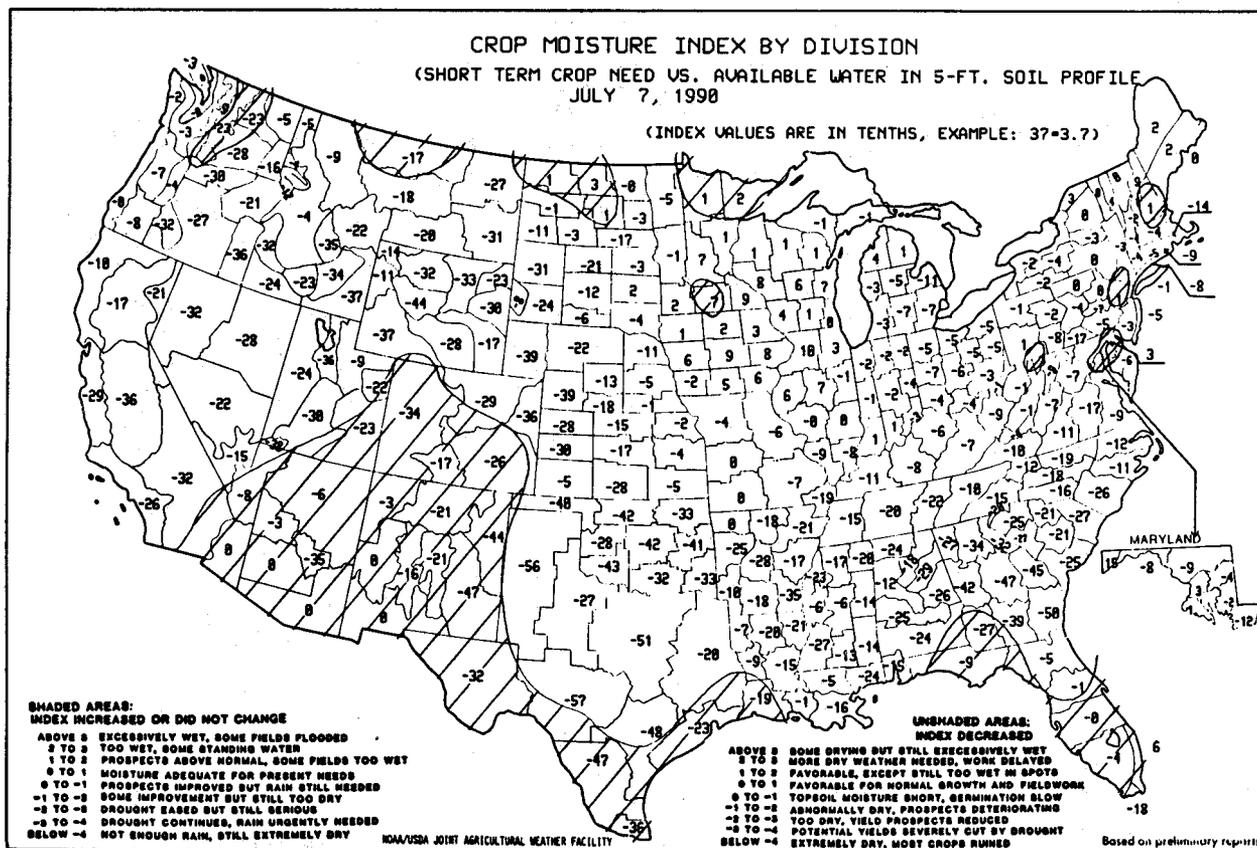
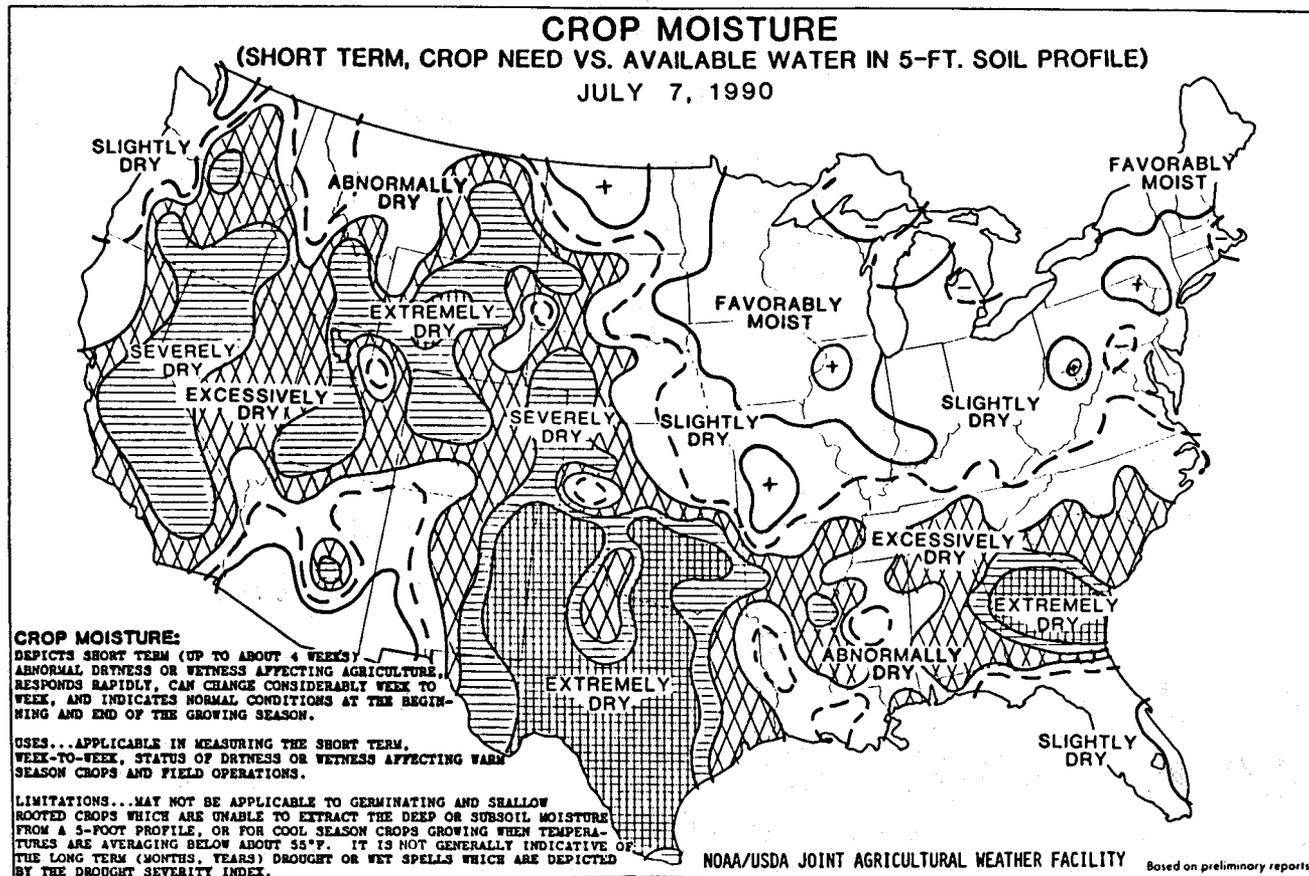
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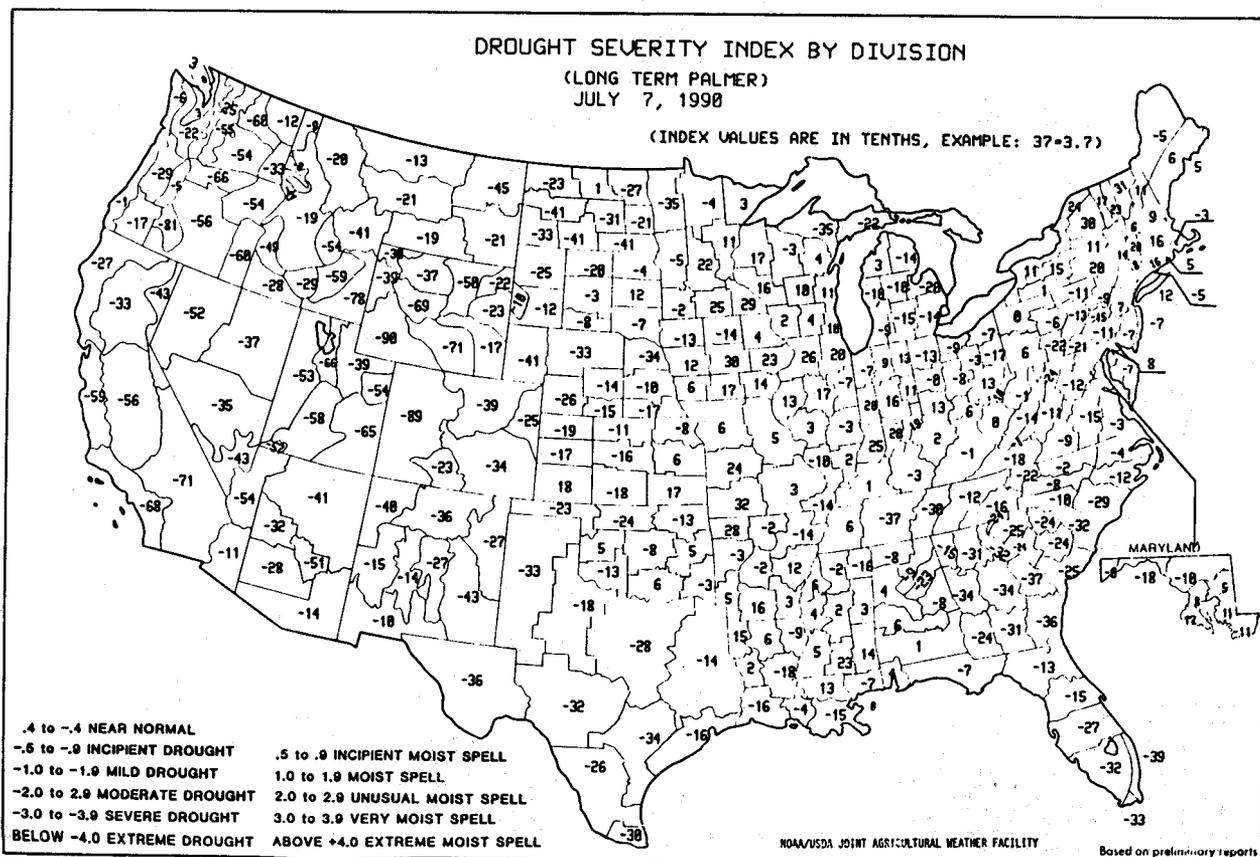
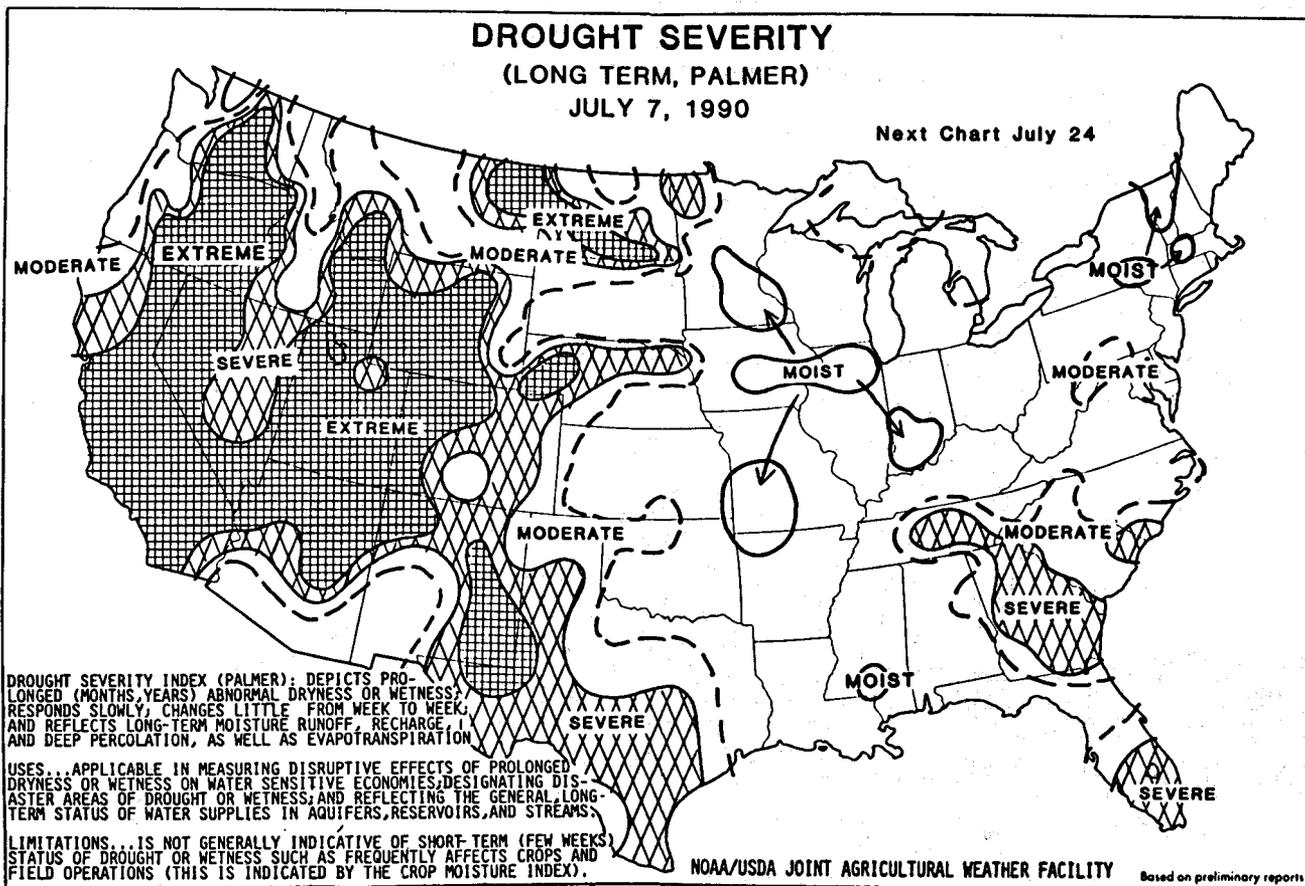


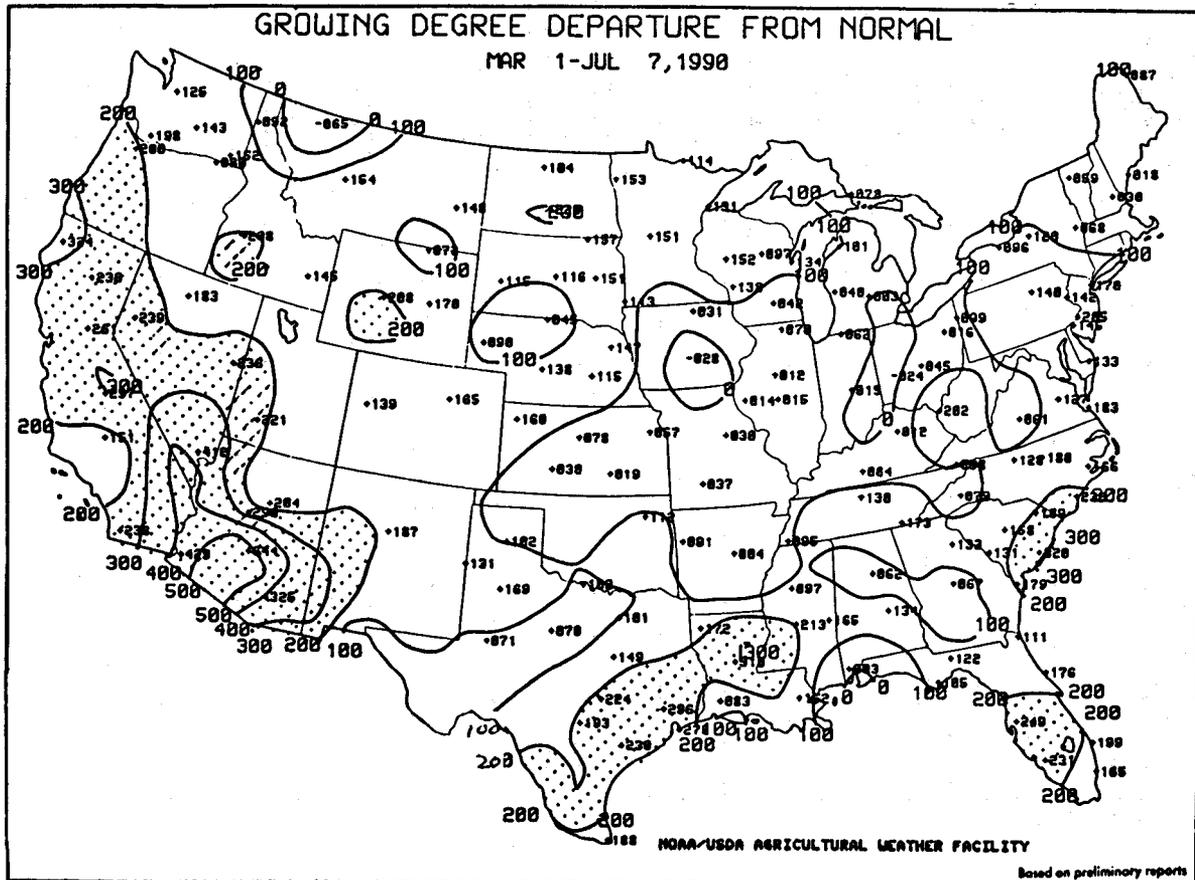
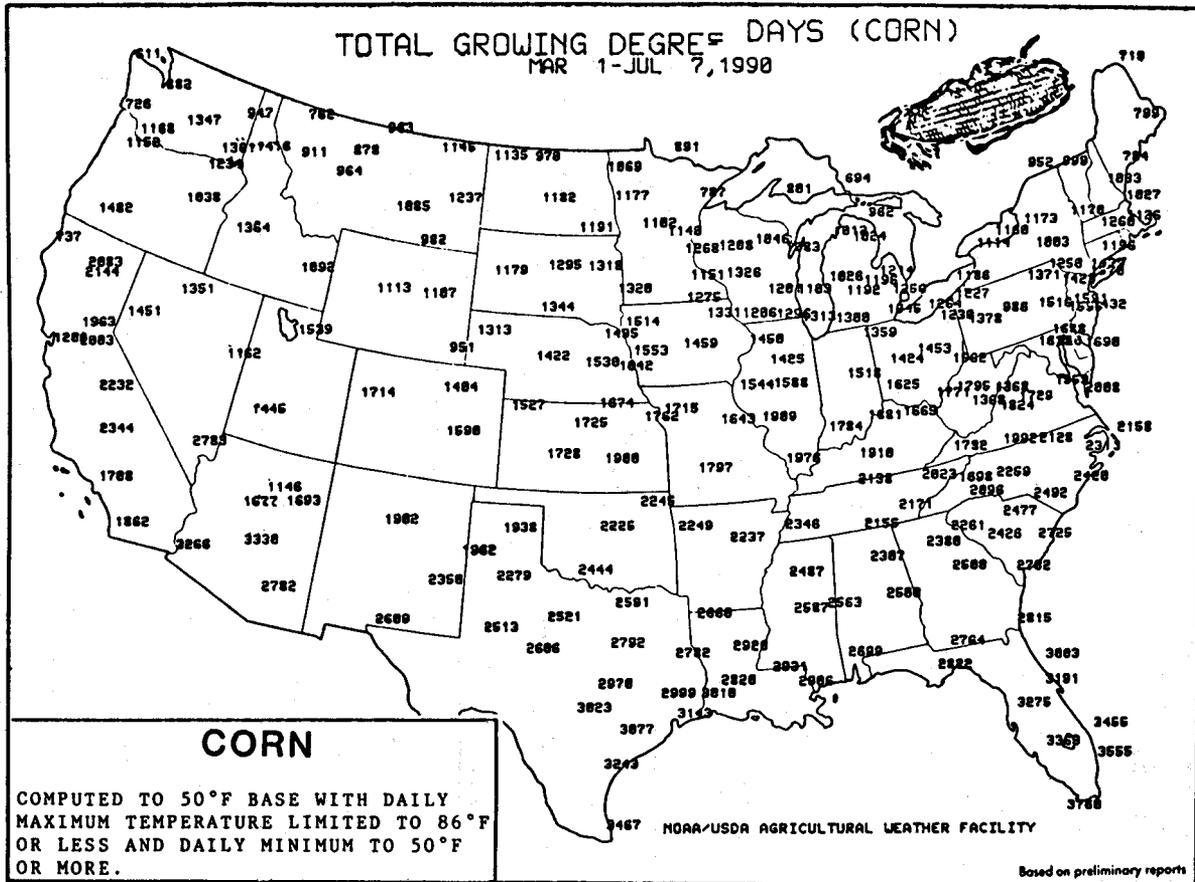
TOTAL PRECIPITATION, INCHES

JULY 1-7, 1990









National Weather Data for Selected Cities

Weather Data for the Week Ending July 7, 1990

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	
																		TEMP. °F	PRECIP.		
AL BIRMINGHAM	95	70	100	67	83	3	T	-1.2	T	2.1	44	28.6	93	87	37	7	0	0	0	0	
MOBILE	93	73	97	70	83	1	T	-1.4	.2	2.9	43	41.6	125	93	46	6	0	2	1	0	
MONTGOMERY	96	70	102	68	83	2	T	.5	.5	1.4	31	39.5	144	93	42	7	0	0	0	1	
AK ANCHORAGE	68	52	76	49	60	3	T	.1	-.3	.1	1.6	107	5.9	120	91	58	0	0	1	1	
BARROW	51	36	64	32	43	5	T	.1	0	.1	.5	106	1.0	71	97	67	0	1	1	0	
FAIRBANKS	86	59	90	57	73	11	T	.4	.1	.4	2.2	128	4.0	103	70	23	1	1	1	0	
JUNEAU	71	54	79	50	63	8	T	-.8	T	3.3	88	19.2	93	89	50	0	0	0	0	0	
KODIAK	59	48	69	45	54	1	T	1.6	1.5	4.6	94	30.9	109	99	78	0	0	0	0	0	
NOME	70	53	82	49	62	12	T	.4	0	.3	1.5	97	6.7	149	92	58	0	0	0	0	
AZ PHOENIX	104	85	115	80	95	3	T	.1	-.1	0	.1	37	2.3	83	58	25	7	0	0	0	
PRESCOTT	88	63	99	61	75	3	T	2.0	1.5	1.3	2.1	195	6.7	94	67	25	2	0	0	0	
TUCSON	96	73	111	67	85	-1	T	1.2	.8	.7	1.8	264	4.0	124	78	31	5	0	0	0	
YUMA	108	85	115	81	97	4	T	0	0	0	0	.5	59	52	19	7	0	0	0		
AR FORT SMITH	102	74	106	72	88	7	T	.1	-.6	-.1	.8	18	38.4	178	95	35	7	0	0	0	
LITTLE ROCK	97	76	101	74	87	6	T	-.8	T	.6	14	35.9	130	79	44	7	0	0	0	0	
CA BAKERSFIELD	94	65	100	62	79	-4	T	0	0	0	0	0	2.6	69	73	25	7	0	0	0	
BUREKA	67	55	72	53	61	6	T	.2	.2	.1	.5	93	20.7	93	91	66	0	0	0	0	
FRESNO	93	65	99	61	79	-1	T	0	0	0	0	0	7.4	106	60	20	7	0	0	0	
LOS ANGELES	76	62	79	61	69	1	T	0	0	0	0	0	5.1	61	88	58	0	0	0	0	
REDDING	91	62	98	59	76	-6	T	-.1	T	.8	91	19.8	80	60	17	4	0	0	0	0	
SACRAMENTO	89	57	94	56	73	-1	T	0	0	0	0	0	11.5	108	82	23	4	0	0	0	
SAN DIEGO	76	65	78	63	70	2	T	0	0	0	.9	5.9	92	90	61	0	0	0	0	0	
SAN FRANCISCO	72	55	80	52	64	2	T	0	0	0	0	7.9	64	89	50	0	0	0	0	0	
CO DENVER	93	62	102	59	78	5	T	-.1	-.3	-.1	.4	18	7.3	85	79	50	0	0	0	0	
GRAND JUNCTION	92	67	102	62	80	2	T	-.4	-.3	.2	.6	122	3.6	94	68	22	3	0	0	0	
PUEBLO	96	60	104	55	78	2	T	-.7	-.3	-.6	.7	43	7.0	137	77	22	6	0	0	0	
CT BRIDGEPORT	82	65	93	59	73	1	T	-.1	-.6	-.1	2.0	56	21.7	104	83	47	1	0	0	0	
HARTFORD	83	61	95	53	72	-1	T	-.7	T	3.6	89	24.4	110	83	40	1	0	0	0	0	
DC WASHINGTON	90	70	100	65	80	2	T	1.2	-.3	.8	4.3	103	20.4	106	84	42	0	0	0	0	
FL APALACHICOLA	92	75	97	70	83	2	T	3.0	1.5	2.0	5.8	93	19.1	81	94	55	5	0	0	0	
DAYTONA BEACH	93	73	97	71	83	2	T	2.2	-.9	1.3	4.9	64	16.8	77	96	54	0	0	0	0	
JACKSONVILLE	95	74	100	71	85	3	T	2.6	1.2	2.3	4.2	59	13.1	54	89	58	0	0	0	0	
KEY WEST	91	76	93	72	83	-1	T	1.3	.5	1.0	2.3	38	11.0	70	93	44	6	0	0	0	
MIAMI	92	74	94	71	83	1	T	1.9	.4	1.8	8.8	82	27.2	103	90	57	7	0	0	0	
ORLANDO	93	74	95	71	83	1	T	.3	-1.6	-.1	6.5	73	15.1	64	93	47	6	0	0	0	
TALLAHASSEE	95	72	102	68	83	3	T	.6	-1.3	.4	4.6	54	23.7	72	97	48	6	0	0	0	
TAMPA	90	74	93	72	82	0	T	1.6	-.1	1.3	6.8	100	16.9	82	95	60	5	0	0	0	
WEST PALM BEACH	91	72	93	71	82	0	T	3.8	2.3	3.6	10.5	111	24.6	92	94	56	5	0	0	0	
GA ATLANTA	94	73	98	70	83	5	T	-.1	0	T	1.4	32	36.0	128	83	38	6	0	0	0	
AUGUSTA	100	72	104	64	86	6	T	0	-1.0	0	1.4	30	11.8	49	86	29	7	0	0	0	
MACON	99	72	104	67	85	5	T	-.1	-1.0	T	1.0	20	17.9	69	86	32	7	0	0	0	
SAVANNAH	96	75	102	71	86	5	T	-.6	T	1.0	13	15.5	62	82	37	5	0	0	0	0	
HI HILO	82	69	83	65	76	0	T	.5	-1.2	.4	10.5	135	77.9	117	92	63	0	0	0	0	
HONOLULU	88	71	90	66	80	0	T	0	-.1	0	.1	14	10.0	76	79	44	1	0	0	0	
KAHULUI	85	69	86	62	77	-1	T	-.1	T	.7	303	14.9	129	94	58	0	0	0	0	0	
LIHUE	82	71	83	67	77	-1	T	-.2	-.2	.1	.2	24	8.8	125	64	17	3	0	0	0	
ID BOISE	88	55	98	40	71	-1	T	.1	-.1	.1	.2	32	19.5	86	86	66	0	0	0	0	
LEWISTON	84	58	92	50	71	-2	T	.1	-.1	.1	.8	51	7.0	95	62	24	2	0	0	0	
POCATELLO	89	53	98	46	71	2	T	.1	0	.1	.9	76	6.8	106	65	16	3	0	0	0	
IL CHICAGO	83	60	96	53	72	0	T	-.8	0	4.5	89	20.5	117	90	49	1	0	0	0	0	
MOLINE	88	66	99	59	77	3	T	-.1	0	9.6	177	31.1	162	86	47	2	0	0	0	0	
PRORIA	85	64	94	58	75	0	T	-.9	0	8.0	167	25.8	141	94	59	2	0	0	0	0	
QUINCY	92	69	100	63	81	4	T	0	-1.0	0	5.1	102	22.1	115	90	48	5	0	0	0	
ROCKFORD	85	61	95	53	73	1	T	-.1	-.9	0	9.4	167	22.9	123	87	49	2	0	0	0	
SPRINGFIELD	90	66	97	57	78	2	T	0	-.8	0	9.2	214	29.1	161	86	46	4	0	0	0	
IN EVANSVILLE	93	67	96	59	80	2	T	0	-.9	0	3.3	74	30.4	130	92	41	5	0	0	0	
FORT WAYNE	84	62	96	54	73	0	T	0	-.8	0	5.5	124	25.5	139	90	43	1	0	0	0	
INDIANAPOLIS	87	65	94	60	76	1	T	0	-.1	0	3.1	63	22.0	105	84	44	2	0	0	0	
SOUTH BEND	82	61	97	54	72	0	T	0	0	0	4.4	93	22.8	120	90	47	1	0	0	0	
IA DES MOINES	89	69	97	65	79	4	T	1.2	-.4	.6	10.7	218	26.6	163	91	52	3	0	0	0	
SIoux CITY	92	69	104	62	80	5	T	.2	-.2	.2	4.4	92	16.3	118	85	41	5	0	0	0	
WATERLOO	87	65	98	60	76	4	T	.3	-.7	.3	8.3	155	21.6	127	91	53	2	0	0	0	
KS CONCORDIA	101	74	108	70	88	10	T	-.1	-.7	.1	3.9	77	16.2	111	71	27	6	0	0	0	
DODGE CITY	101	71	102	64	86	7	T	0	-.7	0	1.0	27	14.1	126	63	20	7	0	0	0	
GOODLAND	98	69	106	65	84	9	T	.9	-.4	.7	2.7	82	10.3	114	66	23	6	0	0	0	
TOPEKA	96	73	100	71	85	7	T	.1	-.9	.1	5.6	92	18.4	106	85	47	6	0	0	0	
WICHITA	106	74	108	71	90	10	T	0	-.9	.5	1.9	39	10.2	70	59	20	7	0	0	0	
KY BOWLING GREEN	94	68	97	57	81	3	T	.5	-.6	T	2.3	41	23.4	84	89	40	7	0	0	0	
LEXINGTON	88	64	93	59	76	1	T	.1	-1.0	.1	4.7	87	22.0	87	89	42	3	0	0	0	
LOUISVILLE	91	68	95	62	80	3	T	.2	-.8	.2	6.3	140	34.8	145	88	43	5	0	0	0	
LA ALEXANDRIA	94	74	97	70	84	2	T	1.4	.4	1.3	3.4	70	37.4	126	93	49	6	0	0	0	
BATON ROUGE	93	73	97	71	83	1	T	1.6	-.2	1.5	8.8	194	40.2	138	97	51	6	0	0	0	
LAKE CHARLES	92	73	94	72	82	1	T	2.2	1.1	2.1	6.0	116	32.7	127	100	54	6	0	0	0	
NEW ORLEANS	93	74	96	73	83	2	T	.6	-.9	.5	1.6	26	40.4	133	94	52	6	0	0	0	

Based on 1951-80 normals

Weather Data for the Week Ending July 7, 1990

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	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	95	74	99	72	84	2	.4	-.4	.3	3.0	70	39.7	159	95	48	7	0	0	0
ME CARIBOU	69	52	78	44	60	-4	.2	-.2	.6	4.8	119	17.0	104	86	55	0	0	1	0
PORTLAND	77	56	88	50	67	0	.4	-.4	.6	4.5	123	22.0	100	90	47	0	0	1	0
MD BALTIMORE	90	68	100	64	79	3	.3	-.3	.6	2.6	56	19.4	93	86	39	0	0	1	0
SALISBURY	87	65	96	57	76	1	.3	-.3	.6	2.3	51	21.9	101	98	55	0	0	2	0
MA BOSTON	80	62	92	57	71	-2	.2	-.2	.4	.9	26	22.5	100	79	46	1	1	1	0
CRATHAM	70	58	86	55	64	-2	.1	-.1	.4	2.8	85	26.4	112	86	72	0	0	2	0
MI ALPENA	80	53	93	44	66	1	.1	-.1	.7	4.2	109	15.8	112	94	42	1	1	2	0
DETROIT	82	60	98	52	71	0	.0	-.0	.7	4.9	120	20.1	126	83	41	1	1	0	0
FLINT	81	56	95	47	68	-1	-.1	-.1	.7	3.8	98	15.0	102	87	43	0	0	1	0
GRAND RAPIDS	81	59	93	50	70	-1	-.1	-.1	.8	3.0	69	16.1	96	90	47	1	1	0	0
HOUGHTON LAKE	80	56	91	42	68	-2	-.2	-.2	.7	2.6	68	12.6	93	81	44	1	1	1	0
LANSING	82	55	94	45	69	-1	-.1	-.1	.7	2.5	55	13.9	91	93	46	1	1	0	0
MARQUETTE	75	53	89	44	64	0	.0	-.0	.4	3.6	76	15.7	83	87	53	0	0	1	0
MUSKOGON	79	57	87	50	68	-1	-.1	-.1	.7	122	18.7	123	92	49	0	0	0	0	
SAULT ST. MARIE	73	48	83	42	61	-2	-.2	-.2	.7	5.0	127	17.0	113	95	54	0	0	1	0
MN ALEXANDRIA	84	63	97	55	74	4	.4	-.4	.7	3.7	84	13.5	107	88	49	1	1	0	0
DULUTH	76	54	93	42	65	2	.2	-.2	.7	5.1	105	14.7	106	94	56	1	1	0	0
INT'L FALLS	78	55	90	43	67	1	1.4	-.5	1.0	6.9	153	11.9	106	96	50	1	1	2	0
MINNEAPOLIS	85	64	100	58	74	2	.8	-.1	.7	10.6	217	22.3	166	87	51	1	1	1	1
ROCHESTER	83	62	98	57	73	2	2.2	1.3	2.2	11.5	248	27.3	198	88	55	1	1	1	1
MS GREENWOOD	95	74	99	73	85	3	.9	-.9	.9	7.2	166	34.0	111	92	49	7	7	1	1
JACKSON	94	72	97	71	83	2	.7	-.2	.7	1.5	36	35.5	120	98	51	1	1	1	0
MERIDIAN	95	70	98	67	82	2	1.1	-1.1	.7	4.1	87	46.5	153	97	48	7	7	1	1
MO CAPE GIRARDEAU	95	74	100	70	84	2	1.1	-1.1	.7	1.7	39	31.3	128	86	48	6	6	0	0
COLUMBIA	92	72	95	69	82	4	.7	-.7	.7	7.9	178	34.4	174	96	58	6	6	2	1
KANSAS CITY	94	75	99	73	85	6	0	-.0	.7	6.3	111	23.4	126	83	47	5	5	0	0
SAINT LOUIS	96	75	102	70	86	7	7	-.1	1.0	3.2	69	23.5	125	80	43	7	7	0	0
SPRINGFIELD	93	74	95	70	83	6	1.0	-.1	1.0	5.6	101	40.4	191	90	50	6	6	1	1
MT BILLINGS	90	60	100	52	75	4	1.0	-.3	1.0	1.0	43	8.3	90	62	21	4	4	0	0
GLASGOW	86	58	100	47	72	1	.3	-.3	1.3	1.3	43	3.6	59	78	26	3	3	0	0
GREAT FALLS	81	52	99	42	66	-1	-.6	-.3	1.1	1.8	59	8.8	91	81	27	1	1	0	1
HAVRE	82	53	101	41	67	-1	-.1	-.2	1.1	.8	32	3.9	56	85	28	1	1	0	0
HELENA	85	54	100	48	69	-3	-.3	-.3	1.1	1.0	42	4.5	65	68	23	2	2	0	0
KALISPELL	76	49	89	46	63	-1	1.4	1.1	.9	2.6	103	12.6	143	94	37	0	0	3	1
MILES CITY	91	65	103	55	78	-1	-.1	-.4	1.1	1.8	58	6.0	69	64	22	4	4	0	0
MISSOULA	80	50	94	42	65	-1	-.1	-.2	1.1	.5	24	7.3	96	85	28	1	1	2	0
NE GRAND ISLAND	93	71	106	63	82	1	1.1	-.4	1.1	9.3	212	17.7	131	81	43	4	4	0	1
LINCOLN	98	72	108	66	85	8	.2	-.6	1.2	2.7	58	11.9	80	83	36	5	5	0	0
NORFOLK	93	69	104	61	81	8	.6	-.6	1.1	7.7	149	15.1	109	86	40	4	4	0	2
NORTH PLATTE	97	66	108	59	82	9	.2	-.6	1.1	2.1	47	9.5	81	81	27	5	5	0	3
OMAHA	93	74	104	65	84	7	.4	-.4	1.3	4.6	93	13.3	84	81	47	5	5	0	3
SCOTTSBLUFF	97	64	108	59	81	8	.8	-.4	1.3	1.3	38	10.0	106	79	24	5	5	0	2
VALENTINE	97	66	114	52	81	8	.3	-.3	1.2	2.3	65	9.8	99	69	25	4	4	0	3
NV ELY	90	54	95	47	72	3	0	-.2	1.2	.8	88	6.2	119	42	12	3	3	0	0
LAS VEGAS	104	80	112	76	92	6	0	-.1	1.0	746	2.7	147	30	13	7	7	0	0	0
RENO	86	52	92	46	69	1	0	-.1	1.0	.8	3.2	72	55	13	1	1	0	0	0
WINNEMUCA	90	50	98	40	70	0	0	-.1	1.1	.2	22	4.3	90	44	14	3	3	0	0
NE CONCORD	80	52	91	44	66	-2	-.2	-.6	1.1	2.5	70	17.7	100	93	44	1	1	0	1
NJ ATLANTIC CITY	86	62	98	52	74	1	.8	-.1	1.1	2.4	67	17.9	87	95	52	2	2	0	4
NM ALBUQUERQUE	91	67	98	65	79	0	-.1	-.1	1.1	.4	53	3.6	128	67	24	5	5	0	2
CLOVIS	92	66	94	64	79	2	0	-.7	1.1	0	3.7	49	65	24	7	7	0	0	0
ROSWELL	97	70	99	65	84	3	0	-.3	1.1	2	2.4	67	60	19	7	7	0	0	0
NY ALBANY	81	57	96	49	69	-2	.3	-.4	1.3	2.9	75	24.4	137	88	45	1	1	0	2
BINGHAMTON	75	55	91	47	65	-3	.4	-.5	1.3	2.9	66	19.3	105	92	49	1	1	0	0
BUFFALO	78	59	90	50	69	-1	.1	-.5	1.1	3.7	111	25.1	143	86	46	1	1	0	2
NEW YORK	84	68	95	63	76	1	.5	-.3	1.5	2.6	68	24.0	113	75	41	2	2	0	1
ROCHESTER	78	58	92	50	68	-3	.7	-.2	1.6	3.6	108	20.1	128	93	46	1	1	0	3
SYRACUSE	80	57	97	50	69	-1	.1	-.8	1.1	3.0	67	22.5	117	94	43	1	1	0	2
NC ASHEVILLE	90	60	94	55	75	2	0	-.8	1.0	.9	20	25.2	109	96	38	5	5	0	0
CHARLOTTE	93	71	97	64	82	4	.4	-.4	1.4	1.3	30	21.4	91	78	34	5	5	0	1
GREENSBORO	92	66	98	57	79	3	0	-.9	1.4	0	20.2	92	82	36	4	4	0	0	0
HAYTERAS	86	70	93	62	78	1	1.3	-.2	1.3	3.1	57	28.0	110	95	57	1	1	0	1
NEW BERN	92	70	99	63	81	2	1.1	-.4	1.9	2.7	41	26.3	103	96	43	4	4	0	2
FALEIGH	90	66	96	58	78	1	1	-.9	1.4	1.0	23	22.1	102	92	43	4	4	0	0
WILMINGTON	92	70	99	64	81	2	.4	-.2	1.4	2.5	35	22.5	88	95	44	4	4	0	1
ND BISMARCK	85	60	94	49	72	3	.6	-.1	1.4	5.3	151	8.4	95	94	49	3	3	0	3
FARGO	84	63	92	54	73	4	.3	-.5	1.3	6.4	167	11.7	122	90	54	2	2	0	3
GRAND FORKS	82	59	93	50	71	3	1.2	-.6	1.2	5.2	146	10.5	118	92	53	1	1	0	2
WILLISTON	86	59	97	44	73	4	.4	-.1	1.2	2.1	68	5.7	73	89	34	3	3	0	3
OH AKRON-CANTON	81	57	93	47	69	-2	1	-.9	1.4	3.6	87	24.4	129	92	48	1	1	0	0
CINCINNATI	86	64	92	58	75	-1	.1	-.1	1.0	5.1	100	28.8	130	87	45	1	1	0	1
CLEVELAND	81	59	98	49	70	-2	0	-.8	1.0	1.7	41	20.3	110	87	43	1	1	0	1
COLUMBUS	86	61	95	51	73	0	0	-.9	1.0	5.3	107	24.0	119	91	42	2	2	0	0

Based on 1951-80 normals

Weather Data for the Week Ending July 7, 1990

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 Jun 1	PCT. NORMAL SINCE Jun 1	AVERAGE	MAXIMUM	MINIMUM	TEMP. °F		PRECIP.		
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
DAYTON	86	61	95	53	73	-1	0	-1.8	0	3.2	70	26.3	136	85	38	2	0	0	0		
TOLEDO	84	58	99	47	71	-1	0	-1.7	0	3.1	74	20.9	127	89	42	1	0	0	0		
YOUNGSTOWN	80	53	93	42	67	-1	0	-1.9	0	3.1	69	18.6	96	95	46	1	0	0	0		
OK OKLAHOMA CITY	99	74	101	73	86	0	0	-1.7	0	1.3	27	23.1	134	76	28	7	0	0	0		
TULSA	101	84	103	78	90	0	0	-1.9	0	1.1	20	25.1	120	70	31	7	0	0	0		
OR ASTORIA	70	54	74	30	62	0	0	-1.1	0	3.9	139	45.5	126	94	59	0	0	4	0		
BURNS	79	42	91	47	67	0	0	-1.1	0	1	19	3.3	60	68	15	1	1	0	0		
MEDFORD	81	52	91	47	67	0	0	-1.1	0	1	19	3.3	60	68	15	1	1	0	0		
PENDLETON	80	53	87	46	67	0	0	-1.1	0	3	39	8.5	82	83	29	1	1	0	0		
PORTLAND	75	56	83	51	64	0	0	-1.1	0	7	86	6.2	94	67	25	0	0	2	0		
SALEM	76	51	83	51	66	0	0	-1.1	0	2.3	143	20.9	107	92	49	0	0	4	0		
PA ALLENTOWN	86	62	96	44	64	-1	0	-1.4	0	1.6	117	21.3	99	95	47	0	0	3	0		
ERIE	78	58	99	57	74	0	0	-1.5	0	3.2	75	20.6	94	86	44	2	0	2	0		
HARRISBURG	88	64	99	50	68	0	0	-1.8	0	2.8	60	21.4	114	90	51	1	0	0	0		
PHILADELPHIA	89	68	97	64	76	0	0	-1.7	0	1.2	27	19.7	96	88	40	2	0	1	0		
PITTSBURGH	81	59	91	53	70	0	0	-1.9	0	3.7	77	21.0	99	85	46	2	0	1	0		
SCRANTON	81	58	91	53	70	0	0	-1.9	0	4.2	97	22.0	110	91	49	1	0	0	0		
RI PROVIDENCE	81	60	94	48	70	-1	0	-1.6	0	4.9	116	21.1	122	87	44	1	0	1	0		
SC CHARLESTON	81	60	90	55	70	-1	0	-1.6	0	1.8	52	23.0	101	93	46	1	0	1	1		
COLUMBIA	95	75	100	71	85	0	0	-1.2	0	3.6	44	20.7	79	89	40	6	0	1	0		
FLORENCE	99	70	104	63	85	4	4	-1.1	0	1.3	23	13.8	52	87	27	7	0	0	0		
GREENVILLE	94	65	103	65	84	4	4	-1.1	0	7	12	10.3	44	89	31	7	0	1	0		
SD ABERDEEN	94	65	97	59	80	2	2	-1.0	0	9	17	22.9	81	87	33	6	0	2	0		
BURON	87	62	93	53	74	2	2	-1.4	0	7.9	208	12.6	121	93	52	2	0	2	0		
RAPID CITY	89	66	99	57	78	2	2	-1.4	0	6.5	168	16.7	153	86	44	3	0	3	0		
SIOUX FALLS	94	67	106	60	80	5	5	-1.1	0	1.9	50	9.3	90	72	27	4	0	1	0		
TN CHATTANOOGA	89	66	104	58	78	2	2	-1.5	0	5.0	116	12.9	101	89	44	3	0	2	0		
KNOWVILLE	95	68	100	63	82	4	4	-1.0	0	3.4	78	39.4	135	93	35	7	0	1	0		
MEMPHIS	92	67	96	62	80	3	3	-1.0	0	1.8	35	27.5	103	90	37	6	0	1	0		
NASHVILLE	96	77	99	74	87	5	5	-1.9	0	2.7	61	32.7	111	81	42	7	0	0	0		
TX ABILENE	97	71	98	63	84	2	2	-1.5	0	2.7	60	17.9	65	85	34	7	0	1	0		
AMARILLO	97	74	99	73	85	2	2	-1.5	0	4	12	16.7	144	62	26	7	0	0	0		
AUSTIN	96	68	97	63	82	4	4	-1.7	0	1	3	7.6	77	56	22	7	0	0	0		
BEAUMONT	98	74	101	72	86	2	2	-1.3	0	1.7	49	15.5	94	94	34	7	0	2	0		
BROWNSVILLE	95	76	97	74	85	3	3	-1.1	0	5.6	92	41.1	154	94	50	7	0	3	2		
CORPUS CHRISTI	93	75	96	72	84	0	0	-1.2	0	1.7	55	7.9	79	96	52	6	0	1	1		
DEL RIO	97	73	95	71	83	-1	0	-1.3	0	1.2	27	13.2	97	96	47	6	0	1	0		
EL PASO	97	76	99	73	86	1	1	-1.4	0	0	0	12.0	150	67	27	7	0	0	0		
FORT WORTH	95	70	98	67	83	0	0	-1.3	0	2	2	1.2	52	66	26	6	0	2	0		
GALVESTON	99	75	101	74	87	2	2	-1.5	0	1.9	67	31.1	181	78	32	7	0	0	0		
HOUSTON	93	79	93	71	85	2	2	-1.3	0	3.3	75	21.9	123	81	55	6	0	3	1		
LUBBOCK	97	73	97	72	83	0	0	-1.2	0	1.9	5.0	27.1	117	94	49	6	0	2	1		
MIDLAND	97	71	98	67	84	4	4	-1.6	0	0	0	6.0	68	56	22	7	0	0	0		
SAN ANGELO	97	70	99	68	83	2	2	-1.4	0	1	4	4.6	75	65	26	7	0	0	0		
SAN ANTONIO	97	71	100	69	84	1	1	-1.3	0	1	4	12.3	143	70	26	7	0	1	0		
VICTORIA	96	76	99	73	86	2	2	-1.4	0	1.6	46	18.4	127	89	34	6	0	2	0		
WACO	94	75	99	73	85	1	1	-1.6	0	1.0	18	12.6	71	94	44	6	0	3	0		
WICHITA FALLS	101	77	104	75	89	4	4	-1.4	0	1.0	33	20.8	121	78	29	7	0	1	0		
UT CEDAR CITY	91	74	103	71	88	3	3	-1.5	0	2.7	82	26.9	188	72	26	7	0	0	0		
SALT LAKE CITY	91	64	99	57	78	5	5	-1.1	0	4	63	5.9	119	42	15	4	0	1	0		
VT BURLINGTON	95	69	101	60	82	7	7	-1.2	0	7	58	6.5	72	49	16	6	0	0	0		
VA NORFOLK	75	55	83	46	65	-3	0	-1.1	0	5	3.7	85	17.1	108	96	47	0	0	3	1	
RICHMOND	87	69	98	64	78	1	1	-1.9	0	9	4.4	98	21.5	98	91	52	2	0	1	1	
ROANOKE	91	66	101	60	79	2	2	-1.3	0	1.3	27	18.7	89	90	38	4	0	2	0	0	
WA QUILLAYUTE	88	64	94	54	76	1	1	-1.7	0	1	9	22	18.9	93	84	40	3	0	1	0	
SEATTLE-TACOMA	68	53	73	50	61	2	2	-2.5	0	6.9	202	58.6	108	96	57	0	0	4	0	0	
SPOKANE	73	54	79	50	64	0	0	-1.4	0	3.6	234	23.9	124	93	49	0	0	3	0	0	
YAKIMA	76	52	83	42	64	-4	0	-2.2	0	1.9	141	10.7	116	76	30	0	0	0	0	0	
WV BECKLEY	80	51	87	39	66	-3	0	-1.1	0	3	51	3.5	80	78	27	0	0	0	0	0	
CHARLESTON	79	58	83	52	69	0	0	-1.3	0	7	3.8	76	20.6	91	94	52	0	0	2	1	
HUNTINGTON	87	62	94	55	74	1	1	-1.7	0	4	3.5	78	19.8	89	95	45	2	0	2	0	0
PARKERSBURG	87	63	92	56	75	0	0	-1.9	0	1	4.3	96	24.8	113	93	45	2	0	1	0	0
WI GREEN BAY	83	60	91	53	72	-3	0	-1.8	0	2	3.4	70	22.0	107	97	55	1	0	1	0	0
LACROSSE	78	57	91	49	68	-1	0	-2.7	0	11.0	282	20.8	151	92	52	1	0	1	1	1	0
MADISON	85	65	100	57	75	3	0	-1.9	0	0	8.1	162	19.1	125	84	49	1	0	0	0	0
MILWAUKEE	83	60	94	53	71	1	1	-1.7	0	2	5.1	107	19.1	124	89	53	2	0	1	0	0
WAUSAU	80	60	98	55	70	1	1	-1.8	0	5	5.0	113	22.4	141	80	51	2	0	0	0	0
WY CASPER	79	57	91	48	68	-1	0	-1.7	0	7	7.2	151	17.3	114	93	49	1	0	1	1	1
CHEYENNE	92	61	101	54	77	8	8	-1.6	0	6	1.2	85	5.8	82	65	18	5	0	3	1	1
LANDER	86	58	96	56	72	5	5	-1.7	0	3	1.7	71	11.5	147	84	29	2	0	4	0	0
SHERIDAN	92	62	96	57	77	8	8	-1.2	0	4	22	4.3	50	49	16	6	0	0	0	0	0
	90	61	102	52	75	7	7	-1.3	0	2.0	79	8.6	90	69	26	4	0	0	0	0	0

Based on 1951-80 normals

June Weather and Crop Summary

HIGHLIGHTS: Storm systems brought severe weather and abundant moisture to much of the northern Plains and Mississippi and Ohio Valleys throughout the month. Intense thunderstorms spawned numerous tornadoes and caused locally torrential rains across the Corn Belt. Hot, dry conditions, however, prevailed over much of the Southeast, middle Atlantic coast, and central and southern Plains, and parts of the West. Pueblo, CO had their driest June of record with a trace of rain and Greenville, SC their driest with 0.9 inch. Macon, GA experienced their fourth driest June. Alltime record-high temperatures were broken in Tuscon and Phoenix, AZ, Pueblo, CO., and Lubbock, TX. Temperatures averaged above normal over most of the Nation as the Southwest and southern Great Plains sweltered with temperatures averaging more than 6 degrees Fahrenheit (F) above normal.

JUNE 1-2: Severe storms hit the Nation's mid-section with high wind, hail, and heavy rain. The worst tornado outbreak in Indiana since 1974 spawned at least 54 tornadoes within about 5 hours on June 2. Over 100 tornadoes struck throughout the Midwest on the same day. Meanwhile, a Pacific storm spread beneficial precipitation across the Northwest.

JUNE 3-9: The storm system that battered the Midwest moved rapidly eastward, producing severe weather across the Atlantic and Gulf Coast States. Thunderstorms erupted over Florida, causing severe weather but providing beneficial moisture. An intense thunderstorm pounded Beaumont, TX with 5.26 inches in only 2 hours on Monday. During the latter part of the week, strong thunderstorms developed along a frontal system reaching from the central Plains and across the middle Mississippi and Ohio Valleys. These storms caused inundating rains, large hail, and damaging winds. Up to 6 inches of rain drenched southern Indiana, causing severe flooding. The system soaked the middle Atlantic coast with more heavy rain at week's end. Remnants of Pacific Hurricane Boris brought unusual rainfall to southern California. San Diego, CA, received 0.87 inch on June 9 and 10, which is a June record for total rainfall. Hot weather prevailed across the Southwestern and South Central States as temperatures climbed daily into triple digits.

JUNE 10-16: At the start of the week, widely scattered showers and thunderstorms continued to develop in the warm and humid air covering much of the country. Generally beneficial showers dampened portions of the drought-stricken West, while a thunderstorm near Columbia, MS produced 3 inches of rain in 45 minutes and an early evening thunderstorm deluged Rogers, AR with 1 1/2 inches in 30 minutes. On Monday, severe thunderstorms developed in the upper Mississippi Valley ahead of a developing frontal system. The strong thunderstorms progressed southward and eastward through the week, spreading across the central Plains and Corn Belt. Thirty tornadoes produced damage in the upper Mississippi Valley and northern and central Plains. Warrensburg, MO was drenched with 4.5 inches on Thursday morning, while Shadyside, OH was inundated with 5.5 inches in 3 hours on Thursday night, causing a flash flood and at least 26 deaths. At week's end, torrential rains caused flooding across central Iowa.

JUNE 17-23: Scattered thunderstorms again developed in the warm, humid air covering the eastern half of the Nation, while hot, dry weather remained

over the West and southern Plains. At the beginning of the week, a frontal system spread showers and thunderstorms from the eastern Corn Belt to the northern and middle Atlantic coast. Loganton, PA, was pounded with 3 inches of rain in 1 hour on Monday. Severe thunderstorms erupted over the northern and Central Plains on Tuesday morning, spawning tornadoes and producing large hail. On Wednesday, a frontal system developed over the central States and caused widespread showers and thunderstorms. Heavy rains drenched central Iowa to southern Indiana and southeastern Kansas to central Tennessee. At week's end, the system spread rain over the eastern third of the country as torrential rains caused flooding in parts of the upper Great Lakes, northern Florida, and New England. Excessive heat prevailed across the southern tier of States throughout the week as temperatures soared into the hundreds.

JUNE 24-30: Record heat and dry weather prevailed over the western half of the Nation as temperatures climbed into triple digits and high temperatures for the date were broken daily from California to the High Plains. Alltime high temperature records were set at Lubbock, TX (110 degrees F), Tuscon, AZ (117 degrees F), Pueblo, CO (108 degrees F), and Phoenix, AZ (122 degrees F). The Phoenix airport was temporarily closed because aircraft are not allowed to take off when temperatures are higher than 121 degrees F). Lubbock broke their June record of the number of 100-degree F days with 19. Cities with record-high temperatures for the month of June included Denver, CO with 102 degrees F and Scottsbluff, NE, with 106 degrees F. The heat wave spread into the Southeast, where record-high temperatures were set along the southern Atlantic seaboard at week's end.

Scattered showers and thunderstorms developed in the warm, humid air throughout the week across the Gulf Coast States, bringing needed moisture to Florida, eastern Texas, and Louisiana. On Monday, thunderstorms erupted in the upper Mississippi and lower Missouri Valleys, causing heavy rain. On Tuesday, severe thunderstorms, accompanied by large hail, damaging wind, and some tornadoes, spread from the northern Plains into the Northeast by week's end. These storms produced heavy rain and local flooding across the northern Corn Belt. Dry conditions remained along portions of the middle and southern Atlantic coast.

Crop Progress

Early in June, rain and wet field conditions slowed row crop plantings in portions of the Corn Belt and Delta. Rain continued to slow planting in the Corn Belt throughout the month. During June, favorable weather allowed winter wheat harvest to progress rapidly in the central and southern Great Plains. By the end of June, soil moisture was adequate to surplus in the Corn Belt, adequate to short in the Great Plains, short to adequate in the Delta and most of the West, and short to very short in the Southeast.

At the beginning of June, corn planting lagged behind normal in Illinois, Indiana, Kentucky, and Missouri. By mid-June, planting was complete or nearly complete except in Kentucky and Missouri. Hot, dry weather stressed corn in Georgia and portions of Texas. At the end of June, corn condition was good to fair with 3 percent of the acreage in the silking stage or beyond, 3 points behind the 5-year average. Lack of moisture stressed the crop in the Southeast.

(Continued to p. 24)

June Weather in Historical Perspective

Temperatures for June 1990 averaged across the Nation were much above the long-term mean and ranked as the eighth warmest on record (fig. 1). This marked a return to the unusual warmth which characterized the Junes of 1968-88. The areally weighted mean standardized national precipitation ranked June 1990 as the third driest June on record (fig. 2). The driest and second driest Junes were in 1933 and 1988, respectively.

Regional rankings (table 1) for the nine climatically homogeneous regions indicate that the unusual warmth was mostly centered in the southwestern third of the Nation (see the Weekly Weather and Crop Bulletin, Vol. 77, No. 18, May 8, 1990, p. 10 for a map of the regions). The Southwest region had the hottest June of record and the South region the fourth hottest. The precipitation pattern consisted of dry rankings for the southern regions and unusual wetness in the East North Central region (which ranked sixth wettest).

Growing season (March-June) precipitation over the primary corn and soybean region was well above the long-term mean and ranked as the fourth wettest on record (fig. 3). March-June 1990 sharply contrasts with the last half of the 1980's and with March-June 1988, in particular, which had the driest such period on record.

There were 421 tornadoes across the contiguous United States in June 1990, which compares with an average June total of 150. The January-June total of 935 is a record (fig. 4) and compares with the 37-year mean of 502.

TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR JUNE 1990, BASED ON THE PERIOD 1895-1990. 1 = DRIEST/COLDEST, 96 = WETTEST/HOTTEST.

REGION	PRECIPITATION	TEMPERATURE
NORTHEAST	52	54
EAST NORTH CENTRAL	91	65
CENTRAL	68	54
SOUTHEAST	2	62
WEST NORTH CENTRAL	41	69
SOUTH	5	93
SOUTHWEST	13	96
NORTHWEST	48	53
WEST	46	75

Figure 1

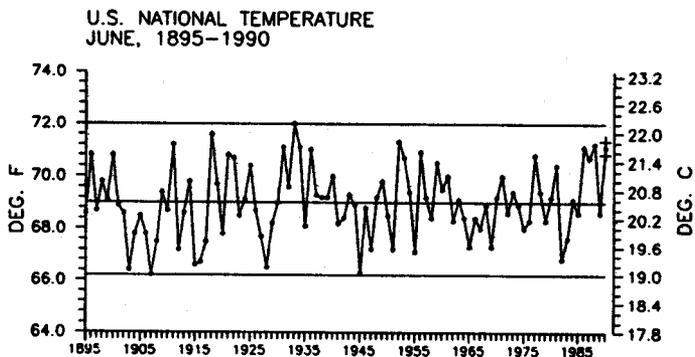


Figure 2

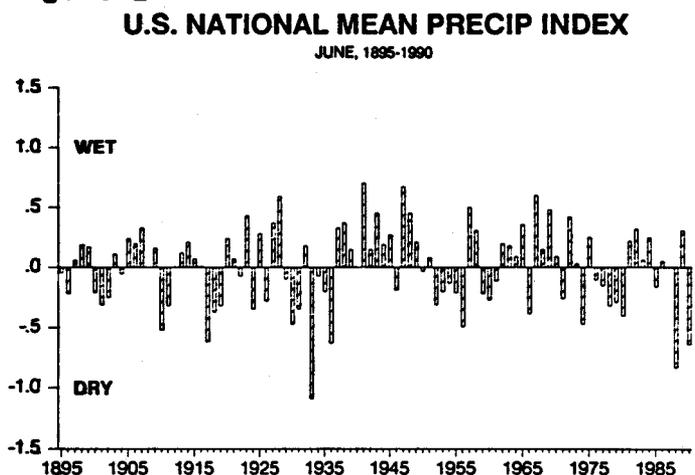


Figure 3

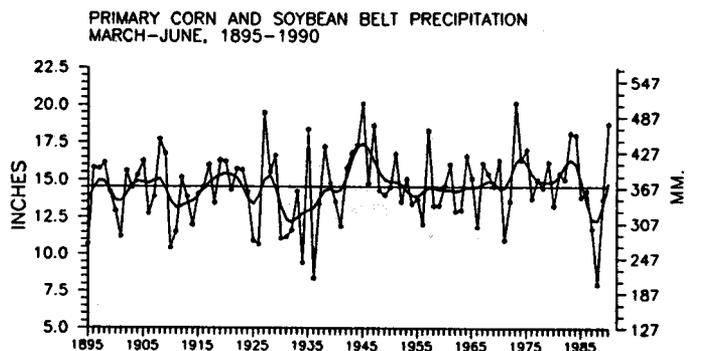
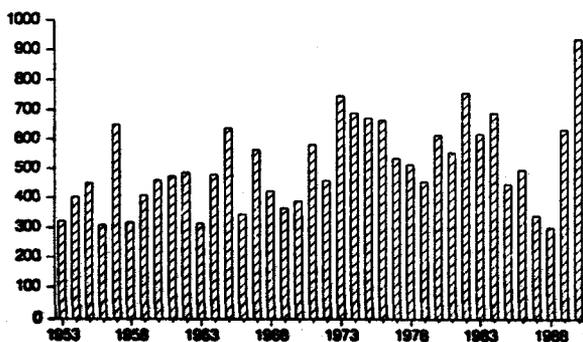
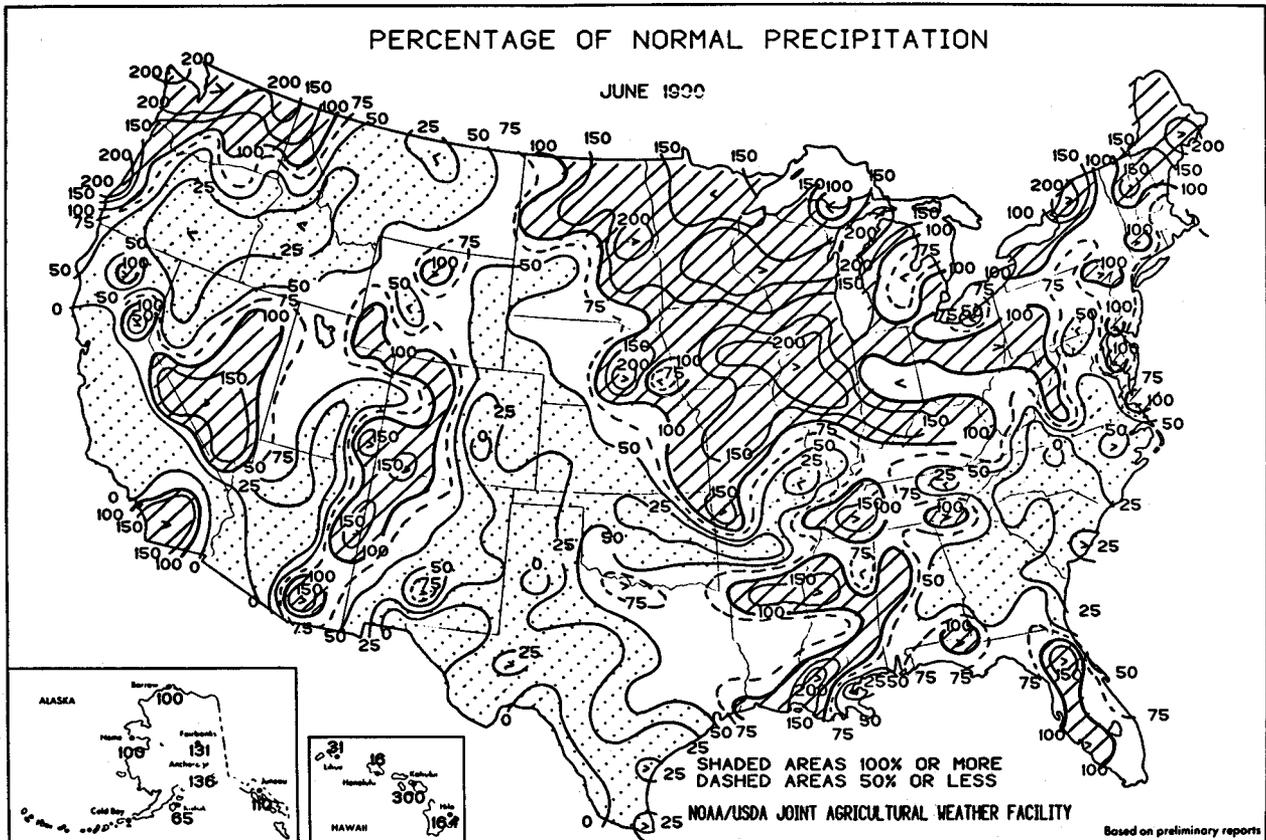
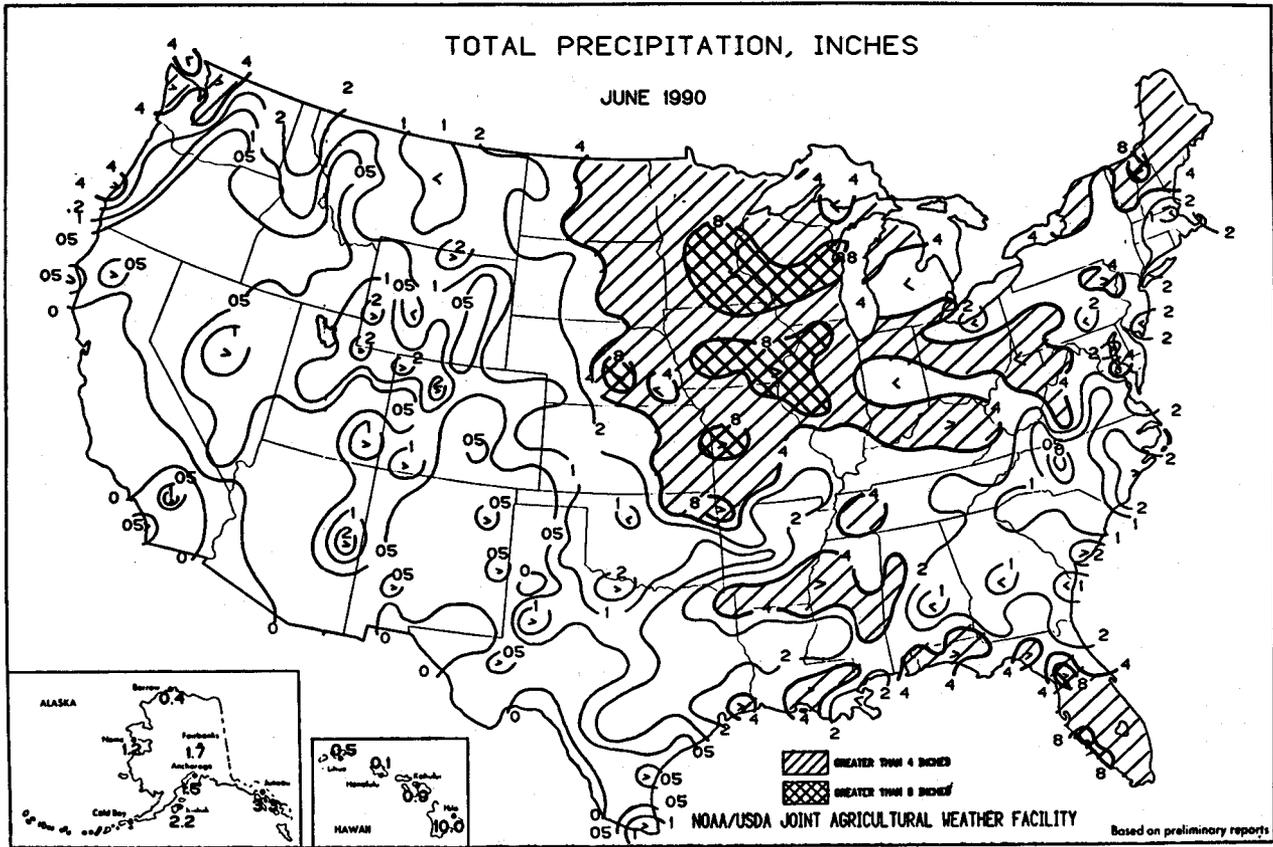
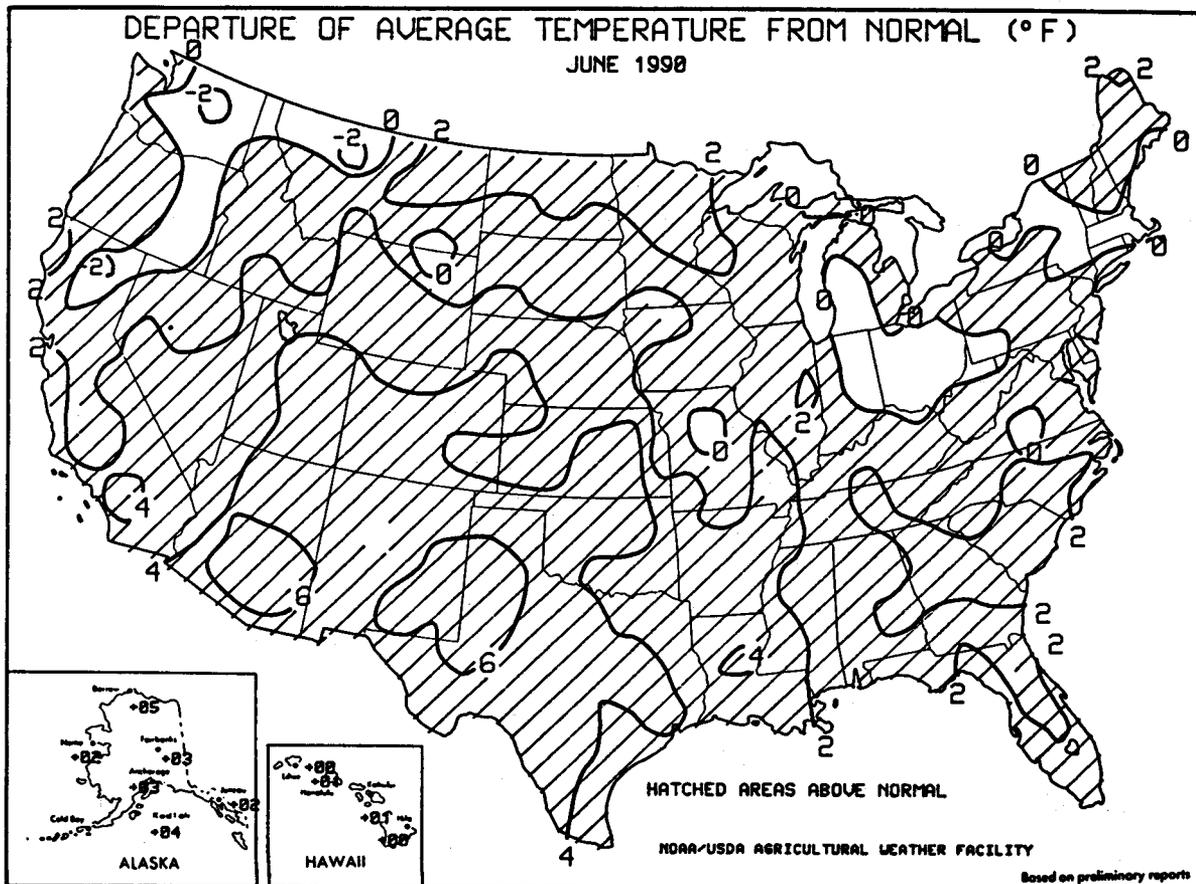
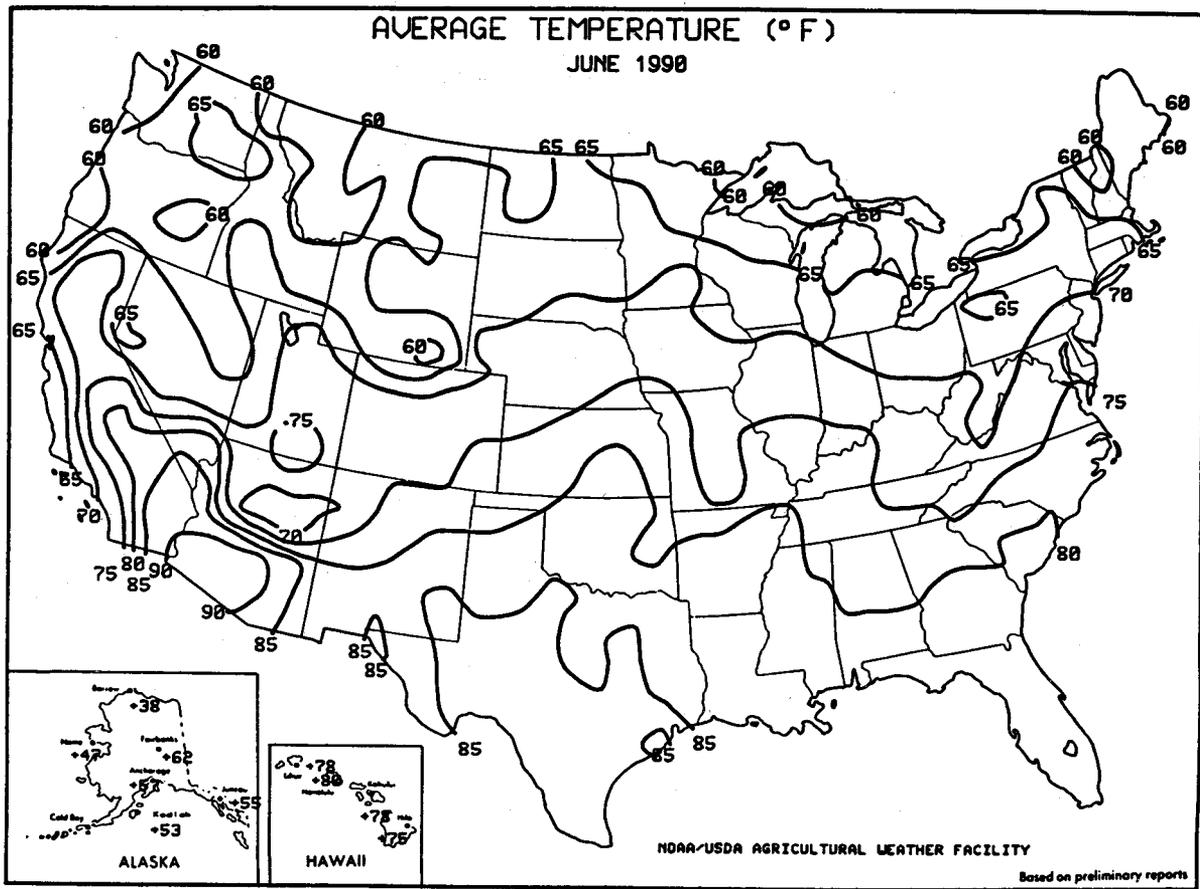


Figure 4

TOTAL NUMBER OF TORNADOES, U.S.A. JANUARY-JUNE TOTAL, 1953-1990







Temperature and Precipitation Data for June 1990

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure	
AL BIRMINGHAM	78	1	2.1	-1.5	LA PADUCAH	76	1	2.1	-2.3	DAYTON	70	-1	3.2	-0.6	
HUNTSVILLE	77	2	2.7	-1.0	ALEXANDRIA	85	5	2.0	-1.9	MANSFIELD	67	-1	5.2	1.8	
MOBILE	81	1	2.7	-2.4	BATON ROUGE	84	4	7.2	4.0	TOLEDO	69	1	3.1	-0.3	
MONTGOMERY	80	1	0.9	-2.6	LAKE CHARLES	82	2	3.8	-0.3	YOUNGSTOWN	66	0	3.1	-0.5	
ANCHORAGE	57	3	1.5	0.5	NEW ORLEANS	83	2	1.0	-3.6	OK OKLAHOMA CITY	82	5	1.3	-2.6	
BARROW	38	5	0.4	0.1	SHREVEPORT	83	3	2.6	-0.9	TULSA	82	4	1.1	-3.5	
FAIRBANKS	62	3	1.7	0.4	ME CARIBOU	83	2	4.6	1.4	OR ASTORIA	58	1	3.5	1.0	
JUNEAU	55	2	3.3	0.3	PORTLAND	62	0	4.1	1.1	BURNS	59	-1	0.1	-0.5	
KODIAK	53	4	2.2	-1.9	MD BALTIMORE	73	1	2.6	-1.2	MEDFORD	67	1	0.2	-0.5	
NOME	47	2	1.2	0.0	SALISBURY	73	1	2.0	-1.6	PENULTON	65	-1	0.6	-0.1	
AZ FLAGSTAFF	64	3	0.2	-0.4	MA BOSTON	67	-1	0.7	-2.2	FURTLAND	64	1	1.9	0.5	
PHOENIX	94	7	T	-0.1	CHATHAM	61	-2	2.7	0.0	SALEM	63	2	1.1	-0.1	
PRESCOTT	73	6	0.1	-0.5	MI ALPENA	62	0	4.2	1.1	PA ALLENTOWN	70	0	2.9	-0.6	
TUCSON	89	6	0.6	0.4	DETROIT	68	0	4.9	1.5	ERIE	67	2	2.8	-1.1	
WINSLOW	73	0	T	-0.4	FLINT	67	1	3.8	0.6	HARRISBURG	71	0	1.1	-2.5	
YUMA	92	5	T	0.0	GRAND RAPIDS	67	-1	3.0	-0.7	PHILADELPHIA	72	0	3.4	-0.5	
AR PORT SMITH	81	3	0.6	-3.0	HOUGHTON LAKE	64	1	2.6	-0.5	PITTSBURGH	68	0	4.2	0.7	
LITTLE ROCK	80	2	0.6	-3.0	LANSING	66	0	2.5	-1.4	SCRANTON	67	0	4.8	1.3	
CA BAKERSFIELD	77	-1	T	-0.1	MARQUETTE	60	0	3.1	-0.8	WILLIAMSPORT	69	-1	2.5	1.4	
BISHOP			0.2	0.1	MUSKOGON	65	-1	3.6	1.1	RI PROVIDENCE	68	1	1.1	-1.6	
EUREKA	58	4	0.3	-0.2	SAULT ST. MARIE	57	-2	5.0	1.8	SC CHARLESTON	81	3	3.1	-3.4	
PRESNO	77	2	0.0	-0.1	MN ALEXANDRIA	67	2	4.0	-0.1	COLUMBIA	80	2	1.3	-3.2	
LOS ANGELES	68	2	T	0.0	DULUTH	62	3	4.8	0.9	FLORENCE	80	2	0.5	-4.1	
REDDING	75	-4	0.8	0.0	INT'L FALLS	63	2	5.5	1.9	GREENVILLE	78	1	0.9	-3.5	
SACRAMENTO	73	1	0.0	-0.1	MINNEAPOLIS	70	1	9.8	5.8	SD ABERDEEN	66	1	7.7	4.5	
SAN DIEGO	69	3	0.9	0.8	ROCHESTER	68	1	9.3	5.5	HURON	69	1	6.3	3.1	
SAN FRANCISCO	62	2	T	-0.1	ST. CLOUD	67	2	10.5	6.0	RAPID CITY	67	1	1.4	-1.8	
STOCKTON	73	1	0.0	-0.1	MS GREENWOOD	81	1	6.3	3.0	SIOUX FALLS	70	2	4.9	1.2	
ALAMOGA	63	4	0.5	-0.1	JACKSON	81	2	0.7	-2.4	TN BRISTOL	72	1	2.9	-0.6	
CO. SPRINGS	70	8	0.1	-1.9	MERIDIAN	80	1	4.0	0.5	CHATTANOOGA	77	2	3.4	0.0	
DENVER	73	6	0.2	-1.4	TUPELO	79	3	2.6	-1.1	KNOXVILLE	75	1	1.7	-2.2	
GRAND JUNCTION	75	3	0.3	-0.2	MO CAPE GIRARDEAU	78	0	1.6	-1.9	MEMPHIS	81	2	2.7	-0.9	
PUEBLO	74	6	T	-1.2	COLUMBIA	73	0	7.2	3.5	NASHVILLE	78	2	2.4	-1.3	
CT BRIDGEPORT	69	1	1.9	-1.0	KANSAS CITY	75	0	6.3	1.6	TX ARILENE	85	5	0.4	-2.2	
HARTFORD	69	0	3.6	0.2	SAINT LOUIS	77	2	3.0	-0.7	AMARILLO	81	6	0.1	-3.3	
DC WASHINGTON	75	0	3.1	-0.2	SPRINGFIELD	75	2	4.7	0.0	AUSTIN	86	4	1.6	-1.5	
FL APALACHICOLA	81	1	2.8	-2.0	MT BILLINGS	66	1	0.7	-1.4	BEAUMONT	84	3	4.2	-0.6	
DAYTONA BEACH	81	2	2.7	-3.7	GLASGOW	65	2	1.1	-1.3	BROWNSVILLE	85	3	1.1	-1.6	
FT. MYERS	83	1	9.0	0.3	GREAT FALLS	60	-2	1.2	-1.5	CORPUS CHRISTI	84	2	0.9	-3.0	
JACKSONVILLE	81	1	1.6	-4.2	HAYVE	63	0	0.7	-1.5	DEL RIO	87	4	0.0	-1.7	
KEY WEST	84	1	0.9	-4.1	HELENA	62	1	0.9	-1.1	EL PASO	87	6	T	-0.5	
MIAMI	83	2	6.8	-2.3	KALISPELL	58	0	1.2	-1.1	FORT WORTH	84	3	1.9	-0.5	
ORLANDO	82	1	6.2	-0.8	MILES CITY	67	1	1.8	-1.0	GALVESTON	85	4	1.2	-2.4	
TALLAHASSEE	81	2	4.0	-2.6	MISSOULA	60	0	0.4	-1.4	HOUSTON	85	4	3.0	-1.5	
TAMPA	83	2	5.2	-0.1	NE GRAND ISLAND	73	1	8.2	4.5	LAREDO	91	5	0.2	-2.5	
WEST PALM BEACH	82	2	6.7	-1.2	LINCOLN	75	3	2.5	-1.4	LUBBOCK	84	7	0.0	-2.8	
GA ATHEN	78	1	1.9	-2.1	NORFOLK	73	2	7.6	3.3	MIDLAND	87	7	T	-1.4	
ATLANTA	79	3	1.4	-2.0	NORTH PLATTE	71	3	1.9	-1.8	SAN ANGELO	85	4	0.1	-1.8	
AUGUSTA	79	2	1.4	-2.4	OMAHA	74	1	4.2	0.1	SAN ANTONIO	87	6	1.2	-1.8	
MACON	81	2	1.0	-2.8	SCOTTSBLUFF	71	3	1.1	-1.8	VICTORIA	85	4	0.8	-3.7	
SAVANNAH	81	3	1.0	-4.7	VALENTINE	70	2	2.0	-0.9	WACO	86	4	1.0	-1.8	
HI HILO	75	0	10.0	3.9	NV ELKO	62	0	1.0	0.1	WICHITA FALLS	85	4	2.7	-0.1	
HONOLULU	80	1	0.1	-0.4	ELY	62	3	0.8	0.0	UT BLANDING	—	—	—	1.1	0.7
KAHULUI	78	1	0.9	0.7	LAS VEGAS	86	2	1.0	0.9	CEDAR CITY	69	3	0.3	-0.2	
LIHUE	78	0	0.5	-1.1	RENO	66	3	T	-0.3	SALT LAKE CITY	72	4	0.7	-0.3	
ID BOISE	67	1	0.1	-0.8	WINNEMUCCA	64	1	0.2	-0.7	VT BURLINGTON	66	1	3.1	-0.5	
LEWISTON	68	1	0.7	-0.7	NH CONCORD	65	0	2.5	-0.4	VA LYNCHBURG	71	-3	4.8	1.3	
POCATELLO	63	0	0.8	-0.3	NJ ATLANTIC CITY	70	1	1.5	-1.2	NORFOLK	75	1	3.5	0.0	
IL CAIRO	—	—	2.7	-1.7	NM ALBUQUERQUE	79	4	0.3	-0.2	RICHMOND	75	1	1.0	-2.6	
CHICAGO	70	1	4.5	0.2	CLOVIS	80	6	T	-2.6	ROANOKE	72	0	0.8	-2.5	
MOLINE	71	0	9.6	5.3	ROSWELL	85	7	T	-1.0	WA COLVILLE	56	-5	3.6	2.1	
PEORIA	71	0	8.0	4.1	NY ALBANY	67	0	2.7	-0.6	QUILLAYUTE	56	1	6.1	2.1	
QUINCY	73	0	5.1	1.1	BINGHAMTON	64	0	2.5	-1.1	SEATTLE-TACOMA	60	0	3.1	1.7	
ROCKFORD	70	1	9.2	4.7	BUFFALO	67	0	3.6	0.9	SPOKANE	61	-1	1.9	0.7	
SPRINGFIELD	73	0	9.2	5.7	NEW YORK	72	1	2.1	-1.0	WALLA WALLA	—	—	—	0.7	-0.2
IN EVANSVILLE	75	0	3.2	-0.3	ROCHESTER	67	0	2.9	0.1	YAKIMA	64	-1	0.3	-0.3	
PORT WAYNE	69	0	5.5	1.9	SYRACUSE	67	1	2.9	-0.7	WV BECKLEY	67	1	3.1	-0.9	
INDIANAPOLIS	71	0	3.1	-0.9	NC ASHEVILLE	71	1	0.9	-2.8	CHARLESTON	72	1	3.0	-0.3	
SOUTH BEND	69	0	4.4	0.5	CHARLOTTE	78	3	0.9	-2.7	ELKINS	66	1	4.0	-0.4	
IA DES MOINES	72	0	9.5	5.4	GREENSBORO	75	2	T	-3.9	HUNTINGTON	72	0	4.2	0.8	
DUBUQUE	68	1	5.7	1.5	HATTERAS	74	0	1.8	-2.5	PARKERSBURG	70	-1	3.2	-0.7	
SIOUX CITY	73	2	4.2	0.2	NEW BERN	77	2	1.6	-3.5	WI GREEN BAY	66	1	10.3	7.1	
WATERLOO	70	1	8.0	3.7	RALEIGH	75	1	1.0	-2.6	LA CROSSE	69	1	8.1	3.9	
KS CONCORDIA	77	3	3.8	-0.5	ND WILMINGTON	68	1	2.2	-3.5	MADISON	68	1	4.9	1.0	
DOGE CITY	78	3	1.0	-2.0	BISMARCK	76	2	4.7	1.7	MILWAUKEE	68	3	5.0	1.4	
GOODLAND	74	5	1.7	-1.0	FARGO	67	2	6.1	3.0	WAUSAU	65	0	6.6	2.6	
TOPEKA	77	3	5.6	0.4	GRAND FORKS	65	2	4.0	1.1	WY CASPER	65	2	0.7	-0.6	
WICHITA	82	6	1.9	-2.1	WILLISTON	66	1	1.8	-0.9	CHEYENNE	64	2	1.0	-1.0	
KY BOWLING GREEN	76	2	1.8	-2.7	OH AKRON-CANTON	67	-1	3.6	0.4	LANDER	65	3	0.4	-1.1	
JACKSON	72	1	4.0	0.2	CINCINNATI	72	0	5.0	0.9	SHERIDAN	61	-1	2.0	-0.2	
LEXINGTON	72	0	4.6	0.3	CLEVELAND	67	-1	1.7	-1.8	PR SAN JUAN	82	0	4.3	-0.4	
LOUISVILLE	75	1	6.1	2.6	COLUMBUS	70	0	5.3	1.3						

Based on 1951-80 normals.

National Agricultural Summary

July 2-8, 1990

HIGHLIGHTS: Winter wheat harvest progressed rapidly in the central and southern Great Plains. Above-normal temperatures and lack of moisture stressed crops in the central and southern Great Plains, Delta, and Southeast. Rain was needed, especially in the Southeast. Soil moisture was very short to short in Georgia and South Carolina and short to very short in Kentucky, Tennessee, and North Carolina. Soil moisture was short in most of the Delta and short to adequate in the central and southern Great Plains. Pasture conditions declined in much of the South but were in good to excellent condition in portions of the Corn Belt. Soil moisture was adequate to short in the Corn Belt and northern Great Plains and short to adequate in the West.

SMALL GRAINS: Winter wheat harvest was 71 percent (%) complete, 1 percentage point ahead of the 5-year average. Harvest advanced rapidly in the central Great Plains and was nearly complete in the southern Great Plains. Harvest was complete in Oklahoma and nearly complete in Kansas and Texas. Nebraska producers harvested half of their crop during the week. Producers in Colorado, Illinois, Kansas, and Missouri harvested over a third of their crop. Harvest lagged behind normal in Indiana, Michigan, Missouri, and Ohio. Harvest was nearly complete in Arkansas, Georgia, and North Carolina. Winter wheat was mostly good to fair in the northern Great Plains, Pacific Northwest, and eastern Corn Belt.

Spring wheat was mostly good to fair with 83% of the acreage headed, 3 points ahead of normal. North Dakota's crop was good with 83% of the acreage headed, 4 points ahead of the normal. Lack of moisture lowered crop condition in Montana.

CORN: Corn was in mostly good to fair condition with 6% of the acreage in the silking stage or beyond, 11 points behind normal. The percentage of acreage silking lagged behind normal in Illinois, Kentucky, and Missouri. Corn was in good condition in Michigan, Nebraska, and South Dakota and good to fair in the rest of the Corn Belt. Corn borer infestations concerned producers in the eastern third of Nebraska. Hot, dry weather stressed corn in many areas, especially the Southeast. Corn was in poor to fair condition in Georgia and fair to poor in North Carolina. In Texas, harvest was underway in the Coastal Bend area and Rio Grande Valley.

SOYBEANS: Soybeans were in mostly good to fair condition with 9% of the acreage blooming, 13 points behind normal. Blooming lagged behind normal in Illinois, Indiana, Iowa, Missouri, and Nebraska. Hot, dry weather stressed the crop in many areas, especially the Southeast. Crop condition was fair to poor in Georgia and South Carolina. Crop condition was good to fair in the Corn Belt.

COTTON: Cotton was good to fair with 73% of the acreage squaring, 7 points ahead of normal. Twenty-one percent of the acreage was setting bolls, equal to the average. Crop development lagged behind normal in Arkansas and Missouri. Crop condition declined due to lack of moisture in much of the Delta and Southeast. Cotton was fair to good in Texas and good to fair in Arkansas, Louisiana, and Mississippi. Crop condition was good to excellent in Arizona and good in California.

SORGHUM: Sorghum was in mostly fair to good condition with 16% of the acreage headed, 3 points behind normal. Lack of moisture stressed sorghum in the central and southern Great Plains. Crop

condition was good to fair in Nebraska and Kansas and fair in Texas. In Texas, harvest was nearly complete in the Rio Grande Valley and Coastal Bend area and was underway in the Blacklands. Harvest was active in the Upper Coast and central areas.

OTHER FIELD CROPS: Rice was mostly good to fair with 12% of the acreage headed, 1 point behind normal. Above-normal temperatures slowed crop development in Texas. Peanuts were in good to fair condition in Alabama and Georgia. Peanut planting was nearly complete in Texas. Tobacco was fair to good in Kentucky and North Carolina. Tobacco harvest was 29% complete in Georgia. Sugarcane was fair to good in Louisiana.

FRUIT AND NUTS: Some rain fell in most of Florida's citrus producing areas but more was needed. Irrigation was active. New growth was abundant and the new crop fruit was progressing well. Peach harvest continued ahead of schedule in the Delta and Southeast. Hot, dry weather stressed pecans in Texas. Grape harvest was complete in western Arizona and continued in the central area. In California, table grape harvest began in Fresno County and continued in the desert. Nectarine, plum, and Freestone peach harvests were active. Tart cherry harvest was underway in the Willamette Valley of Oregon and began in Michigan.

VEGETABLES: Hot days with scattered showers prevailed in Florida's vegetable producing areas. Watermelon harvest continued in Georgia and South Carolina. Quality of the unharvested watermelon crop was declining rapidly in Georgia. Irish potato harvest was 70% complete in North Carolina. In Louisiana, sweetpotatoes were in fair to good condition with planting nearly complete. Pepper planting was underway in the Rio Grande Valley, Texas. Potato harvest began in the High Plains. Watermelon harvest was complete in western Arizona. Cantaloupe and honeydew melon harvests were active in the San Joaquin Valley, California. Harvested strawberries were of good quality in the Watsonville area. In Oregon, early potato harvest began in the Hermiston area. Potatoes were in good condition in North Dakota.

PASTURES AND LIVESTOCK: Above-normal temperatures stressed livestock in many areas. Pastures were in good to excellent condition in Illinois, Iowa, Michigan, and Wisconsin and mostly good to fair in the rest of the Corn Belt. Pastures were mostly fair or fair to good in the Delta and Southeast except Georgia, where they were mostly poor to fair. Pastures were in mostly fair to good condition in the central and northern Great Plains. In Texas, pasture condition was declining rapidly and was mostly fair to poor. Pastures and ranges continued to deteriorate in the low land areas of California due to limited irrigation water supplies.

Crop Progress

FOR WEEK ENDING JULY 8, 1990

**GRAIN SORGHUM
% HEADED**

	1990	1989	AVG.
AR	7	11	27
CO	0	0	0
IL	0	1	NA
KS	1	1	0
LA	53	24	47
MS	35	12	29
MO	0	3	6
NE	0	0	0
NM	0	NA	NA
OK	2	3	5
SD	0	0	0
TX	49	57	58

12 STATES 15 NA NA

EXCL. STATES WITH NA 16 18 19

THESE 12 STATES PRODUCED 98% OF THE 1989 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

**COTTON
% SETTING BOLLS**

	1990	1989	AVG.
AL	23	22	27
AZ	80	88	74
AR	10	5	31
CA	15	20	26
GA	46	28	41
LA	38	12	29
MS	33	19	22
MO	0	8	22
NM	34	30	23
NC	22	5	20
OK	1	0	3
SC	30	8	32
TN	2	7	14
TX	14	12	13

14 STATES 21 17 21

THESE 14 STATES PRODUCED 99% OF THE 1989 COTTON CROP.

**COTTON
% SQUARING**

**SPRING WHEAT
% HEADED**

	1990	1989	AVG.
ID	83	72	74
MN	99	89	89
MT	63	48	66
ND	83	70	79
SD	99	95	93

5 STATES 83 72 80

THESE 5 STATES PRODUCED 89% OF THE 1989 SPRING WHEAT CROP.

	1990	1989	AVG.
AL	93	90	91
AZ	99	100	97
AR	84	84	92
CA	85	95	92
GA	91	85	90
LA	92	65	81
MS	84	75	87
MO	75	91	89
NM	78	75	69
NC	80	48	67
OK	35	15	20
SC	75	59	76
TN	65	76	83
TX	63	48	45

14 STATES 73 65 66

THESE 14 STATES PRODUCED 99% OF THE 1989 COTTON CROP.

**RICE
% HEADED**

	1990	1989	AVG.
AR	0	0	0
CA	0	0	0
LA	32	37	34
MS	12	13	8
TX	36	56	47

5 STATES 12 15 13

THESE 5 STATES PRODUCED 97% OF THE 1989 RICE CROP.

**WINTER WHEAT
% HARVESTED**

	1990	1989	AVG.
AR	99	92	97
CA	80	90	87
CO	53	6	44
GA	100	95	99
ID	1	0	0
IL	80	84	89
IN	44	41	70
KS	99	65	90
MI	0	0	10
MO	77	89	94
MT	0	0	1
NE	55	35	54
NC	99	79	92
OH	20	2	37
OK	100	90	99
OR	4	0	3
SD	4	10	10
TX	94	91	95
WA	0	0	1

19 STATES 71 56 70

THESE 19 STATES PRODUCED 88% OF THE 1989 WINTER WHEAT CROP.

**CORN
% SILKING**

	1990	1989	AVG.
CO	0	0	5
GA	95	95	96
IL	2	9	34
IN	0	7	15
IA	0	4	7
KS	35	20	25
KY	17	27	39
MI	0	0	2
MN	0	0	0
MO	5	28	42
NE	1	4	13
NC	74	45	65
OH	5	0	8
PA	0	0	0
SD	0	0	0
TX	69	70	73
WI	0	0	0

17 STATES 6 9 17

THESE 17 STATES PRODUCED 95% OF THE 1989 CORN CROP.

**SOYBEANS
% BLOOM**

	1990	1989	AVG.
AL	17	11	13
AR	1	13	7
GA	15	9	15
IL	9	28	43
IN	8	10	26
IA	10	22	32
KS	15	10	15
KY	3	9	14
LA	13	10	12
MI	0	0	4
MN	28	10	26
MS	12	2	8
MO	2	18	24
NE	2	12	23
NC	5	0	0
OH	3	0	4
SC	6	2	3
SD	8	15	17
TN	4	4	8

19 STATES 9 14 22

THESE 19 STATES PRODUCED 95% OF THE 1989 SOYBEANS CROP.

Crop Condition

PERCENT

FOR WEEK ENDING JULY 8, 1990

CORN

STATE	VP	P	F	G	EX
CO	0	2	31	57	10
GA	18	35	32	14	1
IL	0	2	25	66	7
IN	1	2	30	59	8
IA	0	1	23	67	9
KS	0	0	49	45	6
KY	1	10	56	31	2
MI	0	5	20	45	30
MN	0	2	27	65	6
MO	1	12	58	29	0
NE	0	0	19	71	10
NC	11	31	46	12	0
OH	3	9	32	48	8
PA	1	6	25	47	21
SD	0	0	9	74	17
TX	6	18	40	33	3
WI	1	1	18	65	15
17 STATE	1	4	27	59	9
PREV WEEK	1	4	30	57	8
PREV YEAR	1	5	33	51	10

COTTON

STATE	VP	P	F	G	EX
AL	0	0	75	25	0
AZ	0	0	0	89	11
AR	0	0	26	74	0
CA	0	0	10	85	5
GA	4	10	55	28	3
LA	0	0	33	67	0
MS	5	3	15	67	10
MO	0	25	58	17	0
NM	0	5	44	38	13
NC	0	7	36	55	2
OK	0	0	50	50	0
SC	0	16	80	4	0
TN	4	8	46	42	0
TX	6	13	53	26	2
14 STATE	3	7	40	47	3
PREV WEEK	0	9	28	58	5
PREV YEAR	2	13	45	36	4

RICE

STATE	VP	P	F	G	EX
AR	0	0	35	65	0
CA	0	0	15	75	10
LA	0	0	25	75	0
MS	0	4	47	47	2
TX	0	1	18	68	13
5 STATE	0	0	29	68	3
PREV WEEK	0	0	32	64	4
PREV YEAR	0	1	28	65	6

SPRING WHEAT

STATE	VP	P	F	G	EX
ID	0	4	13	62	21
MN	0	0	12	68	20
MT	10	19	31	34	6
ND	0	4	15	61	20
SD	0	0	16	66	18
5 STATE	2	6	18	57	17
PREV WEEK	2	5	16	55	22
PREV YEAR	8	13	39	35	5

WINTER WHEAT

STATE	VP	P	F	G	EX
AR	10	1	89	0	0
CA	0	0	10	85	5
CO	3	4	26	49	18
GA	5	24	27	43	1
ID	0	2	13	62	23
IL	12	26	38	23	1
IN	3	13	24	51	9
KS	0	1	20	46	33
MI	0	5	15	50	30
MO	8	42	42	8	0
MT	2	11	27	44	16
NE	0	3	43	49	5
NC	0	6	50	44	0
OH	1	4	22	58	15
OK	0	0	10	85	5
OR	0	0	40	58	2
SD	0	0	10	76	14
TX	3	0	34	60	3
WA	0	0	43	52	5
19 STATE	2	5	27	52	14
PREV WEEK	2	5	26	54	13
PREV YEAR	20	20	33	23	4

SORGHUM

STATE	VP	P	F	G	EX
AR	0	2	73	25	0
CO	0	2	39	52	7
IL	0	6	50	41	3
KS	0	0	35	56	9
LA	0	5	42	53	0
MS	0	3	65	32	0
MO	0	16	64	20	0
NE	0	0	42	57	1
NM	34	16	33	17	0
OK	0	0	52	48	0
SD	0	0	18	78	4
TX	3	23	47	25	2
12 STATE	2	8	43	43	4
PREV WEEK	2	7	34	46	11
PREV YEAR	2	10	32	46	10

SOYBEANS

STATE	VP	P	F	G	EX
AL	0	6	55	39	0
AR	0	5	54	41	0
GA	20	27	44	9	0
IL	0	1	44	52	3
IN	0	3	34	57	6
IA	0	1	29	64	6
KS	0	7	31	51	11
KY	0	5	61	31	3
LA	0	0	58	42	0
MI	0	5	15	55	25
MN	0	0	32	66	2
MS	8	3	48	40	1
MO	0	14	65	21	0
NE	0	0	23	69	8
NC	0	12	60	27	1
OH	2	9	33	48	8
SC	2	39	59	0	0
SD	0	2	10	80	8
TN	2	3	40	55	0
19 STATE	1	5	40	50	4
PREV WEEK	1	6	39	49	5
PREV YEAR	2	7	36	50	5

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: Mostly dry northern third; rainfall 0.50 in. or less elsewhere; 1.00 to 2.70 in. local areas. Temperatures 2 to 5° above normal.

Days suitable for fieldwork 6.5. Soil moisture 93% short, 7% adequate. All crops, pastures, livestock declined due to continued hot, dry weather. Corn 88% silked, 79% 1989, 85% avg.; 33% dented, 30% 1989, 31% avg.; 7% mature, 6% 1989, 10% avg.; 9% very poor, 26% poor, 38% fair, 20% good, 7% excellent. Sorghum 99% planted, 83% 1989, 92% avg.; 6% poor, 66% fair, 28% good. Cotton 93% squaring, 90% 1989, 91% avg.; 23% setting bolls, 22% 1989, 27% avg.; 75% fair, 25% good. Peanuts 67% pegging, 67% 1989, 62% avg.; 21% fair, 79% good. Soybeans 99% planted, 81% 1989, 93% avg.; 17% blooming, 11% 1989, 13% avg.; 6% setting pods, 5% 1989, 4% avg.; 6% poor, 55% fair, 39% good. Winter wheat 99% harvested, 75% 1989, 93% avg. Pastures 8% very poor, 37% poor, 46% fair, 9% good. Livestock 11% poor, 34% fair, 54% good, 1% excellent. Primary activities: Controlling weeds, insects in row crops; planting late soybeans, sorghum; applying fungicides to peanuts; harvesting fruits, vegetables; repairing equipment, fences; routine care of livestock, poultry, catfish.

ALASKA: Warm weather continued with differing amounts of light rainfall occurring. Highs, lows, seasonal precipitation not available for the week due to computer installation shutdown at local N.O.A.A. Facility.

Topsoil 52% short, 48% adequate. Subsoil 43% short, 57% adequate. Small grain stage: 10% oats, 10% barley reached early dough stage of development. Heights of small grains avg. 19 in. Crop growth varied from slow to rapid; rainfall needed. Harvest first crop hay 75% complete. Commercial potato heights avg. 10 in. Harvest of head, leaf lettuce, romaine, radishes, turnips, spinach, other greens continues.

ARIZONA: Widely scattered showers 1st, 2nd over central, northwest; sunny west, heavy showers east 5th. Active monsoon 7th. Temperatures 2° below to 4° above normal.

Cotton squaring 99%, 100% 1989, 97% avg.; 80% setting bolls, 88% 1989, 74% avg.; crop 89% good, 11% excellent. Alfalfa hay harvest mostly active, crop 86% good, 14% excellent. Grape, watermelon harvest completed west; fruit, vegetable season closed. Processing tomato, garlic, onion harvests completed. Melon harvest completed. Grapes, watermelon, cantaloupe, honeydews, mixed melons harvested central. Chipper potato harvest tapered off; carrots, sweet corn harvested. Table potato harvest completed. Dry onion, mixed winter squash harvest completed. Cabbage harvest continued east. Dry onion harvest continued.

ARKANSAS: Hot, dry week. Temperatures above normal. Extremes 65°; 106°. Rainfall none to 0.75 in.

Days suitable for fieldwork 7.0. Soil moisture 93% short, 7% adequate. Main activities: Cutting, baling hay; applying herbicides, insecticides, fertilizer; irrigation, cultivation. Corn 1% poor, 49% fair, 50% good. Oat, wheat harvest complete. Cotton 84% squaring, 84% 1989, 92% avg.; 26% fair, 74% good. Soybeans 88% emerged, 79% 1989, 86% avg.; 5% poor, 54% fair, 41% good. Sorghum 98% emerged, 99% 1989, 100% avg.; 2% poor, 73% fair, 25% good. Plant bug

damage in cotton. Sheath blight control in rice. Corn tasseling, irrigation continues. Quality of blueberries, peaches, tomatoes good. Pastures 37% poor, 63% fair. Livestock good; heat, flies, gnats causing stress.

CALIFORNIA: Temperatures northern end of State at or below normal. Southern end, temperatures continued to warm to at or above normal.

Clear weather permitted good progress field activities. Small grain harvest rapid progress. Stubble burning, land preparation second crops active. Fertilized rice. Cotton irrigated, treated weeds, mites, insects. Some central valley fields setting bolls. Safflower in bloom. Sugarbeet harvest progressed. Seed alfalfa full bloom. Alfalfa, other hay crops harvest normal. Apple growers sprayed for codling moth. Apricot, fig harvests progressed. Grapes irrigated; treated for pests, mildew. Picking began, table grapes in Fresno County. Desert valley table grape harvest continued. Forty seven percent Freestone peaches, 40% nectarines, 36% plums packed. Peaches sprayed for pests. Cling peach harvest to begin next week. Pomegranates treated for mites. Summer grapefruit progressed, valencia orange harvest slowed. Oranges sprayed for red scale. Almonds irrigated, treated for pest; split hulls noted, early varieties. Broccoli moderate supply, generally good quality. Cantaloupe, honeydew, mixed melons being harvested San Joaquin Valley. Cauliflower moderate supply, variable quality. Celery heavy supply, generally good quality. Sweet corn being picked. Iceberg head lettuce moderate supply, variable quality. Processing, fresh market tomatoes being harvested. Strawberries moderate supply, good quality, Watsonville area. Livestock generally good. Pasture, range continued to deteriorate most low land areas due to limited irrigation water. Pastures in northern third mostly good, pastures in central, southern thirds fair to very poor. Summer pastures in higher elevations good. Water supplies marginally adequate in northern half, limited supplies in southern half prompted some hauling of water.

COLORADO: Cooler temperatures across eastern Plains were accompanied with scattered showers, thunderstorms, some locally heavy. West remained warm, dry with limited precipitation. Temperatures 6 to 9° above normal in all river basins except Rio Grande temperatures 2 to 5° above normal.

Days suitable for fieldwork 6.1. Soil moisture 25% very short, 59% short, 16% adequate. Winter wheat harvest made excellent progress early, was slowed by high humidity, localized rains late in the week. First cutting alfalfa, 79% cut, 2nd cutting 13% cut. Barley, 82% headed, 45% turning color. Oats 76% headed, 44% turning color. Spring wheat, 96% headed, 33% turning color. Dry beans 3% flowered, corn 0% silked, grain sorghum 91% emerged. Dry onions, sugarbeets, potatoes, livestock in mostly good. Pasture, range feed mostly fair to good.

FLORIDA: Temperatures 1 to 2° above normal. Extremes 63°; 102°. Rainfall mostly 1.00 in. range; few totals exceeding 2.00 in. Greatest weekly 4.48 in. Pompano Beach. Rain fell on 3 days most locations.

Soil moisture short to adequate. Water tables continued low many areas. Tobacco, corn silage

harvests active. Hay harvest active where moisture adequate for growth. Soybean planting completed. Cotton, peanuts, sugarcane good progress. Pasture 20% poor, 27% fair, 40% good, 13% excellent. Cattle fair to excellent, most good. Rain intermittent; more needed, most citrus areas. Irrigation continued. Some late bloom, abundant new growth. New crop fruit progressing well. Caretakers very active controlling cover crops, spraying, fertilizing, pruning cold damaged trees. Hot days, warm nights, scattered showers vegetable producing areas. Watermelon, sweet corn, tomato shipments light. Plastic laying starting for fall tomatoes, southern areas.

GEORGIA: Very hot, mostly dry. Thundershowers only in isolated areas. Most rain under 0.50 in., many areas none. Heavier amounts mostly extreme south, some between 1.00 to 2.00 in. Driest area along eastern border, southeast. Temperatures 4 to 7° above normal. Extreme highs mid 90s northeast mountains, 100° or higher remainder of the State except upper 90s along coast. Coolest lows mid 50s northeast mountains, upper 60s south, low to mid 70s extreme southeast.

Days suitable for fieldwork 6.3. Soil moisture 73% very short, 20% short, 7% adequate. Much dryland corn lost from drought; 84% dough, 77% 1989, 79% avg.; 57% dent, 37% 1989, 48% avg.; 11% mature, 2% 1989, 11% avg. Sorghum 9% very poor, 25% poor, 46% fair, 20% good; 97% planted, 94% 1989, 96% avg. Peanuts 3% very poor, 4% poor, 42% fair, 51% good; 91% blooming, 95% 1989, 92% avg.; 69% pegging, 75% 1989, 69% avg.; portions of peanut belt received rain. Soybeans declining fast, double crop stands poor; 95% planted, 92% 1989, 96% avg. Tobacco 3% very poor, 51% fair, 39% good, 7% excellent; Harvest very active, 29% complete, 26% 1989, 21% avg. Watermelons 78% harvested, 53% 1989, 65% avg.; Quality of unharvested melons declining fast. Apples 7% very poor, 17% poor, 65% fair, 11% good; 1% harvested, 4% avg. Peaches 29% very poor, 47% poor, 20% fair, 4% good; 88% harvested, 78% 1989, 80% avg. Hay 24% very poor, 42% poor, 27% fair, 7% good. Pasture 21% very poor, 39% poor, 33% fair, 7% good. Cattle 2% very poor, 9% poor, 45% fair, 44% good. Hogs 2% very poor, 1% poor, 32% fair, 61% good, 4% excellent.

HAWAII: Hot, dry conditions persisted over islands. Diminishing showers with weakening trade winds sent temperatures to record highs. Temperatures mid 70s to low 90s. Rainfall none to 1.50 in.

Days suitable for farm work 7.0. Sugar, pineapple production continues. Watermelon harvest active.

IDAHO: North, southwest temperatures slightly below normal; east, south central slightly above normal. Precipitation below normal except southwest; levels up to 0.75 in. north, 0.25 in. southwest, trace elsewhere.

Days suitable for fieldwork 7.0. Soil moisture 3% very short, 27% short, 65% adequate, 5% surplus. Irrigation water supplies good to fair. Winter wheat good; 33% turning color. Spring wheat good; 5% turning color. Spring barley 88% headed; 70% 1989, 72% avg.; 8% turning color. Alfalfa 1st cutting 92% harvested, 89% 1989, 88% avg.; 2nd cutting 8% harvested, 4% 1989, 3% avg. Mint harvest early stages. Cherry harvest nearly complete southwest. Cherries blush to ripe north. Early peaches, early apricots harvested southwest. Apples progressing well. Range, pasture land 9% poor, 26% fair, 49% good, 16% excellent; down slightly from previous week. Livestock good to excellent.

ILLINOIS: Temperatures generally 1 to 5° above normal across State. Precipitation generally none with scattered showers.

Days suitable for fieldwork 6.00. Soil moisture 20% short, 69% adequate, 11% surplus. Corn height 40 in., 56 in. 1989, 64 in. avg. Corn height most advanced 60 in.; 74 in. 1989, 83 in. avg. Sorghum planted 98%, 100% 1989, 99% avg. Wheat ripe 97%, 98% 1989, 99% avg. Oats 1% poor, 23% fair, 59% good, 17% excellent; filled 90%, 98% 1989, 100% avg.; turning color 39%, 69% 1989, 83% avg.; ripe 12%, 16% 1989, 44% avg.; harvested 3%, 4% 1989, 17% avg. Alfalfa 15% fair, 71% good, 14% excellent; hay second cutting 35%, 52% 1989, 56% avg. Red clover 22% fair, 67% good, 11% excellent. Clover hay cut 78%, 89% 1989, 95% avg. Pasture 12% fair, 68% good, 20% excellent.

INDIANA: Temperatures 1 to 4° above normal. Lows low to mid 60s, highs mid 80s to 90°. Precipitation minimal.

Days suitable for fieldwork 6.3. Topsoil 37% short, 63% adequate. Subsoil 8% short, 90% adequate, 2% surplus. Corn 35 in. high, 45 in. 1989, 54 in. avg. Soybeans 10 in. high, 10 in. 1989, 14 in. avg. Rye 24% harvested, 25% 1989, 45% avg. Alfalfa hay 20% cut twice, 36% 1989, 44% avg. Pasture 4% poor, 32% fair, 58% good, 6% excellent. Excellent week for combining wheat, planting soybeans, cultivating, making hay.

IOWA: Temperatures 3 to 7° above normal. Extremes 55°; 104°. Precipitation none to 2.50 in.; average 0.55 in.

Days suitable for fieldwork 5.8. Topsoil 11% short, 72% adequate, 17% surplus. Subsoil 2% short, 81% adequate, 17% surplus. Winter wheat 15% harvested, 44% 1989, 41% avg.; mostly good. Hay 1% poor, 16% fair, 67% good, 16% excellent. Pasture 1% poor, 13% fair, 55% good, 31% excellent. Oats 65% turning color, 75% 1989, 82% avg.; 1% poor, 13% fair, 69% good, 17% excellent. First crop alfalfa hay 99% harvested, 100% 1989, 100% avg.; second cutting of alfalfa 15% harvested, 24% 1989, 32% avg. Corn 95% cultivated first time, 100% 1989, 100% avg.; 1% tasseled, 9% 1989, 21% avg. Soybeans 65% cultivated first time, 98% 1989, 94% avg. Livestock mostly good. Hot weather caused stress in cattle, hog herds.

KANSAS: Weather hot, dry with temperatures 6 to 9° above normal. Central areas 10° above normal. Rainfall light 0.01 in. east central to 0.39 in. northwest.

Days suitable for fieldwork 6.5. Topsoil 84% short, 16% adequate. Subsoil 43% short, 57% adequate. Wheat harvest made rapid progress under near ideal weather conditions. Hot, dry weather stressing some corn stands. Sorghum good progress, moisture supplies disappearing rapidly. Soybean planting still ahead schedule. Ideal hay harvest weather; second cutting alfalfa 65% complete. Range, pasture good for time of year; forage adequate.

KENTUCKY: Temperatures continued very warm, 3 to 6° above normal west, central, near normal east. Extremes 53°; 102°. Very dry, rainfall mostly less than 0.10 in.

Days suitable for fieldwork 5.9. Soil moisture 33% very short, 51% short, 16% adequate. Many areas little or no rain past two weeks. Crop conditions deteriorating from heat, dry conditions. Tobacco 2% very poor, 9% poor, 62% fair, 26% good, 1% excellent. Nearly 40% tobacco 24 in. or taller. Earliest burley being topped. Some tobacco blooming at short height because of heat stress. Corn development varies from ankle height to setting ears. Rain needed or yields will

be reduced. Wheat harvest 94% complete, 76% 1989, 88% avg. Pasture declined; 3% very poor, 17% poor, 33% fair, 43% good, 4% excellent.

LOUISIANA: Temperatures normal to 2° above normal. Extremes 66°; 101°. Rainfall 0.09 to 1.35 in.

Days suitable for fieldwork 5.1. Soil moisture 8% very short, 46% short, 31% adequate, 15% surplus. Corn dough stage 82%, 67% 1989, 73% avg.; mature 7%, 8% 1989, 9% avg.; 39% fair, 48% good, 13% excellent. Cotton squaring 92%, 65% 1989, 81% avg.; setting bolls 38%, 12% 1989, 29% avg.; 33% fair, 67% good. Some spraying taking place, overall insect pressure light. Irrigation active. Hay first cutting 95%, 73% 1989, 90% avg. Harvesting delayed by scattered showers. Peaches harvested 68%, 36% 1989, 61% avg.; 10% poor, 50% fair, 40% good. Rice headed 32%, 37% 1989, 34% avg.; 25% fair, 75% good. Water management active. Late season weed control, scouting for insect, disease with treatments where necessary. Sorghum headed 53%, 24% 1989, 47% avg.; 5% poor, 42% fair, 53% good. Soybeans planted 96%, 85% 1989, 95% avg.; emerged 92%, 83% 1989, 90% avg.; blooming 13%, 10% 1989, 12% avg.; 58% fair, 42% good. Late season soybeans still being planted, interrupted by scattered showers. Sweet potatoes planted 94%, 85% 1989, 95% avg.; 67% fair, 22% good, 11% excellent. Sugarcane 7% very poor, 8% poor, 54% fair, 31% good. Herbicides applied on ditch banks, grassy thin stands. Plowing fallow ground for fall planting. Wheat harvested 100%, 95% 1989, 99% avg. Livestock 25% fair, 70% good, 5% excellent. Pest control on livestock. Heat causing some stress. Pasture 2% very poor, 48% fair, 50% good. Pastures getting short; rain needed. Vegetable 69% fair, 31% good. Harvesting of commercial vegetables very active.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 0.77 in. Temperature 79°, normal 75°. Extremes 46°; 100°.

Days suitable for fieldwork 6.1. Topsoil 19% very short, 43% short, 38% adequate. Subsoil 10% very short, 14% short, 76% adequate. Corn fair to good; 10% silked, 6% 1989, 12% avg. Soybeans good; 91% planted, 74% 1989, 87% avg. Small grains good. Wheat 80% harvested, 49% 1989, 72% avg. Oats 55% turning, 60% 1989; 17% harvested, 5% 1989, 22% avg. Barley 93% harvested, 86% 1989, 95% avg. Rye 62% harvested, 53% 1989, 62% avg. Snap beans 42% harvested, 38% 1989, 37% avg. Green peas 93% harvested, 100% 1989, 99% avg. Cucumbers 30% harvested, 49% 1989, 38% avg. Hay supplies adequate. Alfalfa hay second cut 63% complete, 28% 1989, 66% avg. Other hay second cut 18% complete, 6% 1989, 36% avg. Apples fair. Peaches poor to fair. Pasture fair.

DELAWARE: Precipitation 1.06 in. Temperature 78°, normal 75°. Extremes 52°; 100°.

Days suitable for fieldwork 6.6. Topsoil 43% short, 57% adequate. Subsoil 43% short, 57% adequate. Corn good; 22% silked, 8% 1989, 24% avg. Soybeans good; 97% planted, 81% 1989, 85% avg. Small grains good. Wheat 90% harvested, 66% 1989, 80% avg. Barley 100% harvested, 89% 1989, 98% avg. Rye 56% harvested, 65% 1989, 63% avg. Snap beans 37% harvested, 16% 1989, 14% avg. Lima beans 90% planted, N/A 1989, N/A avg. Green peas 100% harvested, 97% 1989, 96% avg. Cucumbers 15% harvested, 7% 1989, 8% avg. Hay supplies adequate. Alfalfa hay second cut 55% complete, 36% 1989, 76% avg. Other hay second cut 15% complete, 31% 1989, 38% avg. Apples fair to good. Peaches very poor. Peaches 15% harvested, 1% 1989, 3% avg. Pasture fair.

MICHIGAN: Temperatures normal to 2° above normal. Extremes 40°; 99°. Precipitation none to 0.85 in. across State.

Days suitable for fieldwork 6.0. Soil moisture 25% short, 75% adequate. Corn 0% silked, 0% 1989, 2% avg.; 5% poor, 20% fair, 45% good, 30% excellent. Soybeans 0% blooming, 0% 1989, 4% avg.; 5% poor, 15% fair, 55% good, 25% excellent. Wheat 0% harvested, 0% 1989, 10% avg.; 5% poor, 15% fair, 50% good, 30% excellent. Pasture 3% poor, 22% fair, 40% good, 35% excellent. Major activities: Pesticide spraying, cultivating, side dressing anhydrous ammonia on corn, chopping, baling hay, preparing equipment for wheat harvest. Blueberry, raspberry harvests underway. Tart cherry harvest just begun. Many early vegetables being harvested. Sweet corn, tomato harvest start in 1 to 2 weeks.

MINNESOTA: Temperatures 4 to 5° above normal. Extremes 41°; 104°. Precipitation 0.30 to 1.40 in., greatest weekly total 3.79 in.

Days suitable for fieldwork 6.0. Topsoil 2% very short, 14% short, 82% adequate, 2% surplus. Spring wheat 99% heading (not turning ripe), 89% 1989, 89% avg.; 5% turning ripe 7% 1989, 22% avg. Oats 98% heading (not turning ripe), 94% 1989, 94% avg.; 15% turning ripe, 17% 1989, 39% avg. Barley 99% heading (not turning ripe), 88% 1989, 89% avg.; 1% turning ripe, 2% 1989, 26% avg. Corn 92% cultivated once, 98% 1989, 97% avg.; 36 in. average unextended height, 41 in. 1989, 44 in. avg.; 1% tasseling, 1% 1989, 10% avg. Soybeans 86% cultivated once, 91% 1989, 92% avg.; 13 in. average unextended height, 13 in. 1989, 14 in. avg.; 28% blooming, 10% 1989, 26% avg. Alfalfa 92% first crop cut, 95% 1989, 97% avg. Field corn 2% poor, 27% fair, 65% good, 6% excellent. Soybeans 32% fair, 66% good, 2% excellent. Spring wheat 12% fair, 68% good, 20% excellent. Oats 13% fair, 67% good, 20% excellent.

MISSISSIPPI: Temperatures 2° above normal. Extremes 64°; 101°. Dry statewide. Rainfall 0.34 in., 0.73 in. below normal. Soil temperatures 90°.

Days suitable for fieldwork 6.1, 2.3 1989, 4.8 avg. Soil moisture 17% very short, 60% short, 23% adequate. Wheat 100% harvested, 89% 1989, 96% avg. Cotton 84% squaring, 75% 1989, 87% avg.; 5% very poor, 3% poor, 15% fair, 67% good, 10% excellent. Corn 74% silking, 64% 1989, 75% avg.; dough 36%, 21% 1989, 41% avg.; harvested silage 6%; 2% poor, 44% fair, 51% good, 3% excellent. Rice 12% heading, 13% 1989, 8% avg.; 4% poor, 47% fair, 47% good, 2% excellent. Soybeans 95% planted, 74% 1989; 90% emerged, 60% 1989, 80% avg.; 8% very poor, 3% poor, 48% fair, 40% good, 1% excellent. Sorghum 35% heading, 12% 1989, 29% avg.; 3% poor, 65% fair, 32% good. Peanuts 100% planted, 97% 1989, 99% avg. Sweet potatoes 100% planted, 90% 1989, 97% avg. Peaches 75% harvested, 64% 1989, 59% avg.; 45% very poor, 23% poor, 26% fair, 6% good. Hay 52% harvested, 35% 1989, 47% avg. Pasture, livestock fair to good. Activities: Planting soybeans, cultivating row crops, cutting hay.

MISSOURI: Temperatures 3 to 8° above normal. Rainfall less than 0.05 in. statewide.

Days suitable for fieldwork 6.4. Topsoil 34% short, 63% adequate, 3% surplus. Corn tasseling 12%, 46% 1989, 59% normal. Single crop soybeans planted 95%, 100% 1989, 99% normal. Double crop soybeans 66%, 83% 1989, 87% normal. Double crop soybean planting ranges 25% southwest, to 97% southeast. First cutting alfalfa hay 99%, 100% 1989, normal. Second cutting alfalfa 35%, 70% 1989, 74% normal. Other hay cut 71%, 80% 1989, 83% normal. Pasture 2% poor, 32% fair, 61% good, 5% excellent.

MONTANA: Temperature near normal in the west, north central, central. Other areas above normal.

Highs over 100°. Precipitation light, scattered; none to 1.39 in. North central 0.21 to 1.00 in.

Days suitable for fieldwork 6.3. Topsoil 68% short, 31% adequate, 1% surplus. Subsoil 64% short, 35% adequate, 1% surplus. Winter wheat 43% turning color, 10% 1989, 33% avg. Barley 7% very poor, 10% poor, 28% fair, 44% good, 11% excellent; 61% headed, 47% 1989, 65% avg. Oats 10% very poor, 18% poor, 31% fair, 35% good, 6% excellent; 63% headed, 49% 1989, 64% avg. Pasture, range feed 6% very poor, 12% poor, 30% fair, 41% good, 11% excellent. First cutting alfalfa harvested 60%, 59% 1989, 76% avg. Other hay harvested 43%, 46% 1989, 50% avg.

NEBRASKA: Temperatures 4 to 8° above normal. Precipitation latter half of week trace to 1.55 in. Extremes 52°; 110°.

Days suitable for fieldwork 6.6. Topsoil 59% short, 37% adequate, 4% surplus. Subsoil 48% short, 52% adequate. Winter wheat 3% poor, 43% fair, 49% good, 5% excellent. Crop 100% ripe; 80% turning color; 55% harvested, 99%, 80%, 35% 1989; 100%, 78% 54% respectively. Oats 5% harvested, 27% 1989, 26% avg. Corn 19% fair, 71% good, 10% excellent; 1% silked, 4% 1989, 13% avg. Corn borer of continual concern eastern third of State. Sorghum 42% fair, 57% good, 1% excellent. Chinch bugs still a problem. Soybeans 23% fair, 69% good, 8% excellent; 2% blooming, 12% 1989, 36% avg. Alfalfa 9% poor, 36% fair, 41% good, 14% excellent. Second cutting 25% complete, 32% 1989, 41% avg. Pasture, range 12% poor, 45% fair, 38% good, 5% excellent.

NEVADA: Persistent dry, south westerly wind flow entire week produced temperatures near normal extreme west to 3 to 8° above normal east. No measurable rainfall.

Hot, dry weather ideal hay, small grain harvests. Potatoes making up for lost time, producing vigorous vegetative growth. Still shipping 1989 crop potatoes, prices encouraging. Ranges, pastures continued to deteriorate from searing temperatures. Stockwater ponds drying some localities.

NEW ENGLAND: Precipitation none to 0.10 in. Connecticut; mostly 0.01 to 0.60 in. elsewhere, up to 5.00 in. northern Vermont. Temperatures low to mid 60s north, mid 60s to low 70s south, 1 to 5° below normal. Maximum temperatures upper 70s to low 90s north, low 80s to low 90s south; minimums upper 30s to upper 40s north, mid 40s to upper 50s south.

Days suitable for fieldwork 6.0. Soil moisture north 72% adequate, 28% surplus; south 55% short, 45% adequate. Grazing availability 3% short, 91% adequate, 6% surplus. Pastures 18% fair, 75% good, 7% excellent. Maine, Rhode Island, Connecticut River Valley potato good. Maine oat good. Field corn good. Sweet corn good. First cut hay 80% complete, 80% 1989, 82% avg.; good. Second crop hay harvest 12% complete, 3% 1989, 8% avg.; good. Shade, outdoor tobacco good. Apple set average; fruit drop average; scab infection light. Strawberries 86% harvested, good. Cranberries coming into full bloom. Major farm activities: Cutting hay, picking strawberries, harvesting early vegetables, top dressing field corn, cultivating potatoes, spraying fruit crops.

NEW JERSEY: Temperatures near normal. Extremes 49°; 100°. Rainfall 0.05 in. north, 0.54 in. central, 0.78 in. south. Heaviest 24 hour total 1.59 in. on 5th, 6th. Estimated soil moisture percent field capacity averaged 70% north, 54% central, 46% south. Four inch soil temperatures averaged 72° north, 74° central, 76° south.

Severe thunderstorms, strong winds, hail occurred on 5th. Some crop damage resulted.

Irrigation in use where no showers. Summer vegetable marketings increased. Clingstone peach harvest underway. Blueberry, raspberry, blackberry picking active. Barley harvest advanced. Wheat, rye combining began. Field corn, soybeans still being planted. Some pastures browning.

NEW MEXICO: Heat wave lost grip over State as summer moisture regime set up. Temperatures still above normal in the plains, normal elsewhere. Rainfall widespread, except plains, heaviest amount 2.83 in.

Days suitable for fieldwork 6.9. Soil moisture 80% short, 20% adequate. Low moisture still impacting dryland milo. Very little dryland planted with no acceptable stands. Cattle poor to good; sheep fair to good; range 33% very poor, 67% poor.

NEW YORK: Below normal temperatures, light rainfall early week. Temperatures well above normal by mid week with scattered rainfall. Cooler by weekend. Extremes 36°; 97°.

Days suitable for fieldwork 5.6. Soil moisture mostly adequate to surplus. Pasture 42% fair, 50% good, 8% excellent. Hay fair to good; wheat good. Wetness during the week slowed hay harvest. First cutting alfalfa 75% complete, 72% 1989, 75% average. Clo tim 83% harvested, 60% 1989, 66% avg. Warm weather pushed growth of corn, regrowth of alfalfa. Second cutting alfalfa underway. Oats, wheat showed good development. Locally grown vegetables being sold. Strawberry harvest at peak. Early onions in Orange County moving to market. Lake Ontario apples extremely variable. Some orchards good fruit set, others light.

NORTH CAROLINA: Temperatures 5° above normal across State. Precipitation none to 1.27 in. Extremes 47°; 101°.

Days suitable for fieldwork 6.5. Soil moisture 45% very short, 49% short, 6% adequate. Pasture 4% very poor, 36% poor, 49% fair, 10% good, 1% excellent. Livestock feed from pasture 70%. Hay first cutting 96%; second cutting 42%. Sorghum planted 91%; soybeans planted 97%. Irish potatoes harvested 70%; peaches harvested 60%. Corn silked 74; cotton squared 80%; cotton setting bolls 22%; tobacco topped 56%. Crop condition: Wheat, 6% poor, 50% fair, 44% good; corn 11% very poor, 31% poor, 46% fair, 12% good; cotton 7% poor, 36% fair, 55% good, 2% excellent; soybeans 12% poor, 60% fair, 27% good, 1% excellent; peanuts 56% fair, 44% good; tobacco 14% poor, 54% fair, 31% good, 1% excellent; Irish potatoes 12% poor, 36% fair, 52% good; sweet potatoes 8% poor, 42% fair, 50% good; peaches 15% very poor, 24% poor, 39% fair, 22% good; apples 3% very poor, 13% poor, 63% fair, 21% good; truck crops 3% very poor, 20% poor, 41% fair, 36% good; hay 1% very poor, 22% poor, 55% fair, 20% good, 2% excellent. Major activities: Planting soybeans; cultivating, spraying, harvesting, topping, irrigating flue cured tobacco; hay harvesting; harvesting small grains; cultivating, spraying field crops; harvesting vegetables. Other activities included: Tending livestock; planting sorghum; harvesting Irish potatoes; harvesting peaches; general farm maintenance.

NORTH DAKOTA: Temperatures 3 to 6° above normal statewide. Extremes 41° south central; 103° southwest. Precipitation 0.27 in. southwest to 2.25 in. northwest.

Days suitable for fieldwork 6.3. Topsoil 4% very short, 31% short, 65% adequate. Subsoil 22% very short, 46% short, 32% adequate. Spring wheat 4% poor, 15% fair, 61% good, 20% excellent; 33% milk to dough and beyond, 23% 1989, 39% avg. Durum wheat 1% poor, 15% fair, 65% good, 19% excellent;

17% milk to dough and beyond, 14% 1989, 28% avg. Oats 7% poor, 27% fair, 57% good, 9% excellent; 39% milk to dough and beyond, 25% 1989, 46% avg. Barley 2% poor, 9% fair, 63% good, 26% excellent; 45% milk to dough and beyond, 29% 1989, 51% avg. Winter wheat 7% poor, 51% fair, 37% good, 5% excellent. Late season crop growth ahead of last year, near or behind average. Flax 5% poor, 8% fair, 79% good, 8% excellent; 28% bloom or beyond, 15% 1989, 27% avg.; 10 in. height, 8 in. 1989, 10 in. avg. Corn 20% fair, 77% good, 3% excellent; 25 in. height, 22 in. 1989, 30 in. avg. Dry edible beans 1% poor, 3% fair, 93% good, 3% excellent; 12% bloom or beyond, 2% 1989, 15% avg.; 12 in. height, 9 in. 1989, 11 in. avg. Soybeans 99% good 1% excellent; 10% bloom or beyond, 3% 1989, 14% avg.; 12 in. height, 10 in. 1989, 12 in. avg. Sunflower 17% fair, 81% good, 2% excellent; 18 in. height, 14 in. 1989, 19 in. avg. Potatoes 100% good; 27% bloom or beyond, 43% 1989, 39% avg.; 15 in. height, 13 in. 1989, 15 in. avg. Pastures 7% very poor, 15% poor, 42% fair, 36% good. Stockwater 3% very short, 14% short, 83% adequate. Hay crop harvest was main activity, first cutting alfalfa 64% complete, other hay harvest 37% complete.

OHIO: Temperatures low to upper 80s; 1 to 3° above normal. Low temperatures lows to mid 60s; 1 to 3° above normal. Rainfall 0.40 to 2.00 in. east central, southeast; elsewhere none; generally 0.80 to 0.95 in. subnormal.

Days suitable for fieldwork 6.4. Soil moisture 30% short, 64% adequate, 6% surplus. Activities: Spraying, cultivating, fertilizing, combining small grains, haying, planting late crops. Corn fair to good; some heat stress. Pests in corn include Japanese beetles, root worm, army worm. Some stands silking. Soybeans fair to good; need rain. Winter wheat good; moisture 11 to 17%, test weights just under 60 pounds. Oats good. Pastures 1% very poor, 4% poor, 35% fair, 50% good, 10% excellent. Excellent hay curing weather. Alfalfa sprayed to control potato leaf hopper. Heat stressed grasses; some became dormant. Seed corn fields rouged, detassled. Canola harvest underway.

OKLAHOMA: Temperatures 4° above normal southwest to 8° above normal northeast. Precipitation none most districts to 0.07 in. east central.

Days suitable for fieldwork 6.5. Topsoil 85% short, 13% adequate, 2% surplus. Subsoil 30% short, 70% adequate. Wheat 100% harvested, 90% 1989, 99% avg.; 75% ground plowed, 45% 1989, 60% avg. Cotton 50% fair, 50% good; 100% up to stand, 95% 1989, 90% avg.; 35% squaring, 15% 1989, 20% avg.; 1% setting bolls, 0% 1989, 3% avg. Sorghum 52% fair, 48% good; 95% up to stand, 85% 1989, 90% avg.; 2% heading, 3% 1989, 5% avg. Soybeans 75% up to stand, 85% 1989, 80% avg.; 1% flowering, 1% 1989, 5% avg. Peanuts 90% up to stand, 85% 1989, 90% avg.; 15% pegging, 45% 1989, 20% avg. Corn 20% tasselling, 40% 1989, 55% avg.; 10% milk to soft, 20% 1989, 20% avg. Alfalfa 95% second cutting, 90% 1989, 80% avg.; 25% third cutting, 10% 1989, 10% avg. Pastures 11% poor, 50% fair, 35% good, 4% excellent. Cattle good; marketings average.

OREGON: Temperatures 1 to 4° below normal except coastal areas, northwest region. Below freezing Ukiah, Enterprise on 3rd. Highest temperature, at Ontario 101° on 1st. Significant precipitation statewide except Burns, Klamath Falls. Some Willamette Valley areas already over half of normal precipitation for July.

Soil moisture 61% short, 35% adequate, 4% surplus. Barley 4% harvested, 2% 1989, 6% avg. Winter wheat harvesting picked up eastern areas.

Hay harvest full swing across State. Grass seed swathing, combining Willamette Valley. Cherry harvest continued Hood River, Wasco Counties; sweet cherries neared end, tart cherries beginning Willamette Valley. Strawberry harvest near completion Willamette Valley; red raspberries at mid harvest; early blueberry, marionberry, boysenberry picking neared. Apple orchard thinning continued Hood River. Cranberry fruit set continuing southern coastal area. Vegetable development good though slow due to cooler temperatures. Onion, carrot seed crops pollinating central area. Potatoes setting tubers Klamath County. Early potato harvest began in Hermiston area. Livestock good to excellent. Western pastures good, eastern range poor to excellent. Wheeler County very dry, rained 0.66 in. in 45 minutes on 5th.

PENNSYLVANIA: Commonwealth experienced near normal precipitation, above normal temperatures. Temperature 71°, 2° above normal. Extremes 44°, 100°. Precipitation 0.27 in., 0.63 in. below normal.

Days suitable for fieldwork 6.0. Soil moisture 47% short, 49% adequate, 4% surplus. Corn 100% planted, 99% 1989, 100% avg.; 0% silk, 0% 1989, 1% avg.; height 25 in., 20 in. 1989, 30 in. avg.; 1% very poor, 6% poor, 25% fair, 47% good, 21% excellent. Tobacco 100% transplanted, 94% 1989, 98% avg. Soybeans 95% planted, 83% 1989, 95% avg.; 2% very poor, 6% poor, 21% fair, 52% good, 19% excellent. Barley 13% heading or headed, 11% 1989; 23% turning yellow, 21% 1989; 20% ripe, 35% 1989; 44% harvested, 33% 1989. Wheat 17% heading or headed, 19% 1989; 47% turning yellow, 53% 1989; 30% ripe, 25% 1989; 6% harvested, 3% 1989; 2% very poor, 2% poor, 15% fair, 60% good, 21% excellent. Oats 74% heading or headed, 80% 1989; 24% turning yellow, 18% 1989; 2% ripe, 2% 1989. 0% harvested, 0% 1989; 1% very poor, 2% poor, 15% fair, 52% good, 30% excellent. First cutting alfalfa 94% complete, 70% 1989. Second cutting alfalfa 23% complete, 17% 1989. First cutting clover timothy 81% complete, 57% 1989. Hay stands mostly fair to good. Pasture 25% poor, 64% good, 11% excellent. Peach 30% below avg., 70% avg. Apple 14% below avg., 86% avg. Activities: Planting soybeans, vegetables; harvesting hay, haylage, barley, vegetables; repairing fences; weed control; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

PUERTO RICO: Rainfall 1.14 in. was 0.06 in. below normal. Highest rainfall 5.58 in. at Arecibo Ionospheric Observatory, 4.52 in. at Pico Del Este Luquillo, 4.25 in. at Isabela Aes. Highest 24 hour total 5.58 in. at Arecibo Ionospheric Observatory. Temperature 81 to 82° on Coasts, 76 to 78° on the Interior. Extremes 62°, 96°.

SOUTH CAROLINA: Temperatures 2 to 5° above normal. Rainfall 0.10 in. in the west central to 0.50 in. in the southern part of the State.

Days suitable for fieldwork 6.4. Soil moisture 73% very short, 25% short, 2% adequate. Cotton 16% poor, 80% fair, 4% good; 75% squaring, 59% 1989, 76% avg.; 30% setting bolls, 8% 1989, 32% avg. Soybeans 2% very poor, 39% poor, 59% fair; 97% planted, 91% 1989, 95% avg.; 6% blooming, 2% 1989, 3% avg. Corn poor; 91% silked, 74% 1989, 85% avg.; 61% dough stage, 25% 1989, 38% avg.; 13% matured, 0% 1989, 8% avg. Sorghum poor to fair; 91% planted, 54% 1989, 81% avg. Tobacco fair; 80% topped, 64% 1989, 69% avg.; 14% harvested, 3% 1989, 4% avg. Peanuts fair. Watermelons fair; 61% harvested, 42% 1989, 46% avg. Cantaloupes fair; 61% harvested, 51% 1989, 44% avg. Peaches fair; 53% harvested, 29% 1989, 45% avg. Barley

fair to good; 96% harvested, 72% 1989, 91% avg. Rye fair to good; 96% harvested, 89% 1989, 93% avg. Tomatoes fair; 87% harvested, 66% 1989, 76% avg.

SOUTH DAKOTA: Temperatures 3 to 12° above normal. Extremes 45°; 110°. Precipitation spotty, widely scattered, maximum 0.83 in. Growing season rainfall above normal east, below normal west. Range 6.50 in. above to 3.70 in. below normal. Growing degree days 220 units above to 97 units below normal.

Days suitable for fieldwork 5.9. Subsoil 7% critically short, 47% short, 45% adequate, 1% surplus. Topsoil 7% critically short, 59% short, 33% adequate, 1% surplus. Range, pasture 6% poor, 29% adequate, 57% good, 8% excellent. Crop conditions mostly good. Hot, windy weather caused some heat stress. Grasshoppers, greenbugs, cutworms, red leaf, blight, rust, weed problems reported. Major activities: Cultivating, spraying, haying, fencing.

TENNESSEE: High pressure prevailed most of week. Weak cold front weekend brought widely scattered light rain. Temperatures generally 2 to 9° above normal. Rainfall 1.00 in. below normal. Most areas received no rain.

Days suitable for fieldwork 6.2. Soil moisture 40% very short, 53% short, 7% adequate. Corn 30% tasseling, 40% 1989, 56% avg.; 4% dough, 4% 1989, 12% avg.; 2% very poor, 13% poor, 47% fair, 38% good. Cotton 65% squaring, 76% 1989, 83% avg.; 4% very poor, 8% poor, 46% fair, 42% good. Sorghum 4% headed, 8% 1989, 17% avg.; 7% poor, 42% fair, 51% good. Soybeans 96% planted, 86% 1989, 93% avg.; 4% blooming, 4% 1989, 8% avg.; 2% very poor, 3% poor, 40% fair, 55% good. Tobacco 6% poor, 58% fair, 36% good. Wheat 98% harvested, 75% 1989, 94% avg. Alfalfa 90% 2nd cutting, 48% 1989, 77% avg. Pastures 2% very poor, 22% poor, 54% fair, 21% good, 1% excellent. Lack of rainfall is growing concern among farmers. Crop conditions steadily worsening. Main activities: Harvesting wheat, hay, cabbage; controlling insects. Cattle fair to good. Heat stressing herds.

TEXAS: Hot weather trend continued. Three digit high temperatures common most sections, not quite as high as last week. Tropical systems more frequent coastal sections. Easterly flow stronger, couple of systems spread around coastal plains, eastern areas. Temperatures above normal all locations, except Upper Coast, Lower Valley, southern areas. Rainfall below normal except coastal, southern areas.

Crops: Small grain harvest winding down many parts Plains with open weather. Corn fields fair progress Plains, irrigation demands steady, some fields showing heat stress. Many fields silking. Blacklands fields doughing, continued stressed. Some cut for silage. Some harvest beginning central, producers expected yields low. Fields drying down rapidly along Upper Coast. Harvest continued Coastal Bend, getting underway Valley. Corn doughing 54%, 60% 1989, 61% avg.; 35% dented, 41% 1989, 41% avg.; 14% mature, 15% 1989, 10% avg.; 3% harvested, 3% 1989, 1% avg. Grain sorghum planting virtually complete; producers not plant some fields because dry conditions. Irrigated fields High Plains good progress, dryland fields stressing. Fields Blacklands turning color with additional harvest beginning. Some fields cut for hay or silage. Harvest getting into full swing central, Upper Coast. Many fields stressing Hill Country. Harvest beginning to wind down Valley, Coastal Bend. Sorghum 100% planted, 99% 1989, 98% avg.; 41% turning color, 45% 1989, 40% avg.; 19% mature, 19% 1989, 19% avg.; 9% harvested, 3% 1989, 6% avg. Cotton fields many areas good progress; rain

needed most places to make decent crop. Fields beginning bloom Plains. Some dryland fields not make because dry conditions. Fields Blacklands, central, Upper Coast setting bolls. Fields Coastal Bend, Valley opening rapidly. Insect controls, cultivating continued some areas. Cotton 2% open bolls, 3% 1989, 2% avg. Soybean planting winding down last week. Fields Blacklands additional stress. Upper Coast early planted fields making good progress, pods not filling properly some fields. Later fields need rain badly. Rice fields continued head Upper Coast. Some fields being drained. Hot temperatures slowed head development. Dryland peanut planting continued very slow pace Cross Timbers, south central. Irrigated fields good growth, irrigation operations almost constant. Other Field Crops: Peanuts planted 94%, 94% 1989, 93% avg. Soybeans planted 99%, 97% 1989, 95% avg. Sunflowers 96% planted, 91% 1989, 89% avg. Oats harvested 91%, 88% 1989, 86% avg.

Commercial Vegetables: Rio Grande Valley, some pepper planting beginning. Land preparation continued. San Antonio Winter Garden, few watermelons, cantaloupes harvested. Eastern State, early sweet potatoes good progress. Later fields need moisture. Summer harvest continued most crops. High Plains, potato harvest beginning. Irrigation remained steady. Onion, potato sizes affected by hot weather. Trans Pecos, onion harvest continued, good yields. Some spraying peppers. Cantaloupe harvest underway. Peach harvest continued, good yields, quality. Pecans showing additional stress from hot, dry conditions. Irrigation, where available, was steady. Aphids increasing parts State.

Range and Livestock: Declining conditions continued all portions. Range fires also increasing. Regrowth hay fields almost nonexistent. Corn, sorghum cut for hay showing a lot nitrate poison. Livestock conditions holding steady. Range, pasture 6% very poor, 26% poor, 47% fair, 17% good, 4% excellent.

UTAH: Temperatures 8° above normal. Precipitation mostly zero or light.

Days suitable for fieldwork 6.8. Soil moisture 97% short, 3% adequate. Major grasshopper, cricket infestation Washington County. Most growers completed first crop hay harvest. Hot, dry weather aided crop growth where irrigation water was available. Winter wheat turned color 79%, 70% 1989, 83% avg.; ripe 24%, 26% 1989, 21% avg. Winter wheat harvest underway Davis, Salt Lake, Utah Counties. Barley, spring wheat also turning; ripe early areas. Alfalfa hay second cutting 25% completed, 20% 1989, 14% avg. Corn height averaged 28 in. Sweet cherry harvest nearly completed. Range, pasture 3% very poor, 16% poor, 59% fair, 21% good.

VIRGINIA: Record breaking heat, severe thunderstorms. Rainfall mostly over northern, eastern State. Hail, damaging winds in some areas.

Days suitable for fieldwork 6.0. Topsoil 14% very short, 72% short, 8% adequate, 6% surplus. Corn silked 19%, 11% 1989, 19% avg.; 14% poor, 80% fair, 6% good. Soybeans planted 91% complete, 80% 1989, 85% avg.; 14% poor, 53% fair, 33% good. Wheat harvested 91% complete, 74% 1989, 73% avg. Barley harvest 98% complete, 91% 1989, 93% avg. Potato harvest nearly half completed. Tobacco 34% fair, 66% good. Hay mostly fair to good. Peanuts 67% fair, 33% good. Pasture 25% poor, 66% fair, 6% good, 3% excellent. Livestock mostly good. Apple mostly poor to fair. Irrigation, harvesting of cucumbers, snap beans. Topping tobacco continued.

WASHINGTON: Temperatures 2° above normal to 4° below normal east; normal to 3° above normal west. Precipitation none to 1.01 east; 0.13 to 0.93 west.

Days suitable for fieldwork 6.1. Soil moisture 53% short, 46% adequate, 1% surplus. Range, pasture 12% poor, 44% fair, 44% good. Hay, other roughage 4% very short, 23% short, 70% adequate, 3% surplus. Winter wheat harvested 0%, 0% 1989, 1% avg. Spring wheat harvested 0%, 0% 1989, 0% avg. Barley harvested 7%, 0% 1989, 2% avg. Alfalfa hay, 1st cutting, 97%, 100% 1989, 100% avg. Alfalfa hay, 2nd cutting, 33%, 34% 1989, 31% avg. Small grain conditions remain good. Winter barley was harvested this week with wheat to begin soon. Hay harvest continues. Quality, condition varies, large portion was damaged by rain. Mint, grass, dry peas, potatoes were harvested during the week. Cherry harvest was winding down. Apple thinning continued. Strawberry harvest neared completion. Blueberries, raspberries were being harvested.

WEST VIRGINIA: Temperature 72°. Extremes 47°; 98°. Precipitation 0.24 in., 0.62 to 0.87 in. below normal.

Days suitable for fieldwork 5.3. Soil moisture 5% very short, 67% short, 28% adequate. Pastures 27% fair, 59% good, 14% excellent. Cattle, sheep good. Wheat, barley fair to good. Wheat 87% ripe, 41% harvested. Barley 94% ripe, 88% harvested. Oats good to fair; 91% jointed, 77% headed. Hay good; first cutting 74% complete, second cutting 18% complete. Apples, peaches poor. Tobacco good. Farm activities: Hay, small grain harvest, farm maintenance, caring for livestock.

WISCONSIN: Temperature 72°, 1° above normal. Extremes 36°; 102°. Precipitation 0.10 to 1.50 in.

Days suitable for fieldwork 5.8. Soil moisture 7% short, 86% adequate, 7% surplus. Pasture 2% poor, 6% fair, 51% good, 41% excellent. General condition of crops 1% poor, 9% fair, 79% good, 11% excellent. Soybean 77% of normal. Corn 1% very poor, 1% poor, 18% fair, 65% good, 15% excellent; height 30 in., 35 in. 1989, 41 in. avg. First cut hay 87% completed, 92% 1989, 95% avg. Second cut hay 8% completed, 3% 1989, 14% avg. Oats 85% headed, 86% 1989, 90% avg.

WYOMING: Temperatures 6 to 13° above normal. Precipitation below normal.

Days suitable for fieldwork 7.0. Topsoil 66% short, 34% adequate. Subsoil 58% short, 42% adequate. Hot, dry weather continues to speed maturity of small grains. Winter wheat small amount boot, 0% 1989, 5% avg.; 60% headed, 50% 1989, 45% avg.; 35% turning color, 40% 1989, 45% avg.; 5% mature, 10% 1989, 5% avg. Barley 5% jointed, 5% 1989, 10% avg.; 15% boot, 25% 1989, 25% avg.; 65% headed, 60% 1989, 50% avg.; 15% turning color, 10% 1989, 15% avg. Spring wheat 5% jointed, 5% 1989, 10% avg.; 15% boot, 25% 1989, 30% avg.; 70% headed, 55% 1989, 50% avg.; 10% turning color, 15% 1989, 10% avg. Oats 5% jointed, 10% 1989, 15% avg.; 35% boot, 30% 1989, 35% avg.; 60% headed, 55% 1989, 45% avg.; none turning color, 5% 1989, 5% avg. Dry beans 5% in bloom, 10% 1989. Potatoes 75% in bloom, 20% 1989. Alfalfa hay first cutting 70% complete, 75% 1989, 70% avg. Other hay 25% harvested, 30% 1989, 25% avg. Ranges, pastures mostly good.

(Continued from p. 10)

Early in June, soybean planting lagged behind normal in Illinois, Indiana, Tennessee, Arkansas, Kentucky, and Missouri. Planting progressed slowly in the Corn Belt during the month. By the end of June, planting was 95 percent complete, 1 point behind normal in the 19 major producing States. Planting still lagged behind normal in Missouri. Crop condition was good to fair. Lack of moisture stressed soybeans in the Southeast.

By June 10, cotton planting was complete or nearly complete except in Oklahoma and Texas. Crop condition was good to fair. Near the end of June, lack of moisture stressed cotton in portions of Texas. Dry soil conditions forced some fields to shed bolls in the Coastal Bend area and Rio Grande Valley of Texas. By the end of June, cotton condition was still good to fair in the 14 major producing States.

Early in June, sorghum planting lagged behind normal in Illinois and Missouri and continued to progress slowly during the month. By the end of June, planting was complete or nearly complete except in Illinois and Missouri. Crop condition

was good in Kansas, good to fair in Nebraska, and fair to good in Texas. Harvest was underway in the Coastal Bend area and Rio Grande Valley of Texas.

Rice was mostly good to fair during June. By the end of June, heading had begun in Louisiana and Texas.

Winter wheat was good to fair during June. As the month began, harvest was underway in 6 of the 19 major producing States. Harvest progressed rapidly in the central and southern Great Plains during the month. Rain slowed harvest in portions of the Corn Belt. By the end of June, harvest was 50 percent complete, 6 points behind normal, in the major producing States. Harvest was nearly complete in Oklahoma and over half finished in Kansas. In Texas, harvest was nearly complete except in the Plains area. Harvest was beginning in Nebraska and lagged behind normal in Illinois and Missouri. Spring wheat was in mostly good condition at the end of June. Fifty-eight percent of the acreage was headed, 3 points ahead of normal.

International Weather and Crop Summary

HIGHLIGHTS

July 1-7, 1990

USSR ... In Western USSR, hot, dry weather in the south hastens winter grain maturation and helps harvesting. In the New Lands, showers continue over the Urals and western Kazakhstan, benefiting spring grains in or nearing reproduction.

EUROPE ... Rain and unseasonably cool temperatures slow crop development in the north. Heat and dryness stress summer crops in the southeast.

SOUTH ASIA ... Showers maintain favorable early growing conditions in northern, central, and eastern summer crop areas.

EASTERN ASIA ... Widespread heavy rain favors summer crops in northern Chinese growing areas. Continued heavy rain causes further flooding in central sections of the Korean Peninsula.

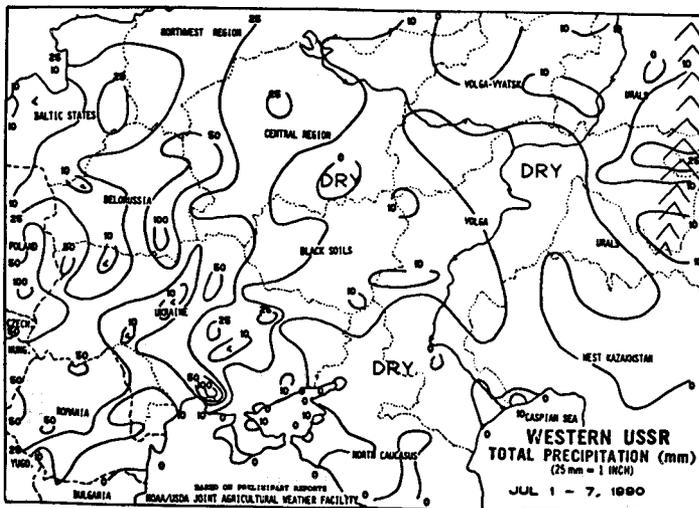
SOUTHEAST ASIA ... Timely, but below-normal rainfall covers reproductive Thai corn.

SOUTH AMERICA ... In Brazil, widespread midweek rain covers wheat. In Argentina, light rain moistens topsoils for wheat planting.

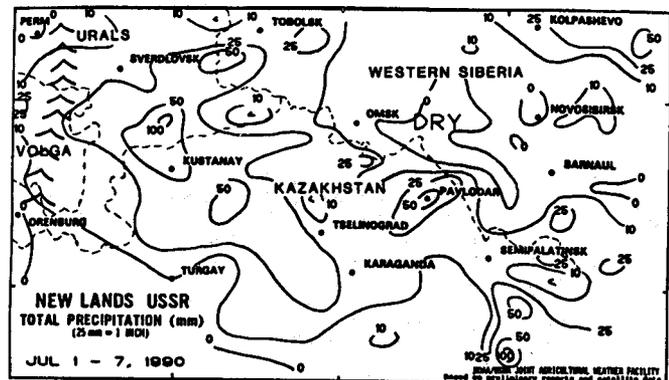
AUSTRALIA ... Beneficial rain continues in sections of the south. Cool temperatures slow winter crop growth in most areas.

MEXICO ... Moderate to heavy rain covers the corn belt, causing some local flooding. Showers in the north bring some relief from the heat.

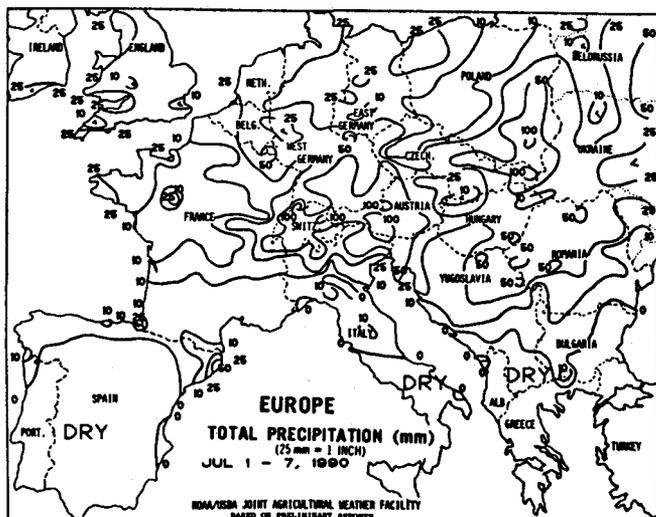
CANADA ... Widespread showers soak mostly vegetative spring crops over all but the southwestern Prairies.



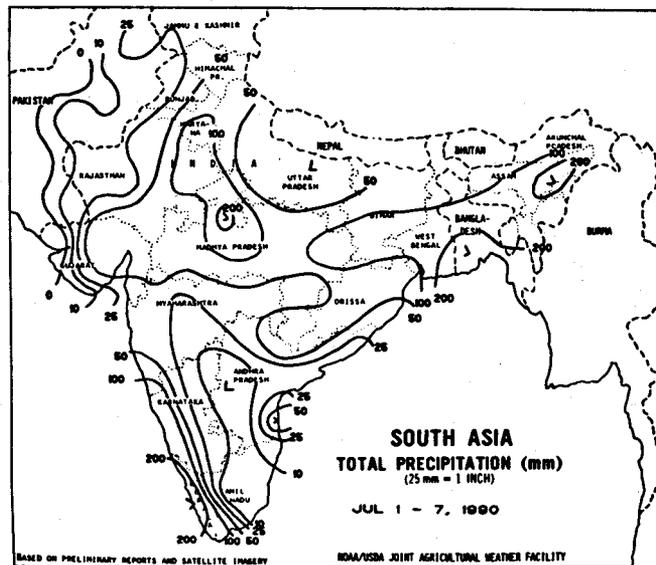
USSR ... In Western USSR, hot weather covered the eastern two-thirds of the Ukraine, North Caucasus, and lower Volga, hastening maturity in both winter and spring grains. Highest weekly temperatures in these areas ranged from 33 to 40 degrees Celsius (C). In addition, several days of dry weather helped early winter grain harvesting. Although dry weather covered the eastern Black Soils Region, upper Volga Valley, and the Volga Vyatsk Region, adequate moisture reserves favored winter grains in the filling stage and spring grains advancing through reproduction. By week's end, a frontal system entered western areas, bringing cool, unstable weather with showers and local thunderstorms. Rainfall in the Baltic States, Belorussia, and the western Ukraine generally ranged from 25 to 50mm, with local amounts in excess of 75mm.



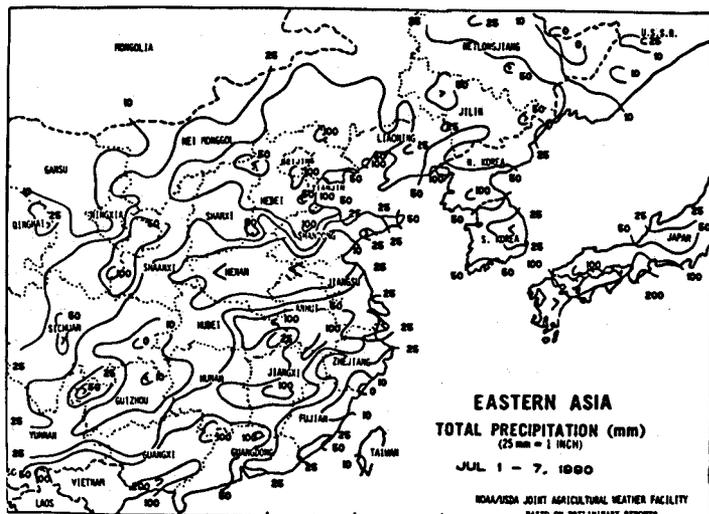
In the New Lands, showers and local thunderstorms continued over the northern Urals and western Kazakhstan, benefiting spring grains in or nearing reproduction. Unseasonably warm dry weather covered Western Siberia, where spring grains were mostly in the jointing stage. Minimal rain and persistent hot weather in minor spring grain producing areas in eastern Kazakhstan and adjacent areas in Western Siberia has reduced available soil moisture and accelerated crop development, lowering crop yield potential. Weekly average temperatures were 2-4 degrees C above normal over the eastern two-thirds of the region.



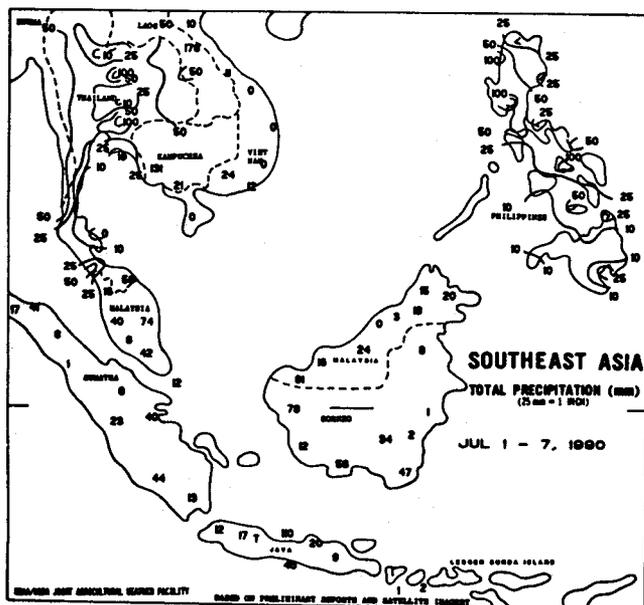
EUROPE ... Widespread rain (10-45mm, with scattered amounts greater than 45mm) persisted over much of northern Europe, favoring summer crops but delaying maturation and drydown of winter barley. Heavy rain (70-110mm) in sections of southern West Germany, Austria, eastern Czechoslovakia, and southern Poland may have caused localized flooding. Unseasonably cool temperatures (mean weekly temperatures 2-5 degrees C below normal) across the north slowed growth and development of most crops. In contrast, hot (daily maximum temperatures 34-37 degrees C) and mostly dry weather stressed summer crops in sections of the lower Danube Valley through midweek, followed by scattered showers (5-30mm, with isolated amounts in excess of 30mm) and cooler temperatures on the 6th and 7th. Drier-than-normal conditions have persisted over southern and eastern sections of the Balkans since early June.



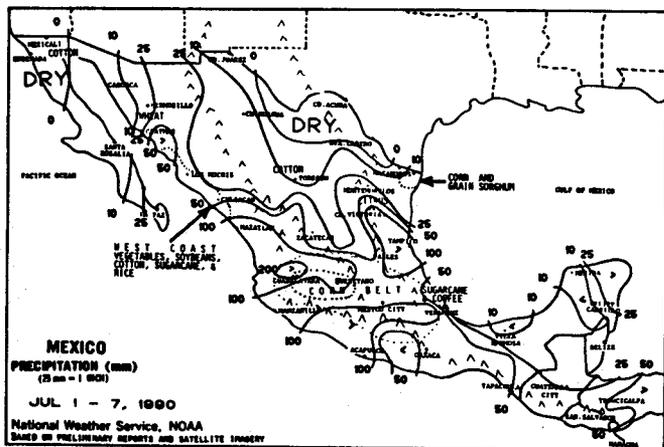
SOUTH ASIA ... Widespread showers (25-50mm or more) continued across central and eastern crop regions, maintaining favorable moisture reserves for planting and establishment. The first substantial rains of the season, accompanied by favorably cooler weather, reached crop areas in northern Pakistan and north-central India as the monsoon continued its northward progression. Locally heavy accumulations (100-200mm or more) likely caused some flooding, especially in eastern Madhya Pradesh and portions of the eastern states and Bangladesh following recent weeks of above-normal rainfall. In the south, rainfall continued to average less than 25mm from central Maharashtra southward, with most stations reporting 1-13mm. Although rainfall over much of southern India reaches its peak later in the season, amounts since the onset of the southwest monsoon have been below normal, reducing moisture reserves for cotton and groundnuts usually planted during June.



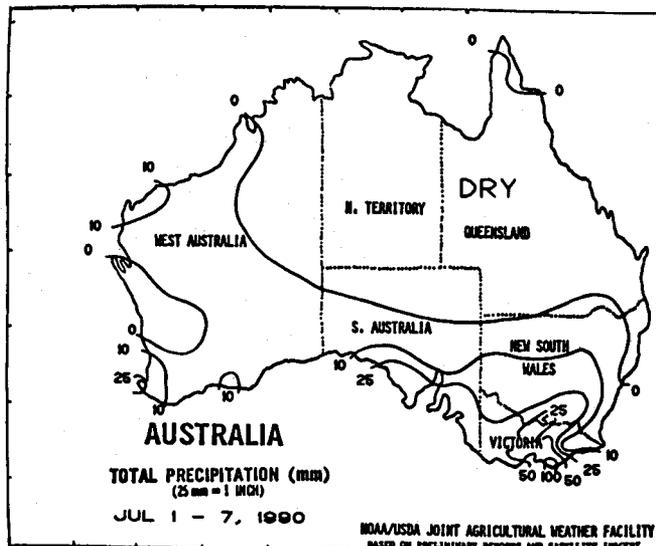
EASTERN ASIA ... Heavy rain (25-60mm, with scattered amounts in excess of 60mm) fell from southern Gansu and Shaanxi northeastward to central Heilongjiang, benefiting most summer crops. However, additional very heavy rain (60-170mm) in central sections of the Korean Peninsula likely resulted in continued flooding. In southern sections of the North China Plain, drier weather favored progress of secondary crop planting. Heavy seasonal rains (25-50mm, with isolated amounts greater than 50mm) in interior sections of southern China favored most summer crops but slowed harvest of early crop rice and planting of late rice. Very heavy rain (100-150mm) in sections of eastern Guangxi, northern Guangdong, Jiangxi, and southern Anhui may have caused localized flooding.



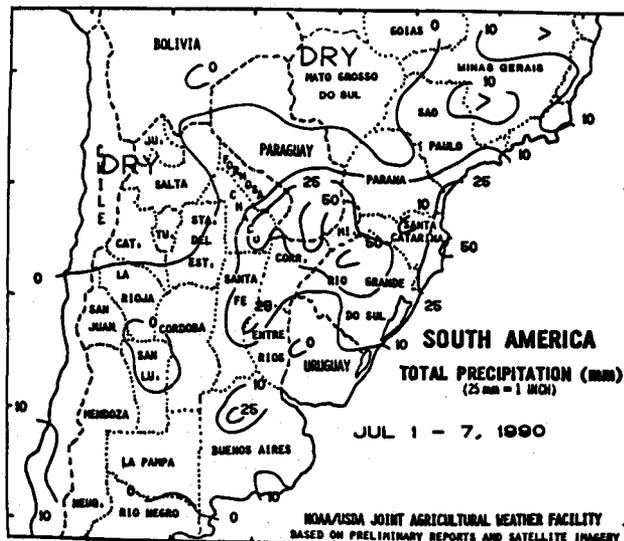
SOUTHEAST ASIA ... Highly variable rainfall covered Thailand, but pockets of drier-than-normal weather (25mm or less) persisted in the north and over central Thailand's corn belt. Temperatures, however, averaged near normal, with highs generally in the middle 30's C. Although rainfall in recent weeks has been timely for reproductive corn, accumulations have been mostly below normal and temperatures have remained seasonably warm, depleting moisture reserves. In the Philippines, rainfall averaged 25-50mm or more over most northern and central crop areas with local heavy amounts (100-210mm) limited to only local areas of western Luzon. Rainfall averaged less than 25mm over primary rice and sugarcane areas from southern Luzon through the west-central islands to northern Mindanao.



MEXICO ... Heavy rain (50-100mm or more) covered most of the Southern Plateau corn belt, maintaining ample moisture levels for corn growth. Excessive rain (236mm), however, likely caused some flooding in the west near Guadalajara. Moderate to heavy showers (25-50mm or more) also covered crop regions in the northeast from Veracruz as far north as Montemorelos, with the heaviest rain (100-192mm) over a large area centered around Tampico. In the northwest, showers (10-25mm or more) brought much needed relief from the heat and boosted reservoir levels in most farming regions.



AUSTRALIA ... Moderate to heavy rain (10-40mm, with isolated amounts greater than 40mm) continued across crop areas of South Australia, western Victoria, and southern New South Wales, further replenishing soil moisture for winter grains. Light to moderate rain (5-15mm) fell across the remainder of New South Wales and extreme southeastern Queensland. In eastern coastal Queensland, seasonably dry weather favored rapid progress of early sugarcane harvest. Below-normal temperatures (1-4 degrees C below normal) across nearly all crop areas kept winter crop growth to a minimum, including freezing minimum temperatures (0 to -2 degrees C) in winter grain areas of northern New South Wales and southern Queensland on the 5th to the 7th.



SOUTH AMERICA ... In Brazil, midweek showers covered wheat areas in Parana, Santa Catarina, and Rio Grande Do Sul. The greatest amount of precipitation fell over Rio Grande Do Sul, where rainfall averaged 25mm. Further north, light rain (around 10mm) over citrus and coffee areas of Sao Paulo and Minas Gerais caused only brief delays in harvesting. In Argentina, light rain (5-10mm, with local amounts in excess of 10mm) moistened topsoils for wheat planting. Latest reports indicated about 35 percent of the wheat crop has been planted, compared to 42 percent a year ago. More rain is needed to increase topsoil moisture for crop emergence and plant establishment.

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.

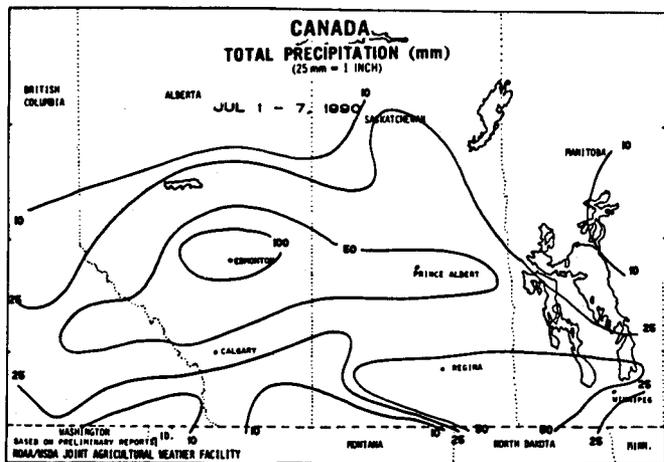
Annual subscriptions: domestic \$35, foreign \$50 (in U.S. funds by international money order or check drawn on U.S. bank) payable to U.S. Department of Commerce, NOAA. POSTMASTER: Send address changes to Weekly Weather and Crop Bulletin, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, 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.

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(Continued from front cover)
seaboard and dotted the West. Beneficial rain dampened the northern Plains. At midweek, thunderstorms developed along a slow moving cold front, reaching from the central Rockies to the middle Atlantic coast. Severe storms caused local torrential rain in Indiana, Ohio, Maryland, and Delaware. Flooding resulted from heavy rains in Denver, CO. Intense thunderstorms swept across the upper Mississippi Valley and Great Lakes with heavy rain and high wind at week's end.



CANADA ... Moderate to heavy rain (25-50mm or more) covered most primary spring wheat areas, soaking crops ranging from the jointing to heading stages of development. Although the rainfall greatly improved soil moisture levels, local flooding likely occurred, especially near Edmonton, Alberta, which received most of its 141mm over a 2-day period. In contrast, rainfall continued to be light (4-8mm) in southern Alberta and southwestern Saskatchewan, where hot weather episodes last week and again on July 1 dried topsoils. Rainfall will be needed soon in the southwest as crops enter the heading stage.

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Weather Facility
Room 5844 USDA South Building
Washington, D.C. 20250

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WEEKLY NEWS BULLETIN
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ISSN 0043 1974