

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

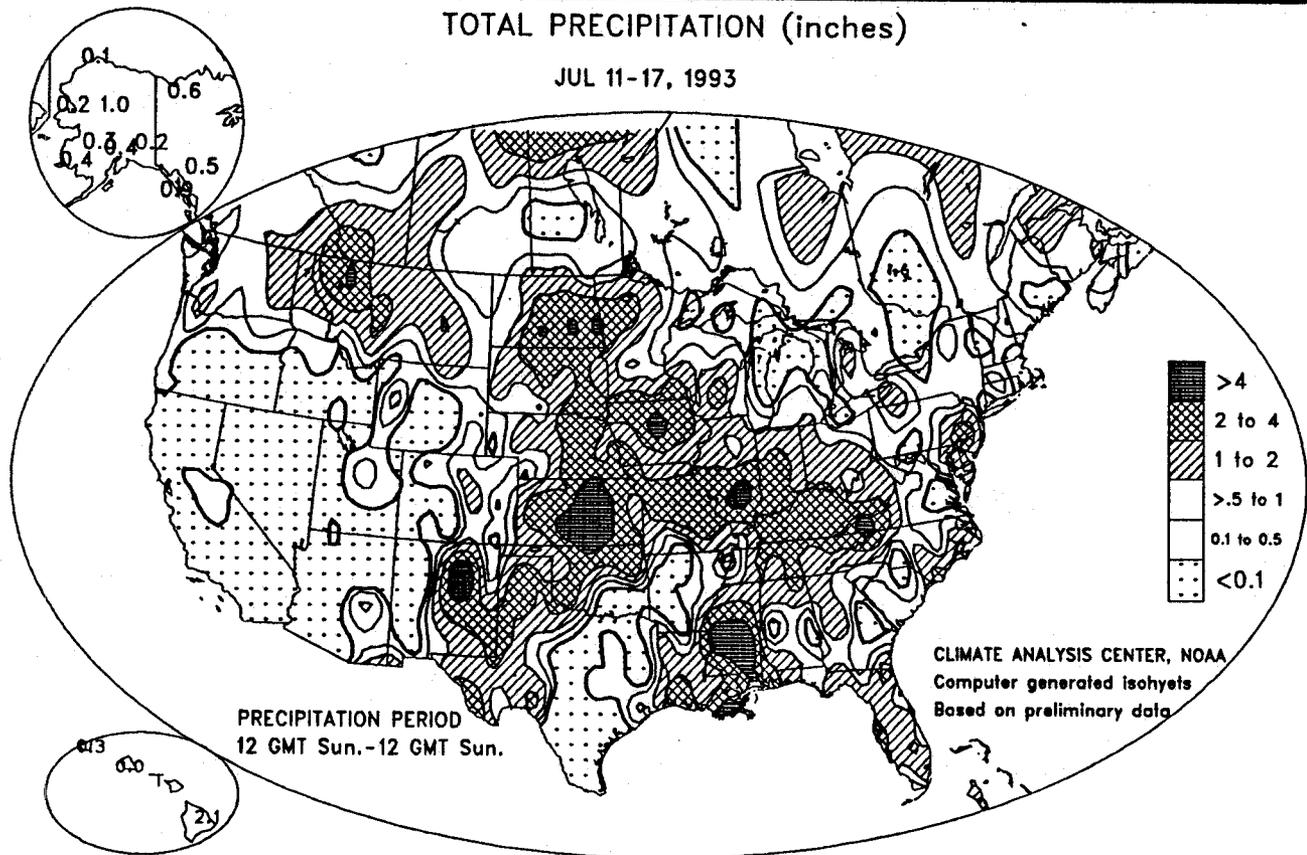
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Washington, D.C.

July 20, 1993

TOTAL PRECIPITATION (inches)

JUL 11-17, 1993



CLIMATE ANALYSIS CENTER, NOAA
Computer generated isohyets
Based on preliminary data

PRECIPITATION PERIOD
12 GMT Sun.-12 GMT Sun.

HIGHLIGHTS

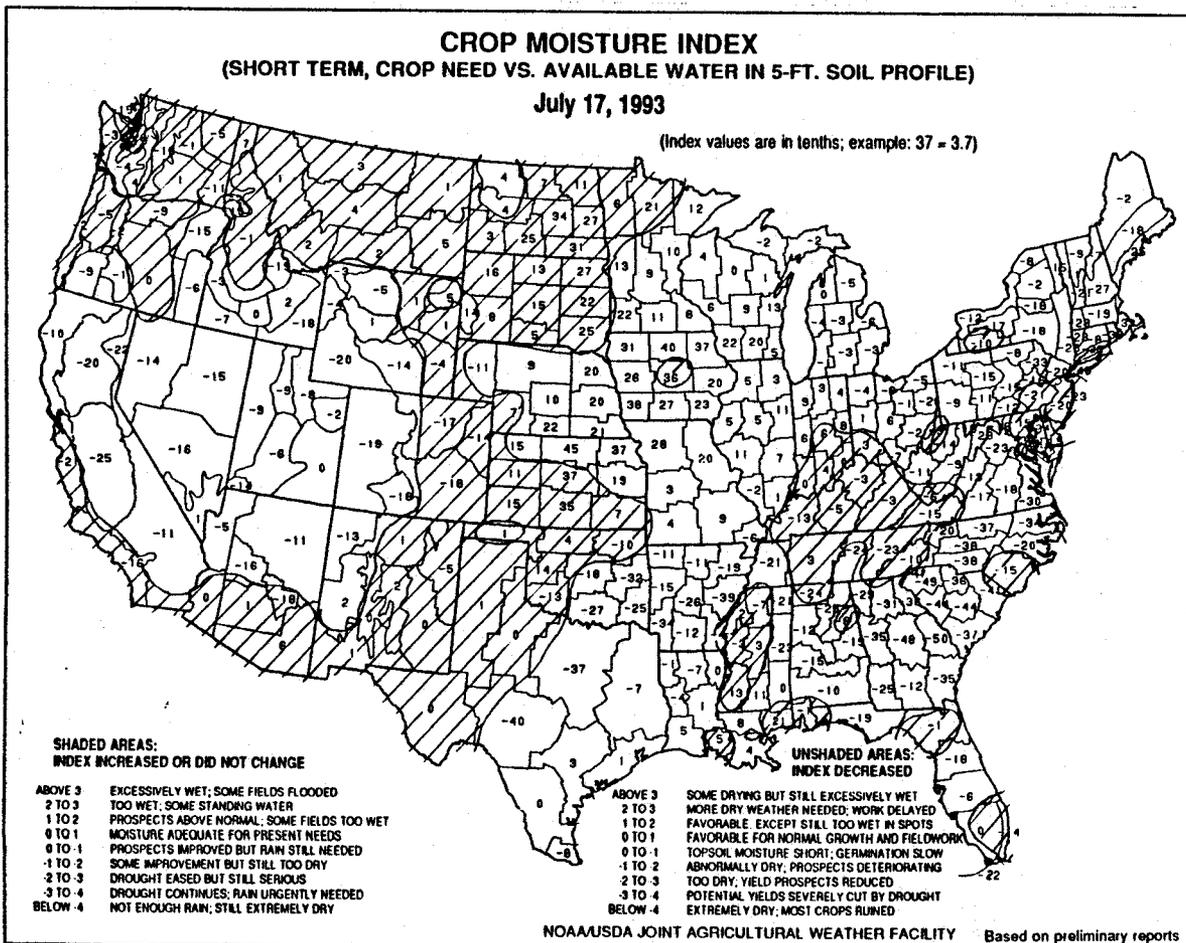
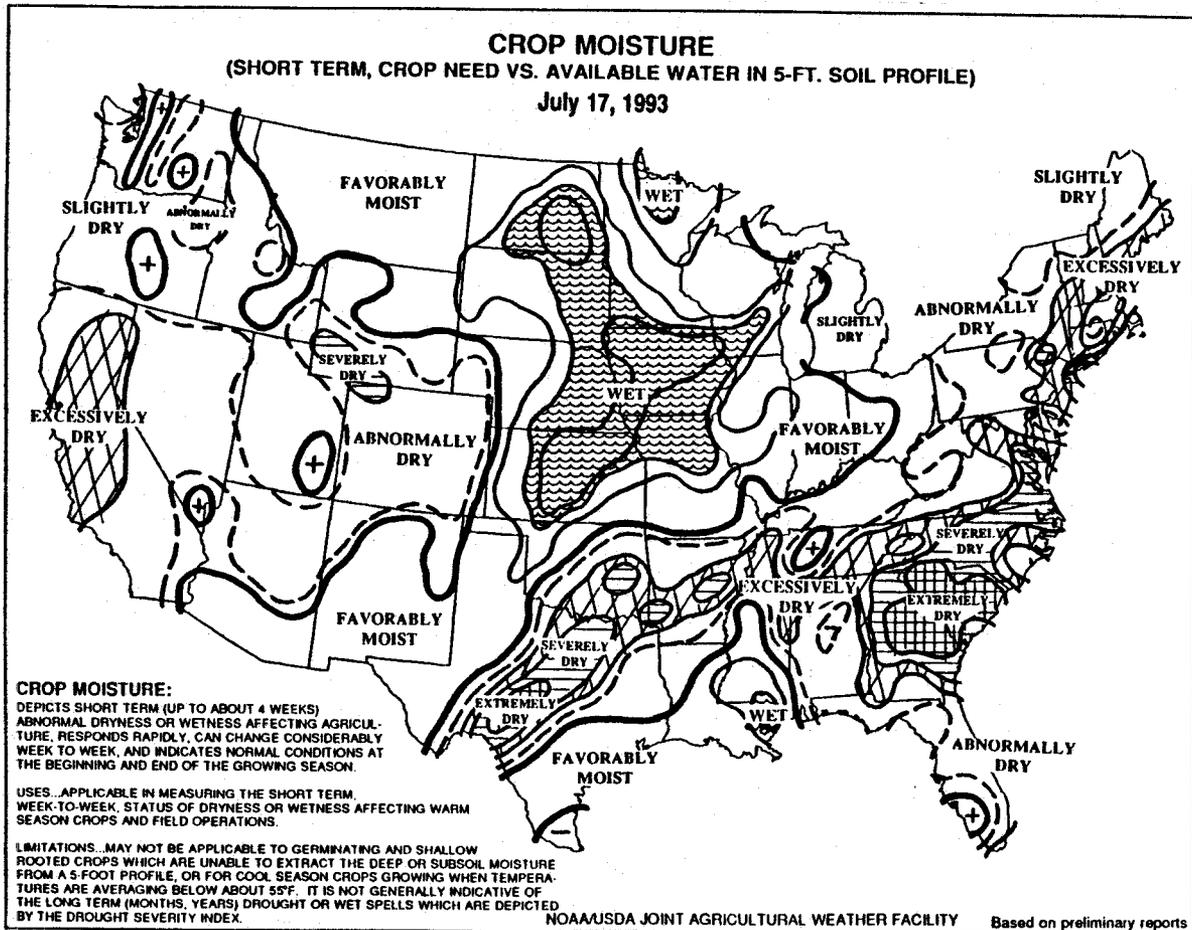
July 11 - 17, 1993

Record crests converged on St. Charles County, MO at the confluence of the Missouri and Mississippi Rivers, while continued heavy rainfall in the upper and middle Mississippi River watershed threatened to prolong high river levels and further interfered with agriculture. Elsewhere, sporadic thunderstorms provided only scattered relief to heat- and drought-stricken crops in the Southeast, and dryness intensified from Arkansas southwestward into eastern Texas. For the sixth week in a row, abnormally cool air cloaked the Northwest (20 daily record lows), while heat and dryness gripped the East (2 dozen daily record highs). Washington, DC (16 days) and Knoxville, TN (every day this month) eclipsed records for consecutive 90°F days in July. Heat also baked Alaska, where temperatures soared to 79°F in Barrow, AK, and to 92°F in Umiat, AK. In contrast,

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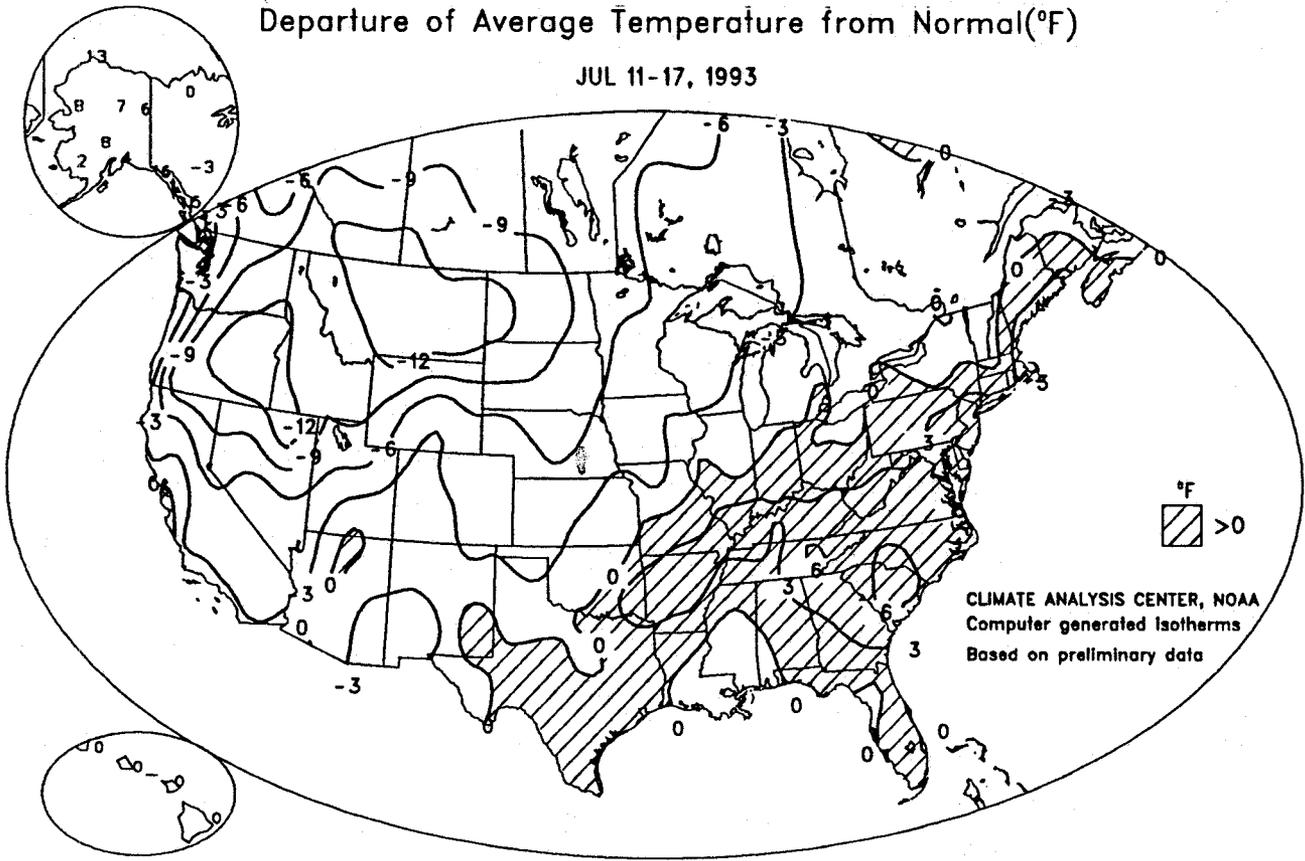
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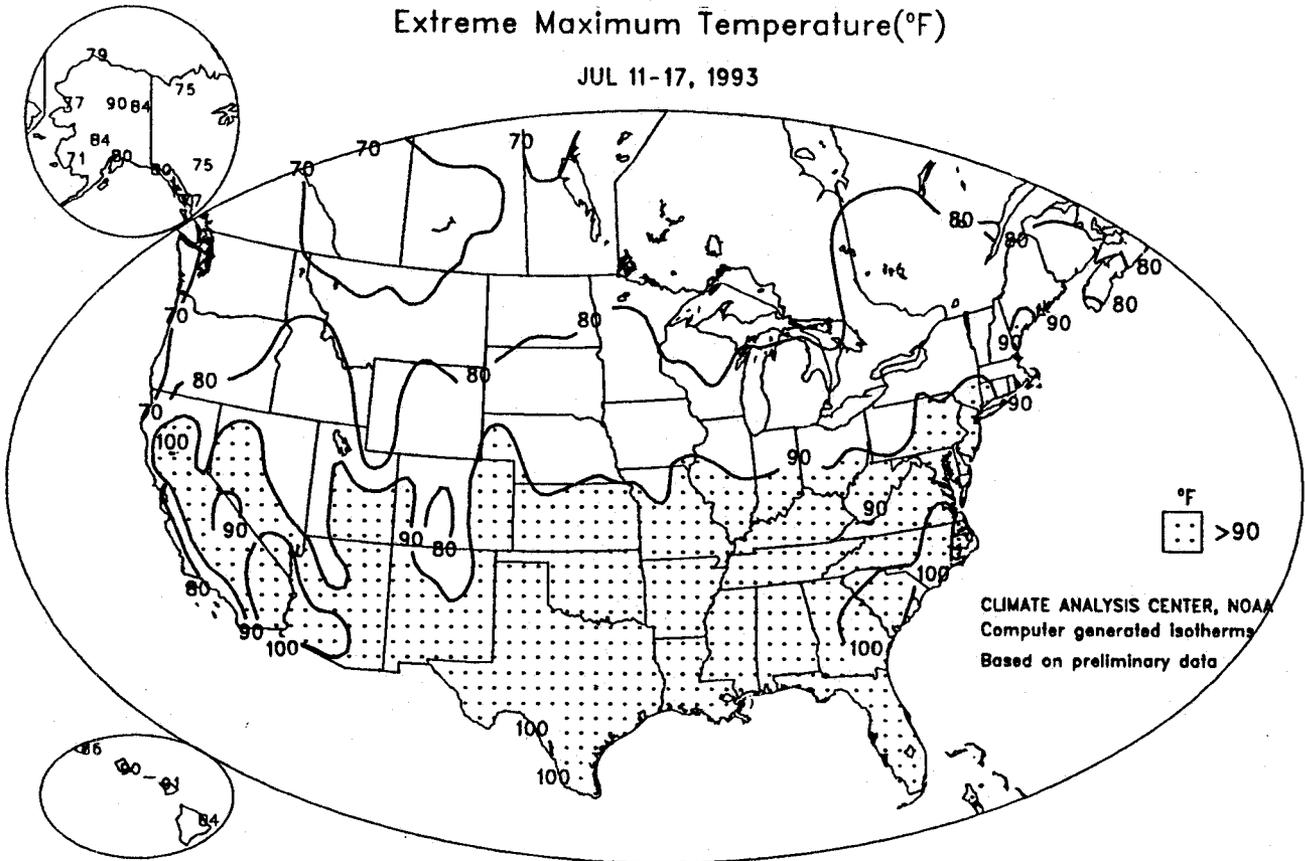
Departure of Average Temperature from Normal(°F)

JUL 11-17, 1993



Extreme Maximum Temperature(°F)

JUL 11-17, 1993



CUMULATIVE GROWING DEGREE DAYS (CORN*)

April 1 - July 17, 1993

STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL
AL ANNISTON	2193	- 24	AL SALINA	1780	- 93	OK ALTUS	2268	- 56
AL BIRMINGHAM	2218	- 40	AL TOPEKA	1740	- 109	OK GAGE	1955	- 54
AL MOBILE	2426	- 191	AL WICHITA	1836	- 158	OK ROBERT	2114	- 83
AL MONTGOMERY	2343	+ 6	KY LEXINGTON	1849	+ 64	OK MCLESTER	2328	+ 64
AL MUSCLE SHOALS	2212	+ 35	OK BOWLING GREEN	1989	+ 34	OK PONCA CITY	2101	- 12
AL OZARK	2398	- 43	LA PADUCAH	2112	+ 66	OK TULSA	2082	- 142
AL TUSCALOOSA	2310	- 38	LA LAFAYETTE	2535	- 109	OK BAKER	935	- 85
AZ DOUGLAS	2217	+ 160	LA LAKE CHARLES	2603	- 80	OK EUGENE	1044	- 5
AZ FLAGSTAFF	1247	+ 178	LA MONROE	2424	- 45	OK NORTH BEND	813	+ 205
AZ PHOENIX	3094	+ 470	LA NEW ORLEANS	2485	- 157	OK FENDLETON	1232	- 66
AZ TUCSON	2611	+ 195	LA SHRVEPORT	2394	- 21	OK REDMOND	913	- 107
AZ YUMA	3099	+ 390	ME AUGUSTA	1188	+ 159	OK PORTLAND	1158	+ 96
AR PRESCOTT	1710	+ 244	ME CARIBOU	910	+ 123	OK SALEM	1163	+ 130
AR EL DORADO	2276	- 65	ME HOULTON	945	+ 67	OK SIXTON SUMMIT	530	- 193
AR FAYETTEVILLE	1955	+ 6	ME PORTLAND	1128	+ 181	PA ALLENTOWN	1679	+ 213
AR FORT SMITH	2195	- 28	ME FALLSBURY	1863	+ 152	PA PHILADELPHIA	1946	+ 388
AR JONESBORO	2171	- 78	MA WORCESTER	1217	+ 89	PA WILLIAMSPORT	1634	+ 217
AR LITTLE ROCK	2244	- 16	MI JACKSON	1338	- 10	SC BEAUFORT	2530	+ 83
AR TEXARKANA	2341	- 88	MI LANSING	1326	- 48	SC CHARLESTON	2460	+ 81
CA BAKERSFIELD	2196	+ 19	MI MUSKEGON	1233	+ 60	SC COLUMBIA	2353	+ 41
CA BLUE CANYON	775	- 108	MI PELLSTON	942	- 13	SC FLORENCE	2426	+ 116
CA DAGGETT	2444	+ 116	MI SAULT STE. MARIE	697	- 68	SD SUMNER/SHAW AFB	2320	+ 8
CA EUREKA	814	+ 395	MI TRAVERSE CITY	1124	+ 32	SD ABERDEEN	1181	- 47
CA FRESNO	2314	+ 183	MN DULUTH	647	+ 162	SD HURON	1200	- 168
CA MARYSVILLE	1961	+ 95	MN INT'L FALLS	828	- 117	SD FERRIS	1193	- 175
CA MERCED	1992	+ 134	MN ALEXANDRIA	992	- 157	SD RAPID CITY	1027	- 201
CA MT SHASTA	881	- 171	MN WARROAD	720	- 266	SD SIOUX FALLS	1222	- 189
CA PASO ROBLES	1707	+ 150	MS BILOXI	2594	- 84	SD WATERTOON	977	- 221
CA RED BLUFF	1872	- 74	MS COLUMBUS	2269	- 12	TN BRISTOL	1874	+ 98
CA RIVERSIDE	2073	+ 288	MS JACKSON	2369	+ 23	TN CHATTANOOGA	2196	+ 120
CA SANTA ANA	2154	+ 489	MS MERIDIAN	2346	- 16	TN CROSSVILLE	1837	+ 227
CA SAN DIEGO	1825	+ 275	MS GREENWOOD	2353	- 56	TN MEMPHIS	2316	- 14
CA SACRAMENTO	1760	+ 60	MO COLUMBIA	1773	+ 6	TN NASHVILLE	2099	+ 3
CA THERMAL	2705	+ 58	MO JOPLIN	1953	- 70	TX ABILENE	2430	- 2
CO ALAMOSA	1057	- 30	MO SPRINGFIELD	1845	- 31	TX AMARILLO	1914	+ 12
CO DENVER	1381	+ 20	MT VICTY	1852	- 13	TX AUSTIN	2653	- 3
CO EAGLE	1013	- 130	MT BOZEMAN	855	+ 256	TX BROWNSVILLE	3013	+ 9
CO GRAND JUNCTION	1610	- 101	MT HELENA	886	- 74	TX COLLEGE STATION	2566	- 48
CO LA JUNTA	1725	- 26	MT KALISPELL	847	- 132	TX DALHART	1807	+ 20
DE DOVER	1791	+ 11	MT MILES CITY	1101	- 176	TX DALLAS/FT WORTH	2519	+ 56
DE WILMINGTON	1850	+ 219	NE GRAND ISLAND	1451	- 139	TX GALVESTON	2844	+ 27
FL DAYTONA BEACH	2534	- 118	NE NORFOLK	1429	- 113	TX HOUSTON	2656	+ 54
FL FORT MYERS	2870	+ 20	NE NORTH PLATTE	1359	- 74	TX KINGSVILLE/NAS	2975	+ 86
FL GAINESVILLE	2436	- 187	NE VALENTINE	1234	- 241	TX LAREDO	3023	+ 58
FL JACKSONVILLE	2477	- 121	NE SCOTTSBLUFF	1296	- 74	TX LUBBOCK	2262	+ 136
FL FORT LAUDERDALE	3148	+ 215	NV SIDNEY	1231	- 14	TX MCALLEN	3062	+ 140
FL MIAMI	3119	+ 89	NV ELKO	1011	- 135	TX MIDLAND	2384	+ 20
FL MILTON	2490	- 16	NV ELY	1072	+ 5	TX PALACIOS	2738	- 78
FL FLEMING	2535	- 118	NV LAS VEGAS	2661	+ 266	TX SAN ANTONIO	2692	- 17
FL ST PETERSBURG	2828	- 131	NV RENO	1295	+ 17	TX VICTORIA	2728	- 70
FL TALLAHASSEE	2437	- 90	NH WINNEWUCCA	1265	- 6	TX WACO	2535	- 70
FL TAMPA	2709	- 102	NH CONCORD	1351	+ 163	TX WICHITA FALLS	2272	- 89
FL VERO BEACH	2726	- 33	NJ NEWARK	1996	+ 388	TX WINK	2459	+ 60
FL W. PALM BEACH	2929	+ 31	NM ALBUQUERQUE	2019	+ 275	UT CEDAR CITY	1380	+ 16
GA ATHENS	2245	+ 79	NM CARLSBAD	2429	+ 130	VT BARKER-MONTPELIER	1074	+ 98
GA AUGUSTA	2389	+ 109	NM CLAVIS	1981	+ 124	VT BURLINGTON	1270	+ 141
GA BRUNSWICK	2481	- 103	NM CALLUP	1510	+ 86	VA CHARLOTTESVILLE	1853	+ 99
GA COLUMBUS	2416	+ 24	NY TRUTH OR CONSEQ.	2179	+ 136	VA HAMPTON/LANGLEY	2131	+ 201
GA MACON	2374	- 29	NY ALBANY	1430	+ 134	VA LYNCHBURG	2020	+ 239
GA SAVANNAH	2523	+ 64	NY ELMIRA	1383	+ 150	VA NORFOLK	2132	+ 182
ID BOISE	1242	- 71	NY GLENS FALLS	1306	+ 129	VA RICHMOND	2049	+ 119
ID BURLEY	1131	- 20	NY ROCHESTER	1309	+ 56	VA BELLINGHAM	886	+ 147
ID IDAHO FALLS	907	- 140	NY SYRACUSE	1334	+ 91	VA HOQUIAM	789	+ 149
ID POCATELLO	983	- 135	NY UTICA	1210	+ 56	VA SEATTLE-TACOMA	961	+ 100
IL BELLEVILLE	1898	+ 9	NY WATERTOWN	1149	+ 7	VA SPOKANE	872	- 52
IL CHICAGO/MIDWAY	1502	- 15	NC ASHEVILLE	1757	+ 77	VA TACOMA	1004	+ 65
IL DECATUR	1722	- 60	NC FAYETTEVILLE	2249	+ 105	VA WALLA WALLA	1322	- 28
IL PEORIA	1709	+ 104	NC GREENSBORO	2129	+ 181	VA WENATCHEE	1371	- 52
IL ROCKFORD	1478	+ 51	NC HICKORY	2029	+ 92	VA YAKIMA	1296	- 10
IL SPRINGFIELD	1784	+ 32	NC RALEIGH	2153	+ 141	WV HUNTINGTON	1888	+ 224
IL QUINCY	1691	- 21	NC WILMINGTON	2343	+ 97	WV MARTINSBURG	1680	+ 54
IN INDIANAPOLIS	1717	+ 48	ND NEW BERN	2256	+ 71	WV MORCANTOWN	1674	+ 91
IN SOUTH BEND	1479	+ 55	ND BISMARCK	987	- 161	WI EAU CLAIRE	1109	- 140
IN TERRE HAUTE	1790	+ 82	ND DICKINSON	837	- 215	WI GREEN BAY	1123	- 14
IA DES MOINES	1492	- 176	ND JAMESTOWN	924	- 203	WI LACROSSE	1272	- 125
IA MASON CITY	1221	- 231	ND MINOT	855	- 193	WI MADISON	1358	- 3
IA OTTUMWA	1593	- 57	ND GRAND FORKS	1018	- 83	WI WAUSAU	1008	- 128
KS CHANUTE	1832	- 121	OH AKRON-CANTON	1458	+ 77	WI CASPER	1073	- 34
KS DODGE CITY	1710	- 116	OH COLUMBUS	1639	+ 80	WI LANDER	984	- 93
KS GARDEN CITY	1649	- 149	OH DAYTON	1628	+ 10	WI SHERIDAN	951	- 110
KS GOODLAND	1407	- 88	OH FINDLAY	1408	- 41	WI WORLAND	1195	- 27
KS MEDICINE LODGE	1944	- 87	OH YOUNGSTOWN	1411	+ 124			
KS RUSSELL	1690	- 103	OH ZANESVILLE	1588	+ 78			

Based on 1951-80 normals.

* Growing degree days for corn are computed to a 50°F base with the daily maximum temperature limited to 86°F or lower, and the daily minimum to 50°F or higher.

National Weather Data for Selected Cities

Weather Data for the Week Ending July 17, 1993

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
													90 AND ABOVE					32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE				
AL BIRMINGHAM	92	72	94	69	82	-2	2	-1.2	2.1	32	21.7	67	87	36	6	0	0	0	0	0	0	0	0	0
MOBILE	88	72	94	68	80	-2	2	1.0	1.2	6.4	39.4	111	95	40	2	0	0	0	0	0	0	0	0	0
AK ANCHORAGE	94	71	97	68	83	-3	0	-1.3	4.9	60	27.1	82	91	35	0	0	0	0	0	0	0	0	0	0
BARROW	62	44	80	43	64	-2	0	-0.4	0	5	4.2	74	27	4	0	0	0	0	0	0	0	0	0	0
FAIRBANKS	64	44	79	38	53	-13	0	-0.2	0	7	1.6	107	93	64	0	0	0	0	0	0	0	0	0	0
JUNEAU	75	53	93	49	69	7	0	-0.4	1.3	57	5.0	108	84	28	1	0	0	0	0	0	0	0	0	0
KODIAK	69	53	79	51	64	8	0	-0.9	3.7	70	27.5	119	83	39	0	0	0	0	0	0	0	0	0	0
NOME	60	54	81	50	61	7	0	-0.8	4.0	59	36.0	107	85	61	0	0	0	0	0	0	0	0	0	0
AZ PHOENIX	103	81	105	77	92	-2	0	-0.2	1.3	60	6.0	110	92	71	0	0	0	0	0	0	0	0	0	0
PRESCOTT	86	62	89	55	74	1	0	-0.7	0	2	8.7	278	55	21	0	0	0	0	0	0	0	0	0	0
TUCSON	96	73	101	71	84	-2	0	-0.5	1	3	20	7.7	185	75	26	6	0	0	0	0	0	0	0	0
YUMA	106	82	107	78	94	0	0	-0.1	0	0	3.3	306	61	19	7	0	0	0	0	0	0	0	0	0
AR FORT SMITH	98	75	100	72	87	5	0	-0.7	5.0	100	26.7	118	84	35	7	0	0	0	0	0	0	0	0	0
LITTLE ROCK	97	75	99	73	86	5	0	-0.7	2.0	34	23.5	86	84	34	7	0	0	0	0	0	0	0	0	0
CA BAKERSFIELD	95	64	101	59	80	-5	0	-0.2	0	5	6.6	172	49	18	5	0	0	0	0	0	0	0	0	0
FURKA	62	51	64	49	57	0	0	-0.2	1.2	214	29.4	140	91	64	0	0	0	0	0	0	0	0	0	0
FRESNO	94	63	99	59	78	-4	0	-0.2	1.6	>1000	11.5	165	64	18	6	0	0	0	0	0	0	0	0	0
LOS ANGELES	94	64	78	63	70	1	0	-0.2	0	7	>1000	18.5	238	85	46	0	0	0	0	0	0	0	0	0
REDDING	93	67	102	60	80	-2	0	-0.2	0	7	100	35.3	187	45	12	6	0	0	0	0	0	0	0	0
SACRAMENTO	91	56	94	54	73	-3	0	-0.2	1.3	833	19.1	178	90	32	5	0	0	0	0	0	0	0	0	0
SAN DIEGO	75	65	77	65	70	0	0	-0.2	4	433	15.5	250	80	46	0	0	0	0	0	0	0	0	0	0
SAN FRANCISCO	73	53	79	52	63	-3	0	-0.2	2	133	19.4	158	87	43	0	0	0	0	0	0	0	0	0	0
CO DENVER	84	57	93	53	71	-1	0	-0.2	0	2	7.6	82	87	36	3	0	0	0	0	0	0	0	0	0
GRAND JUNCTION	94	65	97	62	80	-2	0	-0.2	2.4	83	7.5	143	46	13	7	4	0	0	0	0	0	0	0	0
PUEBLO	88	60	97	55	74	-3	0	-0.2	2	3	7.9	136	90	28	2	0	0	0	0	0	0	0	0	0
CT BRIDGEPORT	88	69	92	62	78	5	0	-0.2	2.2	7	17.7	76	58	31	2	0	0	0	0	0	0	0	0	0
HARTFORD	86	62	91	57	74	0	1.1	-0.3	1.1	6.0	24.9	105	74	34	2	0	0	0	0	0	0	0	0	0
DC WASHINGTON	94	75	98	68	84	4	0	-0.6	2.7	50	21.7	107	74	37	7	0	0	0	0	0	0	0	0	0
FL APALACHICOLA	91	72	94	70	82	0	0	-0.4	3.1	37	22.9	89	92	55	6	0	0	0	0	0	0	0	0	0
DAYTONA BEACH	91	71	93	70	81	0	0	-0.8	4	2.8	31	16.6	71	92	34	7	0	0	0	0	0	0	0	0
JACKSONVILLE	95	73	98	70	84	3	1.3	-0.2	4	7	54	19.9	78	95	55	6	0	0	0	0	0	0	0	0
KEY WEST	90	80	91	77	85	1	0	-0.7	1.1	1.9	27	17.8	100	78	50	3	0	0	0	0	0	0	0	0
MIAMI	89	76	95	73	83	0	0	-0.1	5.8	46	24.3	86	85	39	3	0	0	0	0	0	0	0	0	0
ORLANDO	92	73	95	71	82	0	0	-0.4	7.2	63	23.9	95	90	34	6	0	0	0	0	0	0	0	0	0
TALLAHASSEE	94	70	99	68	82	0	2.3	-0.3	8.1	69	31.3	85	93	34	6	0	0	0	0	0	0	0	0	0
TAMPA	92	73	95	70	82	0	0	-1.4	4.6	52	18.6	88	90	35	6	0	0	0	0	0	0	0	0	0
WEST PALM BEACH	89	75	93	73	82	-1	0	-1.1	4.1	36	29.9	102	88	42	2	0	0	0	0	0	0	0	0	0
CA ATLANTA	95	74	98	72	84	5	0	-1.1	7.4	117	29.1	97	80	32	7	0	0	0	0	0	0	0	0	0
AUGUSTA	100	72	103	70	86	5	1.5	-0.6	9	3.1	49	22.7	86	84	31	7	0	0	0	0	0	0	0	0
MACON	97	72	100	70	85	3	0	-1.0	4.3	73	28.9	107	81	32	2	0	0	0	0	0	0	0	0	0
SAVANNAH	99	76	101	75	87	6	0	-1.4	3.1	35	24.5	91	84	32	0	0	0	0	0	0	0	0	0	0
HI HILO	84	69	85	67	76	1	1.3	-0.9	4	10.0	89	43.5	62	77	69	0	0	0	0	0	0	0	0	0
HONOLULU	88	74	90	70	81	1	0	-0.1	1	14	1.7	15	86	56	1	0	0	0	0	0	0	0	0	0
KAHULUI	89	69	91	67	79	0	0	-0.2	2	3	54	5.6	44	77	55	2	0	0	0	0	0	0	0	0
LIHUE	85	75	86	71	80	1	0	-0.1	5	1.2	42	7.4	32	82	67	0	0	0	0	0	0	0	0	0
ID BOISE	77	48	88	42	63	-11	0	-0.1	2.2	217	10.3	144	88	25	0	0	0	0	0	0	0	0	0	0
LEWISTON	71	51	81	46	61	-13	0	-0.1	2.1	125	9.4	128	75	35	0	0	0	0	0	0	0	0	0	0
POCATELLO	76	45	83	38	60	-10	0	-0.1	3.2	229	12.7	177	75	23	0	0	0	0	0	0	0	0	0	0
IL CHICAGO	81	62	82	59	71	-2	0	-0.7	10.2	179	25.8	141	95	44	0	0	0	0	0	0	0	0	0	0
MOLINE	83	67	89	63	75	0	0	-0.4	16.1	230	35.0	158	92	44	0	0	0	0	0	0	0	0	0	0
PEORIA	84	67	89	62	75	0	2.1	1.1	10.0	157	27.5	140	93	43	0	0	0	0	0	0	0	0	0	0
QUINCY	82	68	92	64	75	-2	0	-0.1	10.1	159	20.8	100	92	67	1	0	0	0	0	0	0	0	0	0
ROCKFORD	80	63	83	59	72	-2	0	-0.3	14.4	211	30.7	161	93	60	0	0	0	0	0	0	0	0	0	0
SPRINGFIELD	86	68	93	62	77	0	1.6	-0.5	12.5	233	27.1	142	93	40	1	0	0	0	0	0	0	0	0	0
IN EVANSVILLE	92	74	97	72	83	4	1.0	-0.1	5.8	93	23.8	90	93	39	5	0	0	0	0	0	0	0	0	0
FORT WAYNE	84	66	89	58	75	1	1.6	-0.8	9.5	174	28.5	150	89	41	0	0	0	0	0	0	0	0	0	0
INDIANAPOLIS	84	68	91	65	76	1	2.5	1.5	9.0	152	24.9	112	94	43	1	0	0	0	0	0	0	0	0	0
SOUTH BEND	81	64	84	57	73	0	0	-0.5	11.9	189	26.0	126	96	39	0	0	0	0	0	0	0	0	0	0
IA DES MOINES	80	66	90	58	73	-2	2.9	2.0	14.1	209	31.0	166	93	44	1	0	0	0	0	0	0	0	0	0
SIoux CITY	79	64	85	55	71	-5	1.2	-0.5	9.7	175	20.1	136	91	42	0	0	0	0	0	0	0	0	0	0
WATERLOO	81	64	85	56	72	-1	2.4	1.3	17.6	245	35.1	177	99	68	0	0	0	0	0	0	0	0	0	0
KS CONCORDIA	84	68	91	63	76	-4	3.4	2.5	2.1	19.3	295	30.0	180	94	46	3	0	0	0	0	0	0	0	0
DODGE CITY	87	66	95	63	76	-4	3.7	3.0	2.9	7.3	149	17.7	140	95	43	3	0	0	0	0	0	0	0	0
GOODLAND	81	60	92	56	71	-5	0	-0.7	4	2	87	9.7	84	85	48	1	0	0	0	0	0	0	0	0
TOPEKA	85	71	93	67	78	-1	1.2	-0.4	8.4	109	26.8	137	92	44	2	0	0	0	0	0	0	0	0	0
WICHITA	87	70	93	64	79	-2	1.9	1.1	1.3	6.7	87	22.3	114	93	36	2	0	0	0	0	0	0	0	0
KY BOWLING GREEN	89	69	94	67	79	1	0	-0.7	5	2	76	20.4	70	98										

Weather Data for the Week Ending July 17, 1993

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	MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																			.01 INCH OR MORE	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE
ME CARIBOU	76	55	81	49	66	0	1.3	.3	.7	6.3	126	19.3	112	91	86	0	0	0	5	1		
PORTLAND	84	61	92	56	73	4	.7	-.1	.3	4.0	77	23.7	101	75	34	1	0	0	4	1		
MD BALTIMORE	93	70	98	61	81	4	1.0	.2	1.0	3.8	67	24.8	112	76	31	0	0	1	1	0		
SALISBURY	93	69	97	60	81	4	.2	-.8	.2	2.6	44	26.1	109	94	65	0	0	1	1	0		
MA BOSTON	88	70	92	59	79	5	.1	-.6	.1	2.7	58	23.3	104	64	30	3	3	0	0	0		
CHATHAM	80	66	83	61	73	6	.6	-.2	.3	3.1	64	21.2	88	84	41	0	0	4	0	0		
MI ALPENA	79	52	85	47	66	-2	.4	-.7	.4	4.3	94	12.5	85	96	63	0	0	0	0	0		
DETROIT	83	63	89	59	73	1	.4	-.3	.3	7.0	131	18.9	109	83	38	0	0	2	2	0		
FLINT	83	58	88	53	70	-1	.2	-.4	.2	5.7	121	17.2	114	92	38	0	0	1	1	0		
GRAND RAPIDS	82	59	85	53	70	-2	.9	-.2	.9	7.3	133	22.0	124	90	39	0	0	1	1	0		
HOUGHTON LAKE	79	54	82	48	67	-1	.9	-.5	.9	5.3	121	14.0	101	86	39	0	0	2	2	0		
LANSING	82	57	86	50	69	-2	.2	-.4	.2	7.3	153	19.7	127	97	48	0	0	1	1	0		
MARQUETTE	73	51	80	48	62	-3	.3	-.3	.2	3.1	62	15.9	91	87	46	0	0	3	0	0		
MUSKEGON	82	59	86	53	70	0	.1	-.3	.1	5.0	147	17.2	113	89	42	0	0	2	2	0		
SAULT ST. MARIE	71	50	76	45	61	-3	.3	-.3	.3	6.0	130	17.1	106	93	49	0	0	2	2	0		
MI ALEXANDRIA	74	59	83	53	66	-5	1.1	-.4	.6	9.0	154	18.9	135	95	55	0	0	3	3	1		
DULUTH	47	52	72	49	59	-7	.2	-.6	.1	12.0	206	21.8	145	89	58	0	0	3	0	0		
INT'L FALLS	70	51	77	44	60	-9	.9	-.0	.8	6.3	105	11.9	94	94	51	0	0	2	1	1		
MINNEAPOLIS	77	61	83	53	69	-5	.9	-.8	.8	11.1	184	20.0	128	88	42	0	0	2	1	1		
ROCHESTER	75	58	80	50	66	-6	1.7	-.1	.7	11.2	186	25.0	162	95	46	0	0	3	2	2		
MS GREENWOOD	92	72	94	70	82	0	1.2	2.0	1.4	4.3	64	28.4	88	98	61	0	0	4	4	3		
JACKSON	86	72	91	70	79	-2	1.9	1.3	1.0	10.6	196	31.0	95	100	69	2	0	4	3	3		
MERIDIAN	89	71	95	69	80	-1	1.9	.7	1.5	5.4	84	34.3	102	96	42	4	0	3	1	1		
MO CAPE GIRARDEAU	93	74	97	73	84	4	.6	-.2	.6	5.5	101	26.2	100	90	50	7	0	1	1	1		
COLUMBIA	86	69	92	68	78	0	2.4	1.5	1.1	15.9	264	32.7	157	97	38	2	0	4	3	3		
KANSAS CITY	85	71	93	68	78	-1	1.1	-.1	.5	13.0	181	31.3	156	93	40	2	0	4	4	0		
SAINT LOUIS	90	74	96	72	82	2	2.0	1.1	1.1	10.4	176	30.1	144	89	39	4	0	4	2	2		
SPRINGFIELD	89	71	91	67	80	2	.4	-.2	.2	11.5	168	27.2	117	91	43	3	0	3	0	0		
MT BILLINGS	70	49	75	45	60	-13	.4	-.2	.3	5.4	210	9.0	93	83	48	0	0	3	0	0		
GLASGOW	69	49	75	45	59	-12	.2	-.2	.2	3.2	103	6.5	98	89	39	0	0	2	0	0		
GREAT FALLS	64	44	71	42	54	-14	1.7	1.5	.7	6.3	201	15.2	158	95	58	0	0	6	2	2		
HAVER	65	46	70	42	55	-14	1.4	1.1	.4	3.2	125	6.0	89	95	52	0	0	5	0	0		
HELENA	67	46	74	42	57	-13	.9	.6	.4	5.9	234	11.6	164	87	44	0	0	5	0	0		
KALISPELL	65	44	69	41	54	-9	1.2	.9	.4	7.8	270	14.8	157	93	57	0	0	5	0	0		
MILES CITY	70	49	75	40	60	-15	.8	.5	.3	7.7	205	12.7	141	99	57	0	0	4	0	0		
MISSOULA	69	44	79	39	57	-10	.7	.5	.4	3.1	134	9.2	113	99	45	0	0	6	0	0		
NE GRAND ISLAND	79	64	85	60	72	-5	5.3	4.7	1.8	13.1	236	21.7	145	96	61	0	0	6	4	0		
LINCOLN	83	67	87	60	75	-4	.7	-.7	.7	5.9	104	16.4	105	98	66	0	0	0	0	0		
NORFOLK	78	63	84	56	70	-5	2.3	1.6	1.2	13.6	214	23.9	154	94	42	0	0	5	2	1		
NORTH PLATTE	77	63	87	57	70	-4	.5	-.2	.5	9.3	180	16.3	129	92	48	0	0	2	1	1		
OMAHA	79	66	83	62	73	-4	2.2	1.5	1.7	13.1	229	24.7	150	92	42	0	0	5	1	1		
SCOTTSBLUFF	82	58	93	54	70	-4	.2	-.3	.1	5.8	149	12.2	119	88	43	3	0	2	0	0		
VALENTINE	76	58	85	53	67	-8	.5	-.3	.4	4.7	89	11.5	87	92	58	0	0	3	0	0		
WY ELY	82	39	86	35	61	-7	.0	-.2	.0	1.2	92	6.9	120	75	11	0	0	0	0	0		
LAS VEGAS	100	75	105	70	88	-3	.0	-.1	.0	1.2	29	4.4	207	38	10	7	0	0	0	0		
RENO	82	49	94	42	66	-6	.0	-.1	.0	4.4	57	4.9	109	70	18	1	0	0	0	0		
WINNEMUCCA	82	45	92	36	64	-9	.0	-.1	.0	1.0	99	6.0	123	72	13	1	0	0	0	0		
NE CONCORD	86	56	91	50	71	1	.2	-.6	.1	2.3	46	13.2	70	81	32	2	0	2	0	0		
NJ ATLANTIC CITY	89	63	93	54	76	1	.3	-.6	.2	1.9	41	20.2	93	90	30	4	0	2	0	0		
MS ALBUQUERQUE	91	66	96	42	78	-1	.2	-.1	.1	.6	49	3.6	97	72	24	5	0	3	0	0		
CLOVIS	88	66	94	64	77	0	1.1	.5	.7	3.2	76	5.3	63	87	39	3	0	3	1	1		
ROSEMILL	93	69	98	67	81	0	2.6	2.2	2.0	3.1	127	5.6	109	87	34	5	0	6	1	1		
NY ALBANY	84	59	87	51	71	-1	.1	-.6	.1	3.7	69	20.6	106	83	34	0	0	2	0	0		
BINGHAMTON	78	59	84	52	68	-1	.2	-.6	.2	4.7	84	22.3	114	83	40	0	0	2	0	0		
BUFFALO	80	62	87	57	71	0	1.0	.3	.9	6.0	116	19.7	104	82	36	0	0	2	1	1		
NEW YORK	90	74	94	67	82	5	.7	-.9	.7	2.6	45	21.2	93	63	35	4	0	1	0	0		
ROCHESTER	81	59	89	53	70	-1	.3	-.3	.2	3.2	70	13.8	85	92	39	0	0	3	0	0		
SYRACUSE	80	59	88	51	69	-1	.5	-.4	.5	5.1	86	23.1	117	89	36	0	0	2	0	0		
NC ASHEVILLE	89	65	92	63	77	4	1.0	.0	.5	2.1	29	22.0	73	97	41	2	0	2	2	2		
CHARLOTTE	97	75	99	73	86	6	.3	-.6	.3	1.1	21	22.2	93	79	32	7	0	4	0	0		
GREENSBORO	93	71	97	70	82	5	.4	-.7	.2	5.3	83	28.9	124	87	33	6	0	5	0	0		
RATTERAS	90	75	92	70	83	4	.6	-.5	.4	4.3	64	26.5	95	93	47	5	0	2	0	0		
NEW BERN	95	74	98	70	85	5	1.4	-.2	1.0	7.7	84	29.4	100	91	45	6	0	3	1	1		
RALEIGH	95	72	99	68	83	5	.1	-.8	.1	1.7	29	22.7	97	85	34	6	0	3	0	0		
WILMINGTON	96	76	100	71	86	7	1.9	.4	1.0	7.2	94	30.9	106	94	51	7	0	5	2	2		
ND BISMARCK	68	51	78	45	60	-11	6.2	5.7	4.4	14.5	367	19.2	202	94	61	0	0	5	2	2		
FARGO	73	55	80	47	64	-8	4.6	4.0	3.6	9.6	222	14.9	138	94	43	0	0	3	2	2		
GRAND FORKS	71	54	78	45	63	-7	1.6	1.0	.7	6.7	153	9.4	94	94	57	0	0	4	2	2		
WILLISTON	69	47	76	41	58	-13	.6	-.1	.3	8.1	232	10.7	127	94	48	0	0	4	0	0		
OH AKRON-CANTON	83	60	87	53	72	0	.4	-.5	.4	6.8	125	22.0	110	92	37	0	0	1	0	0		
CINCINNATI	86	69	92	68	77	2	.6	-.4	.2	6.0	97	22.3	94	90	39	2	0	6	0	0		
CLEVELAND	82	61	89	55	72	0	.4	-.5	.4	6.5	116	22.1	114	89	38	0	0	1	0	0		
COLUMBUS	85	65	89	58	75	2	.5	-.4	.5	7.8	133	24.2	117	85	35	0	0	1	0	0		
DAYTON	85	66	88	61	75	1	1.0	-.2	.9	10.5	180	31.7	152	86	37	0	0	2	1	1		

Based on 1961-90 normals.

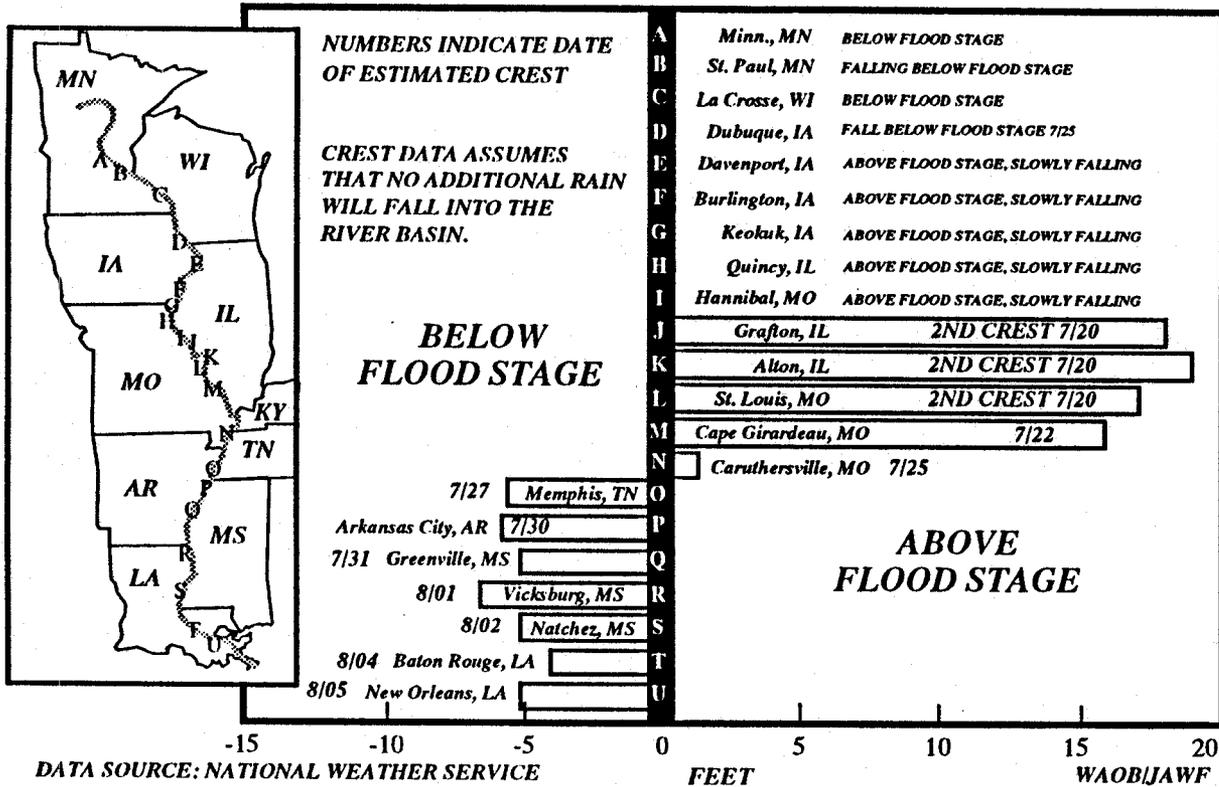
Weather Data for the Week Ending July 17, 1993

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	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE		.50 INCH OR MORE
														90 AND ABOVE						32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
TOLEDO	86	62	93	55	74	1	.5	-.3	.4	5.5	98	18.0	103	93	35	1	0	0	0	0	0	0
YOUNGSTOWN	83	57	87	49	70	-1	.1	-.8	.1	4.5	73	18.1	90	96	39	0	0	0	2	2	0	0
OK OKLAHOMA CITY	90	71	94	70	81	-1	.6	.0	1.3	3.8	65	24.6	128	91	47	5	0	0	1	3	1	0
TULSA	90	73	97	70	82	-2	1.2	.5	1.2	5.3	86	24.5	109	87	39	4	0	0	1	1	1	0
OR ASTORIA	63	54	66	51	58	-1	.4	.1	1.1	4.1	131	32.3	91	95	70	0	0	0	4	1	0	0
BURNS	71	37	79	32	54	-12	.7	.0	.7	.7	62	7.2	132	82	24	0	1	1	1	1	0	0
MEDFORD	79	44	85	41	62	-11	.7	.1	1.2	1.2	171	11.0	118	93	28	0	0	0	4	0	0	0
PENDLETON	73	52	75	47	62	-11	1.1	1.0	1.9	1.9	223	9.3	138	84	34	0	0	0	4	1	1	0
PORTLAND	70	37	73	54	63	-5	.9	.8	.7	2.6	142	20.5	107	86	44	0	0	0	4	1	1	0
SALEM	72	54	75	48	63	-3	.6	.5	.3	3.8	227	24.6	119	86	45	0	0	0	3	0	0	0
PA ALLENTOWN	88	68	92	59	78	2	.2	-.7	.2	5.8	97	25.4	110	76	36	4	0	0	1	0	0	0
ERIE	80	65	86	56	73	2	.3	-.5	.5	5.5	91	18.1	90	95	57	0	0	0	3	0	0	0
HARRISBURG	89	69	92	61	79	3	.5	-.4	.5	5.6	96	25.1	113	85	41	3	0	0	1	0	0	0
PHILADELPHIA	91	73	96	66	82	7	.5	-.5	.5	2.9	42	21.1	84	71	35	4	0	0	2	1	1	0
PITTSBURGH	84	62	88	55	73	1	.2	-.6	.2	5.5	94	22.0	106	84	35	0	0	0	1	0	0	0
SCRANTON	87	64	91	56	75	2	.2	-.8	.4	2.3	38	18.3	93	79	32	2	0	0	2	0	0	0
RI PROVIDENCE	87	64	91	61	75	2	.2	-.6	.2	2.1	41	22.7	93	70	34	1	0	0	1	0	0	0
SC CHARLESTON	96	76	99	74	86	5	.6	-1.0	.4	6.2	61	29.4	105	85	36	7	0	0	3	0	0	0
COLUMBIA	101	74	102	72	87	6	.2	-1.1	.2	1.7	22	23.1	82	82	32	7	0	0	1	0	0	0
FLORENCE	100	76	102	73	88	7	.2	-1.3	.4	2.1	29	17.3	71	86	37	7	0	0	0	0	0	0
GREENVILLE	97	69	99	67	83	5	.7	-1.1	.7	.2	2	27.2	92	80	31	7	0	0	0	0	0	0
SD ABERDEEN	74	58	84	50	66	-6	2.5	1.8	2.2	11.4	221	17.5	144	93	49	0	0	0	6	1	1	0
BURON	76	60	84	52	68	-7	1.6	1.6	2.1	10.9	221	19.9	157	92	41	0	0	0	3	1	1	0
RAPID CITY	74	54	84	47	64	-8	1.5	1.0	.9	5.8	135	13.2	122	92	50	0	0	0	5	1	1	0
SIoux FALLS	76	62	83	55	69	-5	1.5	.9	1.3	268	27.6	208	92	43	0	0	0	4	2	0	0	
TN CHATTANOOGA	95	73	96	71	84	5	.5	-.6	.3	2.9	47	25.9	84	94	37	7	0	0	4	1	1	0
KNOXVILLE	93	72	96	71	83	6	2.0	.9	1.5	2.9	44	21.7	78	92	44	7	0	0	3	3	1	0
MEMPHIS	94	75	96	73	85	2	.9	.0	.8	5.1	90	24.9	84	91	37	7	0	0	4	1	1	0
NASHVILLE	91	72	96	70	82	2	2.4	1.5	1.6	7.8	136	27.0	99	90	38	5	0	0	3	2	0	0
TX ABILENE	96	73	98	72	85	1	.1	-.4	1.1	3.9	96	9.9	80	80	43	7	0	0	1	0	0	0
AMARILLO	88	64	96	64	77	-1	2.7	2.1	1.8	5.4	105	10.1	94	88	43	4	0	0	3	0	0	0
AUSTIN	94	75	96	73	85	0	.0	-.5	.0	4.0	80	20.9	116	90	36	7	0	0	0	0	0	0
BEAUMONT	93	75	95	74	84	1	2.3	1.1	1.7	11.7	136	42.2	145	97	63	6	0	0	4	1	1	0
BROWNSVILLE	92	77	93	76	85	0	.0	-.4	.0	6.7	177	17.1	149	93	46	7	0	0	0	0	0	0
CORPUS CHRISTI	90	76	91	75	83	-1	.0	-.5	.0	12.0	254	28.4	197	96	43	7	0	0	4	0	0	0
DEL RIO	97	75	98	72	86	2	.5	.1	.4	5.8	149	9.6	74	81	37	7	0	0	2	0	0	0
EL PASO	90	71	97	68	81	-2	.6	-.2	.2	2.2	150	4.0	131	78	27	4	0	0	4	0	0	0
FORT WORTH	96	76	97	75	86	3	.0	-.5	.0	3.8	82	19.5	94	84	34	7	0	0	0	0	0	0
GALVESTON	91	82	92	81	87	3	.7	-.9	.7	3.4	51	30.0	147	76	66	7	0	0	1	0	0	0
HOUSTON	95	76	97	74	85	3	.1	-.9	.1	12.2	140	43.5	155	90	38	7	0	0	3	0	0	0
LUBBOCK	91	69	98	67	80	0	.6	.0	.4	4.4	107	9.4	100	85	31	4	0	0	6	0	0	0
MIDLAND	95	71	99	68	83	2	.2	-.2	.2	3.3	146	7.7	115	79	30	7	0	0	2	0	0	0
SAN ANGELO	97	74	99	72	85	3	.1	-.2	.1	1.0	34	8.4	81	77	28	7	0	0	0	0	0	0
SAN ANTONIO	95	76	96	75	86	1	.0	-.5	.0	6.4	126	27.3	162	87	36	7	0	0	1	0	0	0
VICTORIA	93	75	94	74	84	1	.2	-.8	.2	11.6	166	40.3	178	96	39	7	0	0	1	0	0	0
WACO	95	75	96	74	85	-1	.0	-.5	.0	2.2	48	18.5	101	91	38	7	0	0	0	0	0	0
WICHITA FALLS	94	75	99	71	84	0	.3	-.1	.2	3.7	74	19.4	108	87	40	6	0	0	0	0	0	0
UT CEDAR CITY	87	55	92	46	71	-4	.0	-.2	.0	.7	77	7.5	129	35	12	1	0	0	0	0	0	0
SALT LAKE CITY	84	57	90	54	71	-8	.0	-.2	.0	1.3	91	12.8	133	71	22	1	0	0	0	0	0	0
VT BURLINGTON	81	59	89	56	70	-1	.4	-.5	.4	4.3	78	15.8	93	81	37	0	0	1	0	0	0	0
VA NORFOLK	94	76	101	69	85	6	.7	-1.2	.7	3.1	48	22.8	94	74	36	5	0	0	0	0	0	0
RICHMOND	94	72	100	65	83	5	.3	-.9	.2	2.5	40	25.0	108	80	35	7	0	0	2	0	0	0
ROANOKE	92	69	96	65	81	5	.2	-.7	.1	3.5	66	23.8	110	85	32	5	0	0	0	0	0	0
WA QUILLAYUTE	64	52	66	48	58	-1	.2	-.4	.1	3.9	86	42.7	76	97	68	0	0	0	4	0	0	0
SEATTLE-TACOMA	69	54	72	52	61	-4	.1	-.1	.1	2.7	139	19.4	103	92	55	0	0	0	4	0	0	0
SPOKANE	66	48	72	44	57	-12	1.0	.8	.6	1.8	108	8.5	82	96	49	0	0	0	4	1	1	0
YAKIMA	73	47	77	41	60	-10	.1	.1	.1	.8	133	4.0	84	89	39	0	0	0	4	1	1	0
WV BECKLEY	83	64	87	62	74	4	.7	-.4	.4	4.3	66	21.7	94	94	44	0	0	0	3	3	0	0
CHARLESTON	88	67	92	63	78	3	.3	-.9	.3	6.3	101	21.7	94	96	35	2	0	0	0	0	0	0
HUNTINGTON	87	68	92	67	78	4	.5	-.7	.3	6.7	109	22.8	97	93	35	2	0	0	0	0	0	0
PARKERSBURG	88	65	94	56	76	2	.3	-.7	.2	3.8	61	21.4	92	97	47	3	0	0	0	0	0	0
WI GREEN BAY	77	58	80	53	68	-2	.4	-.3	.2	11.5	225	22.3	153	88	44	0	0	0	3	0	0	0
LACROSSE	77	61	83	54	69	-5	.2	-.6	.2	8.7	145	25.5	160	97	58	0	0	0	3	0	0	0
MADISON	79	59	81	53	69	-3	.9	.0	.5	14.3	243	29.6	177	88	45	0	0	0	1	1	1	0
MILWAUKEE	77	63	83	59	70	-1	.7	-.1	.7	9.7	190	24.8	144	86	46	0	0	0	3	3	1	0
WAUSAU	75	57	80	51	66	-4	.3	-.6	.2	9.3	152	22.2	137	87	53	0	0	0	1	1	1	0
WY CASPER	83	53	92	49	68	-3	.7	-.3	.7	2.8	128	10.3	129	86	30	2	0	0	0	0	0	0
CHEYENNE	75	53	86	49	64	-4	.4	-.1	.2	3.7	115	9.9	113	94	43	0	0	0	1	1	1	0
LANDER	82	52	87	48	67	-4	.1	-.1	.1	5.2	266	11.7	137	75	20	0	0	0	0	0	0	0
SHERIDAN	71	47	78	42	59	-10	1.4	1.2	1.0	5.8	204	12.3	132	96	54	0	0	0	3	1	1	0

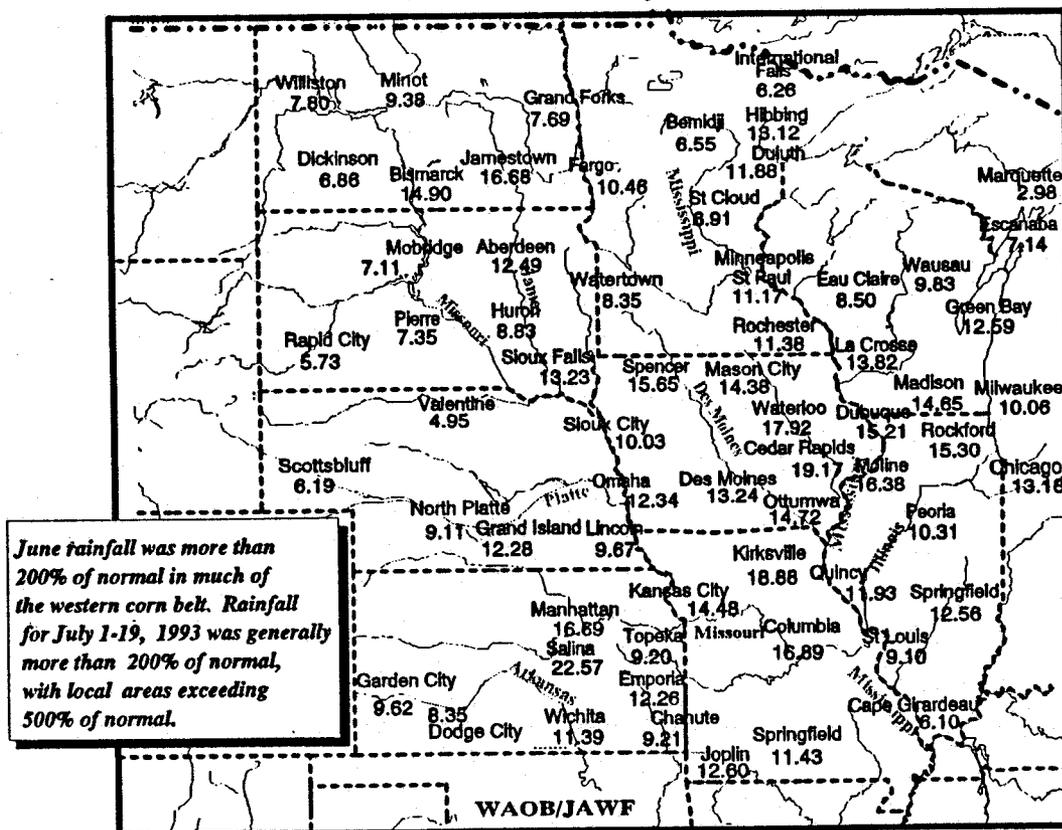
Based on 1961-90 normals.

MISSISSIPPI RIVER ESTIMATED CREST LEVELS

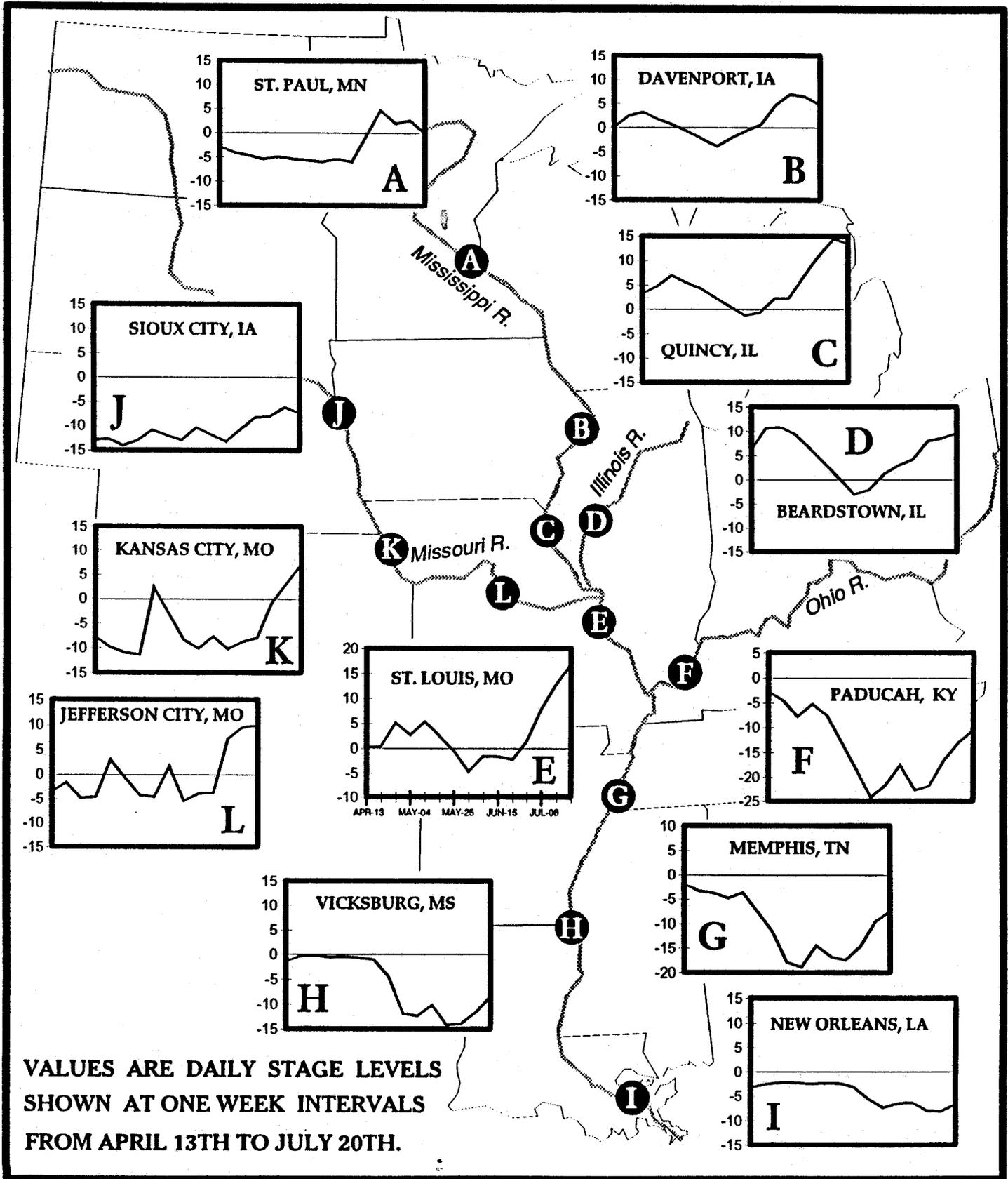
Forecast Departure From Flood Stage As of July 20, 1993



Upper Mississippi Valley Rainfall (Inches) June 1 - July 19, 1993



RIVER STAGES FROM SELECTED RIVERS DEPARTURE FROM FLOOD STAGE (FEET)



VALUES ARE DAILY STAGE LEVELS
SHOWN AT ONE WEEK INTERVALS
FROM APRIL 13TH TO JULY 20TH.

National Agricultural Summary

July 12 - 18, 1993

HIGHLIGHTS: More rain fell over the central part of the Nation, adding to the flood and crop damage from previous weeks. Mostly dry, warm conditions over the East Coast added stress to previously stressed crops and livestock. Temperatures were above normal from Texas to New England, below normal in the Northwest and normal elsewhere. The cool damp, conditions in the northern Great Plains boosted small grains' prospects but delayed row crop progress.

SMALL GRAINS: Winter wheat harvest in the 19 major wheat-producing States reached 65 percent(%) complete, compared with 71% at this time in 1992 and 78% average. Harvest was virtually completed in the Southeast and neared completion in Oklahoma and Texas. In the central Great Plains, harvest continued where weather and field conditions permitted. Harvest had just begun in the Northwest. Hail damage was reported in some fields of Colorado, Nebraska, and Oregon. Spring wheat development remained more than 1 week behind average. About 85% of the crop was headed, compared with 93% last year and 96% average. Cool temperatures delayed crop development in North Dakota. Spring wheat condition declined slightly, with 83% of the crop rated good to excellent, compared with 85% last week. Continued wet conditions caused small grain harvest concerns to producers in South Dakota. Some small grain fields suffered frost damage in Oregon. Small grain fields in the Northeast needed more rainfall.

CORN: Corn silking progress in the 17 major producing States was 14%, compared with 27% a year ago and 38% average. The late planting in the Midwest, as well as below-normal temperatures, have kept crop development behind normal. South Dakota crop development was hindered by lack of sunshine. Corn condition was 49% good to excellent, compared to 51% the previous week. Hot, dry conditions in the Southeast and flooded fields in the Midwest contributed to the decline. Scattered showers brought relief to some corn fields in Tennessee. Last week's hot, wet weather improved the crop condition in Indiana.

SOYBEANS: Soybean blooming progress was 23%, compared with 43% last year and 44% average. Progress was at least 30 percentage points behind average in Iowa, Minnesota, South Dakota, and Illinois. Soybean pod set, at 2%, compared with 5% last year and 11% average. Crop condition declined with 42% rated good to excellent, compared with 46% last week. Dry conditions stressed the crop in Georgia, resulting in most producers not planting a late crop. Excessive wetness in northern Missouri lowered expectations of planting double-crop beans. However, producers in southeastern Kansas planted double-crop beans. Wet conditions hampered weed-control measures in Nebraska.

COTTON: Cotton progress continued near or ahead of normal as many production areas enjoyed favorable conditions. Cotton squaring in the 14 major producing States reached 86%, compared with 76% last year and 82% average. Cotton setting bolls was 40%, compared with 37% last year and 39% average. About 57% of the crop rated good to excellent, compared to 62% last week. Hot, dry conditions stressed dryland fields in the Southeast. Lack of moisture stressed the crop in the Texas Blacklands, although recent rains benefited the crop on the Texas Plains. Above-normal temperatures improved cotton in California and Tennessee, though insect pressures increased on the crop there.

SORGHUM: Grain sorghum headed at 28%, compared with 32% last year and 31% average. Continued wet conditions in the Midwest caused sorghum condition to decline. Only 60% of the crop rated good to excellent, compared with 63% last week. Harvesting of the crop continued in south Texas and limited harvesting occurred in central Texas.

RICE: Rice heading in the five major producing States reached 17%, compared with 28% last year and 24% average. Rice condition declined slightly with 64% good, compared with 65% good last week. Fertilizers were applied to fields in California and Arkansas.

OTHER FIELD CROPS: Continued hot, dry conditions damaged peanut pegs in Georgia, but reduced disease pressures on peanuts in Virginia. Some fields in the Cross Timbers area of Texas showed wind damage. Dry, hot conditions restricted regrowth of some hay fields in the Southeast. Rain across the Midwest caused harvesting delays and damage to the hay crop. Showers also hampered the harvest in the Northwest. Cool weather delayed onion development in Oregon. Rains hindered onion harvest in New Mexico. Black shank virus plagued tobacco in Tennessee. Early potato harvest began in Washington. Safflower fields in California bloomed, dried, and neared harvest. Dry beans in New York needed moisture.

FRUIT AND NUTS: Most Florida citrus groves needed more rain. New crop fruit progressed normally, but bloom was slightly late. The Valencia orange harvest advanced in California. Producers treated the crop for red scale. California's stone fruit harvest advanced. Rains caused significant damage to the fresh market cherry crop in the Hood River and Dalles districts of Oregon. Scab problems occurred on some pecans in Texas. More rain was needed for the Texas pecan crop. California walnuts and almonds were treated for insects.

VEGETABLES: Producers in Florida and southern Texas prepared land for fall planting. Hot, dry conditions stressed vegetables from Georgia to Virginia. Green peas were harvested in Wisconsin and Oregon. California's celery harvest was heavy in the Santa Maria area and moderate in Salinas. Vegetable harvests continued in New Jersey and gained momentum in New York.

PASTURE AND LIVESTOCK: Hot weather and mostly dry conditions allowed pastures to continue to deteriorate in the Southeast, Northeast, and Middle Atlantic States. Rain over the central part of the Nation and the upper Great Plains kept pastures in good condition. In Tennessee, cooler conditions were needed to allow growth to resume. Continued dry conditions allowed pasture condition in Texas and California to decline. Feed supplies remained generally adequate with some spot shortages in Delaware. Supplemental feeding occurred in Delaware, Virginia, and California. Nationally, livestock condition was reported at good to poor.

Crop Progress

for the Week Ending July 18, 1993

COTTON (Percent Squaring)

	Current	Last Wk	1992	Avg.
AL	83	76	95	95
AZ	99	97	99	98
AR	96	93	99	99
CA	90	85	100	95
GA	95	92	96	97
LA	95	91	98	93
MS	94	83	98	94
MO	98	94	91	95
NM	85	78	81	90
NC	75	61	68	79
OK	88	56	42	55
SC	87	80	92	86
TN	98	95	95	94
TX	77	69	52	69
14 States	86	78	76	82

These 14 States produced 99 of the 1992 cotton crop.

COTTON (Percent Setting Bolls)

	Current	Last Wk	1992	Avg.
AL	41	22	45	52
AZ	85	70	84	84
AR	49	23	48	51
CA	25	15	45	42
GA	55	32	43	57
LA	75	47	81	62
MS	36	23	69	64
MO	27	4	28	42
NM	32	19	34	38
NC	45	22	30	44
OK	21	3	1	12
SC	65	40	20	40
TN	32	7	30	30
TX	34	19	20	22
14 States	40	22	37	39

These 14 States produced 99% of the 1992 cotton crop.

GRAIN SORGHUM (Percent Headed)

	Current	Last Wk	1992	Avg.
AR	23	10	63	36
CO	1	0	1	3
IL	3	2	19	15
KS	1	0	3	5
LA	50	43	83	64
MS	46	20	80	58
MO	11	0	27	23
NE	0	0	0	5
NH	1	0	4	NA
OK	15	6	7	16
SD	1	0	1	3
TX	64	59	65	64
12 States	27	23	31	NA
Excl. States with NA	28	24	32	31

These 12 States produced 99% of the 1992 grain sorghum crop.

SOYBEANS (Percent Blooming)

	Current	Last Wk	1992	Avg.
AL	26	14	26	24
AR	23	22	21	13
GA	23	14	27	28
IL	33	13	60	63
IN	37	19	49	50
IA	15	6	63	60
KS	15	5	25	35
KY	28	9	32	28
LA	35	20	45	28
MI	25	20	25	20
MN	9	0	39	52
MS	17	5	32	25
MO	14	5	30	35
NE	11	4	28	44
NC	8	5	15	14
OH	50	31	52	46
SC	18	9	11	11
SD	9	6	32	42
TN	11	5	20	15
19 States	23	11	43	44

These 19 States produced 95% of the 1992 soybean crop.

SOYBEANS (Percent Setting Pods)

	Current	Last Wk	1992	Avg.
AL	5	NA	5	9
AR	3	NA	5	1
GA	4	NA	6	7
IL	3	NA	13	21
IN	0	NA	5	10
IA	0	NA	0	15
KS	2	NA	4	10
KY	6	NA	8	6
LA	9	NA	16	8
MI	0	NA	0	1
MN	0	NA	4	10
MS	1	NA	10	9
MO	0	NA	5	8
NE	0	NA	0	5
NC	0	NA	0	0
OH	5	NA	3	10
SC	1	NA	3	3
SD	0	NA	0	5
TN	0	NA	4	3
19 States	2	NA	5	11

These 19 States produced 95% of the 1992 soybean crop.

SPRING WHEAT (Percent Headed)

	Current	Last Wk	1992	Avg.
ID	62	44	98	92
MN	98	86	98	98
MT	73	57	83	92
ND	83	63	91	96
SD	95	88	100	100
5 States	85	69	93	96

These 5 States produced 96% of the 1992 spring wheat crop.

CORN (Percent Silking)

	Current	Last Wk	1992	Avg.
CO	4	0	4	4
GA	98	95	98	98
IL	21	3	55	64
IN	15	3	31	41
IA	1	0	15	31
KS	50	15	50	60
KY	60	38	62	56
MI	5	3	3	15
MN	0	0	3	13
MO	21	11	55	61
NE	9	0	26	41
NC	84	62	83	81
OH	17	2	20	32
PA	7	3	1	8
SD	0	0	2	16
TX	71	64	77	81
WI	0	0	2	16
17 States	14	6	27	38

These 17 States produced 94% of the 1992 corn crop.

WINTER WHEAT (Percent Harvested)

	Current	Last Wk	1992	Avg.
AR	100	98	100	100
CA	90	80	95	93
CO	43	27	72	65
GA	100	100	100	100
ID	1	0	7	3
IL	83	67	77	94
IN	70	38	42	80
KS	85	70	95	99
MI	15	0	2	35
MO	55	36	83	99
MT	0	0	0	12
NE	13	2	43	76
NC	100	98	97	97
OH	50	18	8	64
OK	99	94	97	100
OR	3	1	22	9
SD	0	0	4	45
TX	96	91	98	98
WA	5	0	19	7
19 States	65	54	71	78

These 19 States produced 90% of the 1992 winter wheat crop.

RICE (Percent Headed)

	Current	Last Wk	1992	Avg.
AR	3	0	12	5
CA	0	0	0	0
LA	52	36	67	56
MS	15	9	26	24
TX	30	11	52	66
5 States	17	10	28	24

These 5 States produced 97% of the 1992 rice crop.

Crop Condition (Percent)

for the Week Ending July 18, 1993

RICE

State	VP	P	F	G	EX
AR	0	0	20	80	0
CA	0	0	25	75	0
LA	0	2	66	32	0
MS	0	0	59	41	0
TX	0	0	38	58	4
5 State	0	0	36	64	0
Prev Week	0	0	35	65	0
Prev Year	0	0	26	68	6

SPRING WHEAT

State	VP	P	F	G	EX
ID	0	1	20	63	16
MN	2	8	29	55	6
MT	0	3	15	51	31
ND	0	0	12	70	18
SD	0	0	12	60	28
5 State	0	2	15	64	19
Prev Week	0	2	13	64	21
Prev Year	2	5	25	57	11

CORN

State	VP	P	F	G	EX
CO	0	3	13	57	27
GA	13	18	57	12	0
IL	0	1	22	64	13
IN	0	0	23	66	11
IA	4	22	56	16	2
KS	5	6	14	51	24
KY	0	1	45	47	7
MI	1	4	25	50	20
MN	18	40	36	5	1
MO	2	14	48	34	2
NE	0	2	34	58	6
NC	19	38	35	8	0
OH	1	3	20	52	24
PA	1	7	25	43	24
SD	2	18	40	37	3
TX	1	2	22	58	17
WI	4	15	46	33	2
17 State	4	12	35	41	8
Prev Week	3	10	36	43	8
Prev Year	1	3	21	59	16

SORGHUM

State	VP	P	F	G	EX
AR	0	1	59	40	0
CO	0	2	17	66	15
IL	0	2	28	68	2
KS	1	2	29	45	23
LA	0	4	71	25	0
MS	0	8	62	30	0
MO	2	10	55	32	1
NE	0	11	37	51	1
NM	15	19	35	31	0
OK	0	0	8	88	4
SD	2	16	47	34	1
TX	1	6	28	55	10
12 State	1	6	33	50	10
Prev Week	1	5	31	47	16
Prev Year	0	3	19	60	18

COTTON

State	VP	P	F	G	EX
AL	0	2	34	64	0
AZ	0	0	10	85	5
AR	0	0	35	65	0
CA	0	0	5	90	5
GA	2	28	42	28	0
LA	0	10	48	42	0
MS	0	1	56	42	1
MO	0	0	70	30	0
NM	0	1	44	50	5
NC	0	23	50	23	4
OK	0	0	1	99	0
SC	13	64	23	0	0
TN	0	0	20	80	0
TX	0	2	46	44	8
14 State	0	4	39	53	4
Prev Week	0	4	34	58	4
Prev Year	3	13	38	39	7

SOYBEANS

State	VP	P	F	G	EX
AL	0	7	44	49	0
AR	0	0	66	34	0
GA	12	25	50	13	0
IL	0	2	28	64	6
IN	0	1	25	67	7
IA	5	27	54	13	1
KS	0	5	22	59	14
KY	1	2	45	50	2
LA	0	11	53	36	0
MI	1	6	30	45	18
MN	17	40	39	4	0
MS	0	5	71	24	0
MO	3	14	59	24	0
NE	0	0	37	61	2
NC	2	33	49	16	0
OH	1	4	23	52	20
SC	5	64	31	0	0
SD	4	18	52	26	0
TN	0	2	33	59	6
19 State	3	13	42	38	4
Prev Week	3	12	39	41	5
Prev Year	0	3	24	63	10

VP - Very Poor P - Poor F - Fair
G - Good EX - Excellent

State Summaries of Weather and Agriculture

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

ALABAMA: Rainfall none to 1.76 in. north; none to 2.13 in. central; 0.40 to 3.90 in. south. Temperatures 1 to 4° above normal north; 1 to 5° above normal central; 1° below normal to 3° above normal south. Lows 64 to 71° north; 67 to 73° central; 66 to 71° south. Highs 91 to 99° north; 94 to 101° central; 92 to 98° south.

Days suitable for fieldwork 6.5. Soil moisture 65% short, 33% adequate, 2% surplus. Corn silked 84%, 95% 1992, 92% avg.; dented 31%, 49% 1992, 53% avg.; mature 9%, 15% 1992, 23% avg.; 20% very poor, 17% poor, 43% fair, 20% good. Sorghum planted 90%, 100% 1992, 100% avg.; 10% poor, 43% fair, 47% good. Peanuts pegged 60%, 77% 1992, 85% avg.; 28% fair, 58% good, 14% excellent. Wheat harvested 96%, 100% 1992, 100% avg. Pasture 6% very poor, 15% poor, 48% fair, 31% good. Primary activities: Cultivating, spraying fields, harvesting vegetables, wheat, general care of livestock, poultry, catfish.

ALASKA: Sunny skies, warm temperatures dominated the statewide weather picture. Nearly all areas reported below normal rainfall since the beginning of May.

Days suitable for making hay 6. Crop growth 20% slow, 65% moderate, 15% rapid. First crop hay harvest was 75% complete by weekend. Barley 90% early dough, 25% 1992. Oats 60% early dough, less than 5% 1992. Barley 45% below average, 45% average, 10% above average. Commercial potato 90% average, 10% below average. All potatoes 50% bloom by weeks end; non-irrigated potatoes were showing signs of drought stress. Topsoil 80% short, 20% adequate. Subsoil 50% short, 50% adequate.

ARIZONA: Precipitation limited mostly to southeastern areas, strong thunderstorms 11th, scattered thunderstorms throughout the southeast quarter 12th to 16th with light showers central 16th. Temperatures 7° below to 2° above normal. Extremes 39°; 96° higher elevations; 57°; 108° deserts.

Cotton squaring 99%, 99% 1992, 98% avg.; setting bolls 85%, 84% 1992, 84% avg. Activities included: Irrigating, fertilizing, pesticide applications, pest monitoring. Cultivating cotton 10% fair, 85% good, 5% excellent. Insects, weeds mostly light. Alfalfa mostly good. Harvest moderate to active all areas. Weeds light to moderate, insects mostly light; disease light. Small grains harvested 100%, 99% 1992, 99% avg. Grapes, watermelons, honeydews, cantaloupes, harvested western, central areas. Cabbage, green onions, mixed greens, potatoes, grapefruit harvested central areas. Tomatoes, harvested eastern.

ARKANSAS: Hot, temperatures a little above normal. Scattered showers occurred statewide with the heaviest southeast region. Extremes 64°; 104°. Rainfall none to 5.77 in.

Days suitable available for fieldwork 7. Moderate rate of crop growth. Soil moisture 94% short, 6% adequate. Wheat harvest completed. Fruit harvest continued. Soybeans planting completed. Cotton, soybeans cultivation continued. Producers continued to spray cotton fields for weevils. Producers continued to apply fertilizer to rice fields. Water weevils reported in some rice fields. Corn, cotton, soybeans, sorghum irrigation continued. Corn 2% poor, 42% fair, 56% good. Producers continued to report nematode larvae in some soybeans field. Livestock excellent, external parasites reported in some areas. Hay cutting continued. Pastures good.

CALIFORNIA: High pressure continued with near or above normal temperatures many areas.

Field activities progressed. Wheat harvest winding down, straw baling cut fields. Barley harvest complete central valley. Land preparation second crops on small grain fields underway. Rice developing quickly, pesticides, fertilizers applied. Cotton development improved, treated mites, aphids, lygus. Seed alfalfa fields blooming, seed heads maturing. Dry edible beans planted scattered areas. Field corn irrigated, sprayed weeds. Safflower fields blooming, drying for harvest. Alfalfa hay harvest progressing most areas. Freestone peach, nectarine, plum harvest progressed. Cling peach harvest active, Sutter, Yuba counties. Apricot harvest completed. Pear harvest began, lower Sacramento Valley area. Gravenstein apple harvest started, Sonoma County. Table grape harvest gained momentum; quality, demand good. Grapes treated for mildew. Walnuts, prunes, almonds treated for various insect problems. Blight concerned walnut growers. Valencia orange harvest continued, treated for red scale. Broccoli harvest San Benito county, fairly light to moderate Central coast. Bell Pepper harvest in full swing Merced, Kern, Fresno counties. Central coast cauliflower harvest fairly light to moderate. Santa Maria celery harvest heavy; Salinas moderate. Fresh market tomato harvesting continued Kern, Merced, Tulare counties, westside of Fresno county. Processing tomato harvest seasonally San Joaquin, Sacramento valleys. Garlic harvest continued Tulare, San Benito counties. Garlic harvest got underway San Joaquin county. Head lettuce harvest fairly light to moderate, central coast. Harvest of romaine, leaf lettuce, Central coast was moderate. Onions were harvested Kern, San Joaquin counties. Red onion harvest began San Benito county. Honeydews, cantaloupes harvested, Fresno county. Watermelon harvest progressed Fresno, San Joaquin, Tulare counties. Other crops harvested included: Cucumbers, eggplant, garlic, green beans, green onions, snap beans, squash, sweet corn, cherry, roma tomatoes, oriental vegetables. Foothill range conditions remained very dry. Upper elevation range drying rapidly. Water, feed supplies were adequate. Limited supplemental feeding. Livestock good condition.

COLORADO: Typical summertime weather prevailed over the mountains, west with generally widely scattered thunderstorms. Temperatures near normal, precipitation was light. In the east passage of a couple of cold fronts maintained a moist air mass over the plains that produced numerous thunderstorms. Some of the storms produced strong winds, large hail, heavy rain resulting in crop damage, some delays in harvesting wheat. Temperatures below normal especially in northeast. Rainfall excess of 0.50 in. widespread.

Days suitable for fieldwork 5.3. Soil moisture 8% very short, 42% short, 45% adequate, 5% surplus. Hail damaged crops again in Adams, Washington counties, also in the San Luis Valley where there was localized crop damage along the Alamosa, Saguache border. Alfalfa 1st cutting 96%, 97% 1992, 93% avg.; 2nd cutting 24%, 25% 1992, 18% avg. Spring barley turning color 46%, 46% 1992, 55% avg. Spring wheat headed 78%, 88% 1992, 82% avg.; turning color 20%, 9% 1992, 24% avg. Oats headed 91%, 96% 1992, 86% avg.; turning color 57%, 57% 1992, 51% avg.; harvested 3%, 18% 1992, 16% avg. Corn silked 4%, 4% 1992, 4% avg. Dry beans flowering 7%, 10% 1992, 10% avg. Sorghum headed 1%, 1% 1992, 3% avg. Winter wheat ripe 94%, 95% 1992, 87% avg.; harvested 43%, 72% 1992, 65% avg. Winter wheat 5%

poor, 19% fair, 52% good, 24% excellent. Fall potato 1% very poor, 10% poor, 29% fair, 40% good, 20% excellent. Dry onion 1% poor, 12% fair, 66% good, 21% excellent. Sugarbeets 2% poor, 9% fair, 68% good, 21% excellent. Livestock good to excellent. Pasture, range feed good to excellent.

FLORIDA: Temperatures 1 to 2° above normal. Highs 95 to 100° northern areas, mid 90s elsewhere. Lows upper 60s to low 70s, except mid to upper 70s lower southeast coast. Scattered thunderstorms, under 1.00 in., local amounts of 1.00 to 4.00 in.

Soil moisture short to adequate most of State except surplus areas southern Peninsula. Haying, tobacco harvest active. Cotton, peanuts, soybeans, sugarcane making good progress. Farmers making preparation for corn harvest. Citrus groves need rain most areas, irrigation resumed. New growth spotty depending on grove care. New crop fruit progressing normally, a little late bloom. Valencia orange harvest almost over for this season. Grapefruit harvest virtually complete. Caretakers cutting cover crops, herbiciding, spraying, fertilizing. Commercial vegetable harvest virtually completed. Growers preparing land for fall crops. Some summer crops harvested for local market. State's pastures fair to excellent. Scattered showers covering most areas except northeast coast. Pasture 25% fair, 50% good, 25% excellent. State's cattle herds fair to good.

GEORGIA: Hot, humid temperatures 3 to 6° above normal. Highs middle 90s northeast mountains to around 100° remainder of State. Lows low to middle 60s northeast to around 70s remainder of State. One to 2 days rain with 3 to 4 days at a few locations extreme south. Rain totals under 0.50 in., local areas 1.00 to 2.00 in.

Days suitable for fieldwork 6.6. Soil moisture 56% very short; 39% short; 5% adequate. Corn 83% dough, 89% 1992, 90% avg.; 52% dent, 59% 1992, 66% avg.; 12% mature, 11% 1992, 21% avg.; dryland severe stress many areas. Dryland cotton stressed, irrigation heavy. Sorghum 25% poor, 50% fair, 25% good; 98% planted, 99% 1992, 98% avg. Peanuts 2% very poor, 6% poor, 37% fair, 55% good; 98% blooming, 100% 1992, 98% avg.; 88% pegging, 87% 1992, 86% avg.; Pest control active, hot temperatures damaging pegs. Soybeans 100% planted, 100% 1992, 98% avg.; crop under stress, most late planting intentions canceled. Insect pressure increasing some areas. Tobacco 13% poor, 54% fair, 27% good, 6% excellent; 21% harvested, 39% 1992, 38% avg. Watermelons 1% very poor, 24% poor, 55% fair, 20% good; 73% harvested, 79% 1992, 80% avg. Other vegetables 1% very poor, 28% poor, 62% fair, 9% good; heat, lack of rain stressing vegetables. Apples 8% poor, 17% fair, 75% good. Peaches 15% very poor, 6% poor, 23% fair, 56% good; 82% harvested, 82% 1992, 85% avg. Pecans 2% poor, 16% fair, 82% good. Hay 28% very poor, 40% poor, 28% fair, 4% good; northern two thirds hay fields mostly dried up, hay supplies becoming short. Pasture 21% very poor, 35% poor, 39% fair, 5% good; pastures very short to dried up north, many cattlemen feeding hay. Cattle, hogs fair to good.

HAWAII: High clouds, light winds created hot, humid weather early part of week. Showers returning trade winds brought some cooling near weekend. Temperatures high 60s to low 90s. Rainfall none to 4.20 in.

Days suitable for fieldwork 7.0. Muggy weather unfavorable for some crops. Showers beneficial for crops, pastures, orchards. Irrigation usage heavy some areas. Banana production steady. Papaya picking heavy, seasonal high. Watermelon supplies heavy, quality good.

IDAHO: Temperatures 8 to 13° below normal. Precipitation 0.16 to 3.80 in. north; none to 0.03 in. southwest; none south central; none to 0.06 in. east.

Days suitable for fieldwork 6. Soil moisture 6% short, 85% adequate, 9% surplus. Winter wheat 1% harvested, 43% turning color, 52% headed, 4% booted. Spring wheat 2% not yet jointed, 8% jointed, 28% booted, 54% headed, 8% turning color. Spring barley 2% not yet jointed, 8% jointed, 25% booted, 55% headed, 10% turning color. Potatoes emerged 99%, 100% 1992, 100% avg. Potatoes not yet 12" high 22%, 12" high 44%, closing middles 34%. Potatoes 5% poor, 14% fair, 64% good, 17% excellent. Sugarbeets thinned 99%, 100% 1992, 100% avg. Alfalfa first cutting 96%, 99% 1992, 98% avg. Alfalfa second cutting 16%, 30% 1992, 21% avg. Cherries harvested 77%, 100% 1992, 97% avg. Peaches harvested 8%, 6% 1992, NA avg. Mint first cutting 9%, 31% 1992, 12% avg. Irrigation water 1% poor, 6% fair, 66% good, 27% excellent. Activities: Cutting hay, preparing machinery for harvest. Pasture, range 95% normal. Livestock good.

ILLINOIS: Front continued to waver about across the midwest producing episodes of thunderstorms, 0.50 in. some areas, 2.00 to 3.00 in. others. Temperatures as much as 4 to 6° above normal, highs around 80° to the middle 90s, lows mainly in middle 60s to middle 70s.

Days suitable for fieldwork 3. Rains, flooding continued to affect crop conditions, with thousands of crop acres destroyed by flooding along major rivers in the western part of the State, while crops in other parts of the State benefitted from precipitation. In preparation for possible further flooding, farmers were busy moving equipment, grain, livestock, personal belongings, assisting in sandbagging, levee building. Other farm activities included harvesting wheat, planting double crop soybeans, spraying, cultivation, baling straw, hay, tending livestock. Pasture 96% of normal.

INDIANA: High temperatures low to mid 80s north to mid 80s to lower 90s south. Readings 1 to 4° below normal north, central, southeast to 2 to 4° above normal over the far southwest. Lows mostly 60s north to 70s south. Low readings 2 to 7° above normal. Rainfall 0.50 to 2.50 in. over the west, 0.30 to 1.20 in. over the east.

Days suitable for fieldwork 4. Corn, soybeans showed improvement. Pastures 95% of normal, 95% last week. Topsoil 7% short, 61% adequate, 32% surplus. Subsoil 3% short, 66% adequate, 31% surplus. Corn 58 in. high, 63 in. 1992, 58 in. avg. Soybean 18 in. high, 20 in. 1992, 17 in. avg. Oats headed 96%, 100% 1992, 100% 1992. Alfalfa hay 2nd cutting 49%, 37% 1992, 60% avg.

IOWA: Office closed due to floods. No weather data available.

KANSAS: Temperatures 5° below normal southwest to 1° below normal 3 eastern districts. Heavy thunderstorms crossed almost all of State. Rainfall well above normal central, eastern districts.

Days suitable for fieldwork 2.0. Topsoil 3% short to very short, 34% adequate, 63% surplus. Subsurface 4% short to very short, 43% adequate, 53% surplus. Southwest received much needed rain. Rain persisted eastern two thirds causing the surplus moisture situation to worsen. Farmers able to get into a few fields between rains. Significant rainfall fell on already saturated soils in central, eastern districts. Farmers made a little progress by cutting on higher ground. Harvest northwest, southeast made most progress. Soils less saturated, able to dry more quickly. Wheat harvested 85%, 95% 1992, 99% avg. Corn silking 50%, 50% 1992, 60% avg. Jump follows jump in planted acres earlier this spring. Corn 75% good to excellent, 14% fair, 11% poor to very poor. Sorghum headed 1%, 3% 1992, 5% avg.; 68% good to excellent, 29% fair, 3% poor to very poor. Some double-crop soybeans still being planted southeast. Soybeans blooming 15%, 25% 1992, 35% avg.; continued decline, 73% good to excellent, 22% fair, 5% poor to very poor. Second cutting alfalfa 60%, 80% 1992, 90% avg.; maturing normally, wet conditions keeping

growers out of fields. Third cutting 2%, 5% 1992, 10% avg. Pastures mostly good to excellent.

KENTUCKY: Hot days, warm nights. Highs lower 90s, lows lower 70s, 3 to 5° above normal. Rainfall varied, near 2.00 in., few locations excess of 3.00 in. Rain 1.00 in. above mean.

Days suitable fieldwork 4.7. Soil moisture 20% very short, 39% short, 41% adequate. Tobacco 3% very poor, 7% poor, 48% fair, 40% good, 2% excellent. Burley tobacco blooming or beyond 22%, 41% 1992, 27% avg. Pasture, hay good to fair.

LOUISIANA: No weather data available.

Fieldwork 3.9. Soil moisture 8% short, 61% adequate, 31% surplus. Corn 8% poor, 46% fair 46% good; 98% silked, 100% 1992, 100% avg.; 84% dough stage, 94% 1992, 86% avg.; 6% mature, 37% 1992, 30% avg. Hay 98% first cutting, 93% 1992, 87% avg.; 6% final cutting, 18% 1992, 4% avg. Rain showers have hampered hay cuttings. Peaches 5% very good, 13% poor, 36% fair, 46% good; 71% harvested, 84% 1992, 73% avg. Rice 3% ripe, 13% 1992, 8% avg.; 0% harvested, 4% 1992, 2% avg. Crop progressing well, spraying for sheath blight, blast active. Sorghum 100% emerged, 100% 1992, 99% avg.; 4% turning color, 9% 1992, 13% avg.; 0% ripe, 0% 1992, 1% avg. Soybeans 99% planted, 100% 1992, 98% avg.; 96% emerged, 99% 1992, 95% 1992, 96% avg.; 0% harvested, 1% 1992, 1% avg. Few acres remain to be planted. Progressing very slowly. Wheat 100% harvested 100% 1992, 100% avg. Sugarcane 1% poor, 3% fair, 86% good, 10% excellent. Spraying for borers, land preparation active for planting. Livestock 17% fair, 80% good, 3% excellent. Pastures 3% very poor, 5% fair, 91% good, 1% excellent. Good condition overall. Vegetables 3% very poor, 9% poor, 66% fair, 22% good. Harvest continues.

MARYLAND & DELAWARE: MARYLAND: Precipitation 1.01 in. Temperature 82.5°, normal 76.0°. Extremes 49°; 100°.

Days suitable for fieldwork 6.3. Topsoil 48% very short, 39% short, 13% adequate. Subsoil 22% very short, 56% short, 22% adequate. Small grains mostly good. Wheat 99% harvested, 80% 1992, 89% avg. Rye 93% harvested, 72% 1992, 83% avg. Oats 73% turned, 66% 1992, NA avg.; 26% harvested, 19% 1992, 30% avg. Corn, soybeans fair. Corn 42% silked, 27% 1992, 39% avg. Soybeans 97% planted, 92% 1992, 94% avg. Pasture fair, needs rain; hay supplies adequate. Alfalfa hay 90% second cut, 75% 1992, 78% avg. Other hay 59% second cut, 40% 1992, 38% avg. Sweet corn 19% harvested, 16% 1992, 24% avg. Cantaloupes 28% harvested, 6% 1992, 22% avg. Potatoes 11% harvested, 16% 1992, 20% avg. Peaches, apples good; peaches picked: 9%, 10% 1992, 15% avg.

DELAWARE: Precipitation 1.07 in. Temperature 82.4°, normal 76.4°. Extremes 62°; 101°.

Days suitable for fieldwork 6.6. Topsoil 17% very short, 66% short, 17% adequate. Subsoil 33% very short, 50% short, 17% adequate. Small grains fair to good. Wheat 99% harvested, 94% 1992, 97% avg. Oats 95% harvested, 55% 1992, NA avg. Corn poor to fair; 62% silked, 29% 1992, 49% avg. Soybeans poor to mostly fair; 95% planted, 94% 1992, 93% avg.; 18% bloomed, 8% 1992, 10% avg. Alfalfa hay 95% second cut, 87% 1992, 86% avg. Other hay 66% second cut, 37% 1992, 48% avg. Pasture mostly poor to fair; hay short to mostly adequate. Sweet corn 24% harvested, 21% 1992, 20% avg. Cantaloupes 39% harvested, 3% 1992, 15% avg. Peach, apple crop fair to good. Peaches 17% harvested, 4% 1992, 24% avg.

MICHIGAN: Extremes 43°; 93°. Precipitation none to 1.81 in. across State.

Days suitable for fieldwork 6.5. Soil moisture 20% short, 75% adequate, 5% surplus. Dry beans 10% blooming, 4% 1992, 10% avg.; 3% very poor, 12% poor, 25% fair, 50% good, 10% excellent. Oats 80% headed, 85% 1992, 97% avg.; 20% turning,

10% 1992, 50% avg.; 1% ripe, 0% 1992, 10% avg.; 2% very poor, 8% poor, 25% fair, 50% good, 15% excellent. Wheat 90% turning, 90% 1992, 97% avg.; 35% ripe, 20% 1992, 65% avg. Hay 95% first cutting, 90% 1992, 96% avg.; 30% second cutting, 20% 1992, 25% avg.; 2% very poor, 8% poor, 25% fair, 45% good, 20% excellent. Pasture 90% of normal. Major activities: Cutting hay, harvesting cherries, wheat, irrigating, mowing weeds.

MINNESOTA: Temperatures 4 to 7° below normal for State. Extremes 44°; 90°. Precipitation 0.51 in. below normal to 1.88 in. above normal for State. Precipitation 0.14 to 2.69 in. for State. Greatest weekly precipitation 5.49 in.

Days suitable for fieldwork 2.2. Topsoil 16% adequate, 84% surplus. Spring wheat 98% heading, 98% 1992, 98% avg. Oats 96% heading, 98% 1992, 99% avg. Barley 99% heading, 94% 1992, 98% avg. Corn 59% cultivated once, 99% 1992, 99% avg.; 27 in. height, 53 in., 1992, 57 in. avg.; 1% tasseled, 7% 1992, 35% avg. Soybeans 35% cultivated once, 99% 1992, 99% avg.; 10 in. height, 17 in. 1992, 19 in. avg.; 9% blooming, 39% 1992, 52% avg.; 0% setting pods, 4% 1992, 10% avg. Spring wheat 2% very poor, 8% poor, 29% fair, 55% good, 6% excellent. Oats 2% very poor, 13% poor, 32% fair, 48% good, 5% excellent. Barley 2% very poor, 12% poor, 25% fair, 57% good, 4% excellent. Corn 18% very poor, 40% poor, 36% fair, 5% good, 1% excellent. Soybeans 17% very poor, 40% poor, 39% fair, 4% good. Dry beans 19% very poor, 21% poor, 46% fair, 12% good, 2% excellent. Sugarbeets 4% very poor, 18% poor, 35% fair, 35% good, 8% excellent.

MISSISSIPPI: Temperatures 81°, 0.5° below normal. Extremes 54°; 97°. State received over 1.00 in. rainfall, average 2.77 in., 1.65 in., above normal. Soil temperature 85°.

Days suitable for fieldwork 4.0, 3.7 1992, 4.4 avg. Soil moisture 5% very short, 18% short, 45% adequate, 18% surplus, 14% excessive. Corn 81% silked, 95% 1992, 91% avg.; 40% dough, 60% 1992, 58% avg.; 11% dent, 27% 1992, 34% avg.; 5% mature, 8% 1992, 9% avg.; 2% silage harvested, 15% 1992, 19% avg.; 6% poor, 47% fair, 46% good, 1% excellent. Cotton 94% squaring, 98% 1992, 94% avg.; 36% setting bolls, 69% 1992, 64% avg.; 1% poor, 56% fair, 42% good, 1% excellent. Rice 15% heading, 26% 1992, 24% avg.; 59% fair, 41% good. Sorghum 46% heading, 80% 1992, 58% avg.; 6% turning color, 11% 1992, 15% avg.; 8% poor, 62% fair, 30% good. Soybeans 97% planted, 98% 1992, 100% avg.; 93% emerged, 95% 1992, 87% avg.; 17% blooming, 32% 1992, 25% avg.; 1% podding, 10% 1992, 9% avg.; 5% poor, 71% fair, 24% good. Sweet potatoes 17% poor, 50% fair, 33% good. Watermelons 30% harvested, 43% 1992, 43% avg.; 14% poor, 72% fair, 14% good. Wheat 98% harvested, 100% 1992, 100% avg.; 38% poor, 50% fair, 12% good. Hay 69% harvested, 69% 1992, 57% avg. Peaches 71% harvested, 74% 1992, 79% avg.; 7% poor, 66% fair, 16% good, 11% excellent. Livestock 7% fair, 91% good, 2% excellent. Pasture 88% of normal. Activities: Insect control.

MISSOURI: Temperatures 4° above normal southeast to near normal elsewhere. Rainfall 1.69 in., 1.00 in. southern districts to over 2.00 in. central, northwestern districts. Flooding continues along Missouri, Mississippi Rivers, destroying crops, damaging homes, other farm buildings.

Days suitable for fieldwork 2.4, ranging from 0.7 northwestern district to 6.1 southeast. Topsoil 11% short, 12% adequate, 77% southeast. Southeastern district driest area at 67% short, while west central, central, northern districts virtually all surplus. Continued wet weather delaying wheat harvest, haying. Double-crop soybean planting 75%, 86% 1992, 95% avg., about 10% complete northern districts, most intended double-crop acres not expected to be planted northern areas. Soybeans blooming range 10% northwest to 20% east central. Sorghum heading ranges just beginning northern districts to 23% southeast. Wheat harvest

varies 17% northwest, north central districts to 100% southeast. Oat harvest 22%, 49% 1992, 77% avg. Alfalfa hay first cutting 40%, 69% 1992, 79% avg. Other hay 71%, 85% 1992, 87% avg. Pasture 1% poor, 21% fair, 52% good, 26% excellent.

MONTANA: Temperatures 9 to 17° below normal. Precipitation above normal, except southwest, northeast districts.

Days suitable for fieldwork slightly over 0.9. Topsoil 3% short, 74% adequate, 23% surplus. Subsoil 14% short, 79% adequate, 7% surplus. Winter wheat 1% very poor, 4% poor, 17% fair, 50% good, 28% excellent. Barley 1% poor, 15% fair, 51% good, 33% excellent. Oats 13% fair, 55% good, 32% excellent. Sugarbeets 5% poor, 5% fair, 70% good, 20% excellent. First cutting alfalfa hay 44% complete, 82% 1992, 90% avg. Other hay 32% complete, 59% 1992, 67% avg. Pasture, range feed 91% of normal, down 3 points from last week.

NEBRASKA: Temperatures 3 to 7° below normals. Precipitation 0.10 in. north to 4.30 in. central.

Days suitable for fieldwork 2.7. Topsoil 4% short, 34% adequate, 62% surplus. Subsoil 1% short, 49% adequate, 50% surplus. Winter wheat 2% very poor, 5% poor, 42% fair, 51% good; 83% ripe, 89% 1992, 94% avg.; 13% harvested, 43% 1992, 76% avg.; crop damage from hail, northwest, southwest districts. Corn 2% poor, 34% fair, 58% good, 6% excellent; 9% silked, 26% 1992, 41% avg. Soybeans 37% fair, 61% good, 2% excellent; 11% blooming, 28% 1992, 44% avg.; limited weed control activities due to field conditions. Sorghum 11% poor, 37% fair, 51% good, 1% excellent. Alfalfa 1% poor, 21% fair, 62% good, 16% excellent; second cutting 29%, 55% 1992, 67% avg. Wild hay 4% fair, 68% good, 28% excellent. Pasture, range 103% of normal.

NEVADA: Dry conditions prevailed except on 15th, widely scattered showers far west, northeast followed by strong gusty winds over much of State. Temperatures below normal, 5 to 10° below north to 2° below south.

Irrigation water supplies generally adequate. Good progress alfalfa hay harvest. Livestock good. Irrigation, insect, weed control, general maintenance common activities.

NEW ENGLAND: Precipitation 0.05 to 0.87 in. north; none to 1.53 in. south. Temperatures 66 to 74° north; 68 to 79° south. Maximum temperatures 87 to 98° north; 90 to 100° south. Minimum temperatures 42 to 56° north; 45 to 62° south.

Days suitable for fieldwork 6.7. Soil moisture 38% very short, 54% short, 8% adequate. Available grazing 25% very short, 56% short, 19% adequate. Fieldwork progress 1 to 2 days behind schedule. Pasture 60% of normal. Potatoes across the region good to fair. Maine oat good to fair. Field corn fair to good. First cutting hay 95% harvested, 90% 1992, 95% avg.; good. Second cutting hay 15% harvested, 15% 1992, 20% avg.; poor to fair south, fair to good north. Shade tobacco good to excellent. Outdoor tobacco good to fair. Sweet corn harvested 5%; fair to good. Peach, pear, high bush blueberry set average. High bush blueberries 20% harvested. Cranberry set heavy to average. Apple set, fruit drop average; scab infection light. Strawberry set average; 95% harvested. Major farm activities: Irrigating fields, applying herbicides, insecticides, top, side dressing fields. Finishing first cutting of hay, harvesting second cut where available. Harvesting vegetables: Peas, beans, cauliflower, broccoli, sweet corn among others. Strawberry harvest mostly finished. Continuing high bush blueberry harvest. Dry: All farmers equipped to do so are irrigating.

NEW JERSEY: Temperatures near normal. Extremes 49°; 98°. Rainfall 0.20 in. north, 0.95 in. central, 0.86 in. south.

Heaviest 24 hour total 1.43 in. on 15th, 16th. Estimated soil moisture, in percent field capacity, averaged 48% north, 48% central, 33% south. Four inch soil temperatures averaged 75° north, 78° central, 80° south.

Soil moisture content is short. Rain needed in most areas. Irrigation of crops being widely used. Dry weather continues to slow down growth of some crops. Good, moderate volume of cucumbers, cantaloupe, corn, eggplant, peppers (all types), squash (all types), tomatoes are available. Moderate volume of beans, beets, green onions, leeks, parsley also available. Light harvest of peaches (Clingstone variety). Blueberries have reached peak production. Wheat harvest nearly complete. All grain crops, pastures need more rain.

NEW MEXICO: Temperatures eased back from warm readings the week before to near normal levels as the seasonal increase in showers became more evident. Several of the mountain areas of the central, south 2 to 4° cooler than usual due to cloudiness and daily showers. Most areas, excluding the northwest, had 3 to 4 days of scattered showers with total rain amounts for the week generally under 0.30 in. north, southwest, 1.00 in. or more across the eastern half of the State.

Days suitable for fieldwork 5.8. Soil moisture 79% short, 21% adequate. Crop conditions: Alfalfa 27% fair, 68% good, 5% excellent; harvest slowed by rain. Corn 1% poor, 21% fair, 76% good, 2% excellent. Wheat crop 99% harvested. Chile 2% poor, 41% fair, 57% good. Onions mostly good; harvest hampered by rain. Pecans 20% fair, 80% good. Apples 17% poor, 33% fair, 50% good. Cattle, sheep poor to good. Range, pasture 68% of normal.

NEW YORK: Warm week. Temperatures most areas in mid 60s to mid 70s. Southeastern areas averaged close to 80°. Extremes 44°; 100°. Precipitation a lot below normal, with few exceptions. Thunderstorms in Buffalo area dropped almost 1.00 in. of rain, north country received 0.25 to 0.50 in., rest of the State received less than 0.20 in.

Days suitable for fieldwork 6.8. Soil moisture mostly short. Rain needed. Pasture condition 85%. Corn curling due to dryness some areas, good condition other areas. First cutting alfalfa completed. Clo-tim harvest 94% finished, 84% 1992, 86% avg. Potatoes flowering. Dry bean planting near completion, need rain. Apples continue good to excellent. Irrigation active many orchards. Tart cherry harvest began. Onions good, irrigation being used. Strawberry harvest winding down. Vegetable harvesting gained momentum. Cabbage transplanting continued.

NORTH CAROLINA: Temperatures 4 to 7° above normal. Precipitation 4.37 in. at Fayetteville to no rain at a few locations.

Days suitable for fieldwork 6.2. Soil moisture 48% very short, 48% short, 4% adequate. Crop condition: Pasture 18% very poor, 42% poor, 33% fair, 7% good; field tobacco 25% poor, 60% fair, 15% good; Irish potatoes 8% very poor, 17% poor, 42% fair, 33% good; corn 19% very poor, 38% poor, 35% fair, 8% good; hay 14% very poor, 33% poor, 43% fair, 10% good; peaches 14% poor, 64% fair, 21% good; truck crops 11% very poor, 29% poor, 46% fair, 14% good; cotton 23% poor, 50% fair, 23% good, 4% excellent. Peanuts 12% poor, 59% fair, 29% good; soybeans 2% very poor, 33% poor, 49% fair, 16% good; sweet potatoes 4% very poor, 11% poor, 59% fair, 22% good, 4% excellent; apples 33% poor, 67% fair; sorghum 11% very poor, 28% poor, 56% fair, 5% good; hay, roughage supplies 7% very short, 42% short, 49% adequate, 2% surplus. Irish potatoes harvested 82%, 77% 1992, 83% avg.; peaches harvested 47%, 73% 1992, 62% avg.; cotton squared 75%, 68% 1992, 79% avg.; cotton setting bolls 45%, 30% 1992, 44% avg.; corn silked 84%, 83% 1992, 81% avg.; corn soft dough 41%, 45% 1992, 51% avg.; second cutting of the hay crop is 65% completed. Major activities: Irrigating crops, topping tobacco. Other activities included: Completing small grain

harvest; harvesting potatoes; spraying peanuts, cotton; cutting hay; tending livestock; general farm maintenance.

NORTH DAKOTA: Cool, unsettled weather continued across the State. Heavy rains fell in the central, south central, east central, southeast districts. Precipitation 0.27 in. northeast to 7.81 in. central. Temperatures 9 to 13° below normal. Extremes 34° northwest; 84° southeast.

Days suitable for fieldwork 1.8. Topsoil 45% adequate, 55% surplus. Subsoil 73% adequate, 27% surplus. Small grains mostly good, development behind last year, average due to lack of warm temperatures. Spring wheat 12% fair, 70% good, 18% excellent; durum 15% fair, 63% good, 22% excellent; barley 11% fair, 70% good, 19% excellent; oats 21% fair, 67% good, 12% excellent; winter wheat 26% fair, 62% good, 12% excellent. Hard red spring wheat 1% turning and beyond, 9% 1992, 29% avg. Durum wheat 1% turning and beyond, 2% 1992, 16% avg. Oats 2% turning and beyond, 14% 1992, 36% avg. Barley 3% turning and beyond, 14% 1992, 44% avg. Winter wheat 27% turning and beyond, 57% 1992, 78% avg. Cool wet weather is affecting the development of late season crops, with the exception of potatoes. Corn 6% very poor, 55% poor, 34% fair, 5% good; Flax 3% poor, 19% fair, 62% good, 16% excellent; sugarbeets 9% fair, 73% good, 18% excellent; potatoes 1% fair, 99% good; dry beans 2% very poor, 19% poor, 60% fair, 19% good; soybeans 9% very poor, 48% poor, 42% fair, 1% good; sunflowers 17% poor, 60% fair, 23% good. Dry beans 10 in. avg. height, 12 in. 1992, 15 in. avg.; flax 12 in. avg. height, 13 in. 1992, 14 in. avg.; soybeans 10 in. avg. height, 15 in. 1992, 18 in. avg.; sunflowers 18 in. avg. height, 23 in. 1992, 31 in. avg.; potatoes 25 in. avg. height, 18 in. 1992, 18 in. avg.; corn 19 in. avg. height, 32 in. 1992, 43 in. avg. Flax 30% blooming and beyond, 41% 1992, 58% avg.; dry beans 9% blooming and beyond, 25% 1992; soybeans 2% blooming and beyond, 33% 1992; Potatoes 72% blooming and beyond, 50% 1992, 75% avg. Range, pasture 97% of normal. Hay 78% of normal. Alfalfa hay first cutting 50% complete, other hay 22%. Stockwater supplies 3% short, 66% adequate, 31% surplus.

OHIO: High pressure in the upper air suppressed thunderstorm development across State for much of the period. Drier than normal weather over much of State. High temperatures low to mid 80s in north to mid to upper 80s in south, which was mostly normal, to as much as 3° above normal. Lows upper 50s to mid 60s in the north to the upper 60s in the south. These readings were mostly 2 to 5° above normal over the central, south, 1 to 3° cooler than normal over the northeast. Rainfall 0.10 to 0.50 in. north, west central to 0.25 to 1.50 in. east central, south. Drier than normal across much of State 0.50 to 0.90 in.

Days suitable for fieldwork 5.2. Topsoil 11% short, 78% adequate, 11% surplus; very wet west central, rain needed north east. Oats maturing behind schedule, ripe 30% average 40%, harvested 2%, 20% avg. Alfalfa 2nd cut harvested 50%, other hay 2nd cut harvested 28%, standing hay good to excellent conditions, quality of hay baled poor to good. Pasture 1% very poor, 3% poor, 28% fair, 56% good, 12% excellent. Conditions of fruits, vegetables good to excellent. Summer potatoes being dug, early apples picked, sweet corn being jerked. Lots of straw being banded.

OKLAHOMA: Temperatures 3° below normal Panhandle to 3° above normal east central, southeast. Precipitation none east central, southeast to 3.43 in. west central.

Days suitable for fieldwork 5.4. Topsoil 33% short, 46% adequate, 21% surplus. Subsoil 19% short, 81% adequate. Wheat 99% harvested, 97% 1992, 100% avg. Corn 77% tasselling, 95% 1992, 70% avg.; 17% milk to soft, 19% 1992, 25% avg. Sorghum 8% fair, 88% good, 4% excellent; 15%

heading, 7% 1992, 16% avg.; 4% milk to soft, 3% 1992, 3% avg. Soybeans 95% planted, 73% 1992, 100% avg.; 76% up to stand, 59% 1992, 95% avg.; 10% flowering, 14% 1992, 17% avg. Peanuts 6% fair, 94% good; 46% pegging, 57% 1992, 40% avg.; 29% setting pods, 8% 1992, 6% avg. Cotton 1% fair, 99% good; 88% squaring, 42% 1992, 55% avg.; 21% setting bolls, 1% 1992, 12% avg. Alfalfa 94% 2nd cut, 71% 1992, 98% avg.; 25% 3rd cut, 6% 1992, 47% avg. Pastures 98% of normal. Cattle prices mixed. Marketings average.

OREGON: Temperatures normal coast, 4° below normal Willamette Valley, 9 to 13° below normal elsewhere. Frosts reported Klamath Falls, Burns areas. Precipitation less than 0.50 in. coast, Willamette Valley, northern Cascades, central sections; elsewhere traces reported.

Soil moisture 9% short, 90% adequate, 1% surplus. Winter wheat 2% poor, 11% fair, 49% good, 38% excellent. Wheat harvested 3%. Barley harvested 6%. Septoria damage in some western wheat fields. Hail damage to wheat, barley, Columbia Basin. Some frost damage Klamath Basin. Hay harvest continued, slowed by showers. Grass seed harvest continues, statewide. Willamette Valley snap beans, peas, over winter onions, squash, garlic processing underway. Malheur County onions not developing bulbs, cool weather. Cranberry fruit sizing continued; southern coast. Raspberry harvest continues (good quality, yield), blackberry harvest underway, blueberry harvest continued (some rot losses), sweet, tart cherry harvest completed, boysenberry harvest underway, peach harvest underway, early variety apples ripening; Willamette Valley. Hood River, The Dalles district cherry harvest continues, rain has caused significant cracking damage to fresh market crop, some damaged fruit diverted to canneries; cannery, brine harvest continues. Livestock good to excellent. Immunizing calves, inserting fly tags in western areas. Range, pasture 109% of normal.

PENNSYLVANIA: Above normal temperatures, below normal precipitation. Temperature 79°, 10° above normal. Extremes 44°; 96°. Precipitation 0.32 in., 0.56 in. below normal.

Days suitable for fieldwork 6. Soil moisture 72% short, 28% adequate. Corn height 48 in., 40 in. 1992, 37 in. avg. Soybean 2% very poor, 7% poor, 24% fair, 49% good, 18% excellent. Barley 96% turning yellow, 94% 1992; 85% ripe, 73% 1992; 70% harvested, 53% 1992. Wheat 98% turning yellow, 90% 1992; 85% ripe, 59% 1992; 58% harvested, 13% 1992; 2% very poor, 3% poor, 25% fair, 52% good, 18% excellent. Oats 68% turning yellow, 50% 1992; 20% ripe, 8% 1992; 5% harvested, 1% 1992; 1% very poor, 14% poor, 37% fair, 37% good, 11% excellent. Alfalfa first cutting 99% complete, 99% 1992. Second cutting alfalfa 55% complete, 36% 1992. Quality of hay made 38% fair, 62% good. First cutting of timothy clover 95% complete, 94% 1992. Feed from pastures poor to fair. Peach 19% below avg., 71% avg., 10% above avg. Apple 1% below avg., 61% avg., 28% above avg. Activities: Making hay, filling silos; baling straw; harvesting small grains; spraying, side dressing, cultivating corn; hauling manure; caring for livestock.

PUERTO RICO: Rainfall of 2.98 was 1.75 in. above normal. Highest rainfall 11.23 in. at Patillas, 9.81 in. at Maunard, 8.74 in. at Pico Del Este. Island temperatures 79 to 80° on the Coasts, 73 to 74° in Interior with Mean Station temperature 81.9° at San Juan WSFO to 64.2° at Cerro Maravilla. Extremes 55°; 96°.

SOUTH CAROLINA: Rainfall 0.50 in. Temperatures 4 to 7° above normal.

Days suitable for fieldwork 6.4. Soil moisture 70% very short, 25% short, 5% adequate. Corn very poor to poor; 95% silked, 97% 1992, 95% avg.; 70% dough, 74% 1992, 68% avg.; 25% mature, 4% 1992, 18% avg.; 5% harvested, 1% 1992, 1% avg. Sorghum poor; 91% planted, 77% 1992, 88% avg. Tobacco poor

to fair; 85% topped, 91% 1992, 90% avg.; 9% harvested, 23% 1992, 22% avg. Cantaloupes poor to fair; 67% harvested, 74% 1992, 70% avg. Watermelons poor to fair; 67% harvested, 77% 1992, 74% avg. Cucumbers poor to fair; 80% harvested, 82% 1992, NA avg. Tomatoes poor to fair; 96% harvested, 94% 1992, 95% avg. Rye fair, 95% harvested, 99% 1992, 99% avg. Fall hay very poor to poor; 25% harvested, 23% 1992, 18% avg. Peaches poor to fair; 48% harvested, 49% 1992, 54% avg. Pasture very poor to poor.

SOUTH DAKOTA: Temperatures 5 to 10° below normal. Extremes 42°; 88°. Rainfall was widespread across the State over 3.00 in. extreme north. Southwest received the least with amounts less 0.50 in. Maximum 4.19 in.

Days suitable for fieldwork 1.8. Topsoil 40% adequate, 60% surplus. Subsoil 1% short, 52% adequate, 47% surplus. Winter wheat 5% poor, 12% fair, 55% good, 28% excellent. Rye 6% poor, 14% fair, 41% good, 39% excellent. Oats 3% poor, 19% fair, 60% good, 18% excellent. Barley 2% poor, 12% fair, 58% good, 28% excellent. Flax 4% very poor, 1% poor, 18% fair, 51% good, 26% excellent. Sunflowers 2% very poor, 4% poor, 19% fair, 67% good, 8% excellent. Fields remain wet across the State. Farmers were concerned about the harvest of small grains as most fields are too wet to get into. Weeds continue to be a problem as cultivating, spraying remain difficult. Row crops were reported to be at a standstill due to a lack of sunshine, an excess of moisture. Some farmers were concerned that the row crops would not mature before the fall frost. Livestock 4% fair, 71% good, 25% excellent. Pasture 100% of normal. Quality of hay in some areas was reported to be poor as it set in windrows for too long.

TENNESSEE: Temperatures between 2 to 7° above normal across the State. Highs in lower to mid 90s, lows in upper 60s to mid 70s. Precipitation was variable coming in the form of scattered thunderstorms. Dyersburg 0.01 in. while Nashville, Knoxville measured between 2.00 to 2.05 in.

Days suitable for fieldwork 5.2. Soil moisture 17% very short, 45% short, 36% adequate, 2% surplus. Corn 75% tasseling, 88% 1992, 73% avg.; 10% dough stage, 23% 1992, 20% avg.; 7% poor, 36% fair, 54% good, 3% excellent. Cotton 97% squaring, 95% 1992, 94% avg.; 32% setting bolls, 30% 1992, 30% avg.; 20% fair, 80% good. Sorghum 18% headed, 39% 1992, 29% avg.; 1% poor, 25% fair, 73% good, 1% excellent. Soybeans 11% blooming, 20% 1992, 15% avg.; 2% poor, 33% fair, 59% good, 6% excellent. Tobacco 7% topped, 20% 1992, 11% avg.; 1% very poor, 8% poor, 59% fair, 32% good. Alfalfa hay 93% 2nd cutting harvested, 93% 1992, 88% avg. Pastures 7% very poor, 19% poor, 43% fair, 27% good, 4% excellent. Cattle 3% poor, 33% fair, 59% good, 5% excellent. Scattered showers brought relief to corn, tobacco, many areas are still in need of more rain. Black shank continues to plague tobacco. Several areas in East report the most black shank they have ever seen. Some of the early tobacco is blooming out short. Soybean growers were busy spraying for Johnson grass, broadleaf weeds. Soybeans could use a good general rain. Cotton is still in good condition thanks to the above-normal temperatures, pressures from budworms are increasing. Boll weevil populations are still heavy. Pasture conditions improved slightly with the increase in soil moisture, cooler temperatures are needed for good growth to resume. Apple, peach harvests are active, most vegetables good to excellent.

TEXAS: Upper level high pressure over East Texas squelched shower activity over that part of State last week but fed Gulf moisture into West Texas. Moisture interacted with daily heating, a weak front to trigger daily thunderstorms over High Plains, Trans-Pecos. A tropical wave brought some showers to Upper Coast latter part of week. Rainfall ran above normal on

Plains areas, Trans-Pecos, below normal elsewhere. No rain in Blacklands, Lower Valley areas. Temperatures generally near to below normal. Departures from normal were greatest on Southern High Plains, Cross Timbers.

Crops: Corn weather was good for progress on Plains, where fields continued to silk. Fields progressing rapidly under hot temperatures across State. Producers harvesting in Rio Grande Valley, Upper Coast. Corn 85% normal, 88% 1992. Cotton fields progressed well in Plains with recent rains. Some producers treated for insects in Blacklands, where fields were beginning to show stress from lack of moisture. Some bolls opening in Coastal Bend, Upper Coast. Cotton 77% normal, 52% 1992. Rice producers continued spraying activities as fields were heading. Fields progressed well along Upper Coast. Rice 80% normal, 92% 1992. Grain sorghum some harvesting occurred in Central Texas, Upper Coast. Harvest in full swing in Coastal Bend, South Texas, Rio Grande Valley. Some fields turning color in Low Plains. Sorghum 79% normal, 86% 1992. Small grains harvest nearing completion in High Plains. Producers continued to plow up stubble, where conditions allowed. Peanuts planting winding down in Central Texas. Fields made good progress across State. Irrigation steady. Some Cross Timbers fields showing signs of wind damage. Peanut 80% normal, 81% 1992. Soybeans except for High Plains, planting virtually complete across State. Crop progressed well in Blacklands. Producers across State could use good rain.

Commercial Vegetables: Rio Grande Valley producers busy preparing land for fall planting. San Antonio-Winter Garden watermelon harvesting winding down. Peppers made good progress. East Texas vegetable, watermelon harvesting continued. High Plains onion, potato harvest continued with good yields. Producers planted broccoli, lettuce for fall harvest. Trans-Pecos cantaloupe, onion harvesting continued. Peppers nearing green pick stage. Peaches late season varieties still being harvested in parts of State. Pecans producers sprayed for second generation casebearers in Cross Timbers. Many producers in Central Texas, were having to contend with scab problems. Rain would help crop across State.

Range and Livestock: Ranges, pastures beginning to deteriorate from recent hot, dry conditions most areas. Hay baling active across State except where hampered by heavy rains in parts of Low Plains. Livestock remained in good condition most parts. Ranchers in Edwards Plateau were drenching sheep, goats.

UTAH: Both temperature maximums, minimums 1.5° below normal. All divisions averaged zero precipitation.

Days suitable for fieldwork 7.0. Soil moisture 63% short, 37% adequate. Irrigation water supply 1% short, 97% adequate, 2% surplus. Stockwater supply 21% short, 77% adequate, 2% surplus. Hay, other roughage supplies 5% short, 74% adequate, 21% surplus. Winter wheat: ripe 59%, 92% 1992, 62% avg.; harvested 1%, 38% 1992, 21% avg. Spring wheat ripe 28%, 62% 1992, 33% avg. Barley ripe 28%, 69% 1992, 40% avg.; harvested 3%, 18% 1992. Oats headed 74%, 90% 1992; harvested for hay or silage 47%. Corn height 38 in., 52 in. 1992, 46 in. avg. Corn tasseling 7%, 34% 1992. Alfalfa hay 2nd cutting 36% complete, 62% 1992, 42% avg. Other hay cut 58%, 66% 1992, 60% avg. Sweet cherries picked 88%. Tart cherries picked 25%. Pasture, range good to excellent.

VIRGINIA: Temperatures above normal. Extremes 55°; 101°. Scattered showers, thunderstorms.

Days suitable for fieldwork 6.1. Topsoil 36% very short, 54% short, 10% adequate. Pasture 6% very poor, 45% poor, 47% fair, 2% good. Alfalfa 12% poor, 51% fair, 32% good, 5% excellent. Other hay 4% very poor, 36% poor, 47% fair, 10% good, 3% excellent. Oats 95% harvested, 89% 1992, 90% avg. Wheat 96% harvested, 90% 1992, 96% avg. Apple 5% poor, 26% fair, 58% good, 11% excellent. Potatoes 10% harvested. Corn silked 42%.

44% 1992, 46% avg. Corn in dough stage 11%, 6% 1992, 17% avg.; 14% very poor, 28% poor, 45% fair, 10% good, 3% excellent. Peanut 13% fair, 87% good. Soybeans 99% planted, 97% 1992, 98% avg.; blooming 11%, 7% 1992, 14% avg.; setting pods 1%, 1% 1992, 6% avg.; 14% very poor, 29% poor, 54% fair, 3% good. All tobacco 1% very poor, 13% poor, 61% fair, 25% good. Livestock 5% poor, 43% fair, 52% good. Corn tasselling on short, uneven stalks. Non irrigated vegetables showing extreme stress. Disease pressure in peanuts reduced by hot, dry conditions. Harvesting hay, irrigating, topping tobacco, harvesting cucumbers, supplemental feeding to livestock.

WASHINGTON: Temperatures 7° below normal to 1° below normal west; 16° below normal to 8° below normal east. Precipitation 0.11 to 0.56 in. west; 0.04 to 1.40 in. east.

Days suitable for fieldwork 5.3. Soil moisture 33% short, 61% adequate, 6% surplus. Irrigation water supply 19% short, 81% adequate. Hay, other roughage 1% short, 87% adequate, 12% surplus. Range, pasture 5% poor, 21% fair, 70% good, 4% excellent. Winter wheat dryland 10% fair, 90% good; irrigated 100% good. Spring wheat dryland 5% fair, 95% good; irrigated 100% good. Barley dryland 10% fair, 80% good, 10% excellent; irrigated 95% good, 5% excellent. Potatoes 100% good. Winter wheat, winter barley harvests got underway in some areas. Early potato harvest began. Hay growers continued to cut as the weather permitted; first cutting of alfalfa was almost completed. Raspberry, blueberry harvests continued. Apricot harvest began in the south central part of the State.

WEST VIRGINIA: Temperature 75°. Extremes 47°; 97°. Precipitation 0.68 in.

Days suitable for fieldwork 5.6. Soil moisture 18% very short, 41% short, 41% adequate. Wheat 100% ripe, 35% harvested. Oats 38% fair, 62% good; 46% ripe. Corn 48% fair, 52% good; 9% silked. Soybeans 17% fair, 83% good; 100% planted, 98% emerged. Hay 8% very poor, 17% poor, 43% fair, 32% good;

93% 1st cut, 25% 2nd cut. Apples good. Peaches good. Tobacco 2% poor, 5% fair, 93% good. Pastures 18% very poor, 28% poor, 36% fair, 18% good; 83% of normal. Cattle 3% poor, 7% fair, 90% good. Sheep 28% poor, 30% fair, 42% good. Gardens 5% poor, 37% fair, 58% good. Farm activities: General maintenance, moving livestock, harvesting oats, cutting hay, combining wheat.

WISCONSIN: Northern part of State experienced drier conditions while some southern areas were once again wet. Temperatures were a bit cooler than normal for mid July. Temperature 67°, 3° below normal. Extremes 39°; 88°. Precipitation 0.30 to 1.20 in.

Days suitable for fieldwork 3.8. Soil moisture 27% adequate, 73% surplus. Pasture 93% of normal, 64% 1992, 61% avg. General condition of crops: 3% very poor, 9% poor, 51% fair, 36% good, 1% excellent. Oats headed, 70% headed; 4% very poor, 12% poor, 35% fair, 45% good, 4% excellent. Corn 4% very poor, 15% poor, 46% fair, 33% good, 2% excellent; height 29 in., 45 in. 1992, 52 in. avg.; silked 0%, 2% 1992, 16% avg. Soybean 2% very poor, 12% poor, 53% fair, 32% good, 1% excellent. 2nd cut alfalfa 6% harvested, 22% 1992, 33% avg. Primary activities: Second crop hay harvesting, cultivation, pea harvesting.

WYOMING: Temperatures below to well below normal. Some northern areas were as much as 12° below normal. Precipitation was normal to below normal south, normal to above normal in north. East central areas were as much as 1.50 in. above normal.

Days suitable for fieldwork 6.4. Topsoil 21% short, 79% adequate. Spring wheat 1% mature, 16% 1992, 16% avg. Oats 2% mature, 6% 1992, 9% avg. Barley 4% mature, 21% 1992, 20% avg. Winter wheat 20% mature, 46% 1992, 49% avg. Corn tasseled 2%, 10% 1992, 15% avg. Dry beans 17% in bloom, 27% 1992, 33% avg. Alfalfa 1st cutting completed 74%, 79% 1992, 87% avg. Alfalfa 2nd cutting completed 0%, 3% 1992, 3% avg. Other hay harvested 43%, 40% 1992, 47% avg. Expected date of harvest for winter wheat 27th. Hail damage during last two weeks mostly none to light. Range, pasture good to excellent.

Iowa Rainfall Records

Courtesy of Iowa State Climatologist, Harry Hillaker

- Record statewide averaged rainfall Jan. 1 - July 15, 1993 (28.62")
- Record statewide averaged rainfall Nov. 1, 1992 - July 15, 1993 (35.51")
- Wettest week on record July 5-11, 1993 (4.07")
- July 1993 = 9th consecutive month with above-normal rainfall
- Several locations already close to setting new annual rainfall records

River Heights at St. Louis

The 10 worst floods on the Mississippi River as measured by water depth at St. Louis. Data provided by the Army Corps of Engineers.

	River Height (feet)	Volume (cu. ft./sec.)
1. 1993 7/18	46.90	975,000
2. 1973 4/28	43.31	852,000
3. 1844	41.32	1,300,000
4. 1951	40.28	782,000
5. 1947	40.26	783,000
6. 1983	39.27	708,000
7. 1944	39.14	844,000
8. 1986	39.13	728,000
9. 1943	38.94	540,000
10. 1903	38.00	1,019,000

International Weather and Crop Summary HIGHLIGHTS

July 11 - 17, 1993

FSU: In western areas, widespread, locally heavy showers continued to keep most crops well-watered. Unseasonably cool weather slowed corn growth. In the New Lands, showers continued to benefit spring grains, entering the heading stage.

EUROPE: Substantial rain slowed winter grains harvesting across the north. Showers helped Hungary's moisture-deficient corn.

SOUTH ASIA: Monsoon rains soaked central India, providing abundant moisture for crop development.

SOUTHEAST ASIA: Rain increased over Thailand's rainfed grain areas. Tropical activity increased moisture for Philippine crops, but more is needed.

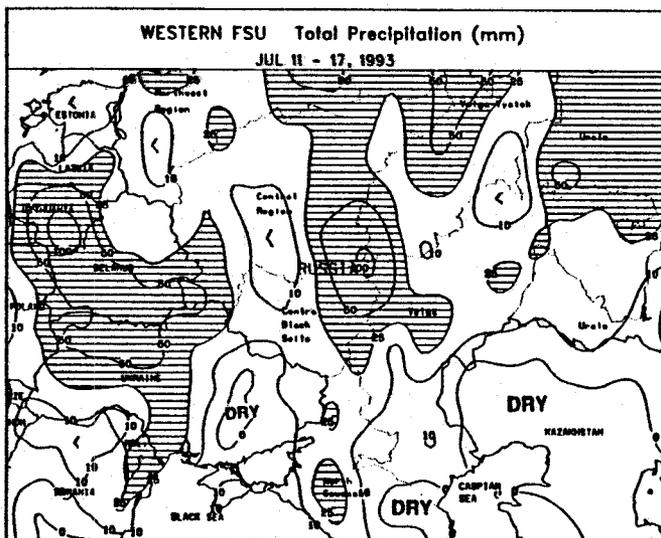
EASTERN ASIA: Widespread showers continued to aid summer crops in the North China Plain, but some may have suffered from excessive moisture.

AUSTRALIA: Early July rains may have spurred further winter wheat planting across eastern Australia.

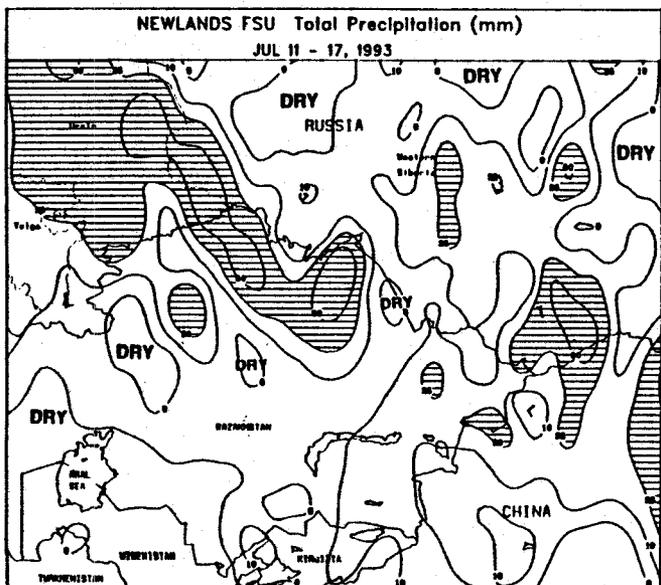
SOUTH AMERICA: Across southern Brazil, freezing temperatures slowed wheat growth and possibly damaged early reproductive wheat. Freezing temperatures missed the main coffee and citrus growing areas.

CANADA: Unseasonably cool weather slowed crop development.

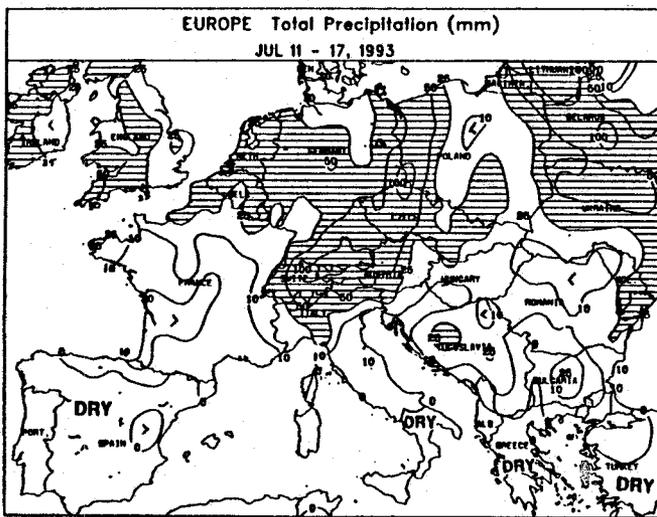
MEXICO: Drier weather brought relief to flooded areas across the southern coastal regions. Seasonal rains continued across the main corn belt.



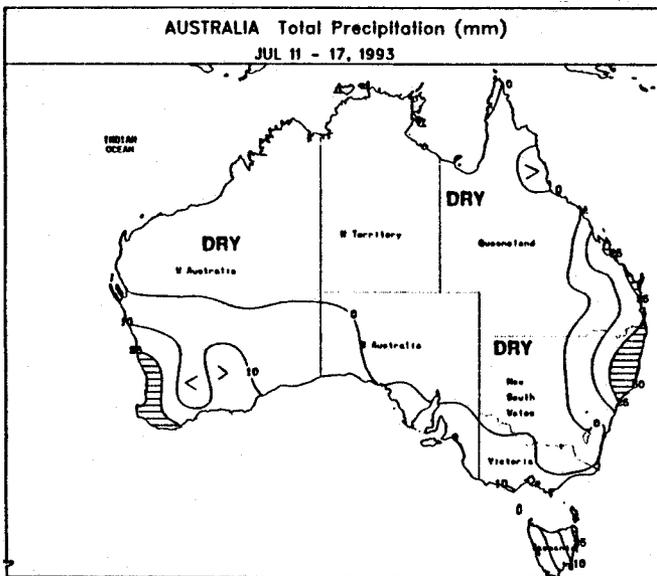
FSU-WESTERN: A slow-moving storm system brought unsettled weather and locally heavy rain, especially in western areas. The rain (25-87 mm) benefited corn, sugar beets, and sunflowers in Moldova and western Ukraine. Conditions were becoming too wet for crops in Lithuania and southwestern Belarus, where continued wet weather for the past 3 weeks waterlogged soils. Rainfall in these areas generally ranged from 25 to 50 mm, with local amounts ranging from 75 to 120 mm. Elsewhere, winter grain harvesting continued in southern Ukraine, North Caucasus, and Lower Volga, but was slowed by periodic showers (10-34 mm). Light to moderate rain (10-30 mm, with local amounts in excess of 50 mm) over Black Soils Region, Central Region, Upper Volga, and Volga Vyatsk generally benefited spring grains in the reproductive to filling stages and winter grains in the filling stage. Weekly average temperatures were 2-5 degrees Celsius (C) below normal over the region, slowing corn growth.



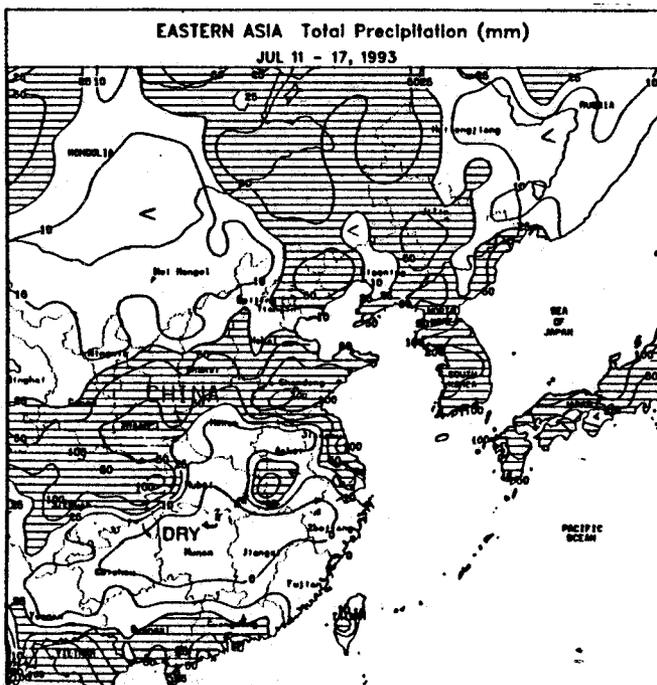
FSU-NEW LANDS: Beneficial showers continued over most spring grain areas. In Kazakhstan, widespread light to moderate rain benefited spring grains in the heading stage. Precipitation in central Kazakhstan ranged from 10 to 50 mm, with scattered heavier amounts (50-110 mm). Minor spring grain areas in western and eastern Kazakhstan received only light showers (less than 10 mm). Further north, moderate to heavy rain (25-50 mm, with local amounts in excess of 50 mm) covered northern Urals, keeping spring grains well watered. In Western Siberia, unseasonably warm weather was accompanied by variable showers (1-18 mm) over western crop areas. In contrast, widespread locally heavy rains, ranging from 5 to 58 mm, favored crops in the east. Weekly average temperatures were near normal in the Urals and Kazakhstan and 2-4 degrees C above normal in Western Siberia.



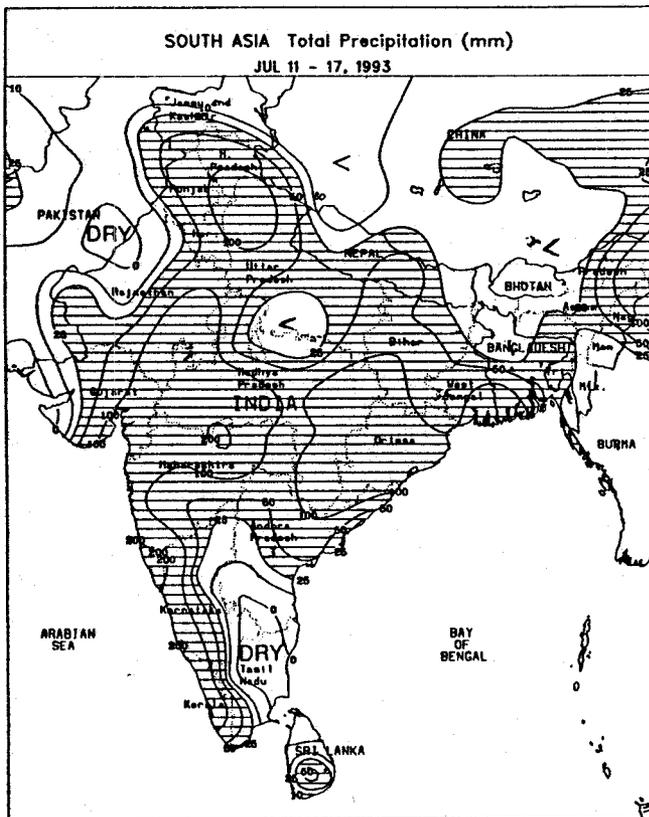
EUROPE: Widespread rain (20-50 mm) slowed winter grain harvesting from southern England across the Benelux countries through Germany to Poland, the Czech Republic, and Slovakia. Inundating rain (50-115 mm) soaked southern Germany, western portions of the Czech Republic, and Poland, halting fieldwork. Variable, but beneficial, rain (4-17 mm) fell over moisture-deficient corn areas of Hungary. The corn crop is likely in the weather-sensitive reproductive phase. Showers also fell over the Balkan region, with some beneficial, but variable rainfall (5-25 mm), providing much-needed topsoil moisture in Bulgaria. In France, rain (10-34 mm) hampered winter grain harvesting in the north, while mostly light showers (4-12 mm) maintained ample moisture for corn reproduction in the southwest. In Scandinavia, widespread locally heavy rain (30-113 mm) soaked southern portions of Norway and Sweden, although amounts diminished to less than 10 mm near Stockholm. Mostly light showers (2-10 mm) covered Jutland, with locally heavier amounts (10-47 mm) scattered across Denmark. Mostly dry weather prevailed over Finland.



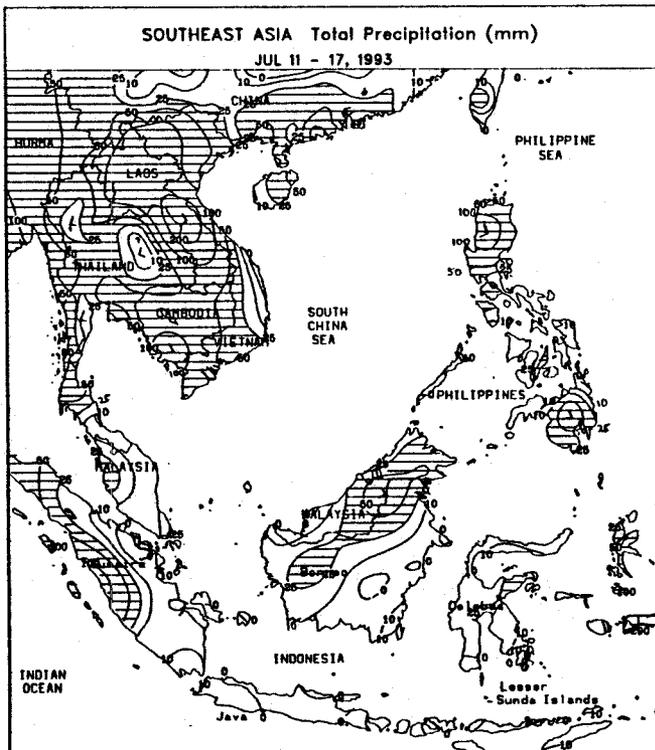
AUSTRALIA: Further winter wheat planting may occur across eastern Australia, especially southern Queensland, to take advantage of last week's beneficial rain. Wheat planting usually ceases by early July, but can still occur late into the month. Western Australia received light to moderate rain (5-25 mm), keeping soils moist for vegetative wheat. Temperatures averaged 1-2 degrees C above normal across the east and near normal across the west.



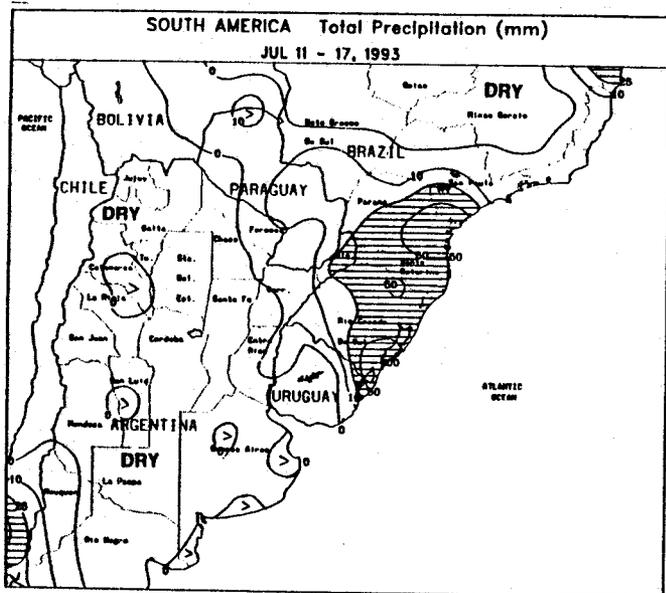
EASTERN ASIA: Moderate to heavy rains (20-110 mm) continued to fall across portions of the North China Plain (Shandong westward into Shaanxi), benefiting irrigation supplies and vegetative to reproductive summer crops. However, portions of Shandong received in excess of 200 mm, causing localized flooding. Heavy rain during the past several weeks, may cause excessive moisture problems in this region. Further south, dry weather prevailed across the lower Yangtze Valley, allowing early double-crop rice harvesting and late double-crop rice transplanting. However, rain is still needed to alleviate dryness across Hubei and portions of Henan. Showers (20-80 mm) returned to southern China, after previous dryness brought relief from flooding. Tropical Cyclone Lewis passed over Hainan Island, with sustained winds of 85-95 mph, producing variable showers (20-70 mm). Manchuria received moderate rain (20-60 mm), keeping growing conditions favorable. Temperatures averaged 2-4 degrees C above normal across central and southwest China and near normal elsewhere.



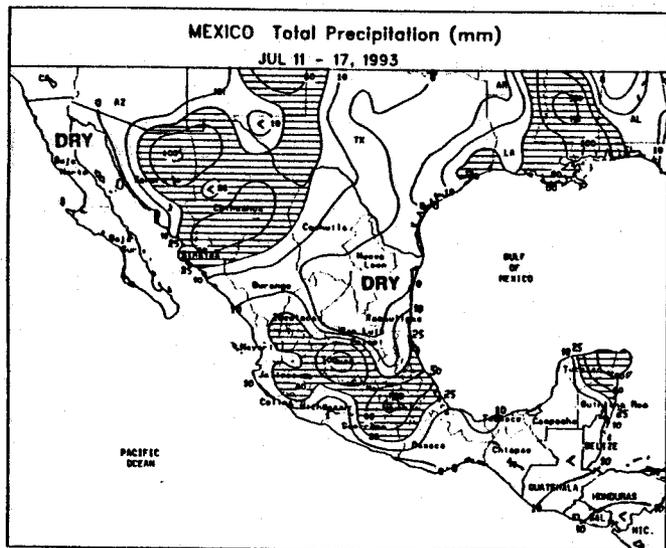
SOUTH ASIA: Widespread moderate to heavy rain (50-150 mm, with scattered amounts 150-220 mm) soaked much of central India, benefiting vegetative grains, oilseeds, and cotton. The monsoon surged across much of central and northern India, with widespread amounts (25-50 mm) and scattered 50-100 mm amounts producing some flooding from eastern Gujarat to Punjab. Drier weather prevailed over northern Pakistan, however. Wet weather also prevailed over northeastern India, and excessive rainfall (80-211 mm) aggravated flooding in rice areas of Orissa. Soaking rains (150-244 mm) fell along India's west coast, while little or no rain (5 mm or less) fell over Tamil Nadu and southern Andhra Pradesh. Scattered showers (10-48 mm) elsewhere in southern India brought some relief to vegetative to reproductive summer crops. More rain is needed across India's southern interior to help crop prospects following weeks of unseasonable dryness.



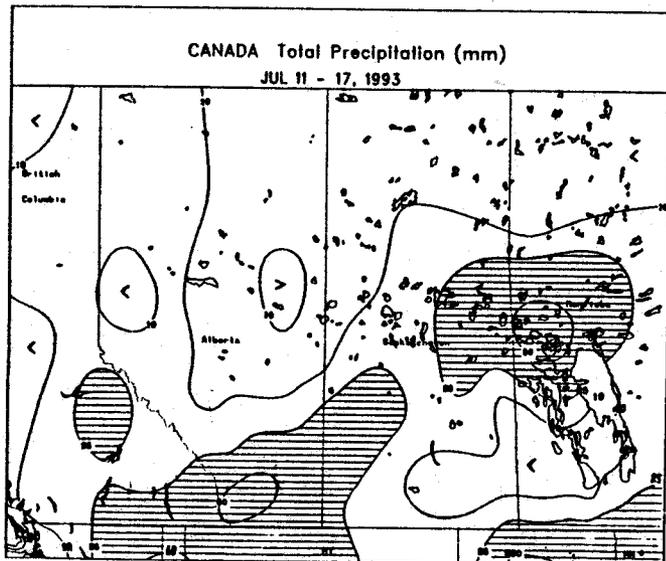
SOUTHEAST ASIA: Tropical Cyclone Lewis made landfall in northern Vietnam early in the week, with 50-63 mph sustained winds. The storm produced widespread heavy showers (50-200 mm, with isolated amounts greater than 300 mm) across northern Vietnam, Laos, and extreme eastern Thailand, causing some flooding along the Mekong River. Beneficial showers (10-75 mm) fell across Thailand, helping reproductive to filling grains. Hot weather in Thailand's corn areas abated with the rain but still averaged slightly above normal. Further south, showers tapered off over the Malay Peninsula, with light to moderate showers (2-42 mm) covering most rice and oil palm areas. Late in the week, Tropical Cyclone Marian brushed Luzon, contributing much-needed rain (20-150 mm) for reproductive to filling crops. Light to moderate showers (10-60 mm) fell elsewhere in the Philippines. The recent increase in tropical activity in the western Pacific resulted in increased rainfall. Philippine grains still have limited moisture available and need more consistent seasonable rains.



SOUTH AMERICA: A cold airmass moved into southern Brazil during midweek and produced minimum temperatures in the range of 0 to -4 degrees C from southern Parana southward. The freezing temperatures did not reach the coffee areas of northern Parana, but one station did report a minimum temperature of 2 degrees C. The freezing weather burned back vegetative winter wheat and possibly damaged early reproductive wheat. Before the cold air moved in, moderate to heavy rain (20-60 mm) covered southern Brazil, keeping soil moisture levels favorable. In central Argentina, the cold air remained for most of the week, producing minimum temperatures from -2 to -4 degrees C. The cold weather aided in hardening winter wheat. Dry weather continued to help ease flooding in northern Buenos Aires. Temperatures averaged 2-5 degrees below normal across central Argentina and southern Brazil.



MEXICO: After 3 weeks of inundating rain, drier weather (5-30 mm) prevailed across southern Mexico, bringing needed relief to flooded areas. The southern Plateau corn belt continued to receive moderate to heavy showers (14-30 mm, with isolated amounts greater than 100 mm), benefiting vegetative to reproductive corn. Despite a slow start to the rainy season in May, soil moisture and irrigation levels should be favorable to excellent. Unseasonably widespread rain (20-70 mm) fell across northwestern Mexico, favoring reservoir levels.



CANADA: Temperatures averaged 4-8 degrees C below normal across the Prairies, with minimum temperatures falling into the low single digits (C). Showers were scattered throughout the area, with heaviest rain (25-50 mm) falling from southern Alberta to northeastern Saskatchewan. While the recent trend of wet weather has raised soil moisture to more favorable levels, crop growth has been slowed by unseasonably low temperatures. Warmer weather is vital in upcoming weeks to enhance crop development and ease concern for crop quality. In Ontario, light to moderate rain (7-26 mm) and seasonably warm weather helped filling winter wheat and vegetative to reproductive corn and soybeans.

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(Continued from front cover)

temperatures dropped to the freezing mark in some western basins, including Burns, OR. On Wednesday, Worland, WY notched its eighth daily record low in the past 9 days. Between contrasting airmasses, heavy rainfall expanded its domain to include the Plains, the lower Ohio Valley, and the central Gulf coast region, in addition to the flood-stricken middle Mississippi Valley. July rainfall records have already been established in northern Plains locations such as Billings, MT (3.22 inches) and Bismarck, ND (9.94 inches). Bismarck also set an all-time 24-hour rainfall record with 4.49 inches on July 14-15. Continued heavy rainfall in eastern North Dakota pushed the Red River (Hudson Bay drainage basin) above flood stage, with the crest expected to push northward to near Fargo, ND by July 22. In the southern High Plains, repeated thunderstorm activity caused flash flooding near Las Vegas, NM, where more than 9 inches of rain fell

during the week. Heavy rainfall also caused minor flooding in Mississippi and southern Louisiana. But north of St. Louis, MO, the combination of floodwaters from the Illinois, Missouri, and Mississippi Rivers continued to wreak havoc. By week's end, the Mississippi flood crest finally neared St. Louis, where an all-time high river level was first reached on July 15, smashing the record set on April 28, 1973. The crest of 46.9 feet, which was attained late on July 18, was 3.6 feet higher than the previous record. But before reaching St. Louis, the crest breached major levees in several locations, causing the closure of the Bayview Bridge, the last Mississippi River bridge open in a more than 200-mile stretch from Burlington, IA to Alton, IL; the inundation of agricultural lowlands near Hardin, IL; and the submersion of a considerable portion of St. Charles County, MO, as the Missouri-Mississippi confluence expanded westward about 20 miles.

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