

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

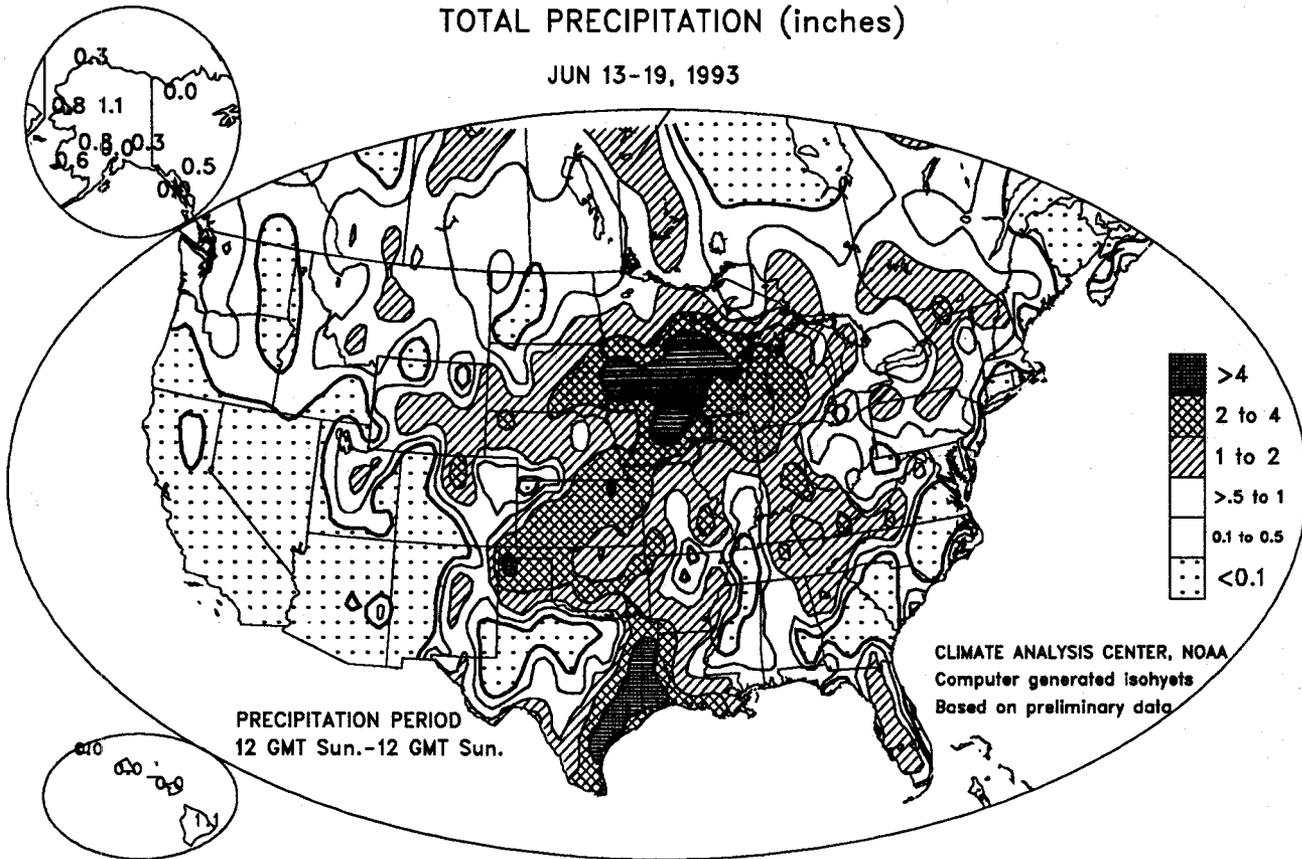
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Washington, D.C.

June 22, 1993

TOTAL PRECIPITATION (inches)

JUN 13-19, 1993



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

PRECIPITATION PERIOD
12 GMT Sun.-12 GMT Sun.

HIGHLIGHTS

June 13 - 19, 1993

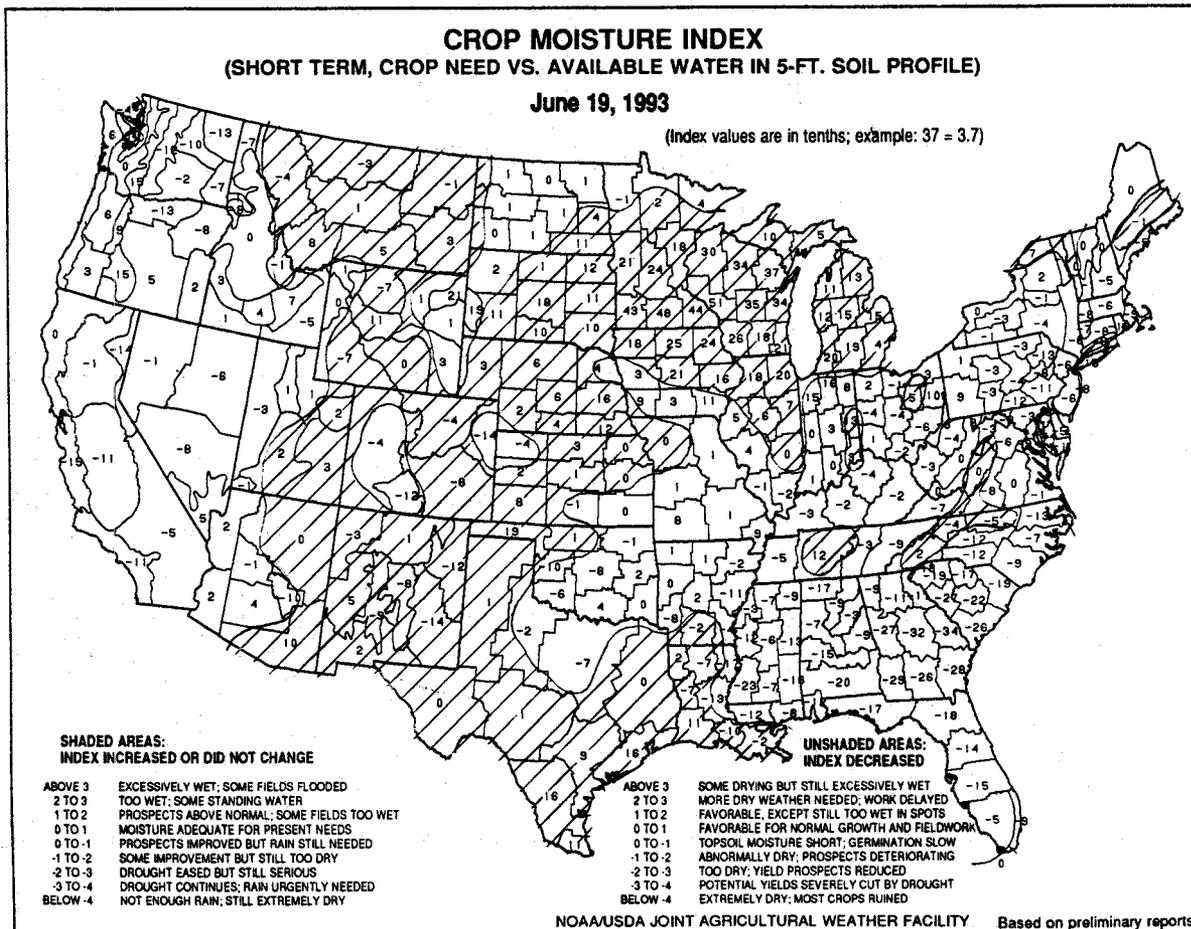
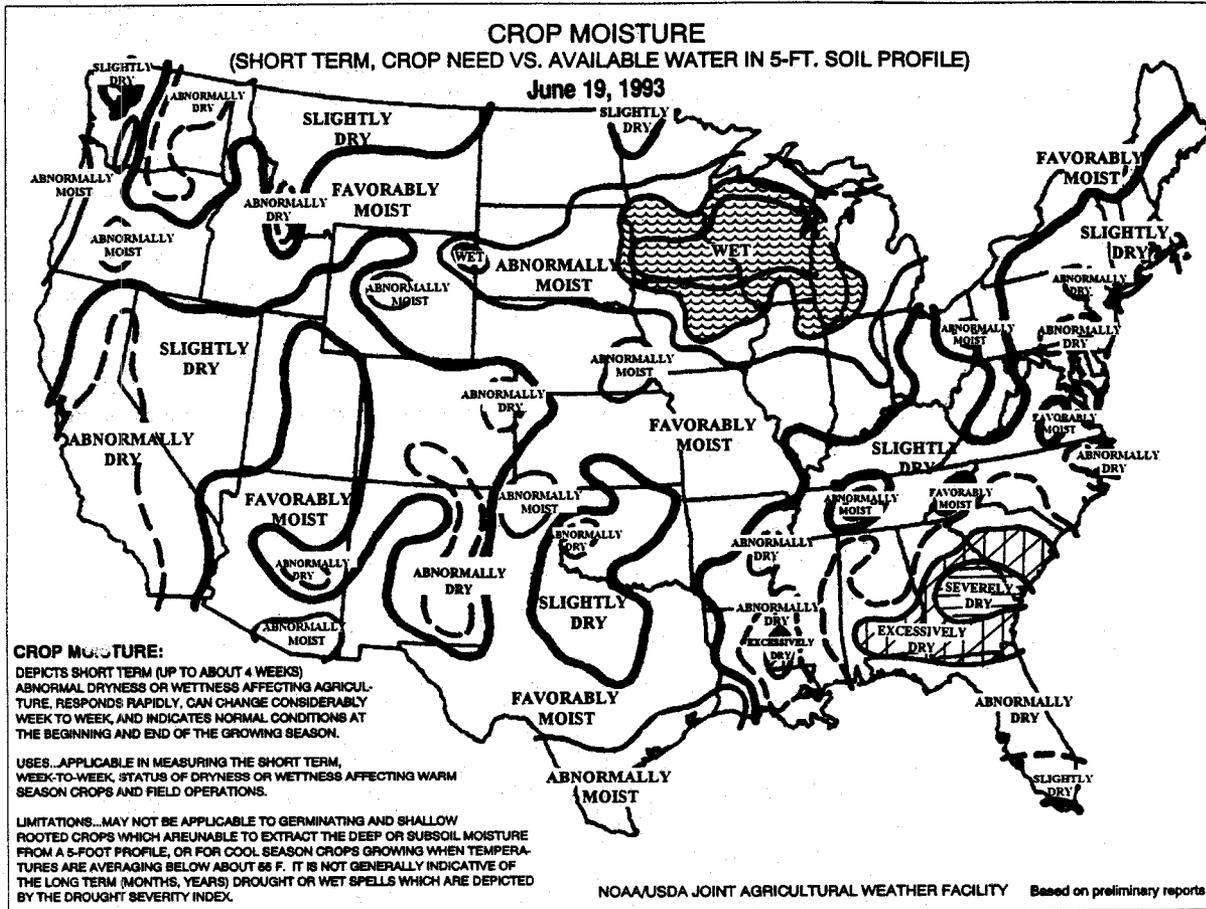
A series of storm systems inundated the western Corn Belt with 2 to 7 inches of rain, and Tropical Storm Arlene delivered late-week flooding rains to eastern Texas. Elsewhere, hot, dry weather persisted in the piedmont and coastal sections of the Carolinas and Georgia, while high temperatures of 110°F or higher sizzled the Southwest's deserts. Early in the week, cool air punched into the Intermountain West, setting daily records of 32°F in Pocatello, ID and 40°F in Salt Lake City, UT. Farther east, a fast-moving cluster of thunderstorms swept across the upper Midwest en route to the Tennessee and lower Ohio River Valleys. A stronger weather system crossed the northern Plains on Tuesday, accompanied by widespread rains and sharply cooler air. As much as 1 foot of snow accumulated above the 8,000-foot level in Wyoming's Wind River Range. In advance of the

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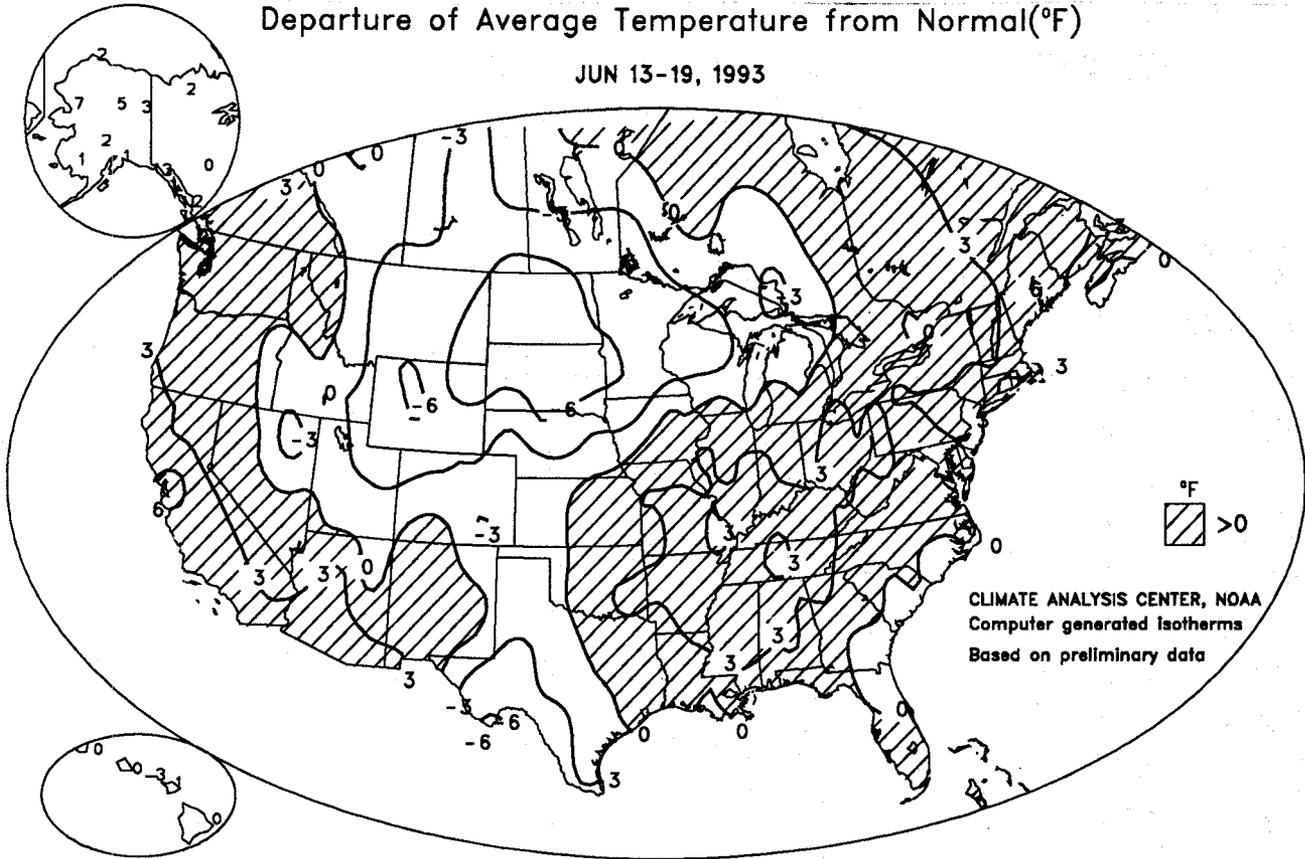
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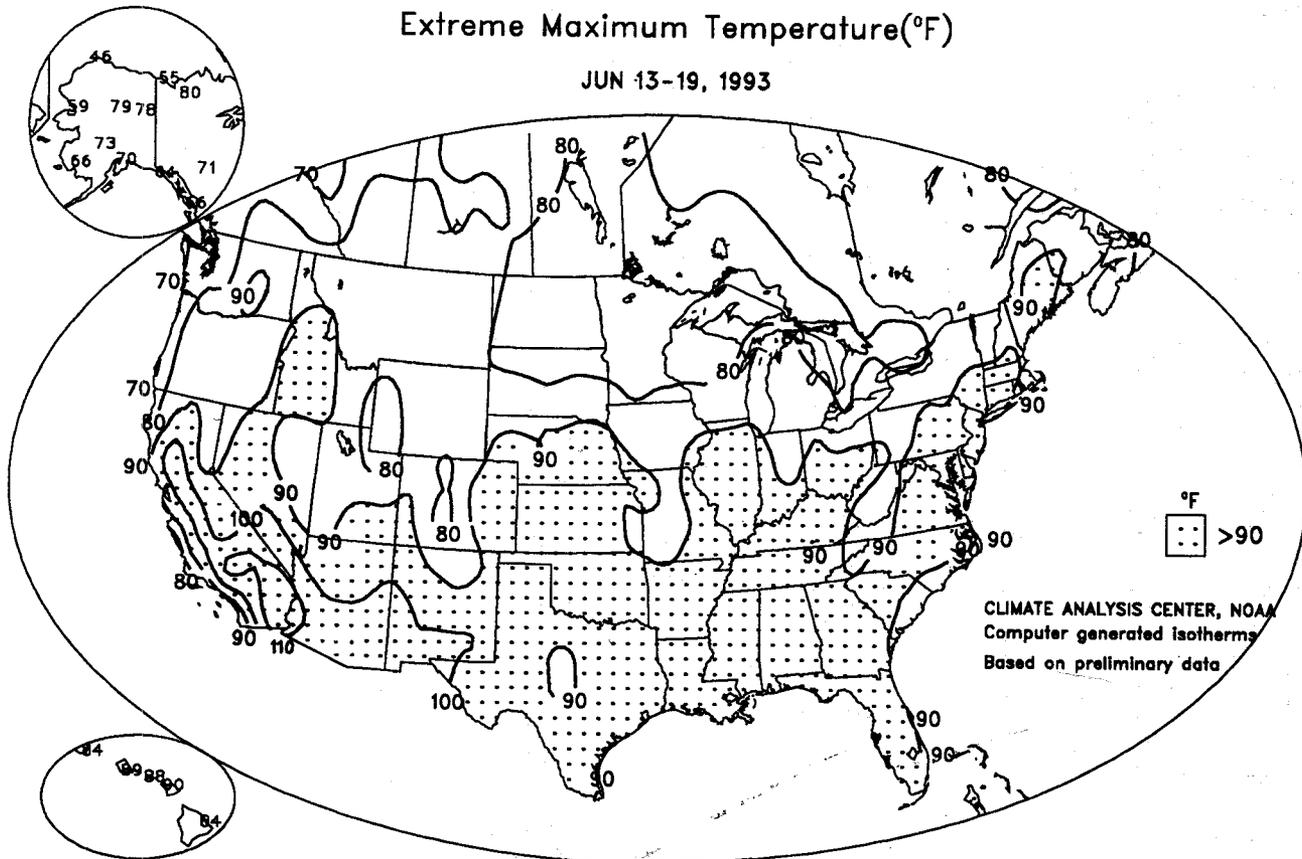
Departure of Average Temperature from Normal(°F)

JUN 13-19, 1993



Extreme Maximum Temperature(°F)

JUN 13-19, 1993



CUMULATIVE GROWING DEGREE DAYS (CORN*) April 1 - June 19, 1993

STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL
AL ANNISTON	1421	- 65	TOPEKA	1014	- 138	OK ALTUS	1442	- 101
BIRMINGHAM	1430	- 79	WICHITA	1069	- 199	GAGE	1192	- 86
MOBILE	1612	- 195	KY LEXINGTON	1088	- 36	HOBART	1304	- 111
MONTGOMERY	1541	- 44	BOWLING GREEN	1212	- 43	MCALESTER	1474	- 11
MUSCLE SHOALS	1406	- 31	PADUCAH	1293	- 33	PONCA CITY	1268	- 80
OSARK	1591	- 94	LA LAFAYETTE	1697	- 137	TULSA	1250	- 190
TUSCALOOSA	1505	- 76	LAKE CHARLES	1745	- 105	OR BAKER	624	+ 20
AZ DOUGLAS	1507	+ 155	MONROE	1595	- 77	EUGENE	679	+ 37
FLAGSTAFF	764	+ 149	NEW ORLEANS	1657	- 175	NORTH BEND	533	+ 162
PHOENIX	2142	+ 394	SHERVEPORT	1568	- 92	PENDLETON	820	+ 46
TUCSON	1767	+ 173	ME AUGUSTA	610	+ 70	REDMOND	592	- 22
YUMA	2161	+ 334	CARIBOU	453	+ 61	PORTLAND	773	+ 130
PRESCOTT	1061	+ 165	HOULTON	493	+ 43	SALEM	781	+ 149
AR EL DORADO	1468	- 99	PORTLAND	545	+ 54	SEXTON SUMMIT	309	- 86
FAYETTEVILLE	1162	- 90	MD SALLSBURY	1103	+ 62	PA ALLENTOWN	957	+ 96
FORT SMITH	1368	- 92	MA WORCESTER	660	+ 43	PHILADELPHIA	1137	+ 204
JONESBORO	1361	- 117	MI BATTLE CREEK	740	- 65	WILLIAMSPORT	961	+ 119
LITTLE ROCK	1411	- 100	JACKSON	744	- 45	SC BEAUFORT	1668	+ 5
TEXARKANA	1510	- 121	LANSING	742	- 77	CHARLESTON	1615	+ 14
CA BAKERSFIELD	1452	+ 19	MUSKEGON	641	- 12	COLUMBIA	1541	- 17
BLUE CANYON	348	- 105	PELLSTON	463	- 70	FLORENCE	1590	+ 40
DAGGETT	1659	+ 120	SAULT STE. MARIE	314	- 91	SUMTER/SHAW AFB	1508	- 59
EUREKA	603	+ 341	TRAVERSE CITY	571	- 39	SD ABERDEEN	721	+ 18
FRESNO	1395	+ 127	MN DULUTH	334	- 86	HURON	698	- 100
MARYSVILLE	1265	+ 26	INT'L FALLS	476	- 39	PIERRE	713	- 90
MERCED	1299	+ 57	ALEXANDRIA	555	- 82	RAPID CITY	608	- 86
MT SHASTA	498	- 119	WARROAD	417	- 113	STOUX FALLS	667	- 152
PASO ROBLES	1190	+ 148	MS BILOXI	1741	- 102	WATERTOWN	536	- 130
RED BLUFF	1160	- 93	COLUMBUS	1456	- 81	TN BRISTOL	1151	+ 11
RIVERSIDE	1407	+ 224	JACKSON	1561	- 32	CHATTANOOGA	1400	+ 40
SANTA ANA	1498	+ 399	MERIDIAN	1549	- 54	CROSSVILLE	1123	+ 97
SAN DIEGO	1263	+ 259	GREENWOOD	1526	- 99	MEMPHIS	1475	- 63
SACRAMENTO	1149	+ 28	MO COLUMBIA	1036	- 60	NASHVILLE	1298	- 70
THEBGAL	1921	+ 110	JOPLIN	1167	- 116	TX ABILENE	1610	- 18
CO ALAMOSA	610	- 30	SPRINGFIELD	1081	- 105	AMARILLO	1187	- 13
DENVER	816	+ 24	VICHY	1090	- 83	AUSTIN	1792	- 41
EAGLE	572	- 106	MT BOZEMAN	562	+ 266	BROWNSVILLE	2131	- 27
GRAND JUNCTION	964	- 88	HELENA	591	+ 52	COLLEGE STATION	1718	- 84
LA JUVIA	1064	- 22	KALISPELL	610	+ 37	DALHART	1131	+ 12
DE DOVER	1009	- 90	MILES CITY	716	- 6	DALLAS/FT WORTH	1655	- 2
WILMINGTON	1074	+ 102	NE GRAND ISLAND	820	- 127	GALVESTON	1904	- 20
FL DAYTONA BEACH	1730	- 119	NORFOLK	814	- 96	HOUSTON	1786	- 16
FORT MYERS	2029	+ 6	NORTH PLATTE	785	- 60	KINGSVILLE	2062	+ 8
GAINESVILLE	1650	- 188	VALENTINE	721	- 146	LARDO	2137	+ 15
JACKSONVILLE	1669	- 123	SCOTTSBLUFF	770	- 26	LUBBOCK	1478	+ 82
FORT LAUDERDALE	2226	+ 137	SIDNEY	703	- 10	MCALLEN	2185	+ 80
MIAMI	2229	+ 85	ELKO	608	- 58	MIDLAND	1581	- 31
MILTON	1668	- 61	NV ELK	629	+ 26	PALACTOS	1826	- 123
PENSACOLA	1694	- 128	LAS VEGAS	1792	+ 229	SAN ANTONIO	1824	- 52
ST PETERSBURG	1955	- 148	RENO	799	- 2	VICTORIA	1860	- 39
TALLAHASSEE	1651	- 91	WINNEMOCCA	799	+ 24	NACO	1677	- 94
TAMPA	1875	- 106	NH CONCORD	777	+ 93	WICHITA FALLS	1440	- 121
VERO BEACH	1913	- 36	NJ NEWARK	1179	+ 246	WINK	1646	+ 23
W. PALM BEACH	2079	- 6	NM ALSBUQUERQUE	1297	+ 157	UT CEDAR CITY	831	+ 33
GA ATHENS	1450	+ 17	CARLSBAD	1630	+ 88	VT BARRE-MONTELIER	568	+ 36
AUGUSTA	1592	+ 59	CLOVIS	1276	+ 73	BURLINGTON	683	+ 60
BRUNSWICK	1631	- 135	GALLUP	974	+ 85	VA CHARLOTTESVILLE	1217	+ 41
COLUMBUS	1586	- 31	TRUTH OR CONSEQ.	1445	+ 117	HAMPTON/LANGLEY	1304	+ 103
MACON	1559	- 75	NY ALBANY	819	+ 72	LYNCHBURG	1260	+ 131
SAVANNAH	1683	+ 6	ELMIRA	790	+ 66	NORFOLK	1315	+ 88
ID BOISE	819	+ 47	GLENS FALLS	734	+ 66	RICHMOND	1272	+ 35
BURLEY	732	+ 64	POUGHKEEPSIE	861	+ 65	WA BELLINGHAM	597	+ 154
IDAH0 FALLS	555	- 38	ROCHESTER	712	0	HOQUIAM	529	+ 143
POCATELLO	615	- 17	SYRACUSE	751	+ 43	SEATTLE-TACOMA	652	+ 143
IL BELLEVILLE	1117	- 84	UTICA	671	+ 23	SPOKANE	663	+ 84
CHICAGO/MIDWAY	828	- 58	WATERTOWN	623	- 1	TACOMA	685	+ 109
DECATUR	989	- 125	NC ASHETOWN	1074	- 21	WALLA WALLA	866	+ 61
PEORIA	999	+ 32	FAYETTEVILLE	1446	+ 26	WENATCHEE	910	+ 28
ROCKFORD	839	+ 2	GREENSBORO	1359	+ 99	YAKIMA	896	+ 68
SPRINGFIELD	1046	- 33	HICKORY	1271	+ 14	WV HUNTINGTON	1139	+ 80
QUINCY	980	- 61	RALEIGH	1376	+ 58	MARTINSBURG	986	- 14
IN INDIANAPOLIS	1004	- 18	WILMINGTON	1519	+ 44	MORGANTOWN	1007	+ 22
SOUTH BEND	830	- 7	NEW BERN	1446	+ 4	WI EAU CLAIRE	617	- 109
TEBEH HAUTE	1048	- 7	ND BISMARCK	620	- 30	GREEN BAY	592	- 41
IA DES MOINES	843	- 185	DICKINSON	522	- 65	LACROSSE	710	- 105
MASON CITY	664	- 202	JAMESTOWN	569	- 68	MADISON	773	- 24
OTTUMWA	918	- 72	MINOT	542	- 37	WAUSAU	529	- 115
KS CHANUTE	1070	- 164	GRAND FORKS	635	+ 14	WY CASPER	618	+ 9
DODGE CITY	1000	- 120	OH AKRON-CANTON	818	- 5	LANDER	572	- 6
GARDEN CITY	975	- 132	COLUMBUS	942	- 20	SHERIDAN	612	+ 16
GOODLAND	807	- 83	DAYTON	925	- 58	WORLAND	769	+ 52
MEDICINE LODGE	1161	- 144	FINDLAY	782	- 74			
RUSSELL	995	- 95	YOUNGSTOWN	791	+ 29			
SALINA	1052	- 95	ZANESVILLE	911	- 18			

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 June 19, 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	TEMP. °F		PRECIP.	
																	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	93	68	94	65	80	4	.1	-.7	.1	.1	5	19.7	70	84	36	7	0	1	0	
MOBILE	92	71	97	69	82	3	.4	-.2	.3	.4	11	33.4	111	91	41	7	0	2	0	
MONTCOMERY	93	69	97	66	81	3	.4	-.2	.3	.4	11	33.4	111	91	41	7	0	2	0	
AK ANCHORAGE	64	48	75	42	56	2	.2	-.1	.1	.2	24	3.8	88	84	32	0	0	1	0	
BARRON	43	31	47	29	37	1	.1	-.1	.1	.2	24	3.8	88	84	32	0	0	1	0	
FAIRBANKS	76	50	85	48	63	3	.4	-.1	.1	.8	95	4.4	145	85	53	0	0	4	0	
JUNEAU	65	50	75	46	57	4	1.8	1.0	1.4	3.2	166	27.1	137	87	53	0	0	2	1	
KODIAK	58	45	67	38	52	2	.7	-.4	.5	3.4	106	35.4	117	97	54	0	0	3	1	
NOME	60	41	74	38	50	4	.1	-.2	.1	.3	42	4.9	127	88	52	0	0	1	0	
AZ PHOENIX	107	78	112	74	93	4	.0	.0	.0	.0	33	8.7	330	30	9	0	0	0	0	
PRESCOTT	89	56	94	49	72	4	.0	-.1	.0	.1	122	12.0	189	49	15	4	4	0	0	
TUCSON	106	71	111	64	89	5	.0	.0	.0	.0	0	7.4	267	35	9	7	7	0	0	
YUMA	109	77	115	74	93	5	.0	.0	.0	.0	0	3.3	344	33	11	7	7	0	0	
AR FORT SMITH	90	70	93	68	80	4	1.5	.8	1.5	3.0	132	24.7	124	91	51	3	3	1	1	
LITTLE ROCK	91	72	94	69	82	4	.4	-.5	.4	1.3	46	22.7	95	77	45	3	3	1	1	
CA BAKERSFIELD	97	66	105	61	82	4	.0	.0	.0	.5	671	6.6	173	46	14	7	0	0	0	
FUREKA	66	54	71	52	60	4	.0	-.1	.0	1.3	320	29.5	142	90	52	0	0	2	0	
FRESNO	97	64	105	57	81	4	.0	.0	.0	1.6	>1000	11.4	164	67	19	0	0	0	0	
LOS ANGELES	76	63	82	60	70	4	.0	.0	.0	1.7	>1000	18.5	238	88	45	0	0	0	0	
REDDING	96	62	101	52	79	2	.0	.0	.0	.7	148	35.2	189	68	17	7	0	0	0	
SACRAMENTO	94	61	101	53	78	3	.0	.0	.0	1.3	>1000	19.1	179	79	20	0	0	0	0	
SAN DIEGO	74	64	78	63	69	3	.0	.0	.0	.4	586	15.5	250	88	56	0	0	0	0	
SAN FRANCISCO	80	56	95	52	68	6	.0	.0	.0	.2	229	19.4	159	79	56	1	1	0	0	
CO DENVER	77	51	97	47	64	-3	1.4	1.0	.9	1.7	143	6.9	91	85	30	0	0	3	1	
GRAND JUNCTION	87	57	95	49	72	-1	.7	.1	.1	.7	6	6.5	162	62	15	2	2	1	0	
PUEBLO	82	55	96	48	68	-3	1.2	.9	1.2	1.3	186	7.0	166	85	31	2	2	2	0	
CT BRIDGEPORT	83	62	94	59	73	5	.3	.8	.9	.9	42	16.9	85	74	42	1	1	0	0	
HARTFORD	85	58	92	52	72	3	.1	.8	.8	1.2	50	20.1	97	87	41	0	0	0	0	
DC WASHINGTON	87	66	96	59	76	1	.3	.4	.3	1.7	81	20.7	121	87	37	2	2	1	1	
FL APALACHICOLA	88	73	92	70	80	1	.5	.5	.4	.6	21	15.7	79	87	37	0	0	1	0	
DAYTONA BEACH	86	74	89	71	80	1	.1	-.3	.1	.1	3	14.0	77	86	60	2	2	0	0	
JACKSONVILLE	88	65	94	61	77	-3	.2	-.1	.1	.2	5	15.4	77	78	40	1	1	0	0	
KEY WEST	88	78	90	75	83	0	.5	.8	.5	.5	14	16.4	117	78	54	2	2	0	0	
MIAMI	88	78	90	76	83	2	1.1	-.2	.1	2.5	42	21.0	97	79	59	0	0	4	1	
ORLANDO	90	72	94	68	81	0	.3	-.1	.1	2.3	51	19.0	104	88	45	3	3	0	0	
TALLAHASSEE	93	69	97	63	81	2	.0	-.5	.1	2.3	51	19.0	104	88	45	3	3	0	0	
TAMPA	93	72	94	70	82	1	.4	-.6	.3	.9	22	24.1	83	80	31	7	7	1	0	
WEST PALM BEACH	89	75	90	73	82	1	.1	-.8	.3	1.3	38	15.3	98	87	36	0	0	2	0	
GA ATLANTA	88	70	91	68	79	3	2.0	1.2	1.6	2.0	5	26.0	113	84	53	2	2	1	1	
AUGUSTA	92	66	95	62	79	1	.0	-.0	.0	.6	22	20.1	89	83	33	5	5	0	0	
MACON	91	67	93	63	79	0	.0	-.0	.0	.6	22	20.1	89	83	33	5	5	0	0	
SAVANNAH	87	70	88	66	78	-1	.7	-.1	.1	.1	24.6	24.6	106	84	34	0	0	1	1	
HI HILO	83	69	84	67	76	1	1.0	-.3	.3	3.1	81	36.6	58	87	42	0	0	1	0	
HONOLULU	87	73	89	70	80	1	.0	-.1	.1	.1	23	1.7	15	75	48	0	0	0	0	
KAHULUI	88	70	90	65	79	1	.1	-.1	.1	.1	23	1.7	15	75	48	0	0	0	0	
LIHUE	84	73	85	70	78	1	.7	-.3	.1	.2	19	6.4	30	78	59	2	2	0	0	
ID BOISE	82	51	94	41	66	0	.1	-.1	.1	2.1	368	10.1	151	82	28	1	1	0	0	
LEWISTON	81	55	89	45	68	1	.2	-.1	.2	.9	111	8.3	127	74	30	0	0	0	0	
POCATELLO	76	42	85	32	59	-4	.1	-.2	.2	2.6	383	12.1	188	79	33	0	0	1	4	
IL CHICAGO	82	57	91	51	70	1	4.1	3.2	1.5	7.3	307	22.8	153	81	49	1	1	4	4	
MOLINE	86	64	94	56	75	3	2.3	1.3	1.3	6.6	249	23.5	142	86	52	4	4	2	1	
PEORIA	85	64	92	56	74	3	2.1	1.1	1.1	3.9	159	21.4	135	87	47	1	1	4	2	
QUINCY	85	65	92	58	75	2	1.5	.7	.8	3.9	162	14.6	87	85	46	0	0	3	3	
ROCKFORD	82	60	91	52	71	2	4.1	3.1	2.0	8.8	308	25.1	167	93	54	1	1	4	3	
SPRINGFIELD	87	65	93	56	76	3	.8	.0	.7	5.0	229	19.6	123	82	43	2	2	1	1	
IN EVANSVILLE	92	67	96	61	79	4	.7	-.9	.7	2.4	104	20.4	91	84	41	0	0	0	0	
FORT WAYNE	83	61	89	52	72	2	.6	-.2	.6	3.6	157	22.6	143	89	52	5	5	1	1	
INDIANAPOLIS	85	63	89	56	74	2	.8	.0	.0	3.6	167	19.5	106	88	51	1	1	1	1	
SOUTH BEND	81	61	89	50	71	1	1.7	.7	.7	8.1	315	22.2	132	84	49	0	0	4	3	
IA DES MOINES	80	62	88	51	71	1	4.4	3.3	1.9	5.9	203	22.2	154	91	53	0	0	3	3	
SIoux CITY	79	59	93	48	69	-2	1.2	.3	.3	2.2	93	12.6	109	89	50	1	1	1	1	
WATERLOO	81	62	90	53	72	2	5.2	4.1	2.6	7.7	279	23.4	163	89	50	1	1	5	4	
KS CONCORDIA	86	64	94	54	75	1	3.4	2.4	2.0	4.5	154	15.2	116	92	51	1	1	5	2	
DODGE CITY	83	63	91	57	73	-2	2.8	2.1	1.4	3.0	155	13.4	138	90	47	0	0	3	3	
GOODLAND	81	55	93	52	68	-1	.2	-.6	.1	.8	40	6.3	72	87	43	2	2	0	0	
TOPEKA	86	67	91	62	77	3	.4	-.9	.2	1.2	32	19.6	126	88	49	0	0	2	0	
WICHITA	86	68	93	65	77	2	1.7	.3	1.2	1.9	53	17.5	113	89	48	3	3	3	1	
KY BOWLING GREEN	88	65	92	61	76	2	1.1	.1	1.0	2.3	85	17.4	70	99	49	0	0	3	1	
LEXINGTON	86	64	89	57	75	3	1.0	.2	1.0	4.5	199	20.8	99	88	44	0	0	2	1	
LOUISVILLE	90	66	93	61	78	4	.7	-.1	.7	2.5	115	21.8	100	86	41	4	4	1	1	
LA BATON ROUGE	90	71	95	70	80	0	.7	-.4	.6	.7	25	36.0	127	98	56	4	4	2	1	
LAKE CHARLES	89	73	96	72	81	1	4.1	3.0	2.7	4.6	142	35.2	149	93	53	0	0	5	3	
NEW ORLEANS	91	71	94	68	81	1	.7	-.7	.6	2.1	58	30.3	106	95	49	5	5	3	1	
SHREVEPORT	91	71	94	70	81	3	1.8	.9	1.8	2.3	83	25.2	101	95	45	6	6	1	1	

Based on 1961-90 normals.

Weather Data for the Week Ending June 19, 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	PRECIP.			
													.01 INCH OR MORE							.50 INCH OR MORE			
ME CARIBOU	79	53	89	47	66		.1	-.6	.1	2.3	128	15.3	109	81	38		0	0	2	0			
PORTLAND	79	57	88	52	68		.2	-.6	.1	2.0	88	21.7	106	85	55		0	0	4	0			
MD BALTIMORE	85	60	95	51	73		.4	-.5	.4	2.3	99	23.3	124	95	55		0	0	1	0			
SALISBURY	85	61	96	51	73		.3	-.5	.3	1.4	61	24.9	122	95	55		0	0	2	0			
MA BOSTON	85	61	92	54	73		.6	-.1	.6	1.4	69	22.0	112	75	36		0	0	1	0			
CHATHAM	70	58	78	52	64		.2	-.6	.2	1.6	77	19.6	93	95	58		0	0	1	0			
MI ALPENA	67	51	77	42	59		1.0	-.3	.4	2.1	109	10.2	86	98	69		0	0	0	0			
DETROIT	80	61	87	53	71		1.7	-.2	.6	2.6	113	14.5	102	87	52		0	0	0	0			
FLINT	79	58	86	50	69		1.9	1.1	1.7	4.0	195	15.5	124	84	54		0	0	2	0			
GRAND RAPIDS	79	58	87	47	68		2.6	1.8	1.5	5.3	224	20.1	136	91	59		0	0	4	0			
HOUGHTON LAKE	71	57	82	48	64		.9	-.2	.4	2.8	145	11.5	101	85	59		0	0	4	0			
LANSING	79	57	86	46	68		2.6	1.8	1.8	5.3	245	17.7	137	97	60		0	0	0	0			
MARQUETTE	67	50	80	42	58		.5	-.3	.4	1.0	42	13.7	94	87	49		0	0	4	0			
MUSKEGON	76	56	85	47	66		2.1	1.5	1.4	3.9	251	16.0	120	91	59		0	0	3	2			
SANITZ ST. MARIE	64	45	76	35	55		1.7	1.0	1.1	2.9	142	14.0	103	95	61		0	0	4	2			
MN ALEXANDRIA	67	55	76	50	61		1.8	-.8	1.0	2.7	104	12.6	118	93	66		0	0	6	1			
DULUTH	61	50	67	47	55		1.8	-.9	1.1	3.9	162	13.7	118	90	54		0	0	5	1			
INT'L FALLS	67	48	73	40	58		.7	-.2	.5	1.4	57	7.0	77	90	52		0	0	4	1			
MINNEAPOLIS	68	58	79	54	63		2.9	2.0	1.2	3.6	138	12.5	103	87	54		0	0	5	3			
ROCHESTER	72	58	78	52	65		4.1	3.3	2.1	6.2	270	20.0	170	90	59		0	0	5	3			
MS GREENWOOD	95	71	97	69	83			-1.0	T	T	0	24.1	85	95	47		7	0	1	0			
JACKSON	96	71	99	69	83			-1.7	T	T	2	11	20.6	71	90	36		7	0	0	0		
MERIDIAN	95	70	96	67	82			-1.8	T	T	0	28.9	98	89	35		7	0	0	0	0		
MO CAPE GIRARDEAU	91	68	95	61	80		.5	-.3	.3	3.0	131	23.7	102	88	45		5	0	3	0	0		
COLUMBIA	86	65	90	58	76		.2	-.7	.1	3.9	153	20.7	119	92	48		1	0	2	0	0		
KANSAS CITY	86	66	92	61	76		1.8	-.7	1.1	3.1	101	21.4	135	90	49		1	0	2	2	0		
SAINTE LOUIS	88	69	93	63	79		.3	-.5	.3	3.8	162	23.5	136	77	42		2	0	1	0	0		
SPRINGFIELD	85	65	89	58	75		1.3	-.0	.8	5.8	167	21.4	108	90	53		0	0	3	1	0		
MT BILLINGS	74	50	88	43	62		.1	-.4	.0	1.4	99	4.9	59	82	35		0	0	2	0	0		
GLASGOW	73	47	90	40	60		.2	-.3	.1	.6	43	2.9	59	87	38		1	0	3	0	0		
GREAT FALLS	70	45	83	36	58		.4	-.1	.4	2.0	120	10.9	133	87	47		0	0	1	0	0		
HAVRE	72	46	87	38	59			-1.4	T	T	1	11	2.9	55	88	42		0	0	0	0	0	
HELENA	73	46	87	41	60		1.0	-.5	.7	2.1	167	7.8	135	84	36		0	0	3	1	1		
KALISPELL	73	45	85	39	59		.6	-.1	.6	1.9	131	9.0	111	95	41		0	0	1	1	1		
MILES CITY	72	51	87	45	61		.1	-.6	.1	3.3	181	8.3	117	84	45		0	0	1	0	0		
MISSOULA	77	46	91	38	62		.1	-.3	.1	1.2	99	7.3	104	93	36		1	0	2	0	0		
NE GRAND ISLAND	80	59	95	52	70		2.0	1.1	1.0	2.9	113	11.5	96	88	50		1	0	3	2	2		
LINCOLN	81	61	89	51	71		1.8	-.9	.7	3.2	128	13.8	110	94	56		0	0	4	2	2		
NORFOLK	79	58	93	52	69		2.2	1.1	.9	3.3	114	13.5	113	86	47		1	0	3	3	3		
NORTH PLATTE	78	55	88	44	66		2.8	2.0	2.2	4.8	220	11.8	123	91	42		0	0	3	2	2		
OMAHA	78	61	86	57	69		.3	2.7	1.8	1.7	7.0	273	18.5	140	88	54		0	0	4	2	2	
SCOTTSBLUFF	75	51	93	42	63		.5	1.3	.6	.5	4.1	237	10.5	129	90	43		1	0	3	0	0	
VALENTINE	74	51	90	42	63		.7	2.0	1.2	.9	2.7	122	9.5	94	89	50		1	0	3	2	2	
NV ELY	77	38	84	31	57		-2	T	-2	T	1.1	180	6.8	134	73	19		0	1	1	0	0	
LAS VEGAS	99	72	105	69	86		1	.0	.0	.0	114	4.4	229	37	10		7	0	0	0	0	0	
RENO	83	49	91	45	66		1	.0	-1	.0	.3	100	4.9	116	71	19		1	0	0	0	0	0
WINNEMUCCA	83	47	93	40	65		0	T	-2	T	1.0	168	5.9	134	66	18		2	0	1	0	0	0
NH CONCORD	85	54	91	48	70		5	1	-.6	1	1.1	53	12.0	76	92	39		2	0	2	0	0	0
NJ ATLANTIC CITY	82	57	96	48	70		0	T	-.6	T	.4	24	18.7	100	96	36		1	0	0	0	0	0
NM ALBUQUERQUE	92	61	97	56	77		2	T	-1	T	T	6	3.0	108	58	15		4	0	1	0	0	0
CLOVIS	86	61	96	57	74		0	.2	-.5	-.2	.3	19	2.4	41	82	34		3	0	2	0	0	0
ROSWELL	94	66	101	64	80		1	T	-.4	T	T	0	2.5	68	78	25		6	0	0	0	0	0
NY ALBANY	83	58	90	51	70		3	.7	-.1	.7	1.4	62	18.3	113	85	43		1	0	1	1	1	1
BINGHAMTON	77	57	84	49	67		2	.3	-.6	-.2	2.2	96	19.8	121	80	44		0	0	2	0	0	0
BUFFALO	79	59	85	52	69		3	.7	-.2	.5	3.8	164	17.4	109	80	46		0	0	2	0	0	0
NEW YORK	85	66	93	61	75		4	.0	-.8	.0	.8	36	19.4	100	73	44		1	0	0	0	0	0
ROCHESTER	79	56	85	50	68		2	.5	-.3	.3	2.1	111	12.8	93	91	50		0	0	2	0	0	0
SYRACUSE	81	56	87	51	68		3	.3	-.6	-.2	1.9	81	19.9	123	88	50		0	0	2	0	0	0
NC ASHEVILLE	81	62	87	60	71		1	T	-1.1	.0	.7	21	20.5	79	96	50		0	0	2	0	0	0
CHARLOTTE	87	68	92	61	77		1	T	-.8	T	.1	6	21.2	103	81	36		4	0	0	0	0	0
GREENSBORO	85	65	91	58	75		1	.1	-.8	-.1	3.1	131	26.8	138	86	49		3	0	1	0	0	0
HATTERAS	83	67	86	65	75		1	T	-1.0	.0	2.0	79	24.3	102	90	42		0	0	0	0	0	0
NEW BERN	85	67	89	64	76		0	1.3	.0	1.1	2.6	80	24.3	103	94	58		0	0	2	1	1	1
RALEIGH	86	64	92	57	75		0	T	-.8	T	.3	13	21.3	108	88	40		3	0	1	0	0	0
WILMINGTON	85	66	88	65	76		0	T	-1.1	T	2.2	77	26.0	111	97	57		0	0	1	0	0	0
ND BISMARCK	68	47	73	39	57		-7	-.2	-.5	-.2	1.8	106	6.5	89	92	50		0	0	1	0	0	0
FARGO	71	52	76	39	61		-4	-.7	-.0	.6	1.3	72	6.5	79	90	46		0	0	2	1	1	1
GRAND FORKS	69	50	76	42	60		-5	-.3	-.4	-.2	2.0	111	4.7	64	91	48		0	0	3	0	0	0
WILLISTON	69	46	80	40	57		-8	.7	-.2	.5	2.9	201	5.4	85	87	46		0	0	2	1	1	1
OH AKRON-CANTON	82	60	88	52	71		3	.5	-.2	.5	2.9	149	18.2	110	86	49		0	0	1	0	1	0
CINCINNATI	85	63	90	58	74		3	1.1	-.2	1.1	3.9	162	20.2	107	89	44		1	0	1	1	1	1
CLEVELAND	82	61	90	56	72		3	.3	-.6	.3	3.2	138	18.8	117	87	50		1	0	1	0	1	0
COLUMBUS	85	62	91	54	74		5	.2	-.7	-.2	1.1	45	17.5	101	87	45		2	0	2	0	0	0
DAYTON	85	63	90	54	74		3	T	-.9	T	2.3	95	23.6	135	89	48		1	0	2	0	0	0

Based on 1961-90 normals.

Weather Data for the Week Ending June 19, 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	
																	.01 INCH OR MORE	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE
TOLEDO	82	61	91	53	72	4	.4	-.5	.4	2.4	100	14.9	104	93	51	1	0	0	0	
YOUNGSTOWN	82	57	88	50	70	3	.2	-.8	.1	2.3	91	15.9	97	87	47	1	0	2	0	
OK OKLAHOMA CITY	89	69	92	67	79	2	.1	-.9	.1	1.1	37	21.9	134	94	47	0	0	1	1	
TULSA	87	71	90	66	79	1	.7	-.3	.6	3.2	106	22.3	116	89	51	2	1	2	1	
OR ASTORIA	65	54	68	46	59	2	.4	-.2	.3	2.5	153	30.7	90	93	59	0	0	2	0	
BURNS	76	43	86	32	60	2	.2	-.2	.1	.3	58	6.9	139	82	29	1	1	1	0	
MEDFORD	86	53	94	46	69	3	.0	-.1	.0	1.2	293	11.0	122	84	28	2	0	0	0	
PENDLETON	81	54	89	47	68	1	.1	-.0	.1	.6	131	8.0	127	77	26	0	0	1	0	
PORTLAND	76	55	83	47	65	2	.1	-.3	.1	.9	88	18.8	103	91	46	0	0	1	1	
SALEM	77	52	84	42	64	3	.2	-.2	.1	3.1	327	23.8	120	88	42	0	0	2	0	
PA ALLENTOWN	86	60	94	53	73	3	.5	-.4	.5	2.0	83	21.6	111	84	40	2	0	1	1	
ERIE	81	64	87	57	72	6	.9	-.1	.9	2.6	99	15.2	90	83	48	2	0	1	1	
HARRISBURG	87	64	94	55	76	4	.1	-.8	.1	1.2	49	20.7	108	87	39	0	0	1	0	
PHILADELPHIA	88	65	96	58	76	6	.1	-.9	.1	.6	22	18.8	90	81	36	2	0	1	1	
PITTSBURGH	84	59	90	53	72	4	.1	-.9	.1	2.1	91	18.7	107	82	45	1	1	1	0	
SCRANTON	85	60	92	53	72	5	.1	-.9	.0	.8	32	16.7	105	77	39	1	1	2	0	
RI PROVIDENCE	84	60	92	51	72	5	.0	-.8	.0	.9	43	21.6	100	83	42	1	1	1	0	
SC CHARLESTON	87	68	88	67	78	-1	1.4	-.1	1.4	1.7	43	24.9	115	90	44	0	0	1	1	
COLUMBIA	90	66	93	60	78	0	.0	-.1	.1	.4	21.5	92	88	37	5	0	0	0	0	
FLORENCE	89	68	92	62	78	1	.0	-.1	.0	.1	3	15.3	77	91	37	5	0	0	0	
GREENVILLE	87	65	93	61	76	0	.0	-.1	.1	.1	27.0	107	91	37	3	0	0	0	0	
SD ABERDEEN	69	53	78	41	61	-6	.6	-.2	.4	1.9	90	8.1	88	94	57	0	0	3	3	
HURON	70	54	82	44	62	-6	1.8	1.0	.7	3.9	182	12.9	131	94	45	0	0	6	2	
RAPID CITY	69	49	83	44	59	-6	.9	-.2	.5	3.3	164	10.7	125	89	45	0	0	4	2	
SIOUX FALLS	72	56	84	44	64	-5	1.6	.8	.7	2.5	114	16.9	161	93	67	0	0	5	5	
TN CHATTANOOGA	91	69	94	66	80	4	.8	.0	.7	1.0	48	24.0	90	94	41	5	0	1	1	
KNOXVILLE	89	65	92	59	77	3	.6	-.3	.4	.6	24	19.3	82	96	39	0	0	3	3	
MEMPHIS	92	71	94	67	82	2	.5	-.4	.5	2.0	88	21.9	83	82	42	6	0	1	3	
NASHVILLE	88	67	91	65	78	-2	3.0	2.1	2.3	3.4	149	22.6	95	89	41	2	0	1	0	
TX ABILENE	88	68	89	66	78	-3	.1	-.6	.1	3.6	190	9.6	93	86	38	0	0	1	1	
AMARILLO	86	62	94	58	74	-1	1.8	.9	.9	1.8	78	6.5	83	83	42	2	0	3	3	
AUSTIN	90	72	92	71	81	1	.4	-.4	.2	.9	35	17.8	114	94	44	0	0	0	2	
BEAUMONT	91	74	98	72	82	1	4.2	2.9	1.8	4.6	127	35.1	145	97	63	4	0	5	5	
BROWNSVILLE	86	74	89	72	80	-3	3.2	2.5	2.3	5.2	285	15.6	164	98	55	0	0	5	2	
CORPUS CHRISTI	87	74	90	72	80	-3	4.4	3.6	3.2	5.2	231	21.5	181	96	57	0	0	3	2	
DEL RIO	88	71	90	67	79	-3	3.4	2.8	2.4	4.6	242	8.5	76	87	53	0	0	4	1	
EL PASO	99	68	105	65	83	2	.8	.8	.8	.8	230	2.6	132	57	21	7	0	1	2	
FORT WORTH	91	72	96	69	82	2	.8	-.8	.1	1.6	69	17.4	94	89	43	5	0	0	0	
GALVESTON	88	77	92	74	83	1	1.4	.4	.9	3.2	112	29.8	180	82	68	0	0	3	1	
HOUSTON	88	73	96	71	80	0	3.0	1.5	1.2	4.9	123	36.1	155	95	56	4	0	4	3	
LUBBOCK	86	66	93	64	77	0	.2	-.4	.2	.3	14	5.2	75	83	36	2	0	2	0	
MIDLAND	86	65	90	61	76	-4	.4	-.3	.1	3.1	334	7.5	139	89	38	0	0	1	0	
SAN ANGELO	88	67	91	64	78	-2	.4	-.2	.3	.9	57	8.3	92	90	40	0	0	3	0	
SAN ANTONIO	89	72	91	70	81	-1	.9	.0	.7	2.6	99	23.5	163	93	49	2	0	5	1	
VICTORIA	87	73	93	72	80	-1	4.6	3.5	3.3	6.1	206	34.8	187	97	59	0	0	5	2	
WACO	93	71	97	67	82	1	.2	-.5	.1	1.7	74	18.0	112	96	43	0	0	2	0	
WICHITA FALLS	89	69	92	66	79	0	.1	-.9	.1	2.0	74	17.8	113	96	49	0	0	0	0	
UT CEDAR CITY	83	48	89	41	65	-2	.3	-.1	.1	.7	300	7.5	147	57	18	3	0	0	0	
SALT LAKE CITY	77	53	86	40	65	-4	.3	-.1	.3	1.1	162	12.5	142	76	32	0	0	1	0	
VT BURLINGTON	80	56	87	49	68	3	1.1	-.3	.7	2.5	114	14.0	102	92	45	0	0	0	1	
VA NORFOLK	85	69	96	65	77	3	.0	-.9	.0	2.6	109	22.2	110	83	41	0	0	0	0	
RICHMOND	86	64	95	54	75	1	.0	-.8	.0	1.7	78	24.2	127	93	42	2	0	4	0	
ROANOKE	83	60	91	55	71	0	1.1	.4	.6	2.3	114	22.6	123	94	46	2	0	4	1	
WA QUILLAYUTE	64	53	69	46	59	3	.7	.0	.6	2.9	134	41.7	78	95	57	0	0	3	1	
SEATTLE-TACOMA	72	54	77	49	63	2	.2	-.2	.1	1.8	173	18.4	103	88	47	0	0	0	0	
SPOKANE	78	51	85	42	65	2	.1	-.3	.1	.3	29	6.9	82	80	29	0	0	0	0	
YAKIMA	83	52	92	42	68	2	.1	-.1	.1	.7	189	3.9	97	84	28	0	0	1	0	
WV BECKLEY	78	58	85	53	68	3	.2	-.7	.2	1.7	72	19.1	101	85	52	0	0	1	0	
CHARLESTON	86	60	91	55	73	1	.1	-.7	.1	2.3	103	17.6	92	80	29	0	0	0	0	
HUNTINGTON	87	62	91	57	74	1	.3	-.5	.3	3.5	167	19.6	101	97	44	0	0	2	0	
PARKERSBURG	86	61	92	55	74	1	.1	-.8	.1	1.2	50	18.7	96	94	42	2	0	1	0	
WI GREEN BAY	69	54	80	47	62	-3	3.9	3.1	1.9	5.9	275	16.7	144	91	54	0	0	5	3	
LACROSSE	73	60	81	55	67	-2	3.8	2.8	1.3	5.2	211	22.0	177	96	64	0	0	4	3	
MADISON	78	58	85	53	68	-1	1.9	1.0	.8	5.0	212	20.2	154	88	60	0	0	5	2	
MILWAUKEE	75	54	89	49	65	-1	2.0	1.2	.7	7.7	276	20.6	146	87	46	0	0	4	2	
WAUSAU	67	54	77	49	60	-5	4.5	3.6	1.8	7.0	277	19.9	157	86	71	0	0	7	5	
WY CASPER	72	46	90	38	59	-4	1.0	.7	.8	2.8	283	10.2	151	86	40	1	0	3	1	
CHEYENNE	69	47	81	42	58	-4	1.3	.8	.6	3.3	246	9.5	138	90	40	0	0	3	2	
LANDER	69	44	85	36	57	-6	2.0	1.7	1.4	4.6	444	11.1	145	79	40	0	0	3	2	
SHERIDAN	70	46	81	41	58	-4	.7	.1	.5	3.2	206	9.7	121	90	46	0	0	3	1	

Based on 1961-90 normals.

Tropical Storms Deluge Texas and Mexico

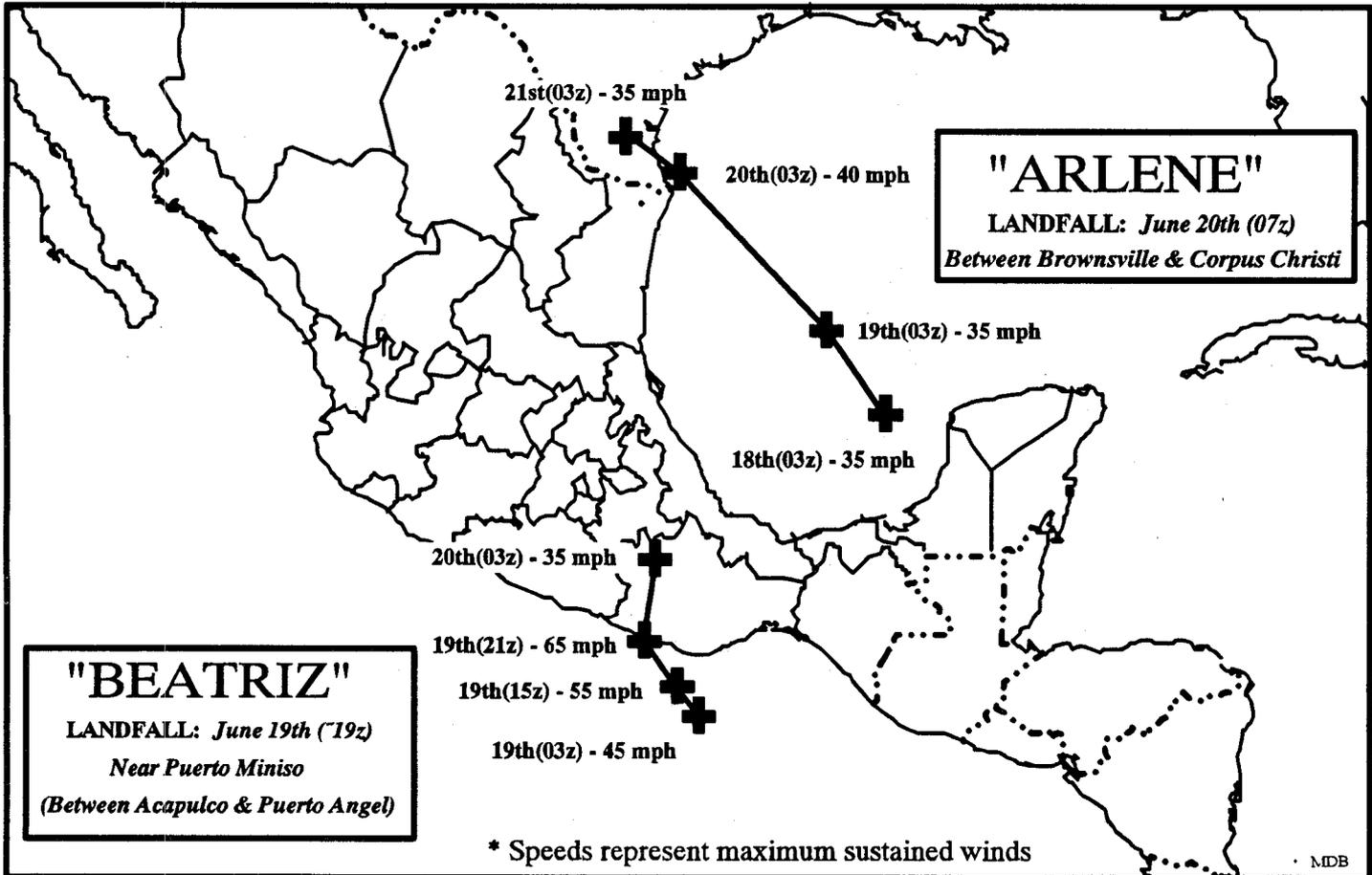
Tropical Storms Arlene and Beatriz, separated only by the Isthmus of Tehuantepec, lashed portions of Texas and Mexico with extremely heavy rainfall and gusty winds on June 19 and 20. The primary impact of both storms was heavy rainfall, as each produced local totals in excess of 10 inches (254 mm).

Arlene, which was the first tropical storm of the 1993 Atlantic hurricane season, first appeared as a disorganized cluster of thunderstorms in the western Caribbean Sea on June 14. The convective area dumped more than 4 inches (102 mm) of rainfall in a broad region across the western Caribbean, including northern Central America, western Cuba, and the Yucatán Peninsula. As the system crossed the Yucatán Peninsula on June 17, Merida (in the state of Yucatán), Mexico reported 5.04 inches (128 mm). Two days later, the system was upgraded to a weak tropical storm. Arlene made landfall on Padre Island at about 2:00 a.m. Central Daylight Time on June 20, about midway between Brownsville, TX and Corpus Christi, TX. Heavy

rainfall associated with Arlene's circulation was observed from Arkansas to the Mexican state of Vera Cruz. Nearly 15 inches (381 mm) of rain pummeled eastern Texas near Longview, and more than 10 inches (254 mm) drenched parts of extreme southern Texas north of McAllen. As both Arlene and Beatriz weakened over land, general heavy rains encompassed the entire western Gulf coast region, blurring the distinction between the dying storms.

Beatriz, the second named storm of the 1993 Eastern Pacific hurricane season, formed rapidly on June 18, and briefly attained sustained wind speeds of 65 mph before making landfall near Puerto Miniso (in southwestern Oaxaca), Mexico during the afternoon of June 19. The storm produced local rainfall in excess of 10 inches (254 mm) east of its center before being impaled on the rugged southern Sierra Madre. Late on June 20, its remnant moisture contributed to locally heavy rainfall in the eastern Mexican states of Vera Cruz and Tamaulipas.

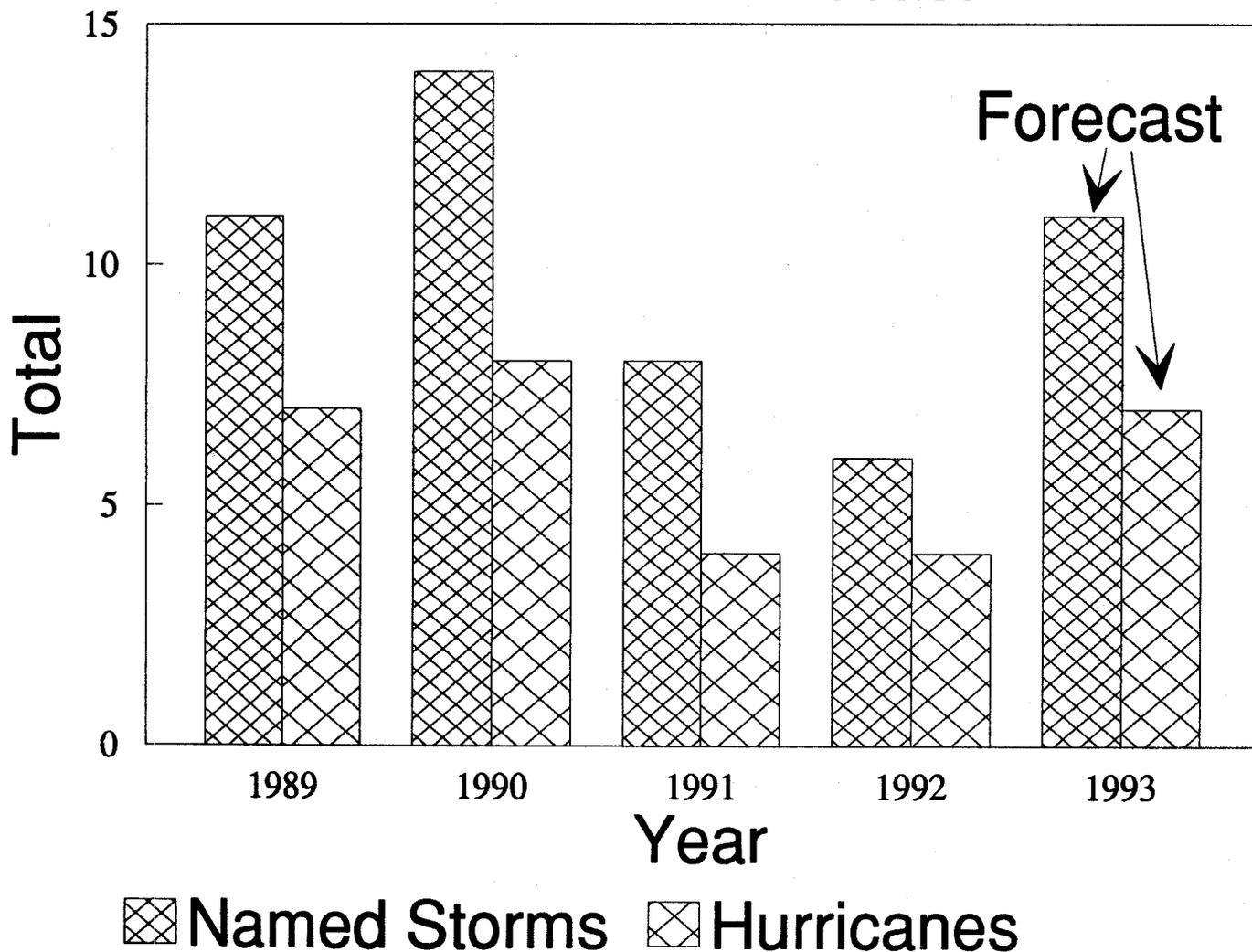
Tropical Storms "ARLENE" and "BEATRIZ" June 18th to 21st



Atlantic Hurricane Forecast

On June 4, 1993, Professor William M. Gray issued his forecast for the amount of tropical cyclone activity expected to occur in the Atlantic region, including the Caribbean Sea and the Gulf of Mexico, during 1993. Professor Gray has an enviable record of forecasting storm numbers. Indeed, in early June in 1991 and 1992, he forecast precisely the correct number of Atlantic hurricanes (four) for the coming season. In 1990, he was off by only one. This year, he looks for about an average season with 7 hurricanes and 11 named storms, including two intense or major hurricanes of Saffir/Simpson intensity category 3, 4, or 5. Professor Gray and his colleagues at Colorado State University look at a number of indicators of wind, pressure, and rainfall patterns to make their forecasts, including the state of the El Niño.

Observed Atlantic Storms (1989 - 1992) And 1993 Forecast



National Agricultural Summary

June 14 - 20, 1993

HIGHLIGHTS: A stationary front brought heavy rains to the North Central region of the Nation, flooded planted fields, hindered field work, and delayed planting. The continued wet weather drowned some crops and hindered the emergence of others. Hot, dry conditions stressed crops and livestock across the Southeast. At the end of the week, tropical storm Arlene dropped heavy rains across eastern Texas, halting field work and flooding fields.

SMALL GRAINS: In the 19 major winter wheat producing States, 95 percent (%) of the crop was headed, compared with 98% last year and the 5-year average of 96%. Harvest was 12% complete, compared with 15% a year ago and 26% average. The Kansas harvest progress was delayed by rain. Foliar disease activities in Kansas remained moderate to severe. Previous cool conditions caused tan spot problems in some South Dakota fields. The dry, warm conditions allowed cereal grains to mature rapidly in Washington. Nationally, winter wheat condition improved from last week with 70% rated good to excellent, compared with 66% last week. The spring wheat crop also improved from last week. About 84% of the crop rated good to excellent, compared with 80% last week. In North Dakota, the emerged crop was in mostly good condition. However, crop development was behind last year and average due to a lack of abundant sunshine and warm weather. Only 6% of the Nation's spring wheat was headed, compared with 28% last year and average. Oats, barley, and rye harvests began in the Southeast.

CORN: Corn condition in the 17 major producing States remained unchanged from last week, with 57% of the crop rated good to excellent. Hot, humid conditions pushed growth in Indiana and Kansas. Corn stands in the Texas Blacklands received a boost from last week's rains. Corn ear worms were a problem in some Texas High Plains fields. Silking corn in Louisiana needed more moisture. Excessive moisture caused some producers in Kentucky to replant some fields. The continued wet conditions across the Midwest have hindered weed and pest control measures.

SOYBEANS: Soybean planting progress in the 19 major producing States reached 83% complete, compared with 92% last year and 89% average. Soybean condition remained unchanged from last week with the majority of the crop rated fair to good. Lack of moisture delayed planting in Louisiana. Hot, humid conditions promoted growth in Indiana. Wet conditions forced some producers to replant fields in Kentucky, Illinois, and Missouri. Wet fields continued to hamper planting progress in Iowa.

COTTON: Cotton squaring in the 14 major producing States stood at 26%, compared with 34% last year and 30% average. Hot, dry weather promoted excellent crop growth in Tennessee. However, pressures from boll weevils were building. Cotton fields in many areas of Texas were sprayed for insects. Many cotton fields in the Texas High Plains were replanted due to excessive rainfall and washing. Cotton condition was reported as variable in Georgia, with some insect problems noted.

SORGHUM: Planting progress for the 12 major producing States advanced ahead of last year and was near average. Of the total acreage intended for sorghum, 87% was planted, compared with 84% last year and 89% average. Largest gains during the week were in Colorado, Kansas, Illinois, and Missouri. Planting progress in Texas continued where conditions allowed. Poor emergence of the crop due to crusted soils prompted some producers in Missouri to replant. Light greenbug infestations were reported in southern and western Kansas.

RICE: Rice emergence was at 97%, compared with 99% last year and 98% average. Rice condition improved from last week with 61% of the crop rated good to excellent, compared with 51% last week. Producers continued to apply fertilizers and herbicides in California and Arkansas. Some fields in the Upper Coast of Texas were infested with army worms.

OTHER FIELD CROPS: Tobacco plant supply continued limited in some areas of Kentucky. The emergence of blue mold in some fields of Ohio was several weeks earlier than in the past years. First-cutting hay harvest continued where conditions allowed. Progress was behind normal in the central part of the Nation where wet weather and wet fields caused problems for the producers. However, in Tennessee, conditions have been ideal, with an above-average quality crop harvested. Peanut fields in the Texas Low Plains needed more moisture. Light freeze damage occurred in some potatoes in Oregon and on some sugar beets in California. Some sugar beet replanting will be necessary in California. Dry conditions delayed sweetpotato planting in Louisiana.

FRUIT AND NUTS: The Florida citrus area continued dry. Although irrigation was active, some fruit wilt was reported. The peach set in New England, Delaware, and Maryland was rated as average. The peach harvest continued in Texas. The fruit set of the New England cranberry crop was normal. The apple set in New England, Delaware, and Maryland rated average. In New York, apple thinning was completed. Producers pruned their trees in Oregon. The cherry crop harvest ended in California. Tart cherries sized nicely in New York. Rain caused damage in the Oregon sweet cherry crop. Damage also occurred during the Bing cherry harvest in Oregon. Scab and web worm problems were present in Texas pecan orchards. California almond groves were treated for mites. Brown rot problems concerned growers in California and Texas.

VEGETABLES: Vegetable harvests continued in Arizona, California, Florida, New England, and New Jersey. However, harvest in central Florida neared completion. Irrigation was needed to maintain soil moisture in Florida. Rain was also needed in most areas of New Jersey. Rains in New York helped the tomato transplants. Cool weather in New York delayed sweet corn development. Drier conditions in Oregon allowed vegetable planting to accelerate. However, due to the lateness of planting, some sweet corn acreage was not planted. Strawberry harvest was active in New England and the Northwest. Wet conditions caused mold and rot problems to some of the strawberries in the Northwest.

PASTURE AND LIVESTOCK: Pasture conditions ranged from fair to excellent across the Nation. In the Southeast, continued dry weather forced some producers to go to supplemental feeding of their livestock. Heat and humidity stressed livestock from Ohio to Texas, and poultry in Arkansas. In Iowa, livestock conditions continued to improve. Livestock conditions remained generally good across the Nation.

Crop Progress

for the Week Ending June 20, 1993

SOYBEANS (Percent Planted)

	Current	Last Wk	1992	Avg.
AL	78	76	83	76
AR	70	54	67	67
GA	76	63	77	79
IL	89	81	99	96
IN	95	89	100	92
IA	80	60	100	98
KS	85	60	75	85
KY	64	57	67	69
LA	88	81	86	74
MI	98	95	99	95
MN	80	73	99	97
MS	73	64	81	72
MO	73	53	86	78
NE	95	90	100	99
NC	80	73	69	72
OH	100	98	100	87
SC	72	60	60	73
SD	65	50	100	98
TN	76	61	70	69

19 States 83 72 92 89

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

COTTON (Percent Squaring)

	Current	Last Wk	1992	Avg.
AL	20	15	52	50
AZ	75	58	72	76
AR	24	2	39	30
CA	25	15	45	37
GA	40	17	33	43
LA	33	15	78	49
MS	27	13	61	48
MO	16	2	13	20
NM	20	11	48	49
NC	16	1	4	24
OK	6	0	8	3
SC	25	13	15	22
TN	19	2	20	20
TX	25	18	20	18

14 States 26 15 34 30

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

GRAIN SORGHUM (Percent Planted)

	Current	Last Wk	1992	Avg.
AR	97	95	100	97
CO	78	59	81	74
IL	73	54	97	87
KS	80	60	65	85
LA	97	93	98	94
MS	98	93	100	96
MO	81	63	95	88
NE	95	84	99	99
NM	49	35	79	NA
OK	89	81	79	74
SD	72	66	88	84
TX	90	88	87	91

12 States 86 76 84 NA

Excl. States with NA 87 77 84 89

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

RICE (Percent Emerged)

	Current	Last Wk	1992	Avg.
AR	97	90	99	97
CA	90	75	95	96
LA	100	98	99	99
MS	94	85	100	96
TX	98	91	100	100

5 States 97 89 99 98

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

WINTER WHEAT (Percent Headed)

	Current	Last Wk	1992	Avg.
AR	100	100	100	100
CA	99	99	99	99
CO	97	95	98	96
GA	100	100	100	100
ID	49	25	86	56
IL	99	98	100	100
IN	100	99	100	100
KS	100	100	100	100
MI	85	50	90	95
MO	100	99	100	100
MT	53	19	69	68
NE	100	96	100	100
NC	100	100	100	100
OH	100	94	100	100
OK	100	100	100	100
OR	97	93	100	94
SD	80	56	94	94
TX	100	100	100	100
WA	93	80	100	94

19 States 95 90 98 96

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

WINTER WHEAT (Percent Harvested)

	Current	Last Wk	1992	Avg.
AR	44	9	43	63
CA	35	20	45	41
CO	0	0	0	0
GA	86	51	64	84
ID	0	0	0	0
IL	0	0	3	14
IN	0	0	1	6
KS	0	0	10	25
MI	0	0	0	0
MO	5	0	13	34
MT	0	0	0	0
NE	0	0	0	1
NC	48	29	22	51
OH	0	0	0	2
OK	26	7	40	59
OR	0	0	0	0
SD	0	0	0	0
TX	53	34	35	47
WA	0	0	0	0

19 States 12 6 15 26

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

SPRING WHEAT (Percent Headed)

	Current	Last Wk	1992	Avg.
ID	6	0	52	23
MN	13	1	23	33
MT	5	1	23	20
ND	3	0	18	21
SD	8	0	66	58

5 States 6 0 28 28

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

Crop Condition (Percent)

for the Week Ending June 20, 1993

RICE

State	VP	P	F	G	EX
AR	0	0	37	63	0
CA	0	0	15	80	5
LA	0	1	53	46	0
MS	0	0	85	15	0
TX	0	0	14	78	8
5 State	0	0	39	59	2
Prev Week	0	4	45	50	1
Prev Year	0	0	39	56	5

WINTER WHEAT

State	VP	P	F	G	EX
AR	0	4	50	46	0
CA	0	0	15	65	20
CO	2	4	19	57	18
GA	0	5	47	47	1
ID	1	4	17	64	14
IL	0	2	40	54	4
IN	0	2	24	69	5
KS	0	3	23	46	28
MI	3	7	30	50	10
MO	0	13	66	21	0
MT	2	7	23	46	22
NE	0	2	20	69	9
NC	0	0	33	67	0
OH	2	7	27	48	16
OK	0	1	30	69	0
OR	0	2	10	52	36
SD	0	3	10	67	20
TX	3	5	33	53	6
WA	0	0	9	91	0
19 State	1	3	26	57	13
Prev Week	1	3	30	53	13
Prev Year	7	16	41	32	4

CORN

State	VP	P	F	G	EX
CO	0	2	9	73	16
GA	13	37	42	8	0
IL	0	2	23	72	3
IN	0	1	34	62	3
IA	0	9	49	42	0
KS	0	4	19	34	43
KY	0	3	23	58	16
MI	1	4	30	50	15
MN	5	22	58	15	0
MO	0	1	50	49	0
NE	0	0	15	82	3
NC	1	3	38	57	1
OH	1	4	25	56	14
PA	1	4	25	53	17
SD	1	6	41	49	3
TX	0	5	24	56	15
WI	3	21	48	27	1
17 State	1	7	35	52	5
Prev Week	1	6	36	53	4
Prev Year	0	6	35	52	7

SPRING WHEAT

State	VP	P	F	G	EX
ID	0	3	19	64	14
MN	0	6	28	55	11
MT	2	10	27	45	16
ND	0	0	6	82	12
SD	1	0	9	68	22
5 State	0	3	13	70	14
Prev Week	0	3	17	65	15
Prev Year	2	9	34	48	7

SORGHUM

State	VP	P	F	G	EX
AR	0	1	60	39	0
CO	0	5	30	57	8
IL	0	4	31	65	0
KS	0	3	16	62	19
LA	0	6	56	38	0
MS	0	14	63	23	0
MO	0	5	57	38	0
NE	0	5	19	76	0
NM	10	13	30	47	0
OK	0	0	33	67	0
SD	0	0	34	65	1
TX	0	8	26	46	20
12 State	0	5	27	56	12
Prev Week	0	6	25	55	14
Prev Year	1	5	33	53	8

COTTON

State	VP	P	F	G	EX
AL	0	3	78	19	0
AZ	0	0	10	75	15
AR	0	0	36	64	0
CA	0	0	10	90	0
GA	0	8	63	29	0
LA	0	10	47	41	2
MS	0	2	80	18	0
MO	0	11	67	22	0
NM	0	1	39	60	0
NC	0	2	23	75	0
OK	0	0	21	79	0
SC	0	5	80	15	0
TN	0	0	41	59	0
TX	0	7	32	57	4
14 State	0	5	40	53	2
Prev Week	1	4	45	49	1
Prev Year	10	13	41	33	3

SOYBEANS

State	VP	P	F	G	EX
AL	0	7	62	31	0
AR	0	0	54	46	0
GA	0	20	60	19	1
IL	0	0	25	72	3
IN	0	1	31	64	4
IA	0	13	48	38	1
KS	0	6	6	64	24
KY	0	1	19	72	8
LA	0	10	52	38	0
MI	1	4	30	50	15
MN	4	24	55	17	0
MS	0	15	60	25	0
MO	0	3	50	47	0
NE	0	0	20	79	1
NC	0	1	32	67	0
OH	1	4	27	55	13
SC	0	2	80	18	0
SD	3	6	41	45	5
TN	0	0	13	86	1
19 State	1	7	38	50	4
Prev Week	1	7	37	52	3
Prev Year	1	4	40	50	5

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

State Summaries of Weather and Agriculture

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

ALABAMA: Rainfall none to 0.90 in. north, none to 1.10 in. central, none to 0.54 in. south. Temperatures 1° below normal to 3° above normal north, central, 1 to 3° above normal south. Lows 58 to 69° north, 59 to 66° central, 62 to 69° south. Highs 88 to 94°, 91 to 96° central, 92 to 96° south.

Days suitable for fieldwork 6.4. Soil moisture 91% short, 9% adequate. Corn 28%, 46% 1992, 64% avg.; 23% very, 6% poor, 13% poor, 44% fair, 20% good. Sorghum planted 60%, 81% 1992, 81% avg.; 6% very poor, 7% poor, 73% fair, 14% good. Peanuts pegged 5%, 21% 1992, 23% avg.; 83% fair, 17% good. Wheat turning color 95%, 100% 1992, 100% avg.; harvested 41%, 60% 1992, 74% avg.; 4% poor, 50% fair, 46% good. Hay harvested 90%, 90% 1992, 88% avg. Pasture 9% very poor, 21% poor, 62% fair, 8% good. Primary activities: Cultivating, spraying fields, harvesting vegetables, wheat, general care of livestock, poultry, catfish.

ALASKA: Railbelt temperatures were near or above 70 degrees, all areas received some light rainfall.

Day suitable for fieldwork 5. Crop growth 40% slow, 50% moderate, 5% rapid. Height of small grains 6.00 to 14.00 in. depending upon locality, conditions. Commercial potato heights just emerging to 9.00 in. Barley, oat progress 80% preboot or earlier to 20% inboot. Topsoil 65% short, 35% adequate. Subsoil 60% short, 40% adequate.

ARIZONA: Sunny, hot. Precipitation limited except light scattered showers 15th, 17th, southeast. Temperatures 2° below to 5° above normal. Extremes 36°; 103° higher elevations; 52°; 114° deserts.

Cotton squaring 75%, 72% 1992, 76% avg.; setting bolls 25%, 9% 1992, 28% avg. Activities included: Irrigating, pesticide applications, pest monitoring, cultivating. Cotton 10% fair, 75% good, 15% excellent. Insects, weeds mostly light. Alfalfa good to excellent. Harvest active central, east; moderate western. Weeds light to moderate, insects mostly light; disease light. Small grains harvested 85%, 80% 1992, 82% avg. Fields in good to excellent. Bell peppers, chile peppers, grapes, squash, watermelons, honeydews, cantaloupes, harvested in western Areas. Cabbage, carrots, sweet corn, chile peppers, green onions, dry onions, grapes, potatoes, kale, mixed greens, squash, grapefruit harvested central areas. Tomatoes, dry onions, harvested eastern.

ARKANSAS: Temperatures near normal. Scattered thunderstorms occurred statewide throughout week. Extremes 55°; 97°. Rainfall none to 2.17 in.

Days suitable for fieldwork 6. Moderate rate of crop growth. Soil moisture 52% short, 45% adequate, 3% surplus. Wheat poor to good. Wheat, oats harvest continued. Corn, sorghum, cotton, soybean cultivation continued. Producers continued to apply fertilizer to rice fields, some rice fields sprayed with herbicides. Corn, cotton irrigation continued. Corn 2% poor, 35% fair, 63% good. Fruit, vegetable crops good. High temperatures caused heat stress in some poultry flocks. Livestock good, cattle making good gains. Pastures good, hay cuttings continued.

CALIFORNIA: High pressure in the Great Basin, a thermal low over the southwestern U.S. brought north winds to much of State last week. Warmer than normal, very little measurable

precipitation was recorded. Only Eureka, Mount Shasta more than 0.01 in. There was no doubt last week that summer had arrived in State. Imperial, Blythe tied for the maximum temperature last week at 114°.

Warm, dry weather prevailed. Wheat harvest continued most areas. Barley harvest continued, concluding many areas. Rice fertilizer, herbicide application ongoing. Cotton development improved. Crop treated mites, aphids, lygus. Sugarbeets irrigated, treated mildew. Freeze damage scattered northern areas. Some replanting necessary. Corn planted, irrigated, sprayed weeds. Oats, winter forage cut silage, greenchop. Safflower full bloom many areas. Alfalfa, oats, sudangrass cut hay. Brown rot concerned growers. Cherry crop harvest complete. Apricot, plum, nectarine, freestone peach picking active. Grape vineyards treated for mildew, leaf hoppers. Apples, asian pears thinned. Almonds irrigated, treated for mites. Valencia oranges, south coast lemons picked. Asparagus harvest seasonally declining, San Joaquin Delta. Broccoli harvest fairly heavy, Salinas-Watsonville; moderate, Santa Maria region. Bell Pepper harvest progressed normally Kern, Fresno counties, Coachella Valley of Riverside. Planting of bell peppers continued Merced; treating, thinning other locals. Central coast cauliflower harvest fairly light to light. Santa Maria celery harvest fairly heavy; Salinas seasonally increasing. Fresh market tomato harvesting continued Coachella, Imperial Valleys, westside of Fresno County. Processing tomato harvest continued Imperial. Sweet corn harvested Fresno, Imperial, Tulare counties. Garlic harvest Tulare increasing. Head lettuce harvest moderate, central coast; slowed San Benito. Harvest romaine, leaf lettuce central coast, fairly heavy. Onions harvested, Imperial, Fresno, San Jacinto district. Honeydews, watermelons harvested Riverside, Imperial counties. Melon planting continued Merced, Tulare counties. Squash harvested Imperial, Riverside. Other crops harvested included: Chili peppers, cucumbers, eggplant, garlic, green beans, green onions, okra, cherry, roma tomatoes, oriental vegetables. Feed, water supplies excellent. Quality of feed reduced by late rains. Range dry except higher elevations. New calves, lambs doing well. Movement summer range continued. Fire hazards high.

COLORADO: On the 15th, 16th the eastern plains had mostly light rain, small hail, a tornado near Holyoke. Rain, severe weather occurred on the 17th, 18th in the east. Flash flooding in the Colorado Springs area on evening of the 17th, rainfall was even more widespread on the 18th when several locations east of the Divide reported over 1.00 in. The 19th, 20th were mostly dry with warming temperatures. Rainfall in the east varied from nearly 1.00 in. South Plate Basin to around 0.50 in. Arkansas Basin. San Luis Valley, western areas less than 0.10 in. Temperatures generally 2° warmer than normal in the San Luis Valley, west of the Divide. Clouds in the east kept temperatures 2° below normal for the period in most locations.

Days suitable for fieldwork 5.3. Soil moisture 2% very short, 23% short, 67% adequate, 8% surplus. Alfalfa 1st cutting 56%, 57% 1992, 51% avg. Spring barley headed 35%, 35% 1992, 38% avg.; turning color 4%, 8% 1992, 9% avg. Oats headed 42%, 61% 1992, 40% avg. Sugarbeets thinned 92%, 92% 1992, 82% avg. Dry beans planted 86%, 73% 1992, 77% avg.; emerged 58%, 45% 1992, 45% avg. Fall potatoes 70% emerged, 85% 1992, 61% avg. Sorghum planted 78%, 81% 1992, 74% avg.; emerged 62%, 60% 1992, 52% avg. Winter wheat turning color 43%, 69% 1992, 38%

avg.; 2% very poor, 4% poor, 19% fair, 57% good, 18% excellent. Dry onion 1% very poor, 1% poor, 13% fair, 69% good, 16% excellent. Corn 2% poor, 9% fair, 73% good, 16% excellent. Sugarbeets 4% poor, 13% fair, 67% good, 16% excellent. Livestock good to excellent. Pasture, range feed excellent.

FLORIDA: Temperatures 2° above normal Panhandle, western, southern Peninsula, 2° below normal over north central, northeast Florida. Highs; upper 80s Atlantic Coast, mostly low, mid 90s interior, western areas. Lows; 60° Big Bend, northeast 60s north, mid 70s extreme southeast. Below normal rainfall. Isolated to widely scattered showers occurred, amounts mostly under 0.50 in., isolated totals of 1.00 to 2.00 in.

Soil moisture mostly short throughout State, scattered areas of adequate moisture in northern Peninsula, lower east coast. Soybean planting virtually complete. Tobacco harvest starting. Dry land crops under stress from drought most areas. Haying active where plant growth adequate. Sugarcane, other irrigated crops making good progress. Rain needed, irrigation active most citrus areas, some wilt. New crop fruit all sizes making progress relative to grove care. Valencia harvest nearly complete. Grapefruit movement almost over. Caretakers cutting cover crops, spraying, fertilizing. Irrigation needed to maintain soil moisture on vegetable acres. Season rapidly winding down Central. Watermelon harvesting increasing north. Volume leaders: Watermelons, potatoes, tomatoes, sweet corn, celery. Also available: Snap beans, cabbage, carrots, cucumbers, eggplant, peppers, squash, cherry tomatoes. State's pastures very poor to good. Pasture 50% very poor, 25% poor, 35% fair, 35% good. Hay being fed, western areas. State's cattle herds fair to good.

GEORGIA: Temperatures 1 to 3° above normal north, 1 to 3° below normal central, south. Extreme highs upper 80s northeast to low to middle 90s central, south. Lows middle to upper 50s northeast mountains, low to middle 60s elsewhere. Two or less days rain, many areas none. Most rain in northern quarter of State, 0.50 in. over 1.10 in. few local areas. Few spots central, south rain amounts generally under 0.10 in., heavier only isolated areas.

Days suitable for fieldwork 6.4. Soil moisture 43% very short, 48% short, 9% adequate. Corn 43% silked, 76% 1992, 76% avg.; 7% dough, 27% 1992, 34% avg.; condition further decline. Cotton 2% setting bolls, 2% 1992, 3% avg.; condition variable, insect pressure reported few areas. Sorghum 18% poor, 66% fair, 16% good; 76% planted, 87% 1992, 88% avg.; planting slows. Peanuts 5% very poor, 5% poor, 67% fair, 23% good; 55% blooming, 60% 1992, 61% avg.; 14% pegging, 16% 1992, 22% avg. Tobacco 11% poor, 67% fair, 19% good, 3% excellent; 1% harvested, 2% 1992, 5% avg. Wheat harvest very active. Other small grains 5% poor, 60% fair, 35% good. Watermelons 39% poor, 38% fair, 23% good; 5% harvested, 3% 1992, 7% avg. Other vegetables 19% poor, 60% fair, 21% good. Apples 7% fair, 93% good. Peaches 15% very poor, 3% poor, 16% fair, 66% good; 37% harvested, 42% 1992, 54% avg. Hay, pasture conditions slip. Supplemental hay feeding to cattle on pastures increasing. Cattle, hogs fair to good.

HAWAII: Hot, dry weather. Sunshine, weakened trade winds boosted temperatures. Record equalling high daily temperature matched in Honolulu. Temperatures mid 60s to low 90s. Rainfall none to 3.40 in.

Normal farming activities underway. Increased irrigation, spraying necessary to maintain adequate crop progress. Banana production lower. Papaya output higher. Watermelon picking heavy. Sweet corn supplies light.

IDAHO: Temperatures 3° above, below normal. Freezing weather 12th, Jerome County, affecting corn, dry beans, potatoes. Precipitation 0.10 to 0.81 in. north; 0.05 to 0.39 in. southwest; none to 0.02 in. south central; none to 0.58 in. east.

Days suitable for fieldwork 6. Soil moisture 1% short, 85% adequate, 14% surplus. Spring wheat emerged 99%, 100% 1992, 100% average. Spring wheat 43% not yet jointed, 33% jointed, 18% booting, 6% headed. Spring barley emerged 98%, 100% 1992, 100% avg. Spring barley 43% not yet jointed, 36% jointed, 17% booting, 4% headed. Oats planted 99%, 100% 1992, 100% avg.; emerged 95%, 100% 1992, 100% avg. Potatoes planted 99%, 100% 1992, 100% avg.; emerged 72%, 98% 1992, 87% avg. Potatoes not yet 12 in. high 87%, 12 in. high 13%. Potatoes 3% poor, 16% fair, 72% good, 9% excellent. Sugarbeets thinned 72%, 96% 1992, 92% avg. Field corn planted 100%, 100% 1992, 100% avg.; emerged 96%, 98% 1992, 97% avg. Dry beans planted 93%, 98% 1992, 96% avg.; emerged 67%, 77% 1992, 70% avg. Alfalfa first cutting 50%, 80% 1992, 55% avg. Irrigation water supplies 2% fair, 67% good, 31% excellent. Activities: Weed control, irrigation, haying, cultivating, moving livestock, machinery repair. Pasture, range 98% of normal. Livestock mostly good.

ILLINOIS: Thunderstorms rocked the State late in the week after a mild start, midweek temperatures reaching 90 to 95° plus humidity. Temperatures 4° above normal as highs 80s to lows in the 60s. Precipitation 0.50 in. less south, to 1.00 in. or more across the rest of the State.

Days suitable for fieldwork 5. Varying weather conditions, occurred across the State last week. Continued rains, flooding in the north resulted in planting delays, areas which will go unplanted, many drowned crop acres, slowed crop development due to crusted soils. Warmer, dryer conditions in the central, western portions of State provided for good crop development, fieldwork. Southern farms have continued to report wet conditions which have slowed planting, crop development. Throughout the State, numerous farmers have been replanting crops, mostly soybeans, due to water damage.

INDIANA: High temperatures low to mid 80s over most of State 2 to 3° above normal. Lows 60s, bottomed out in the 50s at most sites. Rainfall exceeded an inch in much of State with totals in excess of 2.00 in. at a few locations. Less than a half inch was common in the southwest.

Days suitable for fieldwork 4. Hot, humid weather pushed corn, soybean growth. Pastures 97% of normal, same as last week. Wheat crop ratings decreased slightly, 74% rated good to excellent. Topsoil 2% short, 61% adequate, 37% surplus. Subsoil 1% short, 70% adequate, 29% surplus. Corn 99% emerged, 100% 1992, 92% avg.; 12 in. high, 19 in. 1992, 21 in. avg. Soybeans 89% emerged, 100% 1992, 84% avg. Alfalfa hay 1st cutting 83%, 92% 1992, 87% avg.

IOWA: Temperatures 4° below normal northwest, 2° above normal southeast. Extremes 44°; 93°. Precipitation 0.51 in. south central to 4.87 in. northeast; average 1.98 in. (normal 1.08 in.). Eighth consecutive month of above normal precipitation. Flooding along nearly all major rivers.

Days suitable for fieldwork 2.8. Topsoil 22% adequate, 78% surplus. Subsoil 16% adequate, 84% surplus. Primary seedbed preparation completed 95%, 100% 1992, 100% normal. Oats headed 15%, 80% 1992, 80% normal. Corn planted 97%, 100% 1992, 100% normal; emerged 90%, 100% 1992, 99% normal; cultivated for the first time 10%, 80% 1992, 73% normal. Soybeans emerged 55%, 98% 1992, 93% normal. First crop alfalfa hay harvested 30%, 92% 1992, 83% normal. First crop clover hay harvested 12%, 68% 1992, 55% normal. Oat 1% very poor, 13%

poor, 48% fair, 35% good, 3% excellent. Winter wheat 1% very poor, 8% poor, 39% fair, 51% good, 1% excellent. Pasture 1% very poor, 3% poor, 17% fair, 53% good, 26% excellent. Hay 1% very poor, 12% poor, 33% fair, 47% good, 7% excellent. Wet soils continue to cause delays in planting of soybeans, haying. Conditions for livestock continue to improve.

KANSAS: Temperatures 2 to 4° below normal north, central, 1 to 2° above normal south. Precipitation received all districts. Amounts moderate to heavy, averages ranging 0.43 in. northwest to 1.59 in. southwest.

Days suitable for fieldwork 5.5. All districts experienced at least 4.5 days suitable. Topsoil 31% short to very short, 59% adequate, 10% surplus. Subsurface moisture 6% short to very short, 87% adequate, 7% surplus. Wheat turning color 85%, 95% 1992, 95% avg.; ripe 10%, 50% 1992, 60% avg. Some test cutting extreme southern areas. Heavy precipitation fell preventing harvest from gaining momentum in these areas. Wheat rated 74% good to excellent, 23% fair, 3% poor to very poor. Foliar diseases remain moderate to severe levels. Corn experienced rapid growth. Corn 77% good to excellent, 19% fair, 4% poor to very poor. Sorghum planted 80%, 65% 1992, 85% avg. Light infestations greenbugs southern, western areas. Sorghum 81% good to excellent, 16% fair, 3% poor to very poor. Soybeans planted 85%, 75% 1992, 85% avg.; 88% good to excellent, 6% fair, 6% poor to very poor. First cutting alfalfa 97%. Second cutting alfalfa just underway, 25% avg. Treatment alfalfa weevil continues. Pastures good condition, brome haying full swing.

KENTUCKY: Warm, humid with high temperatures averaging mid 80s to lower 90s, some 3 to 4° above normal. Most locations reached 90° or above, the west reached the mid 90s. Greatest rainfall over the east, south central sections where thunderstorms dumped 1.00 to 2.00 in. However, rain fell only one or two days. West, north central, rainfall less than 1.00 in.

Days suitable for fieldwork 4.2. Soil moisture 1% very short, 6% short, 73% adequate, 20% surplus. Replanting some corn, soybeans, resetting tobacco. Double crop soybeans over 10% planted following small grain harvest. Tobacco plant supply limited some areas. Set tobacco fair to mostly good with only 15% larger than 12 inches in height. Wheat harvested 11%, 17% 1992, 26% avg. Sorghum two-thirds planted. Pastures good to excellent.

LOUISIANA: Temperatures 0.7 to 3.0° above normal. Extremes 63°; 99°. Rainfall 0.26 in. northeast to 3.18 in. southwest.

Days suitable for fieldwork 6.4. Soil moisture 9% very short, 78% short, 13% adequate. Corn 21% poor, 44% fair, 27% good, 8% excellent; 58% silked, 91% 1992, 80% avg.; 23% dough stage, 34% 1992, 29% avg. Silking corn crop in need of moisture. Cotton 100% emerged, 100% 1992, 99% avg. Hay 86% first cutting, 81% 1992, 72% avg. Peaches 7% poor, 65% fair, 28% good; 23% harvested, 40% 1992, 32% avg. Rice 8% headed, 20% 1992, 11% avg. Spraying for weeds and weevils continued. Sorghum 96% emerged, 94% 1992, 90% avg.; 0% headed, 16% 1992, 8% avg. Soybeans 83% emerged, 83% 1992, 65% avg. Planting halted due to lack of moisture. Spring plowing 100% plowed, 100% 1992, 97% avg. Sweet potatoes 16% poor, 38% fair, 31% good, 15% excellent; 57% planted, 68% 1992, 71% avg. Dry conditions made for very slow planting progress. Wheat 97% harvested, 89% 1992, 92% avg. Sugarcane 2% poor, 12% fair, 76% good, 10% excellent. Layby, fallow land work active. Livestock 29% fair, 64% good, 7% excellent. Pastures 8% very poor, 10% fair, 82% good. Vegetables 5% poor, 59% fair, 31% good, 5% excellent. Harvest continued.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation none. Temperature 72.3°, normal 72.9°. Extremes 42°; 96°.

Days suitable for fieldwork 6.4. Topsoil 7% very short, 39% short, 46% adequate, 7% surplus. Subsoil 14% short, 86% adequate. Small grains mostly good. Wheat 73% turned, 61% 1992, 77% avg. Barley 43% harvested, 30% 1992, 46% avg. Rye 2% harvested, 19% 1992, 29% avg. Oats 5% turned, 14% 1992, 18% avg. Corn for grain, sweet corn plantings virtually complete. Soybeans 66% planted, 69% 1992, 68% avg. Sorghum 87% planted, 84% 1992, N/A avg. Pasture good, needs rain; hay supplies adequate. Alfalfa hay 6% second cut, 9% 1992, 16% avg. Other hay 92% first cut, 79% 1992, 82% avg. Strawberries 88% harvested, 81% 1992, 93% avg. Tobacco 85% transplanted, 86% 1992, 86% avg. Peaches, apples fair to good; fruit set is average or above.

DELAWARE: Precipitation none. Temperature 71.3°, normal 72.8°. Extremes 51°; 92°.

Days suitable for fieldwork 6.5. Topsoil 86% short, 14% adequate; subsoil 50% short, 50% adequate. Small grains mostly fair to good. Wheat 57% turned, 85% 1992, 93% avg. Barley 63% harvested, 51% 1992, 48% avg. Rye 60% turned, 60% 1992, 73% avg. Soybeans 64% planted, 65% 1992, 74% avg. Sorghum 88% planted, 99% 1992, N/A avg. Strawberries 97% harvested, 92% 1992, 96% avg. Spring snap bean harvest beginning. Alfalfa hay 12% second cut, 4% 1992, 14% avg. Other hay first cut complete. Pastures good, need rain; hay supplies adequate. Peach, apple crop fair to mostly good, fruit set average or above.

MICHIGAN: Extremes 35°; 91°. Precipitation 0.35 to 3.02 in. across the State.

Days suitable for fieldwork 5. Soil moisture 5% short, 75% adequate, 20% surplus. Dry beans 70% planted, 85% 1992, 65% avg.; 40% emerged, 70% 1992, 50% avg. Oats 10% headed, 20% 1992, 25% avg.; 1% very poor, 4% poor, 30% fair, 50% good, 15% excellent. Soybeans 85% emerged, 95% 1992, 85% avg. Hay 45% first cutting, 60% 1992, 60% avg.; 1% very poor, 4% poor, 30% fair, 50% good, 15% excellent. Pasture 90% of normal. Major activities: Cutting, raking hay, dry bean planting, spraying, tilling, mowing orchards, certifying crops with the ASCS offices.

MINNESOTA: Temperatures 4 to 8° below normal for the State, Extremes 37°; 86°. Precipitation 0.40 in. below normal in north west to 6.00 in. above normal in the west central, southwest. Greatest weekly precipitation was 7.33 in.

Days suitable for fieldwork 1.9. Topsoil 2% short, 26% adequate, 72% surplus. Spring wheat 80% jointing, 68% 1992, 79% avg.; 13% heading, 23% 1992, 33% avg. Oats 62% jointing, 87% 1992, 87% avg.; 6% heading, 41% 1992, 46% avg. Barley 76% jointing, 65% 1992, 76% avg.; 14% heading, 16% 1992, 35% avg. Sweet corn 73% planted, 98% 1992, 95% avg. Alfalfa 48% first cutting, 80% 1992, 70% avg. Corn 91% emerged, 99% 1992, 97% avg.; 18% cultivated once, 70% 1992, 67% avg.; 7 in. height, 16 in. 1992, 16 in. avg. Soybeans 80% planted, 99% 1992, 97% avg.; 61% emerged, 99% 1992, 88% avg.; 8% cultivated once, 42% 1992, 44% avg.; 4 in. height, 6 in. 1992, 6 in. avg. Spring Wheat 6% poor, 28% fair, 55% good, 11% excellent. Oats 10% poor, 25% fair, 54% good, 11% excellent. Barley 7% poor, 25% fair, 45% good, 12% excellent. Corn 4% very poor, 24% poor, 55% fair, 17% good. Soybeans 5% very poor, 22% poor, 58% fair, 15% good, excellent.

MISSISSIPPI: Temperatures 81°, 2.5° above normal. Extremes 59°; 99°. Little rainfall, but received an adequate amount of rain on 20th. Rainfall 0.40 in., 0.49 in., below normal. Soil temperature 87°.

Days suitable for fieldwork 6.4, 4.6 1992, 4.6 avg. Soil moisture 16% very short, 54% short, 30% adequate. Corn 94% emerged, 100% 1992, 97% avg.; 27% silked, 45% 1992, 42% avg.; 2%

dough, 12% 1992, 12% avg.; 1% very poor, 9% poor, 54% fair, 35% good, 1% excellent. Cotton 27% squaring, 61% 1992, 48% avg.; 2% poor, 80% fair, 18% good. Peanuts 100% planted, 90% 1992, 92% avg. Rice 94% emerged, 100% 1992, 96% avg.; 85% fair, 15% good. Sorghum 98% planted, 100% 1992, 96% avg.; 91% emerged, 96% 1992, 92% avg.; 14% poor, 63% fair, 23% good. Soybeans 73% planted, 81% 1992, 72% avg.; 67% emerged, 74% 1992, 60% avg.; 15% poor, 60% fair, 25% good. Sweet potatoes 85% planted, 65% 1992, 84% avg.; 25% poor, 50% fair, 25% good. Watermelons 25% poor, 62% fair, 13% good. Wheat 94% mature, 96% 1992, 98% avg.; 55% harvested, 60% 1992, 77% avg.; 2% very poor, 4% poor, 75% fair, 19% good. Hay 49% harvested, 50% 1992, 42% avg. Peaches 28% harvested, 46% 1992, 39% avg.; 7% very poor, 16% poor, 70% fair, 7% good. Livestock 16% fair, 82% good, 2% excellent. Pasture 77% of normal. Activities: Planting soybeans.

MISSOURI: Temperatures 4° above normal. Rainfall 1.37 in., varying from 0.68 in. southeastern district to 2.47 in. southwest.

Days suitable for fieldwork 5.3. Topsoil 3% short, 72% adequate, 25% surplus. Single-crop soybean planting ranges from 56% southwestern district to 91% southeast. Double-crop soybean planting getting started southeastern district. Some soybean, sorghum fields being replanted where hard rains crusted soil preventing good emergence. Sorghum planting most advanced southeast 97%, other districts range 64% to 83%. Less than 65% wheat turning color in northern districts, virtually all turning southeast. Wheat harvest 24% southeastern district, virtually none elsewhere. Alfalfa first cutting 82%, 90% 1992, 89% avg. Other hay 50%, 54% 1992, 58% avg. Pasture 10% fair, 72% good, 18% excellent.

MONTANA: Temperatures 10° below normal through the first part of week while closing out the week at 10° above normal. Precipitation occurred statewide varying from light to moderate.

Days suitable for fieldwork 3.5. Topsoil 17% short, 70% adequate, 13% surplus. Subsoil 29% short, 69% adequate, 2% surplus. Barley 1% very poor, 5% poor, 23% fair, 49% good, 22% excellent. Oats 1% very poor, 6% poor, 31% fair, 44% good, 18% excellent. Sugarbeets 3% poor, 16% fair, 67% good, 14% excellent. Potatoes planted 99%, 100% 1992, 100% avg. First cutting alfalfa hay 16% complete, 18% 1992, 27% avg. Other hay 10% complete, 16% 1992, 16% avg. Pasture, range feed 84% of normal. Stockwater supply 8% short, 83% adequate, 9% surplus. Movement of cattle, calves to summer ranges 93%, sheep, lambs 92%.

NEBRASKA: Temperatures 1 to 6° below normal. Precipitation occurred latter half of week varying from 0.30 in. northwest to 2.70 in. southwest.

Days suitable for fieldwork 4.1. Topsoil 4% short, 61% adequate, 35% surplus. Subsoil 3% short, 74% adequate, 23% surplus. Winter wheat 27% turning, 62% 1992, 62% avg.; 2% poor, 20% fair, 69% good, 9% excellent. Corn 15% fair, 82% good, 3% excellent. Sorghum 95% planted, 99% 1992, 99% avg.; 83% emerged, 99% 1992, 95% avg.; 5% poor, 19% fair, 76% good. Soybeans 95% planted, 100% 1992, 99% avg.; 83% emerged, 100% 1992, 96% avg.; 20% fair, 79% good, 1% excellent. Dry beans 91% planted, 99% 1992; 63% emerged, 58% 1992. Alfalfa 2% poor, 3% fair, 73% good, 22% excellent; 1st cutting 80% harvested, 92% 1992, 87% avg. Wild hay 8% fair, 47% good, 45% excellent. Pasture, range 104% of normal.

NEVADA: Week started with cooler than normal temperatures, a high pressure system toward the end of the week brought much warmer temperatures. Temperatures were generally in the 60s

across the northern two-thirds of the State, while the south had averages in the 70s to 80s. Isolated thundershowers brought measurable precipitation to a few northern locations. Gusty winds remained common.

Alfalfa hay harvest continued, as did early small grain combining in the south. Irrigation, insect, weed control, caring for livestock were other common activities.

NEW ENGLAND: Precipitation 0.07 to 1.13 in. north; none to 0.23 in. south. Temperatures 64 to 71° north; 67 to 73° south. Maximum temperatures 85 to 95° north; 87 to 94° south. Minimum temperatures 42 to 54° north; 45 to 60° south.

Days suitable for fieldwork 6.1. Soil moisture 40% short, 55% adequate, 5% surplus. Available grazing 19% short, 70% adequate, 11% surplus. Fieldwork progress 2 to 3 days behind schedule. Pasture 85% of normal. Maine potatoes 100% planted, 100% 1992, 100% avg.; good. Maine potatoes emerged 45%, 80% 1992, 80% avg. Connecticut River Valley potatoes 100% planted, 100% 1992, 100% avg. Connecticut River Valley potatoes emerged 100%, 100% 1992, 95% avg.; good. Rhode Island potatoes 100% planted, 100% 1992, 100% avg. Rhode Island potatoes emerged 100%, 100% 1992, 100% avg.; good. Maine oats 100% planted, 100% 1992, 100% avg.; good. Maine oats emerged 100%; good. Field corn 100% planted, 100% 1992, 95% avg. Field corn emerged 85%, 90% 1992, 85% avg.; fair to good. Sweet corn 90% planted, 95% 1992, 90% avg. Sweet corn emerged 80%, 85% 1992, 85% avg.; good. First cut hay 50% harvested, 70% 1992, 60% avg.; good. Peach set light to average; pear, cranberry set average; highbush blueberry set average to heavy. Apple set, fruit drop average; scab infection light. Strawberry set average; 25% harvested. Shade tobacco 100% planted; good. Outdoor tobacco 95% planted; good. Major farm activities: Irrigating fields, applying herbicides, insecticides. Cutting first stand of hay. Harvesting early season vegetables, U-pick strawberries.

NEW JERSEY: Temperatures above normal. Extremes 45°; 98°. Rainfall 1.44 in. north, 0.76 in. central, 0.04 in. south. Heaviest 24 hour total 1.41 in. on 19th, 20th. Estimated soil moisture, in percent field capacity, averaged 60% north, 51% central, 37% south. Four inch soil temperatures averaged 69° north, 71° central, 71° south.

Soil moisture content is short. Rain needed in most areas. Harvesting of blueberries, tomatoes, green beans, cucumbers are getting underway. Strawberries harvest continues. Endive, escarole, green onions, leeks, cabbage (all types), parsley, pickles, peas squash and turnips available in good supply. Moderate supply of beets, leafy greens, herbs, spinach, radishes and lettuce (of all types) available. Peach crop condition good. Light harvest of peaches expected in 2 to 3 weeks. Barley combining is underway. Wheat is turning brown in some areas. Soybeans are up 6 to 8 in., early planted corn up 12 to 14 in.

NEW MEXICO: Temperatures for the week were within a degree or two of normal at nearly all locations. Extremes 31° northwest; 105° southwest. Most of the State got its first taste of summer thunderstorm activity. Several locations over the northwestern quarter of the State received over 1.50 in. rain.

Days suitable for fieldwork 6.7. Soil moisture 84% short, 16% adequate. Some late week hail damage, reports of damage extent unavailable. Crop conditions: Alfalfa 6% poor, 25% fair, 66% good, 3% excellent. Corn 4% poor, 96% good. Irrigated wheat 14% fair, 86% good. Dryland wheat 30% very poor, 20% poor, 30% fair, 20% good. Wheat harvest 53% complete. Apples light to average fruit set. Chile 2% poor, 19% fair, 79% good. Onions 17% fair, 83% good; harvest active. Cattle, sheep poor to good. Range, pasture 67% of normal.

NEW YORK: Heavy thunderstorms on the 15th. A tornado developed in Wayne County, pea sized hail fell on Trumansburg. While 1.00 to 2.00 in. rain fell over much of the north, none fell in New York City or on Long Island. Week finished with unseasonably hot, humid weather. Much of southern half of the State above 90° on 18th, 19th. New record of 95° set on 19th at JFK airport. Extremes 42°; 95°.

Days suitable for fieldwork 5.5. Soil moisture mostly adequate. Warmer weather beneficial to crop growth. Pasture condition 88% of normal. Hay good. First cutting alfalfa 45% complete, 57% 1992, 51% avg. Clo-tim 36% harvested, 54% 1992, 50% avg. Corn planting near completion. Early planted fields up, good. Oat good, growth behind normal. Dry beans 50% planted. Potato planting winding down. Apple thinning in Lake Ontario region successful. Resulting crop load excellent for fruit sizing and quality. Tart cherries sizing nicely. Tree fruits in good condition. Strawberry harvest underway. Orange County onions in very good condition. Lettuce harvest beginning. Asparagus harvest continued active. Tomato transplanting continued. Rains helped transplants. Sweet corn development behind normal due to cool spring weather.

NORTH CAROLINA: Temperatures normal to 1° above normal. Precipitation 2.76 in. at Franklin to a trace at several locations.

Days suitable for fieldwork 5.8. Soil moisture 8% very short, 50% short, 41% adequate; 1% surplus. Crop condition: Pasture 8% poor, 44% fair, 46% good, 2% excellent; winter wheat 33% fair, 67% good; field tobacco 36% fair, 59% good, 5% excellent; Irish potatoes 3% poor, 38% fair, 59% good; corn 1% very poor, 3% poor, 38% fair, 57% good, 1% excellent; hay 1% poor, 41% fair, 53% good, 5% excellent; peaches 24% fair, 72% good, 4% excellent; truck crops 2% poor, 38% fair, 60% good; cotton 2% poor, 23% fair, 75% good. Peanuts 28% fair, 72% good; soybeans 1% poor, 32% fair, 67% good; sweet potatoes 2% poor, 45% fair, 53% good; apples 24% fair, 76% good; hay, roughage supplies 4% short, 90% adequate, 6% surplus. Sorghum planted 79%, 70% 1992, 75% avg. Soybeans planted 80%, 69% 1992, 72% avg. Sweet potatoes transplanted 90%, 87% 1992, 88% avg. Burley tobacco transplanted 91%, 87% 1992, 95% avg. Wheat harvested 48%, 22% 1992, 51% avg. Oats harvested 52%, 20% 1992, 55% avg. Barley harvested 54%, 20% 1992, 60% avg. Rye harvested 50%, 32% 1992, 51% avg. First cutting of the hay crop 91% completed, with second cutting 48% completed. Major activities: Planting double crop soybeans; cutting hay, harvesting small grains. Other activities: Irrigating tobacco; applying nitrogen to corn; harvesting cucumbers; tending livestock; general farm maintenance.

NORTH DAKOTA: It was a cool week across the State as a high pressure system remained over the northern sections of the State early last week. Precipitation averaged 0.10 in. in the southwest to 1.82 in. in the southeast. Temperatures 5 to 8° below normal. Extremes 35° southwest; 85° east central, southeast.

Days suitable for fieldwork 5.2. Topsoil 4% short, 91% adequate, 5% surplus. Subsoil 27% short, 71% adequate, 2% surplus. Emerged crops mostly good condition, development behind last year, average due to lack of abundant sunshine, warm temperatures. Spring wheat 6% fair, 82% good, 12% excellent; durum 9% fair, 82% good, 9% excellent; barley 6% fair, 80% good, 14% excellent; oats 13% fair, 79% good, 8% excellent; winter wheat 10% fair, 79% good, 11% excellent. Hard red spring wheat 19% boot and beyond, 45% 1992, 48% avg. Durum wheat 10% boot and beyond, 20% 1992, 29% avg. Barley 27% boot and beyond, 46% 1992, 53% avg. Oats 21% boot and beyond, 48% 1992, 46% avg. Winter wheat 46% heading and beyond; 79%

1992, 74% avg. Late season crops were also in mostly good condition. Corn 1% poor, 43% fair, 56% good; flax 13% fair, 79% good, 8% excellent; sugarbeets 22% fair, 78% good; potatoes 44% fair, 56% good; dry beans 8% poor, 31% fair, 61% good; soybeans 1% poor, 34% fair, 65% good; Sunflowers 4% poor, 20% fair, 76% good. Dry beans 3 in. avg. height, 5 in. 1992, 5 in. avg.; flax 4 in. avg. height, 4 in. 1992, 5 in. avg.; soybeans 4 in. avg. height, 6 in. 1992, 6 in. avg.; sunflowers 4 in. avg. height, 4 in. 1992, 6 in. avg.; potatoes 4 in. avg. height, 5 in. 1992, 7 in. avg.; corn 5 in. avg. height, 8 in. 1992, 10 in. avg.; sugarbeets 6 in. avg. height, 6 in. 1992. Post emerged herbicide application for broadleaf control 72% complete, wild oats 88%. Range and pasture conditions 87% of normal. Hay crop condition 85% of normal. Alfalfa hay first cutting 8% complete, other hay 3%.

OHIO: Summertime heat, humidity prevailed across State. Strong thunderstorms occurred over central, northern State with the passage of a frontal system. High temperatures low to mid 80s north to the mid to upper 80s south, mostly 2 to 6° above normal. Highest readings reached the low 90s. Lows mostly in the low to mid 60s, above normal by 1 to 5° south, 3 to 7° central, north. Rainfall 0.25 to 1.50 in. except for less than 0.20 in. over parts of the southeast. This was drier than normal by 0.30 to 0.75 in. except in the far west where totals were 0.25 to 0.75 in. wetter than normal. Growing degree day accumulations since April 1 were averaging 50 to 160 degree days above normal.

Days suitable for fieldwork 6.1. Topsoil moisture 17% short, 78% adequate, 5% surplus. Strawberries harvested 45%, oats headed 37%. Alfalfa 1st cut harvested 90%, other hay 1st cut harvested 75%, alfalfa 2nd cut harvested 5%. Pasture 1% very poor, 3% poor, 27% fair, 58% good, 11% excellent. Hay 2% poor, 30% fair, 58% good, 10% excellent. Oats 2% very poor, 7% poor, 32% fair, 54% good, 5% excellent. Conditions were ideal for drying out cut hay and finishing the first-cutting harvest in most areas although some farmers had cut fields get wet. Sweet corn is tassling in the southeast. Blue mold has been reported in tobacco several weeks earlier than in past years. Some livestock have shown stress from the heat.

OKLAHOMA: Weather information not available.

Days suitable for fieldwork 5.5. Topsoil moisture 8% short, 76% adequate, 16% surplus. Subsoil moisture 2% short, 98% adequate. Wheat 1% poor, 30% fair, 69% good; 97% soft dough, 100% 1992, 100% avg.; 26% harvested, 40% 1992, 59% avg. Oats 14% harvested, 18% 1992, 50% avg. Barley 11% harvested, 34% 1992, 42% avg. Corn 25% tasselling, 12% 1992, 12% avg. Sorghum 33% fair, 67% good; 89% planted, 79% 1992, 74% avg.; 77% up-to-stand, 61% 1992, 49% avg. Soybeans 57% planted, 51% 1992, 71% avg.; 32% up-to-stand, 41% 1992, 42% avg. Peanuts 95% planted, 76% 1992, 79% avg; 86% up-to-stand, 62% 1992, 57% avg. Cotton 21% fair, 79% good; 96% planted, 71% 1992, 81% avg.; 89% up-to-stand, 51% 1992, 67% avg; 6% squaring, 8% 1992, 3% avg. Alfalfa 99% 1st cut, 85% 1992, 100% avg; 33% 2nd cut, 18% 1992, 42% avg. Pastures 96% of normal. Prices for feeder and stocker cattle steady to \$2.00 per cwt. higher. Marketings average.

OREGON: Temperatures 3 to 4° above normal statewide. Light precipitation statewide. 0.30 in. coast, northern Cascades, 0.10 in. southern Cascades, southeastern areas, Willamette Valley, elsewhere dry.

Soil moisture: 2% short, 86% adequate, 12% surplus. Winter wheat 2% poor, 10% fair, 52% good, 36% excellent; headed 97%. Wheat, barley harvest have not yet begun. Hay harvest resumed, low yields, low quality; wet conditions. Rust, septoria problems grass seed crops, Willamette Valley. Potato planting complete,

except Klamath Basin 95% complete. Light potato freeze damage, northeastern areas. Willamette Valley vegetable plantings accelerated due to drier conditions, some canneries cutting sweet corn acreage due to delays in plantings. Cranberry bloom at peak in McFarlin beds, fruit sizing in Stevens beds; southern coast. Willamette Valley strawberry harvest past peak, drier conditions decreased mold, rot. Rain causing some cracking in sweet cherry crop, Hood River Valley, The Dalles district. Bing cherry harvest complete, some cracking damage; Milton-Freewater district. Hood River orchardists hand pruning Bartlett pears, apple trees. Livestock excellent. Ranges, pastures excellent. Summer range turn out continued. Range, pasture 108% of normal.

PENNSYLVANIA: Above normal temperatures and below normal precipitation. Hot week, some record high temperatures. Temperature 76°, 10° above normal. Extremes 44°; 96°. Precipitation 0.34 in., 0.56 inch below normal.

Days suitable for fieldwork 6. Soil moisture 59% short, 41% adequate. Corn 98% planted, 98% 1992, 94% avg. Average corn height 9 in., 9 in. 1992, 10 in. avg. Corn crop condition 1% very poor, 4% poor, 25% fair, 53% good, 17% excellent. Tobacco 82% transplanted, 85% 1992, 76% avg. Soybeans 91% planted, 86% 1992, 79% avg. Soybean crop condition 4% very poor, 6% poor, 24% fair, 51% good, 15% excellent. Barley 100% heading or headed, 100% 1992; 64% turning yellow, 51% 1992; 20% ripe, 14% 1992; 2% harvested, 1% 1992. Wheat 100% heading or headed, 100% 1992; 25% turning yellow, 13% 1992; 2% ripe, 1% 1992. Wheat crop condition 2% very poor, 3% poor, 20% fair, 61% good, 14% excellent. Oats 4% turning yellow, 4% 1992. Oats crop condition 1% very poor, 3% poor, 26% fair, 56% good, 9% excellent. Alfalfa first cutting 75% complete, 76% 1992. Second cutting alfalfa 11% complete, 1% 1992. Quality of hay made 17% fair, 83% good. First cutting of timothy clover 60% complete, 59% 1992. Feed from pastures poor to fair. Peach condition 10% below avg., 70% avg., 20% above avg. Apple condition 13% below avg., 73% avg., 14% above avg. Activities: making hay and filling silos; planting of soybeans, corn and potatoes; spraying and side dressing corn; hauling manure; and caring for livestock.

PUERTO RICO: Island rainfall 1.12 in. was 0.15 in. below normal. Highest rainfall 2.67 in. at Ponce 4E, 2.45 in. at San Juan WSFO, 2.30 in. at Coamo 2S. Highest 24 hour total 2.12 in. at Ponce 4E. Island temperatures 81° on the Coast, 75 to 78° in the Interior, mean station 84.8° at Guayama to 66.6° at Pico del Este Luquillo. Extremes 61°; 96°.

SOUTH CAROLINA: Rainfall 0.20 in., some areas received 0.25 to 0.50 in. from isolated thunderstorms. Afternoon temperatures, humidity rose above normal levels. Temperatures near normal to 2° above normal last week.

Days suitable for fieldwork 6.4. Soil moisture 42% very short, 56% short, 2% adequate. Corn fair; 31% silked, 39% 1992, 44% avg. Sorghum fair; 73% planted, 47% 1992, 60% avg. Tobacco fair; 13% topped, 26% 1992, 27% avg. Cantaloupes fair to good; 16% harvested, 16% 1992, 13% avg. Watermelons fair; 12% harvested, 5% 1992, 10% avg. Cucumbers fair; 56% harvested, 60% 1992, avg N/A. Snapbeans fair to good; 92% planted, 85% 1992, 91% avg. Tomatoes fair to good. Oats fair to good; 93% ripe, 92% 1992, 95% avg; 74% harvested, 46% 1992, 70% avg. Rye fair to good; 95% turning color, 98% 1992, 100% avg., 89% ripe, 83% 1992, 90% avg., 61% harvested, 36% 1992, 62% avg. Wheat fair to good; 97% ripe, 92% 1992, 97% avg; 73% harvested, 35% 1992, 71% avg. Grain Hay fair to good; 93% harvested, 86% 1992, 90% avg. Peaches fair to good; 16% harvested, 20% 1992, 23% avg. Pasture condition fair.

SOUTH DAKOTA: Temperatures 2 to 8° below normal. Extremes 28°; 96°. Rainfall was generally around 1.00 to 2.00 in. south, east; 0.10 to 0.50 in. across the rest of State.

Days suitable for fieldwork 2.4. Topsoil 2% short, 45% adequate, 53% surplus. Subsoil 1% very short, 4% short, 61% adequate, 34% surplus. Rye 3% very poor, 2% poor, 11% fair, 54% good, 30% excellent. Oats 2% poor, 17% fair, 67% good, 14% excellent. Barley 1% very poor, 1% poor, 12% fair, 69% good, 17% excellent. Flax

2% very poor, 20% fair, 63% good, 15% excellent. Sunflowers 1% very poor, 1% poor, 26% fair, 67% good, 5% excellent. Corn 88% planted, 100% 1992, 100% avg. Flax 88% planted, 100% 1992, 99% avg. Sunflowers 96% planted, 87% 1992, 86% avg. All crop progress was behind normal due to the wet conditions, below normal temperatures. Tan spot was reported to be in some wheat fields. Most fields were to wet for working last week. Livestock: 2% fair, 73% good, 25% excellent. Pasture conditions 97% of normal. Alfalfa 37% first cutting, 56% 1992, 56% avg. Haying was very difficult last week due to the rainfall.

TENNESSEE: Temperatures 6° above normal in the west to 2° below normal along the plateau. The highest temperature recorded was 95°, the lowest 56°. Rainfall was above normal in the west, middle regions, below normal in the east. Bristol reported 0.62 in. below normal while Nashville, which received 2.34 in. of rain on Monday, reported 1.93 inches above normal for the week.

Days suitable for fieldwork 5.6. Soil moisture 32% short, 68% adequate. Corn 2% tasseling, 11% 1992, 8% avg.; 1% poor, 13% fair, 79% good, 7% excellent. Cotton 19% squaring, 20% 1992, 20% avg.; 41% fair, 59% good. Sorghum 98% planted, 100% 1992, 91% avg.; 1% poor, 20% fair, 77% good, 2% excellent. Soybeans 76% planted, 70% 1992, 69% avg.; 13% fair, 86% good, 1% excellent. Tobacco 95% transplanted, 96% 1992, 94% avg.; 4% poor, 19% fair, 75% good, 2% excellent. Wheat 69% ripe, 89% 1992, 85% avg.; 18% harvested, 38% 1992, 43% avg.; 1% poor, 20% fair, 77% good, 2% excellent. Alfalfa hay 24% 2nd cutting harvested, 22% 1992, 29% avg. All hay 2% poor, 7% fair, 72% good, 19% excellent. Pastures 3% poor, 12% fair, 68% good, 17% excellent. Cattle 3% fair, 81% good, 16% excellent. Wheat harvest was very active over the weekend. Hot, dry weather continued to help cotton development. Cotton is showing excellent plant growth, and growers are busy spraying for boll weevils. Boll weevil counts are high this season. The dry weather has provided ideal curing conditions for hay and yields have been above average. Alfalfa regrowth was exceptional during May, and producers began their 2nd cutting last week. Pastures are holding up well, but rain is needed in some areas of the state. Rejuvenating showers would also benefit corn and late-transplanted tobacco.

TEXAS: Big weather story for the week was Tropical Storm Arlene. Some areas along southern coast, South Texas and Rio Grande Valley received large amounts of rainfall during weekend of June 20th. Some areas of Rio Grande Valley received rainfall amounts of 11 to 12 inches from the storm. Too early to tell full impact of storm, but a lot of fields were underwater. If fields can be drained off next couple of days, damage should be minimized. Rest of state received scattered showers for most part. Hot humid conditions continued. Hay bailing active where conditions allowed.

Crops: Corn stands in Blacklands received boost from rains. Corn ear worms were present some fields in High Plains. Central Texas, crop was in good to excellent condition. Statewide corn condition 83% normal, 92% 1992. Cotton fields were sprayed for flea hoppers & over wintering weevils in Low Plains, Blacklands & Upper Coast. Large amounts of cotton had to be replanted due to excessive rainfall & washing in High Plains. First bale of cotton was ginned in Rio Grande Valley before storm hit. Statewide cotton condition 77% normal, 44% 1992. Rice fields continued to be flooded in Upper Coast where some fields were infested with Army Worms. Rice condition 87% normal, 88% 1992. Grain sorghum planting continued where conditions allowed. Crop in Blacklands progressed well due to recent rains. Some producers were applying chemicals for midge control in Upper Coast. Statewide sorghum condition 81% normal, 80% 1992. Small grain harvest in full swing High Plains. Wild oats caused heavy dockage in some fields in Low Plains. Harvest winding down in Blacklands. Statewide wheat condition 76% normal, 77% 1992. Peanut fields in Low Plains still need rain and some fields had thrip damage. Planting in full swing in Cross Timbers. Statewide peanut condition 83% normal, 62% 1992. Soybean planting winding down in Upper Coast where existing stands made excellent progress & some fields had begun to pod.

Commercial Vegetables: Rio Grande Valley, land preparation for fall planting continued until rain halted field work. Pepper crop made good progress. San Antonio-Winter Garden, onion harvesting winding

down. Cabbage, cantaloupes, pickles & cucumbers continued to be harvested. East Texas, harvest of onions, squash & tomatoes active. Watermelons were starting to ripen. High Plains, vegetables were being irrigated. Harvesting of onions had begun. Pumpkins were being planted & peppers had started to set fruit. Trans-Pecos, onion harvest continued. Cantaloupes made good progress & were blooming. Peach harvesting of early varieties active in Low Plains & Cross Timbers. Harvesting continued in East Texas where some producers were spraying for brown rot. Pecan producers were applying zinc in Trans-Pecos. Insect activity light in Cross Timbers. Some trees in Edwards Plateau were infested with web worms. Central Texas, some producers had to contend with scab & web worms.

Range and Livestock: Hot & drying conditions continued to further stress ranges, pastures & livestock in parts of High Plains & Trans-Pecos where some ranchers have started supplemental feeding. Livestock remained in good condition across most areas state. Haying continued where conditions allowed.

UTAH: Temperature maximums 1° below normal and minimums averaged only slightly below normal. Precipitation was heavy in Uinta Basin, and moderate to heavy in North Central, South Central, light throughout the rest of the state except for Dixie which had no precipitation.

Days suitable for fieldwork 6.2. Soil moisture 15% short, 76% adequate, 9% surplus. Winter wheat headed or better 96%, 98% 1992, 89% avg. Spring wheat: jointed or better 88%; headed or better 59%, 87% 1992, 57% avg. Barley: jointed or better 91%; headed or better 57%, 91% 1992, 65% avg. Oats: jointed or better 64%, 89% 1992; headed or better 31%, 47% 1992, 29% avg. Corn height 11 inches, 15 inches 1992, 10 inches avg. Alfalfa hay 1st cutting 71% complete, 92% 1992, 69% avg. Other hay cutting complete 18%, 29% 1992, 17% avg. A few sweet cherries starting to be picked. Cattle moved to summer range 90%, 93% 1992. Sheep moved to summer range 91%, 82% 1992. Pasture, range condition good to excellent.

VIRGINIA: Temperatures below normal the first of the week, above normal the last half. Extremes 45°; 95°. Precipitation was below normal with scattered thunderstorms in the south, west.

Days suitable for fieldwork 5.9. Topsoil 46% short, 52% adequate, 2% surplus. Pasture 3% poor, 34% fair, 52% good, 11% excellent. Alfalfa 16% fair, 69% good, 15% excellent. Other hay 3% poor, 21% fair, 68% good, 8% excellent. Barley 56% harvested, 59% 1992, 71% avg. Oats 21% harvested, 28% 1992, 23% avg. Wheat 9% harvested, 9% 1992, 26% avg. Apple 20% fair, 60% good, 20% excellent. Potato 14% fair, 86% good. Corn planting completed. Corn condition 2% poor, 33% fair, 65% good. Peanut condition 20% fair and 80% good. Soybeans 63% planted, 60% 1992, 67% avg. Soybean condition 8% poor, 25% fair and 67% good. All tobacco condition 13% poor, 63% fair and 24% good. Livestock condition 83% good and 7% excellent. Harvesting hay, clipping pastures, cultivating and laying by tobacco, sidedressing and irrigating tobacco, spraying peaches, harvesting snaps, spraying tomatoes and other vegetables for disease control, and spraying peanuts for leafspot.

WASHINGTON: Temperatures 2° below normal to 3° above normal west; 3° below normal to 2° above normal east. Precipitation 0.11 to 0.54 in. west; none to 0.33 in. east.

Days suitable for fieldwork 6.7. Soil moisture 21% short, 79% adequate. Irrigation water supply 14% short, 86% adequate. Hay, other roughage 27% short, 63% adequate, 10% surplus. Range, pasture 13% poor, 15% fair, 72% good. Winter wheat dryland 10% fair, 90% good; irrigated 100% good. Spring wheat dryland 5% poor, 10% fair, 85% good; irrigated 5% fair, 95% good. Barley dryland 5% poor, 35% fair, 60% good; irrigated 5% fair, 95% good. Cereal grains matured rapidly, with many reports of disease, pests, some severe. Hay harvest was in full swing with the warmer weather. Strawberry harvest continued to have many reports of rot. Raspberry harvest began. Cherry harvest began in the central part of the state. Grazing looked good.

WEST VIRGINIA: Temperature 72°. Extremes 46°, 95°. Precipitation 0.25 in.

Wheat good. Barley good. Oats good. Corn poor to mostly good. Soybeans good. Hay fair to mostly good. Apples good. Peaches good. Tobacco fair to good. Pastures poor to mostly good. Cattle fair to mostly good. Sheep fair to mostly good. Gardens fair to mostly good. Farm activities: General maintenance, planting corn, gardens, soybeans, cutting hay, setting tobacco.

WISCONSIN: Heavy rain was the major activity. Temperature 62°; 2° below normal. Extremes 42°; 90°. Precipitation 1.30 to 5.70 in.

Days suitable for fieldwork 3.2. Soil moisture 13% adequate, 87% surplus. Pasture 88% of normal, 60% 1992, 70% avg. General condition of crops 1% very poor, 11% poor, 43% fair, 41% good, 4% excellent. Oats headed 5% headed, 24% 1992, 33% avg.; 1% very poor, 12% poor, 24% fair, 56% good, 7% excellent. Corn 3% very poor, 21% poor, 48% fair, 27% good, 1% excellent; 95% planted, 100% 1992, 100% avg.; height 5 in., 13 in. 1992, 14 in. avg. Winter wheat 7% poor, 23% fair, 62% good, 8% excellent. Soybeans 81% planted, 99% 1992, 97% avg. 1st cut alfalfa: 37% harvested, 74% 1992, 64% avg. Primary activities: Hay harvesting, soybean planting.

WYOMING: Temperatures 3.7° below normal. Northeast, north central, southwest 5 to 6° below normal. Precipitation was above normal. Northeast, Wind River region were the wettest averaging 1.00 to 2.00 in. above normal.

Days suitable for fieldwork 4.4 days. Topsoil 92% adequate, 8% surplus. Spring wheat 14% headed, 31% 1992, 17% avg. Oats 14% headed, 16% 1992, 7% avg. Barley 29% headed, 53% 1992, 33% avg. Winter wheat 76% headed, 77% 1992, 54% avg. Sugarbeets 63% thinned, 68% 1992, 74% avg. Corn 93% emerged, 98% 1992. Dry beans 57% emerged, 70% 1992. Alfalfa 1st cutting completed 15%, 25% 1992, 20% avg. Other hay 1st cutting completed 3%, 5% 1992, 4% avg. All livestock in mostly good condition. Percent of cattle, calves moved to summer ranges-81%. Percent of sheep, lambs moved to summer ranges-72%. Range, pastures in good to excellent condition.

(Continued from front cover)

system, temperatures warmed into the 90's into the central Plains, and heavy rain developed over the western Corn Belt. At Redwood City, MN, more than 5 inches fell in less than 24 hours, and at Wausau, WI, at least one-half inch was measured on five days, leading to a weekly total of 4.46 inches. By Thursday, rainfall coverage expanded to include the central Plains and the southern High Plains. Selected 3-day (Thursday through Saturday) rainfall included 4.03 inches in Waterloo, IA, 3.97 inches in Manhattan, KS, and 6.30 inches in Dalhart, TX. Flash flooding and river flooding was especially prevalent across the upper Mississippi Valley, where soils were wet from previous rainfall. Late in the week, a final round of thunderstorms kicked through the upper

Midwest and the Great Lakes States, and Tropical Storm Arlene formed in the southwestern Gulf of Mexico (see page 8 for additional details). Hot weather prevailed on both the east and west coasts, as about 20 daily records were established. Arlene came ashore on Padre Island, TX at about 2:00 a.m. on Sunday, June 20, with 40 mph sustained winds. Arlene's primary impact was heavy rainfall, much of which occurred far from the center. (By Sunday afternoon, as much as 10 to 15 inches of rain had fallen in eastern Texas between Longview and Jacksonville, and in extreme southern Texas north of McAllen.) Meanwhile, daily record highs of note included 95°F in San Francisco, CA, and 102°F in Newark, NJ.

International Weather and Crop Summary HIGHLIGHTS

June 13 - 19, 1993

FSU: Cool weather accompanied widespread rain, benefiting crop growth. Beneficial rain in the Baltic States ended a prolonged dry spell.

EUROPE: Widespread rain promoted crop development in the northeast and continued to soak southern England. Light showers fell in Hungary.

SOUTH ASIA: The monsoon brought timely planting moisture to central India's grain, oilseed, and cotton areas.

SOUTHEAST ASIA: Warm, dry weather reduced moisture reserves for Thailand's rainfed rice and corn.

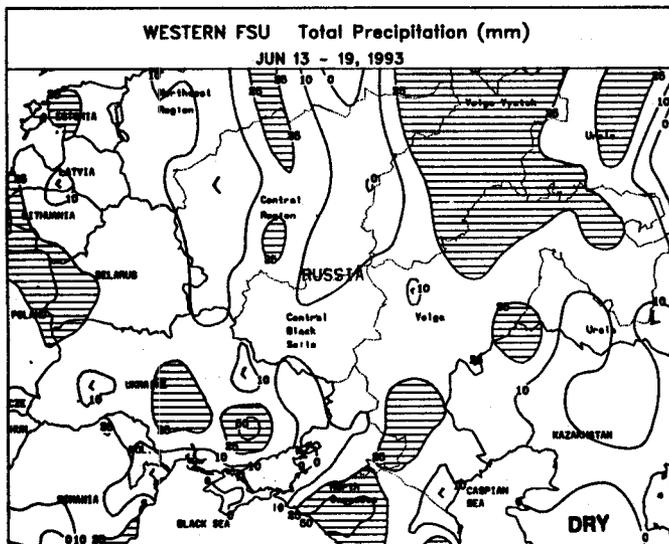
EASTERN ASIA: Portions of central China were becoming somewhat dry, but wetness continued to plague extreme southern China.

AUSTRALIA: Rain benefited germinating southern and western wheat. Subsoil moisture remained limited across Queensland.

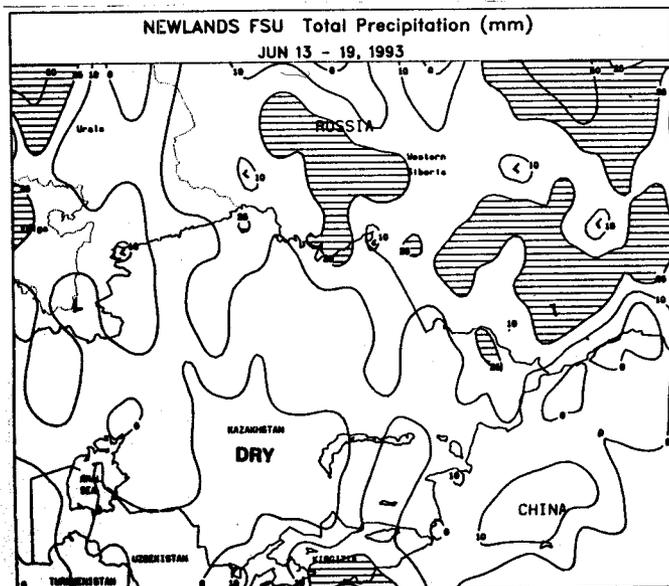
SOUTH AMERICA: Rains continued to cause soybean harvest delays across central Argentina.

CANADA: Showers improved Prairie spring grain and oilseed prospects.

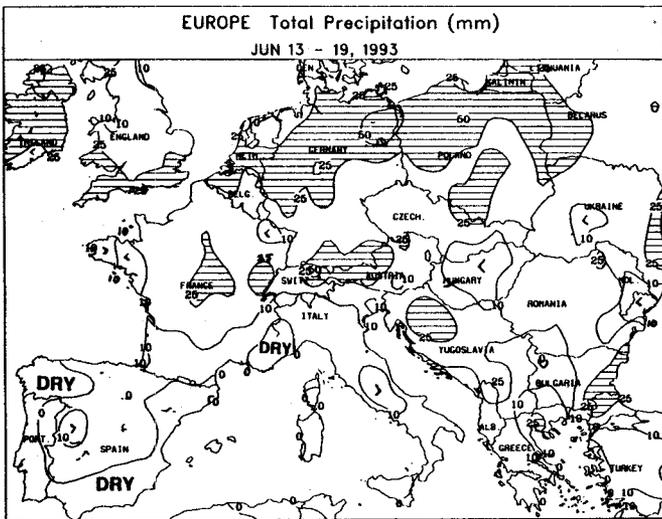
MEXICO: Tropical activity produced widespread showers across northeastern and western Mexico.



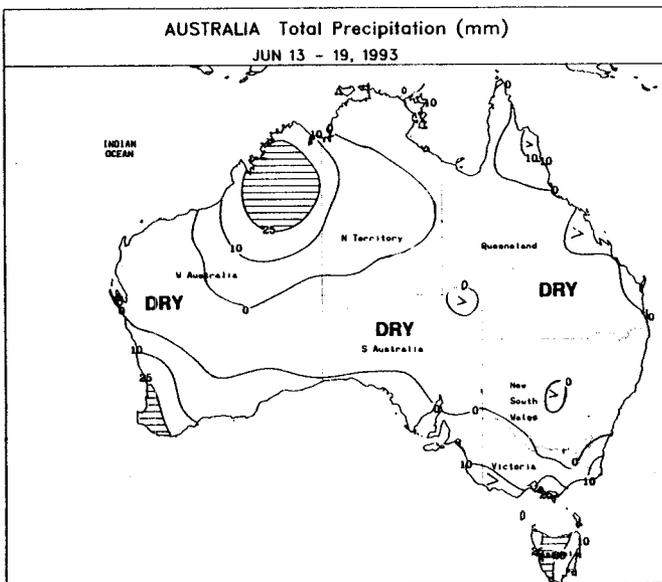
FSU-WESTERN: Cool weather accompanied widespread precipitation, benefiting winter grains in the reproductive-filling stages, spring barley in the jointing-heading stages, and corn, sunflowers, and sugar beets in the vegetative stage. Beneficial rain (8-24 mm) over the Baltic States ended a prolonged dry spell since April, helping to stabilize conditions for winter grains advancing through reproduction and spring grains in the vegetative stage. Generous rains (10-25 mm, with local amounts in excess of 30 mm) over most of Ukraine, Belarus, and Russia provided favorable moisture for crop growth. Dry weather (less than 5 mm) was confined to Moldova, Crimea, and localized areas in Central Region. Weekly average temperatures were 1-3 degrees Celsius (C) below-normal over the region. While the unseasonably cool weather benefited small grains, summer crops such as corn, sugar beets, and sunflowers would benefit from more reasonable temperatures.



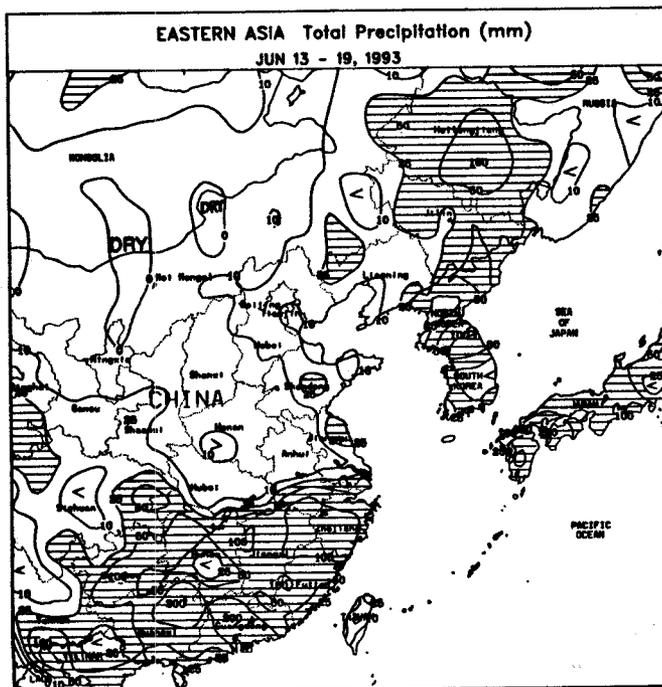
FSU-NEW LANDS: Wet weather prevailed over most spring grain areas. Light precipitation (1-18 mm) over Urals and Kazakhstan maintained favorable moisture for spring grains in the vegetative stage. In the eastern portion of the upper Volga Valley (Baskhir) and Siberia, wet weather (10-25 mm, with scattered amounts in excess of 30 mm) provided ample moisture for spring grains. Weekly average temperatures were near normal in the north and 1-3 degrees C below normal in the south. Extreme maximum temperatures remained below 30 degrees C, providing optimal growing conditions for spring grains.



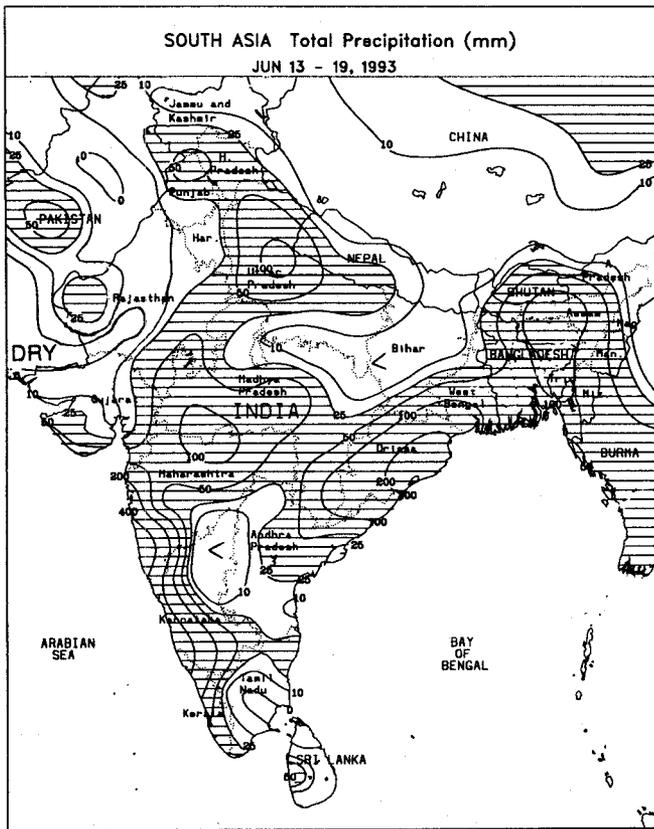
EUROPE: Widespread showers and locally heavy rain covered most crop areas, but rainfall was light over chronically dry Hungary. Weekly totals averaged 7 mm or less throughout most of Hungary, where immature winter grains and summer crops have been stressed by heat and dryness this spring. In contrast, rainfall averaged 10-30 mm, with numerous 30-60 mm amounts, from Poland to England. The moisture helped filling winter crops and vegetative growth of summer crops in the north-central and northeastern crop areas of Europe, and maintained adequate to abundant moisture in the northwest. Mostly light to moderate showers (5-20 mm, with scattered 20-30 mm amounts) benefited corn development in France and Romania. Dry weather prevailed over the Iberian Peninsula, favoring the winter grain harvest, and most of Italy and Greece. In Scandinavian crop areas, beneficial rain fell in southern Finland (15-69 mm) and southern Sweden (10-23 mm). Variable showers fell in southeastern Norway and Denmark, but mostly light rain (1-9 mm) fell in Jutland.



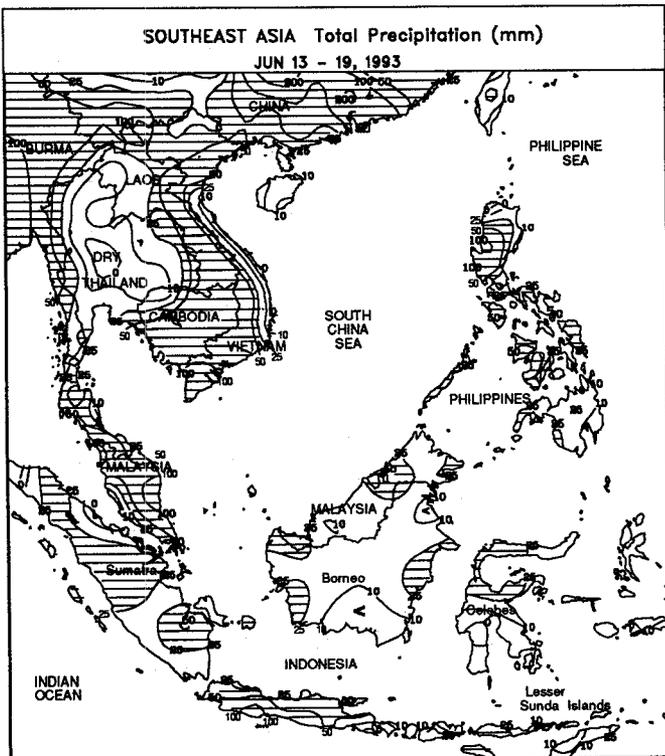
AUSTRALIA: Seasonably dry weather prevailed across southern Queensland and New South Wales, allowing winter wheat planting to progress. However, subsoil moisture remained limited in southern Queensland. Light rain (4-17 mm) fell across Victoria and South Australia, moistening topsoils. Western Australia received light to moderate showers (5-25 mm), keeping topsoils moist for germinating wheat. Temperatures averaged near normal in the west and 1-2 degrees C above normal in the east.



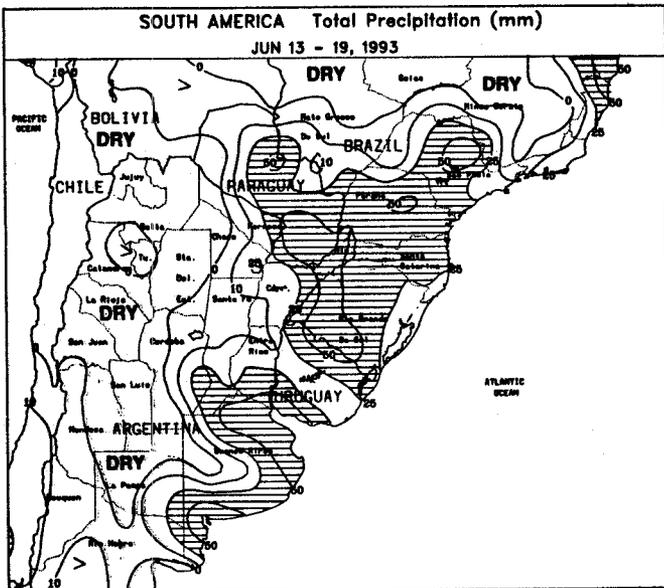
EASTERN ASIA: Across Manchuria, beneficial rain (16-60 mm, with isolated amounts greater than 100 mm) continued to favor vegetative soybeans, corn, and spring wheat. Scattered rains (4-30 mm) fell across the North China Plain, favoring vegetative summer crops but slowing winter wheat harvesting. Maximum temperatures ranged from 30 to 35 degrees C, aiding wheat maturation and drydown. However, in portions of central China (Henan and Hubei) maximum temperatures ranged from 34 to 39 degrees C and, coupled with somewhat dry conditions, stressed rainfed grains. This region only received 4-20 mm of rain for the week, where normal weekly amounts ranged from 15 to 45 mm. Widespread showers (20-110 mm, with isolated amounts greater than 150 mm) covered southern China, keeping reservoir supplies plentiful, but causing some local flooding. In Guangdong, heavy showers (61-200 mm) caused further flooding. Temperatures averaged 2-4 degrees C above normal across the North China Plain and central China, while near-normal temperatures occurred elsewhere.



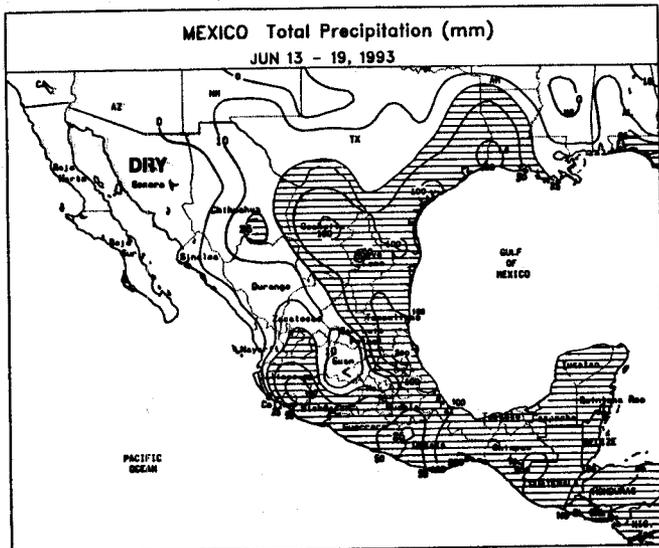
SOUTH ASIA: The southwest monsoon advanced northward, bringing widespread rain to most grain, oilseed, and cotton areas. In central India, moderate to heavy showers (25-114 mm) improved planting prospects in primary rainfed sorghum, cotton, groundnut, and soybean regions. Light to moderate showers (15-53 mm) benefited vegetative crops over India's southern interior, but inundating rains (200-400 mm or more) flooded rice areas along the southwest coast. To the east, locally heavy showers (100-200 mm or more), partly caused by a cyclone in the northern Bay of Bengal, brought additional flooding to Bangladesh and India's eastern rice-producing states. Variable rainfall (10-50 mm, with local areas exceeding 100 mm) in northern Pakistan and India brought some relief from the recent heat wave. The monsoon should become established in the far north by mid-July.



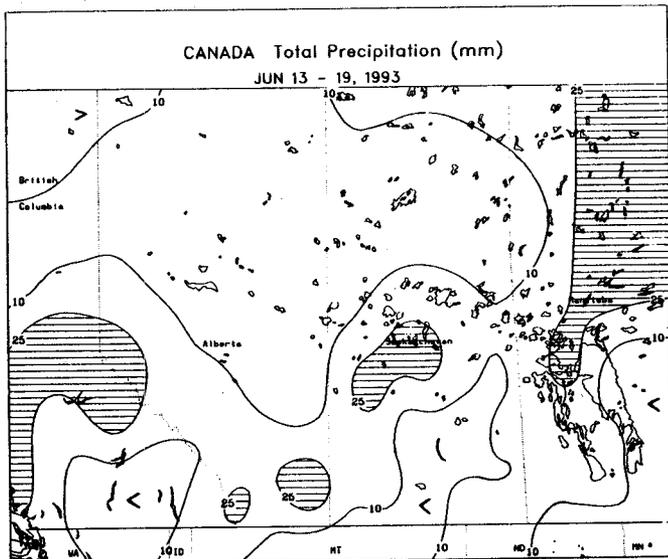
SOUTHEAST ASIA: Mostly dry, warmer-than-normal weather dominated Thailand's rainfed rice and corn areas, reducing moisture for vegetative to reproductive crops. Rainfall was generally less than 15 mm, with scattered moderate showers (25-50 mm or more). A large part of the corn belt reported no rain. Elsewhere in Indochina, showers were highly variable, with moderate to heavy rain (50-245 mm) covering Vietnam's northern and southern rice deltas. Dry weather dominated many Malaysian crop areas, but moderate showers (25-69 mm) covered most Javan rice areas, boosting irrigation for dry-season crops. Scattered showers (10-50 mm) fell over the central and southern Philippines, but heavy rain (50-156 mm) covered rice areas north of Manila. The rainfall, caused partly by a tropical depression, was still below normal across the islands, doing little to improve crop prospects.



SOUTH AMERICA: Early-week moderate to heavy showers (30-70 mm) fell across northern and eastern Buenos Aires, delaying soybean and corn harvesting and producing additional flooding. The rains produced abundant subsoil moisture for winter wheat, but delayed wheat planting. Drier weather prevailed during the remainder of the week, allowing some drying to occur. By mid-week, a cool air mass dominated central Argentina, producing scattered freezing temperatures (minimum temperatures ranging from 2 to -2 degrees C). Across southern Brazil, moderate to heavy showers (20-75 mm) fell from Rio Grande do Sul northward into southern Sao Paulo, keeping soil moisture favorable for vegetative wheat, but slowing coffee and citrus harvesting. Minimum temperatures remained above freezing for the week.



MEXICO: After a slow start to the rainy season, two tropical storms brought widespread showers to portions of Mexico. Tropical Storm Beatriz formed in the eastern Pacific and made landfall on the 19th, about 150 miles east of Acapulco in Oaxaca Province. Beatriz had sustained winds of 50-55 knots (56-62 mph) at landfall and produced moderate to heavy showers (25-64 mm, with isolated amounts over 100 mm) across southern Mexico. The moisture benefited germinating corn that had experienced previous dryness. Moisture from Tropical Storm Arlene, which struck southern Texas, brought heavy showers (27-125 mm) to northeastern Mexico, favoring reservoir levels and rainfed grains, but producing flooding in the higher elevations. Despite the moisture from these two storms, portions of the central corn belt received less than 10 mm of rain. Early-week showers (10-50 mm) benefited germinating corn across the western corn belt.



CANADA: Beneficial rain (10-48 mm) continued across the Prairies, helping to establish spring wheat and canola. However, dry pockets (rainfall totaling less than 10 mm) persisted in northern Alberta and southern Saskatchewan. These areas need rain soon for normal crop development. Temperatures averaged near normal over Alberta and western Saskatchewan, but below normal to the east, with scattered frost possible in eastern Saskatchewan. In Ontario, seasonally warmer but drier-than-normal weather (3-17 mm) aided winter wheat development and corn germination and establishment.

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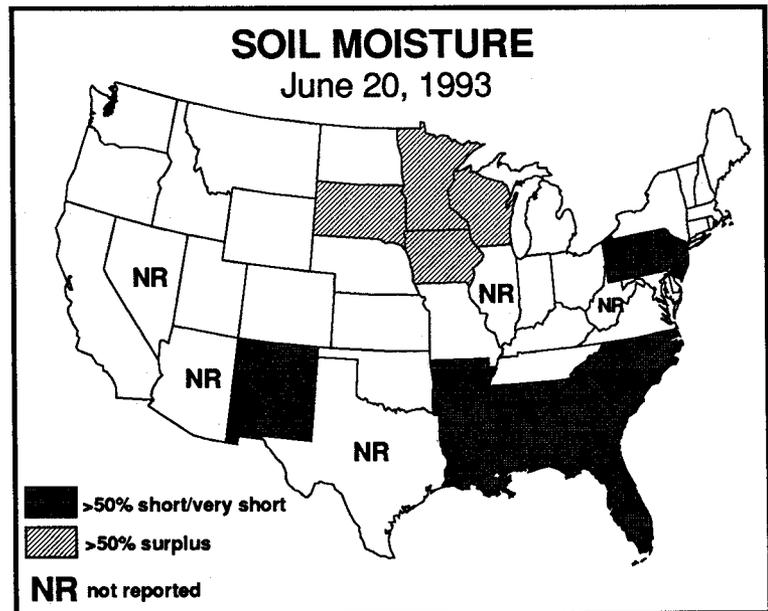
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U.S. Soil Moisture Map

The map depicts those States reporting extremes of wetness and dryness as reported by the USDA State Statistical Offices on pages 13-19 of this week's Bulletin. Unlike the routinely-published moisture maps (Palmer and Crop Moisture Indices), which are based on formulas using rainfall and temperature, the USDA reports come from individuals subjectively observing the top few inches of soil. For those States that report, soil moisture is characterized as "very short," "short," "adequate," and "surplus." The reports are consolidated to indicate the percent of the State falling within each category. The map depicts with shading those States where the two driest categories (very short and short) combined exceed 50 percent of the area and the wettest category (surplus) exceeds 50 percent.



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