

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

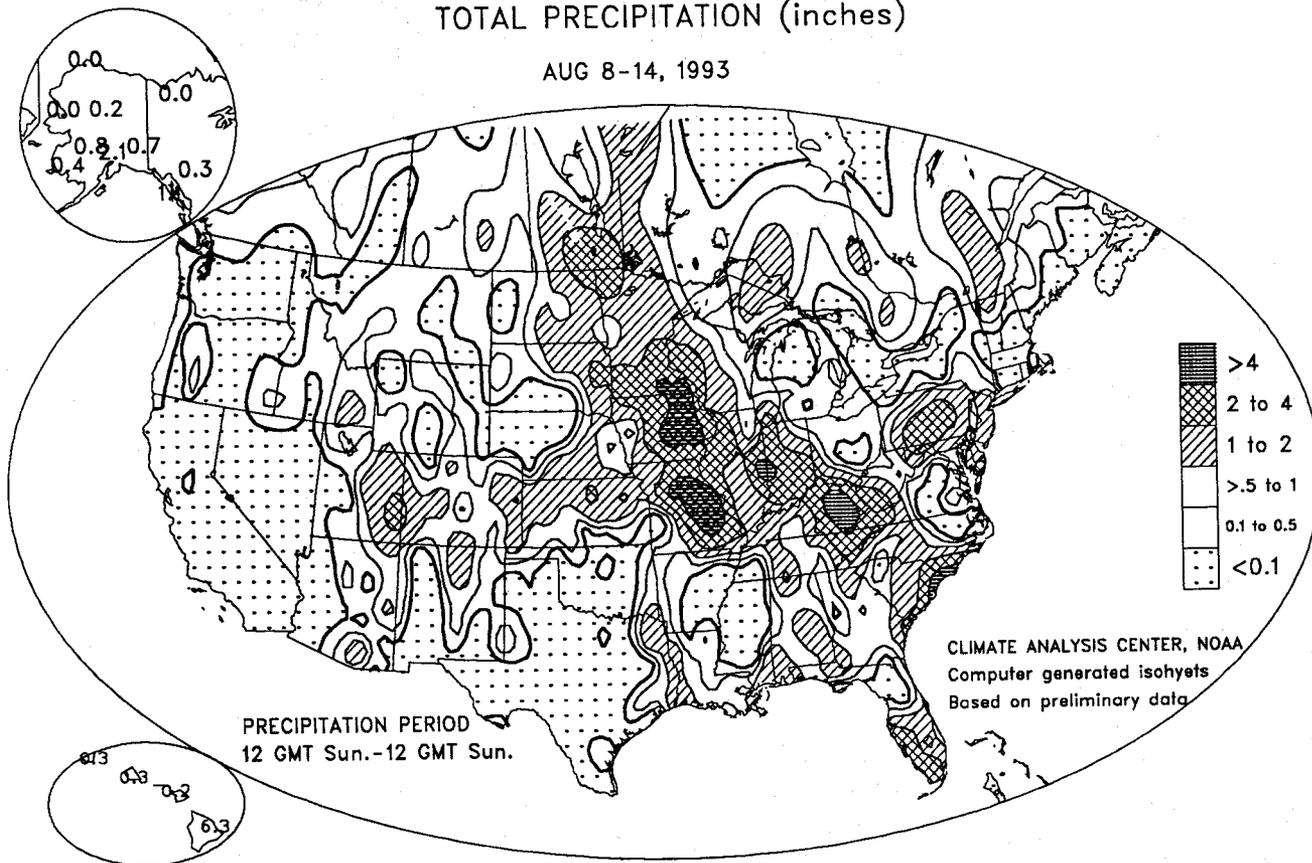
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August 17, 1993

TOTAL PRECIPITATION (inches)

AUG 8-14, 1993



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

PRECIPITATION PERIOD
12 GMT Sun.-12 GMT Sun.

HIGHLIGHTS

August 8 - 14, 1993

The weather pattern reversed itself from the previous week, with heavy rains returning to the rain-soaked middle and upper Mississippi and middle Missouri Valleys, and above-normal temperatures dominating the Plains and Great Lakes States, while cool weather prevailed in the West. Thunderstorms brought renewed river rises and 3 to 7 inches of rain from southeastern Minnesota south through central and eastern Iowa, much of Missouri, and western Illinois. Heavy rains (2-3 inches) also soaked large parts of Indiana, Kentucky, Pennsylvania, and Florida. The weather highlight of the week took place late Wednesday as a large cluster of thunderstorms developed over the middle Mississippi Valley, dumping heavy rain as it rolled southeastward

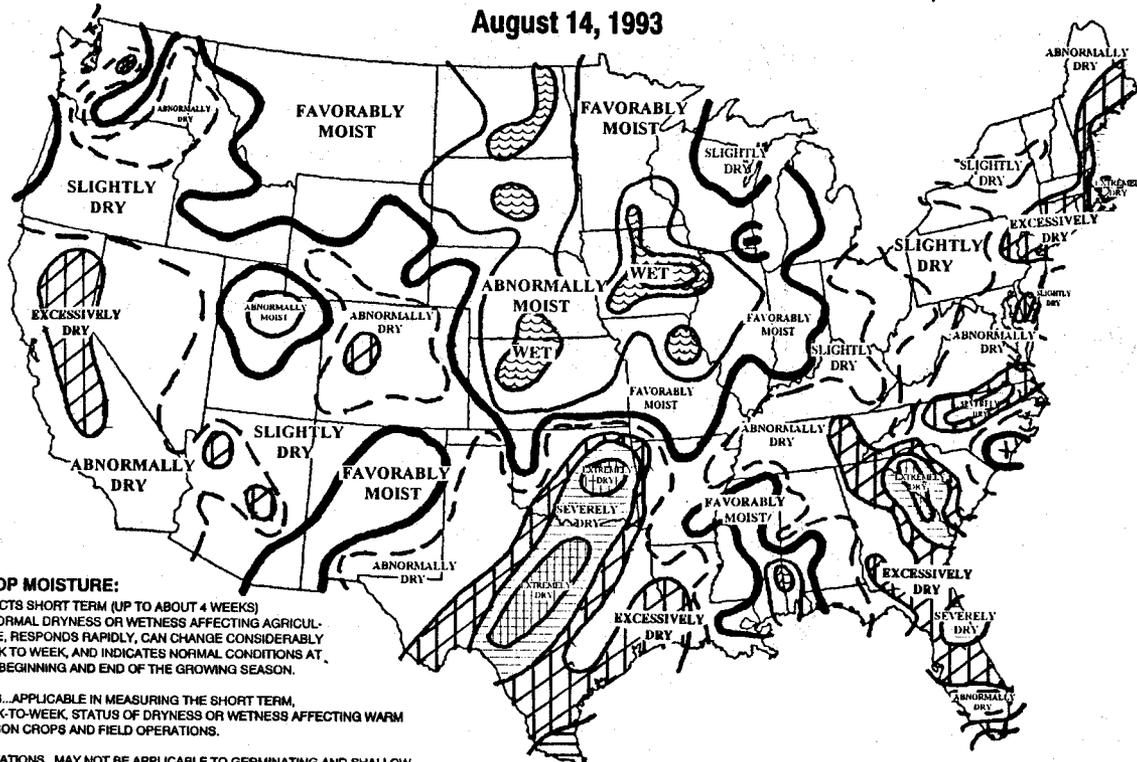
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CROP MOISTURE
(SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)
August 14, 1993



CROP MOISTURE:

DEPICTS SHORT TERM (UP TO ABOUT 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK, AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.

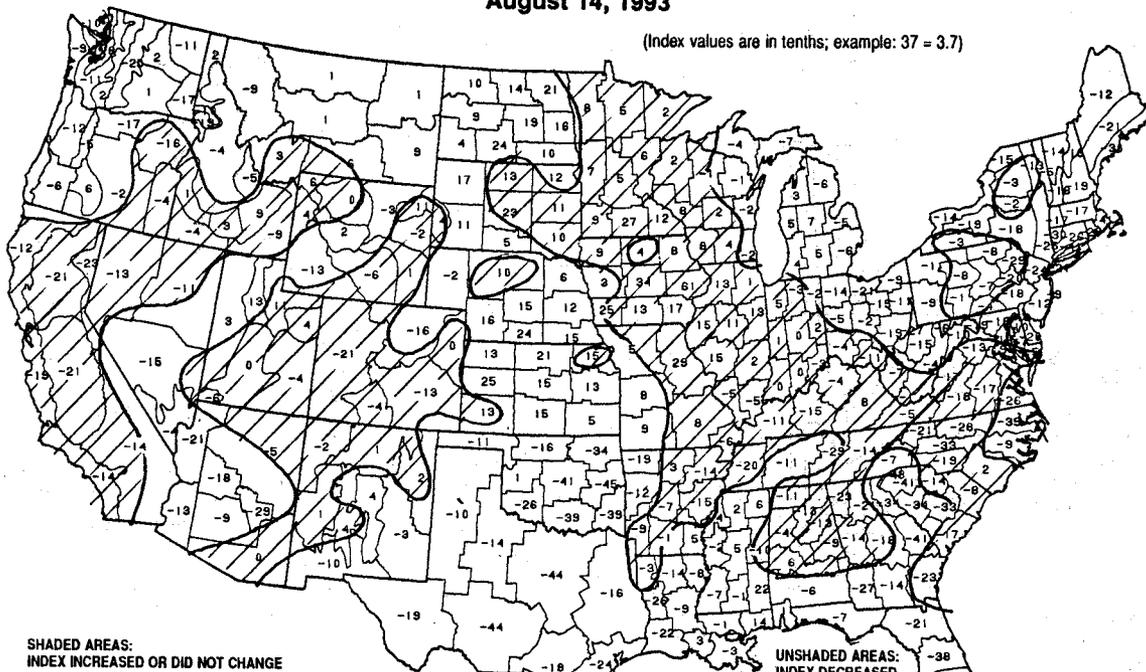
USES...APPLICABLE IN MEASURING THE SHORT TERM, WEEK-TO-WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS.

LIMITATIONS...MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 5-FOOT PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 64°F. IT IS NOT GENERALLY INDICATIVE OF THE LONG TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY Based on preliminary reports

CROP MOISTURE INDEX
(SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)
August 14, 1993

(Index values are in tenths; example: 37 = 3.7)



SHADED AREAS:
INDEX INCREASED OR DID NOT CHANGE

- ABOVE 3 EXCESSIVELY WET; SOME FIELDS FLOODED
- 2 TO 3 TOO WET; SOME STANDING WATER
- 1 TO 2 PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET
- 0 TO 1 MOISTURE ADEQUATE FOR PRESENT NEEDS
- 0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED
- 1 TO -2 SOME IMPROVEMENT BUT STILL TOO DRY
- 2 TO -3 DROUGHT EASED BUT STILL SERIOUS
- 3 TO -4 DROUGHT CONTINUES; RAIN URGENTLY NEEDED
- BELOW -4 NOT ENOUGH RAIN; STILL EXTREMELY DRY

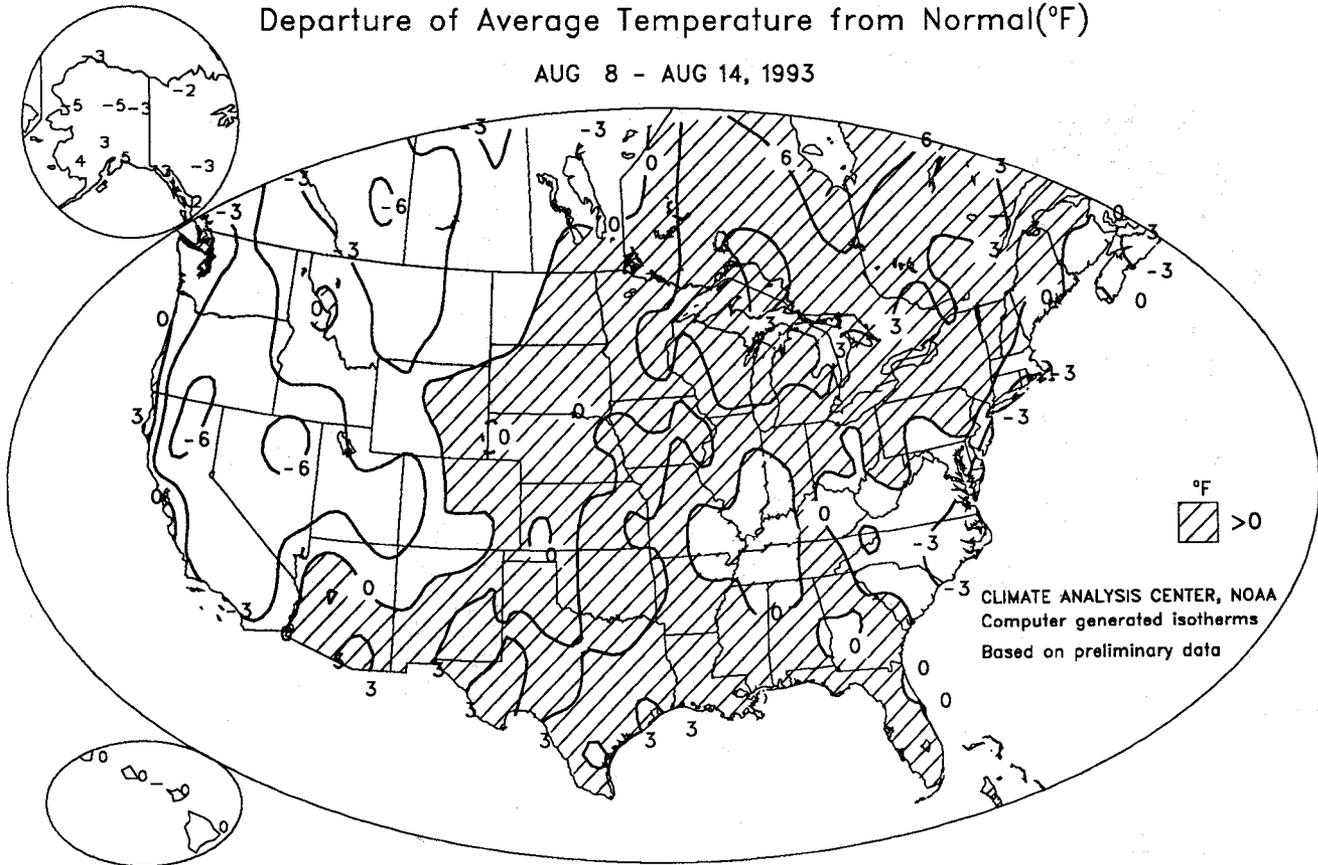
UNSHADED AREAS:
INDEX DECREASED

- ABOVE 3 SOME DRYING BUT STILL EXCESSIVELY WET
- 2 TO 3 MORE DRY WEATHER NEEDED; WORK DELAYED
- 1 TO 2 FAVORABLE, EXCEPT STILL TOO WET IN SPOTS
- 0 TO 1 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK
- 0 TO -1 TOPSOIL MOISTURE SHORT; GERMINATION SLOW
- 1 TO -2 ABNORMALLY DRY; PROSPECTS DETERIORATING
- 2 TO -3 TOO DRY; YIELD PROSPECTS REDUCED
- 3 TO -4 POTENTIAL YIELDS SEVERELY CUT BY DROUGHT
- BELOW -4 EXTREMELY DRY; MOST CROPS RUINED

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY Based on preliminary reports

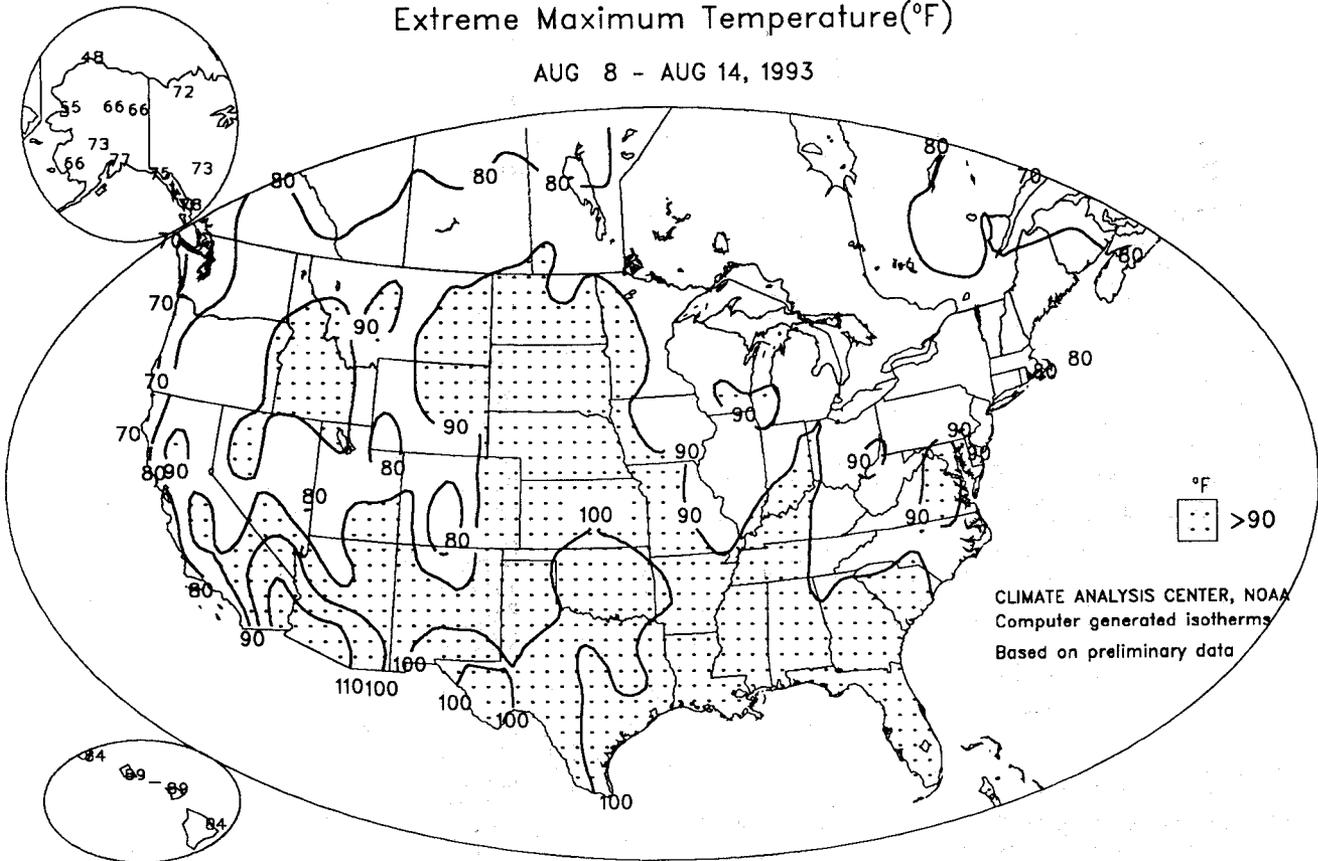
Departure of Average Temperature from Normal(°F)

AUG 8 - AUG 14, 1993



Extreme Maximum Temperature(°F)

AUG 8 - AUG 14, 1993



CUMULATIVE GROWING DEGREE DAYS (CORN*) April 1 - August 14, 1993

STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL
AL ANNISTON	2981	+ 10	SALINA	2516	- 100	HOBART	2938	- 44
BIRMINGHAM	3014	- 18	TOPEKA/BILLARD	2471	- 99	MCLESTER	3173	+ 119
MOBILE	3271	- 165	WICHITA	2612	- 124	PONCA CITY	2937	+ 43
MONTGOMERY	3165	+ 66	KY LEXINGTON	2541	+ 65	TULSA	2909	- 116
MUSCLE SHOALS	3017	+ 79	BOWLING GREEN	2725	+ 48	OR BAKER	1358	- 148
OZARK	3221	+ 12	PADUCAH	2861	+ 82	EUGENE	1496	- 30
TUSCALOOSA	3131	- 3	LA LAFAYETTE	3403	- 55	NORTH BEND	1127	+ 259
AZ DOUGLAS	2940	+ 184	LAKE CHARLES	3466	- 55	PENDLETON	1755	- 154
FLAGSTAFF	1728	+ 203	MONROE	3270	+ 3	REDMOND	1333	+ 88
PHOENIX	4040	+ 503	NEW ORLEANS	3344	- 122	PORTLAND	1652	+ 128
TUCSON	3458	+ 222	SHREVEPORT	3236	+ 54	SALEM	1631	- 295
YUMA	4056	+ 410	ME AUGUSTA	1694	+ 131	SEXTON SUMMIT	869	+ 232
AR PRESOTT	2365	+ 313	CARIBOU	1341	+ 130	PA ALLENTOWN	2335	+ 490
EL DORADO	3096	- 28	HOULTON	1373	+ 43	PHILADELPHIA	2702	+ 230
FAYETTEVILLE	2736	+ 75	PORTLAND	1615	+ 166	WILLIAMSPORT	2257	+ 154
FORT SMITH	3034	+ 32	MD SALISBURY	2583	+ 162	SC BEAUFORT	3405	+ 129
JONESBORO	2974	- 53	MA WORCESTER	1733	+ 60	CHARLESTON	3310	+ 72
LITTLE ROCK	3081	+ 59	MI JACKSON	1880	- 51	COLUMBIA	3165	+ 169
TEXARKANA	3180	- 58	LANSING	1869	- 79	FLORENCE	3260	+ 56
CA BAKERSFIELD	2944	- 28	MUSKEGON	1803	+ 76	SUMTER/SHAW AFB	3136	- 34
BLUE CANYON	1231	- 203	PELLSTON	1414	+ 10	SD ABERDEEN	1749	- 198
DAGGETT	3250	+ 86	SAULT STE. MARIE	1097	- 68	HURON	1775	- 189
EUREKA	1089	+ 503	TRAVERSE CITY	1678	+ 71	PIERRE	1780	- 291
FRESNO	2844	+ 209	MN DULUTH	1071	- 166	RAPID CITY	1519	- 201
MARYSVILLE	2669	+ 148	INT'L FALLS	1259	- 119	STIOUX FALLS	1823	- 269
MERCED	2667	+ 167	ALEXANDRIA	1510	- 188	WATERTOWN	1483	+ 81
MT SHASTA	1319	- 238	MS BILOXI	3476	- 41	TN BRISTOL	2536	+ 176
PASO ROBLES	2252	+ 140	COLUMBUS	3070	+ 27	CHATTANOOGA	3000	+ 313
RED BLUFF	2564	- 112	JACKSON	3206	+ 95	CROSSVILLE	2544	+ 32
RIVERSIDE	2715	+ 271	MERIDIAN	3180	+ 39	MEMPHIS	3169	+ 36
SANTA ANA	2827	+ 525	GREENWOOD	3194	- 12	NASHVILLE	2889	+ 32
SAN DIEGO	2398	+ 223	MO COLUMBIA	2486	+ 28	TX ABILENE	3275	+ 29
SACRAMENTO	2382	+ 75	JOPLIN	2729	- 51	AMARILLO	2608	+ 22
THERMAL	3523	- 16	SPRINGFIELD	2597	+ 10	AUSTIN	3525	- 26
CO ALAMOSA	1487	- 40	VICHY	2593	+ 4	BROWNSVILLE	3891	+ 35
DENVER	1968	+ 14	HELENA	1283	- 177	COLLEGE STATION	3422	+ 131
EAGLE	1463	- 158	KALISPELL	1231	- 234	DALHART	2492	+ 94
GRAND JUNCTION	2277	- 129	MILES CITY	1617	- 278	DALLAS/FT WORTH	3408	+ 111
LA JUNTA	2381	- 36	NE GRAND ISLAND	2087	- 169	GALVESTON	3811	+ 112
DE DOVER	2506	+ 12	NORFOLK	2078	- 111	HOUSTON/INTCNTL	3522	+ 98
WILMINGTON	2567	+ 237	NORTH PLATTE	1942	- 101	KINGSVILLE/NAS	3841	+ 183
FL DAYTONA BEACH	3376	- 88	VALENTINE	1806	- 301	LAREDO	3921	+ 189
FORT MYERS	3741	+ 51	SCOTTSDUFF	1835	- 130	LUBBOCK	3033	+ 54
GAINESVILLE	3251	- 166	SIDNEY	1785	- 22	MCALLEN	3947	- 31
JACKSONVILLE	3310	- 101	NV ELKO	1463	- 214	MIDLAND	3174	+ 30
FORT LAUDERDALE	4070	+ 297	ELY	1539	- 28	PALACIOS	3659	+ 41
MIAMI	4025	+ 127	LAS VEGAS	3546	+ 281	SAN ANTONIO	3578	- 53
MILTON	3316	+ 29	RENO	1841	+ 53	VICTORIA	3604	- 63
PENSACOLA	3404	- 88	WINNEMUCCA	1791	- 19	WACO	3407	+ 80
ST PETERSBURG	3735	- 88	NH CONCORD	1896	+ 177	WICHITA FALLS	3108	- 5
TALLAHASSEE	3251	- 78	NJ NEWARK	2761	+ 440	WINK	3257	+ 118
TAMPA	3590	+ 60	NM ALBUQUERQUE	2728	+ 360	VT CEDAR CITY	1966	+ 190
VERO BEACH	3574	+ 1	CARLSBAD	3221	+ 164	BARRRE-MONTPELIER	1554	+ 117
W. PALM BEACH	3807	+ 78	CLOVIS	2693	+ 166	BURLINGTON	1850	+ 231
GA ATHENS	3040	+ 122	GALLUP	2034	+ 71	CHARLOTTESVILLE	2673	+ 278
AUGUSTA	3205	+ 148	TRUTH OR CONSEQ.	2920	+ 169	HAMPTON/LANGLEY	2933	+ 218
BRUNSWICK	3343	- 78	ALBANY	2019	+ 150	LYNCHBURG	2742	+ 142
COLUMBUS/METRO	3255	+ 77	ELMIRA	1927	+ 156	NORFOLK	2924	+ 154
MACON	3197	+ 12	GLENS FALLS	1835	+ 122	RICHMOND	2799	+ 198
SAVANNAH	3376	+ 112	ROCHESTER	1872	+ 42	WA BELLINGHAM	1259	+ 81
ID BOISE	1800	- 134	SYRACUSE	1899	+ 85	HOQUIAM	1136	- 160
BURLEY	1644	- 49	UTICA	1730	+ 30	SEATTLE-TACOMA	1367	+ 48
IDAHO FALLS	1325	- 232	NC WATERTOWN	1680	- 26	SPOKANE	1413	- 93
POCATELLO	1441	- 230	ASHEVILLE	2425	+ 124	TACOMA	1423	- 102
IL BELLEVILLE	2651	+ 59	FAYETTEVILLE	3030	+ 131	WALLA WALLA	1906	- 70
CHICAGO/MIDWAY	2159	- 18	GREENSBORO	2884	+ 212	WENATCHEE	1948	+ 274
DECATUR	2396	- 65	HICKORY	2767	+ 119	YAKIMA	1773	+ 43
PEORIA	2362	+ 107	RALEIGH	2914	+ 169	WV HUNTINGTON	2581	+ 83
ROCKFORD	2096	+ 58	WILMINGTON	3160	+ 110	MARTINSBURG	2331	- 137
SPRINGFIELD	2461	+ 32	NEW BERN	3052	+ 90	MORGANTOWN	2290	+ 16
QUINCY	2360	- 31	ND BISMARCK	1468	- 214	WI EAU CLAIRE	1656	- 135
IN INDIANAPOLIS	2379	+ 49	DICKINSON	1247	- 332	GREEN BAY	1678	+ 7
SOUTH BEND	2092	+ 73	JAMESON	1420	- 232	LACROSSE	1863	- 137
TERRE HAUTE	2458	+ 87	MINOT	1289	- 276	MADISON	1951	- 82
IA DES MOINES	2137	- 185	GRAND FORKS	1518	- 87	WAUSAU	1519	- 159
MASON CITY	1792	- 264	OH AKRON-CANTON	2056	+ 86	CASPER	1574	- 197
OTTUMWA	2258	- 67	COLUMBUS	2268	+ 98	LANDER	1470	- 197
KS CHANUTE	2585	- 110	DAYTON	2272	+ 5	SHERIDAN	1391	- 76
DODGE CITY	2394	- 152	FINDLAY	1969	- 69	WORLAND	1688	
GARDEN CITY	2297	- 208	YOUNGSTOWN	1955	+ 115			
GOODLAND	1989	- 133	ZANESVILLE	2196	+ 78			
MEDICINE LODGE	2734	- 34	OK ALTUS	3078	- 29			
RUSSELL	2387	- 127	GAGE	2708	- 43			

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 August 14, 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			
													90 AND ABOVE								32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	91	69	92	65	80	0	.7	-.1	.7	5.0	47	24.7	68	93	50	6	0	1	1	1				
MOBILE	92	74	94	72	83	0	.5	-1.1	.5	10.4	69	43.4	104	95	59	6	0	1	1	1				
MONTGOMERY	92	71	95	69	82	2	1.2	.2	1.2	11.6	92	33.8	90	94	56	7	0	2	2	2				
AK ANCHORAGE	70	55	77	52	62	5	.8	.3	.7	1.7	43	5.4	71	87	62	0	0	3	1	1				
BARROW	40	31	48	28	36	3	T	.2	T	1.5	89	2.4	98	93	76	0	0	5	0	0				
FAIRBANKS	68	46	71	42	57	3	.1	.3	.1	2.0	49	5.7	88	93	48	0	0	2	2	2				
JUNEAU	68	50	76	47	59	3	.9	.3	.8	5.8	60	29.6	108	97	54	0	0	1	1	1				
KODIAK	67	56	79	53	62	6	.6	.4	.3	6.3	60	38.4	102	87	61	0	0	4	4	0				
NOME	58	44	62	39	51	2	T	.6	T	2.7	60	7.4	95	92	63	0	0	0	0	0				
AZ PHOENIX	107	81	111	78	94	2	.2	.1	.1	.7	15	8.9	223	47	15	7	4	0	0	0				
PRESCOTT	89	61	91	54	75	4	T	.8	T	.7	14	12.6	109	57	26	7	0	0	0	0				
TUCSON	104	72	108	69	88	3	2.9	2.4	1.8	3.8	104	11.2	175	69	26	7	0	0	0	0				
YUMA	109	82	114	77	95	2	.0	.2	.0	.0	0	3.3	217	28	13	0	0	0	0	0				
AR FORT SMITH	97	75	103	68	86	5	T	.7	T	6.2	81	27.9	110	91	48	0	0	2	0	0				
LITTLE ROCK	93	73	98	64	83	2	T	.6	T	7.2	84	28.7	96	88	58	0	0	0	0	0				
CA BAKERSFIELD	92	63	96	58	78	6	T	.0	T	.5	320	6.6	170	57	24	5	0	0	0	0				
EUREKA	67	56	68	53	61	4	.0	.1	.0	1.6	198	29.8	141	87	53	0	0	0	0	0				
FRESNO	92	63	98	59	77	4	.0	.0	.0	1.6	>1000	11.5	165	67	23	0	0	0	0	0				
LOS ANGELES	75	64	76	63	69	1	.0	.0	.0	.7	>1000	18.5	237	88	57	0	0	0	0	0				
REDDING	91	59	94	54	75	5	.0	.1	.0	.7	74	35.3	184	78	21	5	1	0	0	0				
SACRAMENTO	85	56	91	54	70	5	.0	.0	.0	1.3	833	19.1	178	89	33	0	0	0	0	0				
SAN DIEGO	75	65	79	64	70	4	.0	.0	.0	.4	358	15.5	249	82	66	0	0	0	0	0				
SAN FRANCISCO	70	59	74	58	65	1	T	.0	T	.2	133	19.4	158	84	47	0	0	0	0	0				
CO DENVER	86	60	93	58	73	3	.3	.0	.2	3.1	70	8.3	77	79	25	2	2	2	2	0				
GRAND JUNCTION	86	62	93	59	74	4	.6	.4	.3	.7	38	8.2	137	75	28	0	0	0	0	0				
PUEBLO	91	59	95	54	75	0	1.1	.6	.8	5.2	120	10.9	139	85	26	5	0	0	0	1				
CT BRIDGEPORT	80	66	85	62	73	3	.1	.6	.1	3.2	36	19.2	72	84	58	0	0	0	0	0				
HARTFORD	83	60	89	53	72	1	.5	.3	.5	8.1	94	26.9	100	91	46	0	0	0	0	0				
DC WASHINGTON	87	67	92	64	77	2	.9	.0	.4	5.9	66	24.9	104	98	57	1	1	1	1	0				
FL APALACHICOLA	91	74	94	71	83	1	2.8	1.1	2.3	6.1	39	27.1	83	97	60	3	4	0	0	0				
DAYTONA BEACH	90	71	95	70	81	0	.2	-1.2	.2	7.4	53	21.3	75	97	60	0	0	0	0	0				
JACKSONVILLE	91	71	95	68	81	0	.3	-.9	.3	9.1	66	24.2	80	99	59	4	0	0	0	0				
KEY WEST	91	79	93	73	85	1	1.3	.2	.9	4.2	39	20.1	93	80	65	6	0	0	0	0				
MIAMI	90	77	93	74	84	1	2.7	1.0	.7	13.6	75	32.1	95	84	65	4	6	2	0	0				
ORLANDO	93	73	95	72	83	1	.7	-.9	.5	11.8	67	28.5	90	91	51	0	0	0	0	0				
TALLAHASSEE	94	72	96	68	83	1	.6	-1.1	.5	14.9	77	38.1	86	92	48	7	0	0	0	0				
TAMPA	94	75	97	73	84	2	.3	-1.4	.3	7.3	47	21.3	77	89	53	0	0	0	0	0				
WEST PALM BEACH	90	76	94	72	83	1	1.5	.0	.5	9.8	58	35.6	102	91	59	5	5	6	1	0				
GA ATLANTA	89	72	92	70	81	2	T	-.8	T	12.0	116	33.8	99	84	51	3	0	0	0	0				
AUGUSTA	91	71	94	67	81	0	.1	-.9	.1	6.6	63	26.2	86	95	59	4	0	0	0	0				
MACON	90	71	94	67	80	0	.6	-.2	.4	11.4	118	36.0	117	92	54	4	0	0	0	0				
SAVANNAH	90	73	95	71	82	0	1.3	-.5	1.1	8.7	56	30.1	90	91	52	5	5	2	1	4				
HI HILO	82	71	84	69	77	0	6.3	4.1	2.5	33.8	167	67.2	85	95	74	0	0	0	0	0				
HONOLULU	88	75	89	73	82	0	.3	-.2	.3	1.1	82	2.7	22	77	53	0	0	0	0	0				
KAHULUI	88	73	89	70	80	1	.2	.0	.1	1.5	167	6.8	52	82	55	0	0	0	0	0				
LIHUE	85	75	85	75	80	1	.4	.0	.2	2.8	59	8.9	36	80	63	0	0	0	0	0				
ID BOISE	88	58	93	56	73	1	.1	.0	.0	2.8	213	10.8	146	73	22	4	0	0	0	0				
LEWISTON	87	59	92	57	73	2	T	-.2	T	2.8	125	10.2	128	53	21	2	1	0	0	1				
POCATELLO	84	51	91	46	68	2	.7	.6	.6	4.8	246	14.3	185	84	26	1	0	0	0	0				
IL CHICAGO	84	64	90	54	74	2	.2	-.8	.2	15.0	161	30.5	140	95	58	1	0	0	0	0				
MOLINE	86	65	90	57	76	2	3.6	2.6	1.3	22.8	203	39.7	158	95	62	2	2	5	3	3				
PRORIA	84	66	88	55	75	1	2.3	1.6	1.1	18.2	189	35.6	155	96	63	0	0	0	0	0				
QUINCY	84	67	87	59	76	1	.8	.0	.8	12.9	129	23.6	97	88	63	0	0	0	0	0				
ROCKFORD	85	63	89	53	74	2	.8	-.2	.5	16.5	157	32.8	144	97	55	0	0	0	0	0				
SPRINGFIELD	85	67	88	55	76	2	1.5	.7	.9	18.3	216	32.9	148	93	63	0	0	0	0	0				
IN EVANSVILLE	87	67	92	61	77	1	1.2	.4	1.2	8.5	86	26.5	88	91	55	2	0	0	0	0				
FORT WAYNE	84	62	90	54	73	1	.4	-.4	.4	10.9	127	29.9	135	98	61	1	0	0	0	0				
INDIANAPOLIS	83	64	90	56	74	0	1.8	1.0	1.7	12.3	126	28.2	108	94	61	2	0	0	0	0				
SOUTH BEND	85	63	89	54	74	2	1.3	.5	1.2	14.2	148	28.4	119	97	57	0	0	0	0	0				
IA DES MOINES	86	68	89	62	77	4	4.3	3.5	1.3	22.3	219	39.1	177	94	63	0	0	0	0	0				
SIoux CITY	88	66	92	62	77	3	.9	.2	.5	12.7	153	23.1	132	93	66	3	0	0	0	0				
WATERLOO	85	66	89	61	76	4	1.4	.5	.9	23.3	211	38.9	172	95	64	0	0	0	0	0				
KS CONCORDIA	91	69	96	65	80	2	1.6	.8	1.0	25.3	260	36.0	181	96	54	4	0	0	0	0				
DODGE CITY	93	69	95	65	81	1	.7	.0	.7	11.5	150	21.9	142	88	47	6	0	0	0	0				
GOODLAND	90	61	93	57	75	1	.2	-.2	.1	5.8	83	11.3	83	91	33	4	0	0	0	0				
TOPEKA	89	71	95	62	80	3	2.0	1.1	1.0	15.5	143	34.0	149	93	63	4	0	0	0	0				
WICHITA	93	72	99	67	83	4	T	-.8	T	11.9	111	27.5	122	88	47	6	0	0	0	0				
KY BOWLING GREEN	87	66	94	60	77	0	.4	-.5	.3	6.9	65	22.1	67	100	56	2	0	0	0	0				
LEXINGTON	84	65	88	59	74	1	2.5	1.6	1.6	12.2	115	28.5	97	91	59	0	0	0	0	0				
LOUISVILLE	86	68	91	61	77	0	1.3	.5	.8	11.5	119	30.8	105	93	57	2	0	0	0	0				
LA BATON ROUGE	93	73	94	71	83	1	.6	-.8	.6	8.8	63	44.1	111	99	52	7	0	0	0	0				
LAKE CHARLES	94	75	96	74	84	2	.5	-.7	.5	12.3	98	42.9	130	95	52	7	0	0	0	0				
NEW ORLEANS	93	73	97	72	83	1	.4	-1.0	.3	12.0	81	40.3	101	99	61	7	0	0	0	0				
SHREVEPORT	95	74	98	71	85	3	.0	-.6	.0	20.1	217	42.9	137	94	57	6	0	0	0	0				

Based on 1961-90 normals.

Weather Data for the Week Ending August 14, 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
ME CARIBOU	76	55	80	48	66	2	.2	-.7	.2	7.6	86	20.6	98	92	50	0	0	1	0	
ME PORTLAND	76	58	87	54	67	-2	.1	-.7	.1	6.2	79	25.9	99	89	47	0	0	0	0	
MD BALTIMORE	85	63	91	60	74	-2	.4	-.5	.4	6.7	73	27.7	108	96	45	1	0	1	0	
MD SALISBURY	85	63	90	60	74	-2	2.5	1.3	1.6	7.7	74	31.2	109	100	61	1	0	3	2	
MA BOSTON	78	63	82	60	70	-2	.1	-.6	.1	3.8	52	24.5	98	89	56	0	0	1	0	
MA CHATHAM	74	60	79	57	67	-1	.0	-.7	.0	5.1	65	23.1	86	90	59	0	0	0	0	
MI ALPENA	83	56	84	47	70	4	.8	.1	.8	6.8	91	14.9	85	99	52	0	0	2	1	
MI DETROIT	85	65	91	56	75	3	.2	-.6	.2	8.6	103	20.5	101	91	55	2	0	1	0	
MI FLINT	84	62	88	52	73	3	.9	.1	.9	8.8	119	20.3	114	94	56	0	0	1	1	
MI GRAND RAPIDS	84	61	87	53	73	2	.7	.0	.7	11.1	131	25.8	124	96	52	0	0	1	1	
MI HOUGHTON LAKE	83	59	88	48	71	5	.7	-.7	.7	7.4	105	16.1	98	97	49	0	0	0	0	
MI LANSING	84	60	88	50	72	2	.3	-.4	.3	10.8	146	23.2	128	100	55	0	0	1	0	
MI MARQUETTE	76	58	83	53	67	4	1.9	1.2	1.5	7.1	91	19.8	98	95	51	0	0	2	1	
MI MUSKEGON	83	63	91	55	73	4	.7	-.7	.7	10.4	178	22.6	128	99	62	1	0	0	0	
MI SAULT ST. MARIE	80	55	84	47	68	4	.2	-.7	.2	8.0	108	19.1	101	97	59	0	0	1	0	
MN ALEXANDRIA	83	63	93	57	73	3	1.2	.4	1.0	11.6	132	21.4	127	92	51	1	0	3	1	
MN DULUTH	78	58	86	52	68	3	1.5	.6	.8	14.3	156	24.1	131	91	51	0	0	3	2	
MN INT'L FALLS	81	54	90	47	68	2	1.0	.3	1.0	9.8	110	15.4	99	91	46	1	0	2	1	
MN MINNEAPOLIS	85	65	89	61	75	3	2.8	2.0	1.3	14.7	159	23.6	125	90	56	0	0	4	2	
MN ROCHESTER	81	63	86	57	72	3	2.8	1.9	1.0	15.2	156	29.0	151	95	64	0	0	3	3	
MS GREENWOOD	93	72	95	69	83	2	.0	-.6	.0	5.8	59	29.9	85	96	51	7	0	0	0	
MS JACKSON	92	73	95	69	82	1	.0	-.8	.0	12.5	141	32.9	91	98	54	6	0	0	0	
MS MERIDIAN	93	72	95	69	83	1	.7	-.8	.7	9.3	88	38.2	101	95	53	7	0	0	0	
MO CAPE GIRARDEAU	87	68	89	62	77	0	1.3	.6	1.3	9.4	110	30.1	102	94	55	0	0	1	1	
MO COLUMBIA	87	67	89	59	77	1	6.8	6.1	4.3	24.6	273	41.5	174	98	70	0	0	3	3	
MO KANSAS CITY	89	72	95	63	81	3	2.1	1.2	2.0	18.8	173	37.2	157	93	64	4	0	2	1	
MO SAINT LOUIS	88	70	90	65	79	0	3.9	3.3	2.2	16.4	184	36.1	151	88	60	1	0	3	3	
MO SPRINGFIELD	89	70	94	62	79	2	.6	-.3	.6	15.5	158	31.2	120	91	64	3	0	2	1	
MT BILLINGS	81	57	91	53	69	-3	.1	-.1	.1	7.4	223	11.0	106	78	30	2	0	2	0	
MT GLASGOW	82	56	92	50	69	-2	.1	-.3	.0	7.0	156	10.4	127	78	31	2	0	2	0	
MT GREAT FALLS	80	52	90	47	66	-2	.4	.0	.2	7.5	173	16.4	151	88	26	1	0	3	0	
MT HAVRE	80	49	92	41	65	-5	.2	-.1	.2	7.8	211	10.6	135	90	31	2	0	1	0	
MT HELENA	82	52	93	48	67	-2	.6	.3	.4	8.8	251	14.5	180	87	31	2	0	4	0	
MT KALISPELL	81	46	86	43	64	0	.7	-.3	.7	9.6	245	16.7	159	90	29	0	0	0	0	
MT MILES CITY	85	60	92	56	73	-2	.4	.1	.3	11.5	237	16.4	163	85	39	2	0	2	0	
MT MISSOULA	86	50	94	46	68	1	.7	-.2	.7	3.6	113	9.7	108	78	22	2	0	1	0	
NE GRAND ISLAND	89	67	97	63	78	2	3.0	2.3	1.8	18.5	232	27.1	156	95	58	3	0	3	2	
NE LINCOLN	89	68	95	65	79	2	.7	-.8	.7	8.1	94	18.7	100	97	56	4	0	0	0	
NE NORFOLK	89	68	95	65	78	5	.7	-.6	.7	15.9	179	26.1	145	91	55	3	0	0	0	
NE NORTH PLATTE	87	62	94	58	75	2	.1	-.3	.1	13.3	181	20.3	137	93	49	3	0	3	0	
NE OMAHA	88	70	93	66	79	4	1.5	.8	1.1	19.3	225	30.9	161	93	62	2	0	4	1	
NE SCOTTSBLUFF	86	58	91	56	72	-1	.4	.1	.3	10.2	193	16.5	142	90	38	3	0	2	0	
NE VALENTINE	88	62	94	54	75	1	.7	-.6	.7	7.6	94	14.4	90	84	39	3	0	0	0	
NV ELY	83	45	87	35	64	-3	.0	-.2	.0	2.0	102	7.7	120	68	14	0	0	0	0	
NV LAS VEGAS	101	75	105	66	88	-2	.0	-.1	.0	.3	49	4.6	183	20	9	7	0	0	0	
NV RENO	85	51	88	46	68	-3	.0	-.1	.0	.4	41	4.9	104	65	20	0	0	0	0	
NV WINNEMUCCA	88	44	92	41	66	-5	.7	-.1	.7	1.3	95	6.2	120	65	16	4	0	1	0	
NH CONCORD	81	57	88	51	69	0	.0	-.8	.0	4.8	60	15.7	72	94	45	0	0	0	0	
NJ ATLANTIC CITY	80	59	85	55	69	-5	1.9	.9	1.9	5.8	68	24.1	95	99	48	0	0	3	1	
NM ALBUQUERQUE	91	65	97	60	78	1	.3	-.1	.2	1.8	66	4.8	92	67	27	5	0	3	0	
NM CLOVIS	91	66	93	62	78	2	.2	-.5	.2	9.7	142	11.8	107	75	31	4	0	1	0	
NM ROSWELL	97	68	100	67	83	4	.7	-.5	.7	5.6	127	8.1	114	77	24	7	0	0	0	
NY ALBANY	82	62	87	54	72	1	.7	-.8	.7	9.9	118	26.8	120	92	49	0	0	1	0	
NY BINGHAMTON	78	58	82	50	68	0	.5	-.3	.5	8.0	93	25.6	113	93	51	0	0	2	0	
NY BUFFALO	83	62	87	53	73	3	.7	-.9	.7	7.9	93	21.5	97	87	45	0	0	1	0	
NY NEW YORK	82	68	87	64	75	-1	2.7	1.9	1.8	6.6	70	25.2	95	88	60	0	0	4	2	
NY ROCHESTER	83	60	87	53	72	3	.2	-.6	.2	5.1	70	15.7	82	94	43	0	0	2	0	
NY SYRACUSE	82	60	86	55	71	2	.7	-.8	.7	8.8	96	26.8	116	95	47	0	0	2	0	
NC ASHEVILLE	79	62	84	57	71	-2	.3	-.1	.3	7.2	58	27.0	77	98	63	0	0	2	0	
NC CHARLOTTE	86	69	88	65	77	-1	1.4	.5	1.3	4.9	55	26.1	95	89	57	0	0	3	1	
NC GREENSBORO	85	66	90	63	75	-1	1.0	.1	1.0	7.9	78	31.6	116	92	57	1	0	2	1	
NC HATTERAS	83	69	85	64	76	-3	-.1	-.3	.0	6.5	55	28.8	87	89	66	0	0	3	0	
NC NEW BERN	84	68	89	64	76	-3	.5	-.1	.3	11.0	71	32.7	91	96	56	0	0	2	0	
NC RALEIGH	84	65	88	62	75	-3	.4	-.5	.4	4.0	41	25.0	92	95	56	0	0	2	0	
NC WILMINGTON	83	70	88	67	76	-3	3.4	1.8	2.0	15.2	101	38.9	109	98	73	0	0	5	2	
ND BISMARCK	84	57	91	52	71	1	1.4	1.1	1.2	19.9	351	24.5	219	91	40	1	0	3	1	
ND FARGO	85	61	95	47	73	3	.7	-.2	.6	12.9	193	18.1	138	89	43	2	0	2	1	
ND GRAND FORKS	83	59	94	47	71	3	1.0	.5	.5	12.9	194	15.6	128	93	47	1	0	4	0	
ND WILLISTON	82	53	91	47	68	-2	.1	-.2	.1	10.3	207	12.9	130	90	40	2	0	4	0	
OH AKRON-CANTON	84	60	89	53	72	1	-.7	.0	.7	8.4	95	23.6	101	90	42	0	0	2	1	
OH CINCINNATI	85	65	91	60	75	1	2.1	1.3	2.1	8.4	86	24.7	91	87	54	1	0	2	1	
OH CLEVELAND	82	60	86	53	71	0	.3	-.5	.2	9.1	104	24.7	110	92	50	0	0	3	0	
OH COLUMBUS	83	62	89	55	73	2	.2	-.6	.2	9.9	107	26.3	109	91	51	0	0	1	0	
OH DAYTON	83	63	88	56	73	0	.2	-.5	.2	11.5	130	32.8	137	91	52	0	0	2	0	

Based on 1961-90 normals.

Weather Data for the Week Ending August 14, 1993

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS						
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																		.01 INCH OR MORE	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE
TOLEDO	86	61	91	54	74	3	.1	-.7	.1	6.6	77	19.1	93	97	48	2	0	0	0	0	
YOUNGSTOWN	83	55	88	49	69	0	.2	-.5	.2	8.1	85	21.7	93	93	44	0	0	0	0	0	
OK OKLAHOMA CITY	98	74	102	69	86	4	.4	-.5	.4	4.4	55	25.2	118	78	37	7	0	0	0	0	
TULSA	97	76	102	68	86	4	.4	-.6	.4	6.2	71	25.4	101	84	46	6	0	0	1	0	
OR ASTORIA	65	55	68	50	60	-1	.4	.2	.2	5.9	145	34.1	94	93	68	0	0	0	3	0	
BURNS	82	42	86	38	62	-4	.4	-.1	.4	1.1	76	7.7	131	83	27	0	0	0	2	0	
MEDFORD	85	52	88	50	69	-5	.0	-.0	.0	1.9	185	11.7	121	77	28	0	0	0	0	0	
PENDLETON	83	54	86	51	68	-5	.0	-.0	.0	2.2	177	9.6	135	66	26	0	0	0	0	0	
PORTLAND	74	59	79	56	66	-3	.1	-.2	.1	4.2	164	22.0	111	84	45	0	0	0	1	0	
SALEM	76	55	80	49	66	-2	.1	-.0	.1	4.4	199	25.1	119	80	40	0	0	0	1	0	
PA ALLENTOWN	84	62	89	59	73	0	.3	-.7	.3	8.2	84	27.8	103	95	54	0	0	0	1	0	
ERIE	82	64	86	58	73	2	.4	-.9	.4	8.7	94	21.3	91	85	54	0	0	0	0	0	
HARRISBURG	85	66	88	60	76	1	2.0	1.3	1.9	9.1	103	28.6	116	93	48	0	0	0	0	0	
PHILADELPHIA	86	68	90	65	77	3	1.3	.4	1.3	6.5	61	24.7	86	86	46	1	0	0	1	1	
PITTSBURGH	86	61	91	54	73	2	.1	-.6	.1	6.8	76	23.3	97	84	40	2	0	0	2	0	
SCRANTON	83	61	88	53	72	1	.7	-.1	.7	3.9	42	19.9	87	91	44	0	0	0	2	1	
RI PROVIDENCE	80	61	84	56	71	-2	.2	-.6	.2	3.8	47	24.5	89	93	47	0	0	0	1	0	
SC CHARLESTON	89	72	92	69	80	-1	2.2	-.5	1.9	14.1	85	37.3	108	94	64	3	0	0	4	1	
COLUMBIA	90	70	92	66	80	-1	.7	-.7	.4	5.0	38	26.4	79	94	60	3	0	0	5	0	
FLORENCE	89	70	94	68	80	0	2.9	1.8	1.9	9.1	74	24.4	82	95	50	5	0	0	4	2	
GREENVILLE	86	65	90	62	76	-2	.2	-.7	.2	1.4	13	28.4	85	97	57	1	0	0	1	0	
SD ABERDEEN	85	63	94	54	74	3	1.6	.9	.9	15.3	192	21.5	143	93	52	2	0	0	3	2	
HURON	85	64	94	57	74	1	.7	-.2	.7	14.7	210	23.6	161	93	51	2	0	0	2	1	
RAPID CITY	87	59	93	54	73	1	.2	-.2	.1	8.0	136	15.4	124	81	37	4	0	0	2	0	
SIoux FALLS	86	66	91	61	76	3	.2	-.5	.1	14.7	201	29.1	186	90	58	2	0	0	2	0	
TN CHATTANOOGA	91	70	92	65	80	2	.4	-.4	.4	4.9	49	27.9	81	92	52	7	0	0	1	0	
KNOXVILLE	87	67	89	61	77	1	1.5	.8	1.2	6.9	67	25.6	82	97	57	0	0	0	3	1	
MEMPHIS	91	73	93	67	82	0	.0	-.8	.0	8.7	98	28.6	87	85	53	5	0	0	0	0	
NASHVILLE	89	69	92	63	79	0	.6	-.2	.6	10.1	110	29.3	96	87	50	2	0	0	2	1	
TX ABILENE	98	75	99	73	86	2	.0	-.6	.0	5.0	82	11.0	76	67	25	7	0	0	0	0	
AMARILLO	91	65	93	62	78	1	.9	-.2	.9	8.2	105	12.9	97	76	40	5	0	0	1	1	
AUSTIN	100	75	100	74	88	2	.0	-.4	.0	4.0	61	20.9	106	88	35	7	0	0	0	0	
BEAUMONT	96	76	98	74	86	3	2.1	.9	2.1	17.9	135	48.5	143	97	54	7	0	0	1	1	
BROWNSVILLE	96	76	97	75	86	1	.0	-.5	.0	6.7	121	17.1	129	93	48	7	0	0	1	0	
CORPUS CHRISTI	95	75	97	73	85	1	.0	-.7	.0	12.0	172	28.4	170	94	51	7	0	0	0	0	
DEL RIO	100	77	101	76	89	5	.0	-.6	.0	6.3	106	10.1	67	72	37	7	0	0	0	0	
EL PASO	99	71	105	68	85	4	.1	-.3	.1	3.3	113	5.1	113	69	24	7	0	0	2	0	
FORT WORTH	100	78	101	74	89	6	.0	-.4	.0	4.5	71	20.2	90	76	32	7	0	0	0	0	
GALVESTON	93	83	94	82	88	4	.0	-.9	.0	3.4	33	30.1	125	73	62	7	0	0	1	0	
HOUSTON	98	75	100	74	87	4	.0	-.8	.0	12.6	103	43.8	139	93	43	7	0	0	0	0	
LUBBOCK	96	70	98	68	83	4	.0	-.6	.0	5.9	95	10.9	95	63	29	7	0	0	0	0	
MIDLAND	98	69	100	64	83	2	.0	-.4	.0	4.3	114	8.7	105	68	24	7	0	0	0	0	
SAN ANGELO	101	75	102	72	88	5	.0	-.4	.0	2.1	51	9.5	82	69	23	7	0	0	0	0	
SAN ANTONIO	99	77	99	76	88	2	.0	-.5	.0	6.4	92	27.3	145	87	36	7	0	0	0	0	
VICTORIA	98	76	99	75	87	4	.0	-.7	.0	12.5	122	41.2	159	92	45	7	0	0	0	0	
WACO	98	77	99	75	87	1	.0	-.3	.0	3.0	50	19.3	98	80	35	7	0	0	0	0	
WICHITA FALLS	100	73	102	70	87	3	.0	-.5	.0	4.3	66	20.1	102	75	32	7	0	0	0	0	
UT CEDAR CITY	86	57	88	48	72	-1	.0	-.3	.0	1.1	51	7.9	112	48	20	0	0	0	1	0	
SALT LAKE CITY	88	60	92	53	74	-3	.4	-.2	.3	3.0	141	14.5	140	78	31	3	0	0	4	0	
VT BURLINGTON	82	61	85	59	72	2	.9	.0	.7	7.9	88	19.5	95	95	48	0	0	0	2	1	
VA NORFOLK	83	67	87	64	75	-3	.0	-1.1	.0	4.6	41	24.2	84	91	58	0	0	0	0	0	
RICHMOND	87	64	91	61	76	-2	1.6	-.6	.9	7.1	66	29.6	107	95	54	1	0	0	3	1	
ROANOKE	84	62	88	58	73	-3	.3	-.6	.2	4.8	53	25.1	99	95	47	0	0	0	3	0	
WA QUILLAYUTE	64	54	68	51	59	-1	.5	-.1	.4	5.1	76	43.9	76	97	63	0	0	0	3	0	
SEATTLE-TACOMA	70	56	75	51	63	-3	.0	-.2	.0	3.8	139	20.4	104	91	50	0	0	0	0	0	
SPOKANE	81	52	82	47	66	-3	.0	-.2	.0	2.6	113	9.2	94	73	23	0	0	0	0	0	
YAKIMA	83	50	87	45	67	-3	.0	-.1	.0	1.3	155	4.5	100	81	27	0	0	0	0	0	
WV BECKLEY	78	58	83	53	68	-1	1.4	-.6	.6	8.0	79	25.5	95	92	52	0	0	0	3	2	
CHARLESTON	85	63	89	57	74	-1	.8	-.1	.4	8.9	84	24.2	88	99	52	0	0	0	4	0	
HUNTINGTON	85	63	91	57	74	1	1.5	-.7	.7	10.6	101	26.8	96	98	47	1	0	0	4	1	
PARKERSBURG	88	60	93	53	74	0	.0	-.9	.0	5.4	54	23.0	84	95	38	2	0	0	0	0	
WI GREEN BAY	82	62	87	53	72	4	.2	-.6	.2	14.7	184	25.5	146	95	53	0	0	0	1	0	
LACROSSE	83	65	91	58	74	4	.2	-.6	.2	15.4	163	32.3	166	99	58	1	0	0	1	1	
MADISON	86	62	91	54	74	4	.9	-.1	.9	17.1	183	32.4	161	92	53	2	0	0	1	1	
MILWAUKEE	81	65	89	57	73	3	.4	-.5	.4	11.2	134	26.2	129	93	64	0	0	0	1	0	
WAUSAU	82	63	89	54	72	4	.5	-.5	.5	11.8	120	24.7	124	91	53	0	0	0	1	0	
WY CASPER	89	57	95	50	73	3	.5	-.3	.4	4.2	137	11.6	132	75	21	4	0	0	3	0	
CHEYENNE	81	56	89	52	69	1	.2	-.2	.1	5.1	103	11.3	107	75	29	0	0	0	3	0	
LANDER	85	54	91	50	70	-1	.2	-.1	.1	6.2	248	12.7	140	75	25	1	0	0	2	0	
SHERIDAN	84	54	92	50	69	-1	.1	-.1	.1	7.4	214	13.9	140	77	36	1	0	0	2	0	

Based on 1961-90 normals.

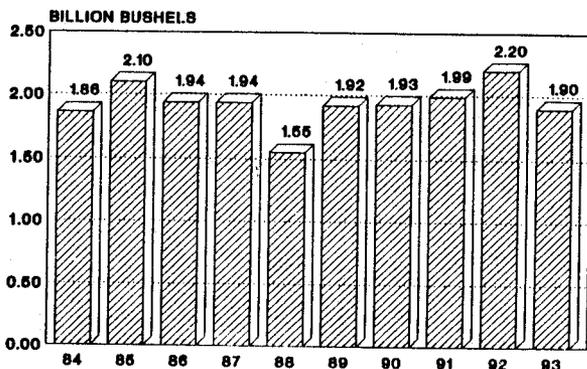
U.S. Crop Forecast

The U.S. Department of Agriculture released the following information on August 11, 1993.

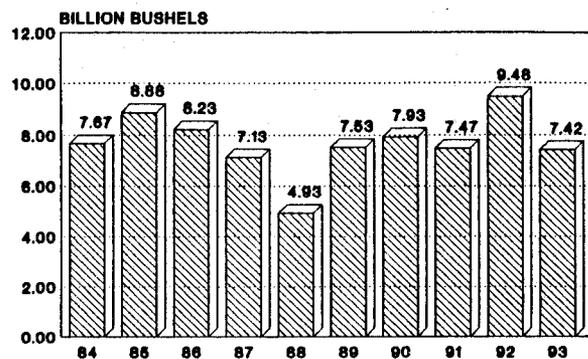
U.S. corn and soybean production prospects have further deteriorated over the past month because of excessive rain and flooding in the western Corn Belt. The 1993/94 soybean crop is forecast at 1.9 billion bushels, 4 percent below last month's indication and 13 percent below 1992/93. The corn crop of 7.4 billion bushels is 5 percent below last month and down 22 percent from 1992/93. Rains and floods also have contributed to lower prospective wheat and sugar beet crops.

Growers in the nine States affected by the recent excessive rains and associated problems (Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, and Wisconsin) are now expected to harvest 145.6 million acres for eight major crops, 7.8 million acres less than estimated in June. Of the total decrease since June, 2.8 million acres were not planted and 5.0 million were lost after planting.

U.S. SOYBEAN PRODUCTION
1984 - 1993

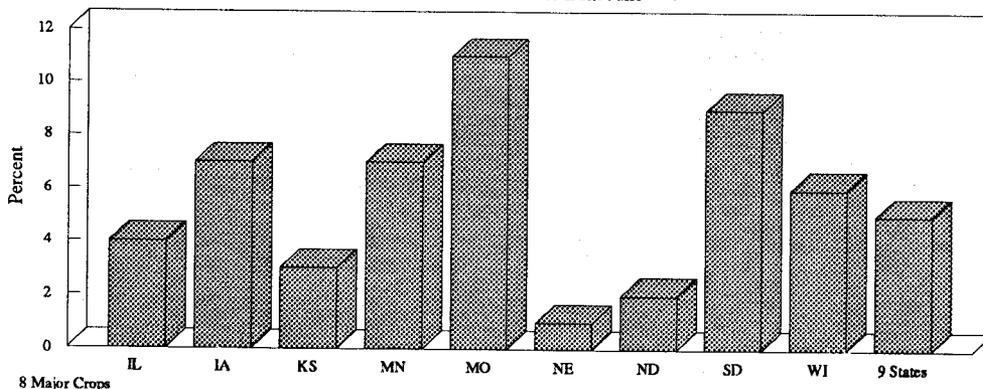


U.S. CORN PRODUCTION
1984-1993



Acres for Harvest Lost

Percent Decrease from June



National Agricultural Summary

August 9 - 15, 1993

HIGHLIGHTS: Rain returned to the central parts of the Nation. However, field work advanced where conditions allowed. Temperatures were above normal for most of the country except in the West, Northwest, and Central Atlantic States. The warm conditions allowed row crops to make good progress across central parts of the Nation. Hot, dry weather continued to stress livestock and crops in the South and Southeast, and deplete moisture in the upper Ohio Valley.

SMALL GRAINS: Winter wheat harvest in the 19 major wheat-producing States advanced to 89 percent (%) complete, compared with 95% by this time in 1992 and average. Dry conditions across the central Great Plains allowed harvest activity to be near completion. However, the late-maturing crop delayed harvest in the Northwest. The spring wheat harvest advanced with 7% of the crop harvested, compared with 13% last year and 58% average. Muddy fields remained a hinderance to the harvest for some producers in South Dakota. Scabbing, stem, leaf, and head diseases reduced the spring wheat condition. Only 54% of the crop rated good to excellent, compared with 70% last week. Wet conditions and a scab outbreak caused an increase in the percentage of acreage rated poor in Minnesota. Harvests of oats, barley, and rye continued across the Nation, but progress in many areas remained behind normal.

CORN: Corn silking in the 17 major producing States advanced to 88%, compared with 95% a year ago and 97% average. Progress lagged in Iowa, Minnesota, Wisconsin, and South Dakota. Corn in the dough stage was at 31%, compared with 40% last year and 56% average. Corn in dent was 8%, compared with 12% last year and 22% average. Dent progress was at or near normal for the crop in the Southeast and Kentucky. The warm weather helped improve the condition of the crop in the central and northern Great Plains, and the upper Mississippi Valley. Excessive rain caused condition to decline in the central Mississippi Valley. Nationally, corn condition was 51% good to excellent, compared with 52% the previous week.

SOYBEANS: Soybean blooming reached 85%, compared with 89% last year and average. Setting pods averaged 53%, compared with 69% a year ago and 70% average. Soybean bloom made good progress in Georgia, Minnesota, and Missouri, while pod setting progressed well in Michigan and Nebraska. In Tennessee, temperate conditions aided pod set and fill, allowing double-cropped soybeans to progress. The crop condition increased slightly, with 47% of the acreage rated good to excellent, compared with 45% last week.

COTTON: Cotton setting bolls in the 14 major producing States reached 90%, compared with 80% last year and 89% average. Boll opening occurred on 10% of the acreage, compared with 9% last year and 10% average. Crop condition declined slightly, with a 2-percentage point increase of the crop rated poor and very poor, more than offsetting a 2-point increase of the crop rated good. Non-irrigated fields in Georgia and some Texas fields remained stressed by the dry conditions. Higher temperatures and previous week's precipitation benefited the Tennessee crop. White fly problems occurred on cotton in Arizona and California.

SORGHUM: Grain sorghum headed in the 12 major producing States (excluding New Mexico) reached 67%, compared with 66% last year and 72% average. Grain sorghum coloring averaged 32%, compared with 34% last year and 36% average. Sorghum heading made good progress in the central Great Plains, while sorghum coloring progress advanced rapidly in the lower Mississippi Valley. Harvest advanced in Texas. Yields in the Texas Blacklands may be

affected by midge. Sorghum condition improved slightly, due to a 1-point increase in the acreage rated excellent.

RICE: Rice head in the five major producing States reached 64%, compared with 82% last year and 68% average. Progress of the rice harvest reached 7%, compared with 11% last year and average. Harvest continued in Texas under good conditions. Cool nights slowed rice development in California. Rice condition declined slightly this week with 73% good to excellent, compared with 74% last week.

OTHER FIELD CROPS: Dry conditions stressed peanuts in parts of Texas and Florida. Scattered showers benefited the peanut crop in Georgia. Insect problems were reported in some peanut fields in Georgia and Virginia. Previous wet conditions caused sprouting in some grass seed fields in Oregon. Black shank disease and dry conditions continued to plague the tobacco crop in Kentucky. Rain was needed for the dry bean crop in New York. The drier conditions allowed the hay harvest to advance nationally. The combination of scattered showers and higher temperatures raised prospects for another cutting in some areas. Dry conditions in Ohio, however, have some producers concerned about the prospects of a third cutting. Safflower, sugarbeet, and garbanzo bean harvests advanced in California.

FRUIT AND NUTS: Conditions over the Florida citrus areas helped the development of the new crop. In California, citrus groves were treated for pests. The California lemon harvest began. The apple harvest began along the east coast and continued in California. Peach harvest neared completion in the South and Southeast. Grapes in the Finger-Lakes area of New York showed considerable moisture stress. Grape growers in California cultivated their orchards and treated for pests. Pecans sized well in the Trans-Pecos region of Texas; however, rain was needed across Texas, as many trees were stressed due to lack of moisture. Early almond harvest began in California.

VEGETABLES: Dry conditions delayed laying of plastic in southwest Florida. Dry conditions stressed squash and pumpkins in Ohio and sweetpotatoes in parts of Texas. Dry conditions also slowed the vegetable harvest in some areas of Texas, while rain stopped harvesting in other areas. Unfavorable marketing conditions slowed the broccoli harvest in California. Heavy aphid infestation and market conditions troubled melon growers in the San Joaquin Valley. The California processing-tomato harvest moved toward its peak.

PASTURE AND LIVESTOCK: Although scattered showers occurred over the Southeast, pasture conditions remained fair to poor. The drier conditions over the Great Plains caused pasture conditions to decline, but it still rated good. Pastures in the West remained generally fair. Pastures in Texas needed rain. Supplemental feeding continued where pasture grasses were short and feed supplies were adequate. Some higher-than-normal cattle culling occurred in Virginia. Warmer weather stressed poultry and livestock, especially in the South. However, livestock condition across the Nation remained generally good.

Crop Progress

for the Week Ending August 15, 1993

COTTON (Percent Setting Bolls)

	Current	Last Wk	1992	Avg.
AL	92	85	97	98
AZ	100	100	100	100
AR	98	95	100	99
CA	95	90	100	99
GA	100	100	99	99
LA	96	94	100	96
MS	99	92	99	98
MO	100	100	100	99
NM	96	93	88	92
NC	90	88	83	87
OK	96	86	55	77
SC	99	90	95	92
TN	100	99	99	96
TX	80	73	57	79
14 States	90	85	80	89

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

COTTON (Percent Bolls Opening)

	Current	Last Wk	1992	Avg.
AL	8	4	3	9
AZ	40	28	34	36
AR	0	0	3	1
CA	5	3	10	5
GA	5	3	4	6
LA	6	1	14	8
MS	3	1	3	5
MO	2	0	0	2
NM	0	0	0	0
NC	1	0	2	6
OK	4	0	1	0
SC	3	1	0	6
TN	0	0	2	3
TX	16	11	13	14
14 States	10	6	9	10

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

SPRING WHEAT (Percent Harvested)

	Current	Last Wk	1992	Avg.
ID	2	1	46	36
MN	7	4	7	64
MT	0	0	6	40
ND	1	0	9	56
SD	34	13	33	82
5 States	7	3	13	58

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

SOYBEANS (Percent Blooming)

	Current	Last Wk	1992	Avg.
AL	69	60	71	73
AR	69	50	79	61
GA	80	60	87	84
IL	91	87	95	96
IN	97	93	98	97
IA	84	74	98	99
KS	85	80	85	85
KY	75	68	79	78
LA	84	75	93	80
MI	95	85	90	90
MN	85	58	69	93
MS	79	59	85	75
MO	84	69	89	84
NE	91	78	99	100
NC	62	50	55	60
OH	99	96	97	93
SC	67	55	71	67
SD	58	40	89	94
TN	76	65	81	69
19 States	85	73	89	89

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

SOYBEANS (Percent Setting Pods)

	Current	Last Wk	1992	Avg.
AL	47	36	46	45
AR	36	19	54	34
GA	48	28	61	53
IL	65	46	81	85
IN	68	44	72	70
IA	56	33	83	89
KS	55	40	60	65
KY	36	25	38	36
LA	66	49	79	55
MI	60	30	40	50
MN	37	21	77	87
MS	48	26	62	50
MO	50	36	66	61
NE	55	25	69	74
NC	35	19	32	33
OH	70	60	68	74
SC	32	25	36	30
SD	32	23	66	78
TN	39	25	48	37
19 States	53	35	69	70

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

RICE (Percent Headed)

	Current	Last Wk	1992	Avg.
AR	60	35	83	59
CA	45	15	55	41
LA	79	73	90	85
MS	58	45	85	74
TX	81	72	90	97
5 States	64	45	82	68

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

RICE (Percent Harvested)

	Current	Last Wk	1992	Avg.
AR	0	0	0	0
CA	0	0	0	0
LA	26	15	35	32
MS	1	1	0	0
TX	17	8	29	36
5 States	7	4	11	11

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

CORN (Percent Silking)

	Current	Last Wk	1992	Avg.
CO	82	75	81	86
GA	100	100	100	100
IL	99	94	100	99
IN	99	96	97	97
IA	78	55	99	99
KS	99	96	96	99
KY	99	98	99	98
MI	95	80	85	95
MN	75	45	90	96
MO	94	79	100	98
NE	94	84	99	99
NC	98	97	98	99
OH	98	93	98	95
PA	84	71	76	76
SD	61	36	82	92
TX	100	98	98	100
WI	68	40	75	87
17 States	88	74	95	97

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

CORN (Percent Dough)

	Current	Last Wk	1992	Avg.
CO	17	11	18	28
GA	100	99	100	99
IL	52	33	72	75
IN	56	25	56	63
IA	8	0	23	43
KS	60	40	60	80
KY	85	62	86	69
MI	2	0	1	15
MN	5	0	5	40
MO	51	36	73	78
NE	28	13	39	60
NC	87	79	77	88
OH	42	25	46	54
PA	24	11	14	24
SD	8	1	17	57
TX	86	80	84	91
WI	7	3	11	33
17 States	31	18	40	56

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

CORN (Percent Dent)

	Current	Last Wk	1992	Avg.
CO	0	NA	0	1
GA	94	NA	99	95
IL	10	NA	22	32
IN	4	NA	10	21
IA	0	NA	3	17
KS	15	NA	15	40
KY	42	NA	50	37
MI	0	NA	0	2
MN	0	NA	0	12
MO	19	NA	34	47
NE	0	NA	4	15
NC	69	NA	67	69
OH	3	NA	4	15
PA	1	NA	1	4
SD	0	NA	8	15
TX	67	NA	68	75
WI	1	NA	2	9
17 States	8	NA	12	22

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

**SORGHUM
(Percent Headed)**

	Current	Last Wk	1992	Avg.
AR	88	71	98	85
CO	43	38	27	42
IL	79	62	87	75
KS	50	25	40	55
LA	95	93	100	91
MS	89	74	99	94
MO	71	56	87	78
NE	49	18	67	76
NM	60	49	56	NA
OK	70	46	45	60
SD	25	10	32	61
TX	86	79	80	83

12 States 67 50 65 NA

Excl. States with NA 67 50 66 72

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

**SORGHUM
(Percent Coloring)**

	Current	Last Wk	1992	Avg.
AR	38	20	69	45
CO	5	0	6	5
IL	6	3	30	23
KS	3	1	3	10
LA	61	38	84	65
MS	68	39	74	61
MO	16	7	34	30
NE	0	0	2	10
NM	5	3	0	NA
OK	17	9	11	23
SD	0	0	0	14
TX	71	66	68	67

12 States 32 27 34 NA

Excl. States with NA 32 27 34 36

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

**WINTER WHEAT
(Percent Harvested)**

	Current	Last Wk	1992	Avg.
AR	100	100	100	100
CA	99	99	99	99
CO	96	94	96	95
GA	100	100	100	100
ID	13	6	77	52
IL	99	97	99	100
IN	100	100	100	100
KS	99	96	100	100
MI	99	97	95	99
MO	99	95	100	100
MT	5	2	42	68
NE	100	91	100	100
NC	100	100	100	100
OH	100	100	100	100
OK	100	100	100	100
OR	67	37	96	79
SD	86	60	77	95
TX	100	100	100	100
WA	48	39	91	74

19 States 89 85 95 95

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

**Crop Condition
(Percent)**

for the Week Ending August 15, 1993

RICE

State	VP	P	F	G	EX
AR	0	0	6	94	0
CA	0	0	15	85	0
LA	0	0	65	35	0
MS	0	20	39	41	0
TX	0	0	28	72	0
5 State	0	2	25	73	0
Prev Week	0	1	25	74	0
Prev Year	0	0	29	70	1

SPRING WHEAT

State	VP	P	F	G	EX
ID	1	2	19	68	10
MN	7	26	49	18	0
MT	0	7	24	46	23
ND	0	6	34	55	5
SD	0	13	37	46	4
5 State	1	10	35	47	7
Prev Week	1	3	26	57	13
Prev Year	1	4	22	65	8

CORN

State	VP	P	F	G	EX
CO	5	4	13	57	21
GA	13	21	54	12	0
IL	0	1	12	71	16
IN	0	2	24	64	10
IA	2	20	59	18	1
KS	0	0	23	46	31
KY	0	6	48	42	4
MI	1	4	20	55	20
MN	22	37	37	4	0
MO	3	8	46	41	2
NE	0	6	15	71	8
NC	16	46	29	9	0
OH	2	7	24	49	18
PA	3	11	32	42	12
SD	3	15	48	29	5
TX	11	4	22	49	14
WI	2	10	55	32	1
17 State	4	12	33	43	8
Prev Week	3	15	30	43	9
Prev Year	1	3	17	58	21

SORGHUM

State	VP	P	F	G	EX
AL	0	11	48	41	0
AR	4	0	70	26	0
GA	10	41	40	9	0
IL	0	1	16	75	8
IN	0	2	19	72	7
IA	1	16	61	21	1
KS	0	4	21	55	20
KY	0	4	44	48	4
LA	0	1	61	33	5
MI	1	4	25	50	20
MN	15	42	38	5	0
MS	0	15	59	26	0
MO	2	11	51	35	1
NE	0	0	25	69	6
NC	4	10	57	29	0
OH	2	7	24	49	18
SC	14	38	48	0	0
SD	0	18	49	31	2
TN	0	3	47	50	0
19 State	3	11	39	42	5
Prev Week	3	13	39	40	5
Prev Year	0	3	22	63	12

COTTON

State	VP	P	F	G	EX
AL	0	15	40	45	0
AZ	0	0	10	80	10
AR	0	0	33	67	0
CA	0	0	0	90	10
GA	1	22	66	11	0
LA	0	0	45	55	0
MS	0	14	61	25	0
MO	0	0	87	13	0
NM	0	0	42	50	8
NC	0	9	46	41	4
OK	0	0	10	90	0
SC	5	64	30	1	0
TN	0	0	18	82	0
TX	2	4	31	50	13
14 State	1	6	34	52	7
Prev Week	0	5	38	50	7
Prev Year	5	2	42	45	6

SOYBEANS

State	VP	P	F	G	EX
AR	0	12	46	42	0
CO	2	6	31	50	11
IL	0	0	21	72	7
KS	0	2	34	41	23
LA	0	7	46	39	8
MS	0	14	49	37	0
MO	0	9	57	33	1
NE	0	20	32	45	3
NM	0	14	45	40	1
OK	0	2	18	80	0
SD	11	6	56	26	1
TX	0	7	26	33	34
12 State	1	8	33	39	19
Prev Week	0	8	34	46	12
Prev Year	0	3	21	57	19

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 0.10 to 2.50 in. north; none to 1.97 in. central; none to 0.79 in. south. Temperatures 3° below normal to 2° above normal north; 1° below normal to 2° above normal central, south. Lows 60 to 71° north; 64 to 70° central; 65 to 72° south. Highs 88 to 94° north; 92 to 96° central; 93 to 96° south.

Days suitable for fieldwork 5.3. Soil moisture 38% short, 55% adequate, 7% surplus. Corn dented 81%, 91% 1992, 93% avg.; mature 52%, 66% 1992, 69% avg.; harvested 16%, 22% 1992, 35% avg.; 20% very poor, 31% poor, 36% fair, 13% good. Sorghum harvested 7%, 3% 1992, 14% avg.; 10% poor, 71% fair, 19% good. Peanuts pegged 96%, 100% 1992, 100% avg.; 14% poor, 55% fair, 31% good. Pasture 14% poor, 60% fair, 26% good. Primary activities: Cultivating, scouting, spraying fields, harvesting vegetables, corn, general care of livestock, poultry, catfish.

ALASKA: Mix of clouds, light showers, intermittent sunshine.

Days suitable for farm work 3. Second crop hay harvest 5% complete, 5% less than 1992. Most barley, oats had turned color by weekend. Barley 35% ripe, swathing had begun in the Tanana Valley, 15% 1992. Topsoil 65% short, 35% adequate. Subsoil 75% short, 25% adequate.

ARIZONA: Thunderstorms 8th, statewide except western; 9th, north, east. Sunny, warm 10th to 11th; Showers 12th, southeast; 13th southeast; 14th eastern. Temperatures 3° below to 3° above normal. Extremes 36°; 99° higher elevations; 55°; 115° deserts.

Cotton setting bolls 100%, 100% 1992, 100% avg.; open bolls 40%, 34% 1992, 36% avg. Activities included: Final irrigating, pesticide applications, pest monitoring, defoliating. Cotton 10% fair, 80% good, 10% excellent. Weeds light to moderate, insects moderate. Whitefly, aphids increasing in western areas. Alfalfa mostly good. Harvest moderate to active. Weeds light, insects light to moderate; disease light. Central areas cantaloupe, honeydews, watermelons, red chili, harvested. Apples, peaches harvested eastern production areas.

ARKANSAS: Warm week, temperatures little above normal. Scattered showers in the northwest; southeast was dry. Extremes 61°; 103°. Rainfall none to 2.31 inches.

Days suitable for fieldwork 6. Moderate crop growth. Soil moisture 49% short, 49% adequate, 2% surplus. Soybeans, cotton irrigation continued. Cultivation continued. Armyworm larvae infested soybeans fields. Sheath blight in rice fields, fungicides applied. Producers continued to apply fertilizer to rice. Boll weevils in cotton fields. Corn harvest begun, 43% fair, 57% good. High temperatures stressed poultry flocks. Hay cuttings continued. Producers sprayed pastures for weeds. Pastures good condition. Livestock good.

CALIFORNIA: Low pressure area brought cooler temperatures except desert areas. Isolated showers brought rain to northern mountains, northern coast.

Mild weather, near- to below-normal temperatures prevailed. Producers baling wheat straw. Ground preparation fall planted small grains begun. Cool nights slowed development rice crop. Harvesting wild rice underway. Cotton crop good to excellent condition, two weeks behind normal. Whitefly damage reported. Corn crop irrigated, treated mites. Safflower harvest underway. Sugarbeets harvested, new crop fields thinned, weeded. Producers spraying worms, leaf hoppers. Garbanzo beans harvested. Alfalfa hay cut, good yields, quality. Grape growers irrigated, cultivated; treated mildew, leaf hoppers, worms. Table grape harvest continued. Wine grape harvest picked up, Fresno. Desert grape harvest completed. Harvest, packing peaches, nectarines, plums, Asian pears, Royal Gala apples continued. Early pomegranate varieties, coloring. Almond hull split underway. Early variety almond harvest began. Citrus growers treated red scale, worms. Valencia orange harvest continued, slowly.

Riverside County, grapefruit, avocado harvest slowed. Lemon harvest began. Broccoli fairly light to moderate central coast, market conditions curtailing harvest earlier Salinas. Cauliflower light to fairly light, celery moderate to heavy central coast. Sweet corn harvest continued Fresno, Tulare counties. Summer head lettuce packing moderate central coast, second crop harvesting being done San Benito County. Fall lettuce planting active San Joaquin Valley. Fresh market tomato harvest progressed central valley, central coast areas. Processing tomato harvest neared peak. Picking watermelons, cantaloupe, honeydew, other melons active San Joaquin Valley, south district. Heavy aphid infestation, market conditions troubling melon growers San Joaquin Valley. Yellow onion harvest gained momentum, large amounts being exported. Bell pepper harvest full swing San Joaquin Valley, central coast. Other crops harvested: cucumbers, eggplant, green beans, squash, various oriental vegetables. Range, pasture mostly fair to good. Cooler temperatures lessened strain on water supplies; threat of fire remained high, many areas. Higher elevation ranges drying rapidly. Supplemental feeding some areas. Livestock generally good. Bees very active, melon fields.

COLORADO: Typical summer weather pattern. Rain most widespread on the 10th when normally dry Alamosa received over 1.00 in. of rain. Rest of the week featured scattered thunderstorms; rain locally heavy in east. Temperatures fluctuated but averaged near normal.

Days suitable for fieldwork 4.8. Soil moisture 11% very short, 34% short, 51% adequate, 4% surplus. Alfalfa 2nd cutting 72%, 62% 1992, 63% avg.; 3rd cutting 11%, 8% 1992, 8% avg. Spring barley harvested 51%, 50% 1992, 55% avg. Oats harvested 54%, 57% 1992, 57% avg. Dry beans flowering 76%, 73% 1992, 78% avg. Corn silking 82%, 81% 1992, 86% avg.; dough stage 17%, 18% 1992, 28% avg. Sorghum headed 43%, 27% 1992, 42% avg.; turning color 5%, 6% 1992, 5% avg. Summer potatoes harvested 23%, 17% 1992, 18% avg. Dry onion harvested 12%, 14% 1992, 13% avg. Summer potato 1% poor, 13% fair, 51% good, 35% excellent. Fall potato 10% poor, 15% fair, 53% good, 22% excellent. Dry onion 2% poor, 16% fair, 64% good, 18% excellent. Corn 5% very poor, 4% poor, 13% fair, 57% good, 21% excellent. Sugarbeets 18% fair, 58% good, 24% excellent. Livestock mostly good to excellent. Pasture, range feed condition mostly fair.

FLORIDA: Temperatures 1 to 3° above normal Panhandle, southern third; near normal elsewhere. Highs, lower 90s south central, upper 90s elsewhere except southeast coast. Lows; mid 60s to mid 70s. Rainfall 4 to 7 days west, southeast coast, 1 to 3 days elsewhere. Rain generally 1 to 3 in., several stations less than an inch.

Soil moisture mostly short to adequate. Soybeans developing well. Cotton, sugarcane mostly good. Dryness slowing peanut maturation. Green peanut digging continued. Corn picking, tobacco marketing continued. Citrus groves, trees, new crop fruit very good to excellent condition, abundant new growth. New crop fruit progressing well with variable sizes. Scant new crop fruit droppage. Caretakers cutting cover crops, fertilizing, some spraying. Tomato transplanting finished, pole bean, sweet corn, eggplant, pepper, squash, watermelon planting continued, north; condition good. Very light celery seeding, Everglades. Light plantings tomatoes, peppers, southwest. Dry conditions delayed laying plastic, southwest. Planting peppers, tomatoes, eggplant, east coast. Planting tomatoes, watermelons, Palmetto-Ruskin. Homestead growers preparing land for late September, early October plantings. Pastures poor to excellent due to scattered showers. Hay harvest active, yield down due to dry weather. Pasture 5% poor, 35% fair, 45% good, 15% excellent. Cattle fair to good.

GEORGIA: Temperatures near normal. Highs upper 80s northeast to upper 90s southeast. Lows upper 50s northeast, upper 60s elsewhere. Rain 1 to 3 days; rainfall under 0.50 in., isolated spots from 1 to 3 inches.

Days suitable for fieldwork 6.0. Soil moisture 14% very short, 49% short, 37% adequate. Corn 84% mature, 89% 1992, 82% avg.; 8% harvested for grain, 13% 1992, 22% avg.; harvest accelerating, still over week behind. Many dryland cotton fields "cutting out". Insect control active. Sorghum 5% very poor, 30% poor, 57% fair, 8% good. Peanuts 2% very poor, 19% poor, 62% fair, 17% good; 99% pegging, 100% 1992, 100% avg.; 0% dug, 0% 1992, 0% avg.; rain helping some areas, insect pressure increasing, spraying active. Soybean insect pressure increasing. Tobacco 13% poor, 37% fair, 50% good; 60% harvested, 81% 1992, 78% avg. Watermelons 97% harvested, 97% 1992, 96% avg. Other vegetables 1% very poor, 9% poor, 87% fair, 3% good. Apples 5% poor, 20% fair, 75% good; 12% harvested, 17% 1992, 24% avg. Peach harvest nearing completion. Pecans 1% poor, 28% fair, 71% good. Hay, pastures some improvement, limited hay harvest. Cattle, hogs fair to good.

HAWAII: Hurricanes Keoni, Fernanda caused concern. Keoni safely passed south of the State. Fernanda was traveling just north, parallel to the Hawaiian Chain; hurricane watch in effect for entire State. Windward areas expected to feel the brunt, high winds, increasing surf along shorelines. Residents low-lying areas, Puna, Island of Hawaii moved to evacuation shelters as Fernanda moved closer. Only minor damages so far. Rainfall none to 7.20 inches.

Days suitable for fieldwork 7.0. Weather generally good for crop growth. Farming activities on schedule most areas, slowed in wet areas. Irrigation, pest control stepped up ensuring normal growth. No hurricane damage to agriculture. Papaya production heavy.

IDAHO: Temperatures normal to 6° below normal. Precipitation none to 0.02 in. north; none to 0.36 in. southwest; 0.06 to 0.83 in. south central; 0.06 to 1.05 in. east.

Days suitable for fieldwork 6. Soil moisture 6% short, 91% adequate, 3% surplus. Winter wheat 13% harvested, 84% turning color, 3% headed. Spring wheat, 1% booted, 34% headed, 63% turning color, 2% harvested. Spring barley, 1% booted, 31% headed, 64% turning color, 4% harvested. Oats harvested 17%, 61% 1992, 44% average. Potatoes not yet 12" high 2%, 12" high 9%, closing middles 81%, turning 8%; 1% very poor, 3% poor, 24% fair, 67% good, 5% excellent. Alfalfa second cutting 58%, 84% 1992, 79% avg.; 3rd cutting 4%, 19% 1992, NA avg. Dry peas harvested 9%, 93% 1992, 60% avg. Lentils harvested 2%, 88% 1992, 49% avg. Peaches harvested 21%, 80% 1992, NA avg. Prunes, plums harvested 1%, 21% 1992, NA avg. Mint first cutting 78%, 94% 1992, 80% avg. Hops harvested 10%, 4% 1992, NA avg. Irrigation water supplies 3% fair, 67% good, 30% excellent. Activities: Seed corn detasseling, harvesting small grains, mint, hay, grass seed, sweet corn. Aphid problems in Elmore, Canyon counties. Hail damage in Bingham, Butte, Fremont counties. Pasture, range 98% of normal. Livestock good to excellent.

ILLINOIS: Muggy weather returned late in the week, strong storms dropped locally heavy rains. Temperatures 1 to 4° above normal; highs in the mid to upper 80s, lows in the mid to upper 60s.

Days suitable for fieldwork 3.75. Soil moisture 2% short, 53% adequate, 45% surplus. Late crop development still major concern of farmers because of the possibility of an early frost. Worried about potential damage to crops from strong winds as well as continued rains, flooding. Corn silked 99%, 100% 1992, 100% normal. Oats harvested 87%, 95% 1992, 99% normal. Second crop alfalfa cut 93%, 97% 1992, 99% normal; 3rd cut alfalfa 24%, 39% 1992, 47% normal; 8% excellent, 62% good, 27% fair, 3% poor. Main farm activities: Harvesting oats, baling hay, straw, mowing, spraying, machinery maintenance, attending fairs. Pasture 96% normal.

INDIANA: Temperatures low- to mid-80s north, mid- to upper-80s south. Highs mostly near normal. Lows in 60s in north, around 70° far south. Low readings 2 to 5° above normal. Rainfall mostly around 0.50 to 2.00 in. across State.

Days suitable for fieldwork 5. Dry conditions improved with scattered rainfall throughout week. Pastures 85% of normal, 87% last week. Topsoil 31% short, 63% adequate, 6% surplus. Subsoil 24% short, 76% adequate. Oats harvested 96%, 86% 1992, 92% avg. Alfalfa hay 2nd cutting 97%, 88% 1992, 91% average.

IOWA: Temperatures 3 to 5° above normal. Extremes 58°, 93°. Widespread heavy thunderstorms through humid week. Rainfall 0.10 in. southwest to 9.12 in. east central; avg. 3.39 in. (normal 0.95 in.).

Days suitable for fieldwork 4.2. Topsoil 37% adequate, 63% surplus. Subsoil 15% adequate, 85% surplus. Corn tasseled 91%, 100% 1992, 100% normal; in or past milk stage 24%, 72% 1992, 82% normal. Oat acreage harvested 91%, 94% 1992, 99% normal. Second crop alfalfa hay harvested 72%, 93% 1992, 99% normal. Second crop clover hay harvested 44%, 73% 1992, 86% normal. Winter wheat harvested 90%, 93% 1992, 99% normal. Pasture 1% very poor, 11% poor, 31% fair, 46% good, 11% excellent. Hay 2% very poor, 33% poor, 43% fair, 20% good, 2% excellent. Heat, humidity stressed livestock herds. However, crop farmers welcomed the hot sunny weather. Soaking mid-week thunderstorms caused problems with erosion.

KANSAS: Temperatures within 3° normal, below normal southwest, south central, north central, above normal northwest, northeast, east central. Rainfall in all areas, 0.09 in. southeast to 1.64 in. northwest.

Days suitable for fieldwork 5.0. Topsoil 17% short, 73% adequate, 10% surplus. Subsurface 1% short, 85% adequate, 14% surplus. Wheat harvested 99%, 100% 1992, 100% avg. Continued favorable weather allowed wheat harvest to finish in some areas. Several fields left unharvested excessive moisture, low quality grain. Corn silking slightly ahead of last year, on par with average. Light, moderate infestations European, southwestern corn borer in the southwest, south central areas. Light, moderate infestations armyworms in sorghum beginning to appear south central, southeast. Soybeans made good progress, same as last year, average. Third cutting alfalfa 55%, 80% avg. Virtually no fourth cutting yet, 10% avg. Pastures mostly good to excellent.

KENTUCKY: Wet conditions with near normal temperatures. Highs mid-80s, lows mid-60s. Precipitation 1.00 in. west, central, 0.66 in. east. Local amounts up to 7.00 in. in east central areas.

Days suitable for fieldwork 2.8. Soil moisture 16% very short, 43% short, 35% adequate, 6% surplus. Tobacco 19% poor, 49% fair, 31% good, 1% excellent. Black shank, drought continue to damage tobacco; 6% of crop cut. Hay, pastures slightly improved by widespread rains.

LOUISIANA: Temperatures 1.0 to 2.2° above normal. Extremes 60°, 99°. Rainfall none most areas to 1.55 in. south central.

Days suitable for fieldwork 5.8. Soil moisture 46% short, 51% adequate, 3% surplus. Corn 2% poor, 52% fair, 46% good; 99% dough stage, 100% 1992, 100% avg.; 83% mature, 93% 1992, 92% avg.; 11% harvested, 36% 1992, 36% avg. Harvest active in south, some test samples cut in the north. Hay 30% final cutting, 57% 1992, 27% avg. Peaches 93% harvested, 99% 1992, 98% avg. Entered the final phase. Rice 38% ripe, 55% 1992, 48% avg. Sorghum 9% ripe, 59% 1992, 36% avg.; 1% harvested, 10% 1992, 10% avg. Sorghum crop far behind schedule. Soybeans 3% turning color, 3% 1992, 2% avg. Spraying for aerial blight. Sweet potatoes 11% poor, 25% fair, 64% good; 2% harvested, 13% 1992, 11% avg. Sugarcane 1% poor, 4% fair, 85% good, 10% excellent; 0% planted, 0% 1992, 2% avg. Spraying for borers, planting preparation active. Livestock 35% fair, 65% good. Pastures 3% poor, 11% fair, 82% good, 4% excellent. Vegetables 4% very poor, 17% poor, 62% fair, 17% good. Planting fall crop active.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 0.93 in. Temperature 73.4°, normal 75.1°. Extremes 48°, 89°.

Days suitable for fieldwork 6.0. Topsoil 5% very short, 43% short, 52% adequate. Subsoil 10% very short, 58% short, 32% adequate. Corn poor to fair; 92% silked, 90% 1992, 92% avg.; 57% dough, 49% 1992, 58% avg.; 23% dent, 19% 1992, 27% avg.; a few acres harvested for silage. Soybean poor to mostly fair; 67% bloomed, 70% 1992, 73% avg.; 41% setting pods, 35% 1992, 45% avg. Sorghum fair; 88% headed, 87% 1992. Tobacco poor to fair; 57% bloomed, 78% 1992, 74% avg.; 33% topped, 55% 1992, 49% avg.; 9% cut, 12% 1992, 14% avg. Pasture mostly poor to fair, improving; hay supplies mostly adequate, many fields will not be cut again. Alfalfa hay remaining 85% third cut, 46% 1992, 58% avg. Other hay 25% third cut, 16% 1992, 12% avg. Sweet corn 81% harvested, 61% 1992, 68% avg. Watermelons 74% harvested, 50% 1992, 66% avg. Cantaloupes 80% harvested, 51% 1992, 72% avg. Potatoes 82% harvested, 61% 1992, 65% avg. Tomatoes 68% harvested, 50% 1992, 63% avg. Peaches, apples

good; peaches 59% picked, 46% 1992, 57% avg. Apples 8% harvested, 7% 1992, 11% average.

DELAWARE: Precipitation 0.27 in. Temperature 72.9°, normal 75.4°. Extremes 56°; 87°.

Days suitable for fieldwork 6.0. Topsoil 17% very short, 83% short. Subsoil 17% very short, 83% short. Corn mostly poor; 43% dough, 35% 1992, 50% avg.; 18% dent, 4% 1992, 20% avg. Small amount harvested for silage. Soybeans poor; 47% bloomed, 74% 1992, 69% avg.; 15% setting pods, 17% 1992, 22% avg. Sorghum poor to fair, 32% headed, 51% 1992. Alfalfa hay 58% third cut, 73% 1992, 71% avg. Other hay 28% third cut, 18% 1992, 35% avg. Pasture non-existent to very poor; hay supplies short. Sweet corn 83% harvested, 63% 1992, 69% avg. Cantaloupes 70% harvested, 56% 1992, 73% avg. Watermelons 63% harvested, 41% 1992, 57% avg. Potatoes 51% harvested, 64% 1992, 59% avg. Tomatoes 59% harvested, 25% 1992, 46% avg. Peaches, apples mostly good; peaches 54% harvested, 39% 1992, 74% avg. Apples 18% harvested, 7% 1992, 16% avg.

MICHIGAN: Extremes 47°; 91°. Precipitation none to 1.89 inches.

Days suitable for fieldwork 6.0. Soil moisture 45% short, 55% adequate. Dry beans 60% setting pods, 35% 1992, 50% avg.; 5% turning, 0% 1992, 4% avg.; 3% very poor, 7% poor, 20% fair, 50% good, 20% excellent. Oats 90% ripe, 35% 1992, 85% avg.; 45% harvested, 20% 1992, 65% avg.; 5% very poor, 10% poor, 25% fair, 45% good, 15% excellent. Potatoes 40% harvested, 25% 1992, 20% avg. Hay 75% second cutting, 65% 1992, 75% avg.; 15% third cutting, 10% 1992, 10% avg.; 3% very poor, 7% poor, 30% fair, 40% good, 20% excellent. Pasture 80% of normal. Major activities: Cutting hay, harvesting vegetables, picking fruit, tilling harvested wheat ground.

MINNESOTA: Temperatures 2 to 5° above normal. Extremes 45°; 96°. Precipitation near normal to 4.00 in. above normal. Greatest weekly precipitation was 4.55 inches.

Days suitable for fieldwork 4.9. Topsoil 3% short, 57% adequate, 40% surplus. Spring wheat 13% cut/swathed, 15% 1992, 72% avg.; 7% combined, 7% 1992, 64% avg. Oats 63% cut/swathed, 67% 1992, 91% avg.; 41% combined, 44% 1992, 82% avg. Barley 28% cut/swathed, 42% 1992, 87% avg.; 13% combined, 18% 1992, 78% avg. Corn 78% tasseled, 98% 1992, 99% avg.; 11% milk, 47% 1992, 78% avg.; 5% dough, 5% 1992, 40% avg. Soybeans 85% blooming, 69% 1992, 93% avg.; 37% setting pods, 77% 1992, 87% avg. Spring wheat 7% very poor, 26% poor, 49% fair, 18% good. Oats 12% very poor, 22% poor, 41% fair, 23% good, 2% excellent. Barley 3% very poor, 19% poor, 43% fair, 32% good, 3% excellent. Corn 22% very poor, 37% poor, 37% fair, 4% good. Soybeans 15% very poor, 42% poor, 38% fair, 5% good.

MISSISSIPPI: Temperatures 80°, 0.1° below normal. Extremes 51°; 99°. Coastal district received close to 1 in. rain, dry elsewhere; average 0.15 in., 0.73 in., below normal. Soil temperatures 85°.

Days suitable for fieldwork 5.8, 3.1 1992, 5.2 avg. Soil moisture 12% short, 84% adequate, 4% surplus. Corn 94% dough, 98% 1992, 93% avg.; 70% dent, 84% 1992, 77% avg.; 29% mature, 58% 1992, 45% avg.; 10% harvested, 12% 1992, 8% avg.; 50% silage harvested, 45% 1992, 57% avg.; 11% poor, 53% fair, 36% good. Cotton 99% setting bolls, 99% 1992, 98% avg.; 3% open bolls, 3% 1992, 5% avg.; 14% poor, 61% fair, 25% good. Rice 58% heading, 85% 1992, 74% avg.; mature 8%, 12% 1992, 11% avg.; 1% harvested, 0% 1992, 0% avg.; 20% poor, 39% fair, 41% good. Sorghum 89% heading, 99% 1992, 94% avg.; 68% turning color, 74% 1992, 61% avg.; 17% mature, 36% 1992, 27% avg.; 0% harvested, 2% 1992, 3% avg.; 30% silage harvested, 40% 1992, 39% avg.; 14% poor, 49% fair, 37% good. Soybeans 79% blooming, 85% 1992, 75% avg.; 48% podding, 62% 1992, 50% avg.; 3% coloring, 6% 1992, 5% avg.; 15% poor, 59% fair, 26% good. Sweet potatoes 2% harvested, 5% 1992, 9% avg.; 60% fair, 40% good. Watermelons 79% harvested, 96% 1992, 88% avg.; 12% poor, 50% fair, 38% good. Hay 78% harvested, 80% 1992, 73% avg. Peaches 96% harvested, 98% 1992, 98% avg.; 6% very poor, 46% poor, 30% fair, 18% good. Livestock 5% fair, 88% good, 7% excellent. Pasture 93% of normal. Activities: Insect control, hay harvesting.

MISSOURI: Temperatures 3° above normal northwest to below normal southeast. Rainfall 4.47 in., varying from over 8 in. east central district to below 1 in. in west central, southwest.

Days suitable for fieldwork 4.0, ranging 2.2 north central to 5.6 southeast. Topsoil 7% short, 46% adequate, 47% surplus, northern third surplus, majority of south central, southeast short. Corn dent stage ranges less than 10% north central, northeast, west central, central, to 71% southeast. Soybean podding by district ranges 32% southwest to 59% southeast. Wheat harvest virtually complete. Oats harvested 96%, 100% 1992, 100% avg. Second crop alfalfa 94%, 94% 1992, 100% avg. Other hay 89%, 92% 1992, 97% avg. Pasture 1% very poor, 2% poor, 19% fair, 64% good, 14% excellent.

MONTANA: Temperatures varied statewide. Light to moderate precipitation statewide.

Days suitable for fieldwork slightly over 5.7. Topsoil 5% short, 80% adequate, 15% surplus. Subsoil 5% short, 80% adequate, 15% surplus. Winter wheat 1% very poor, 6% poor, 21% fair, 47% good, 25% excellent. Barley 6% poor, 24% fair, 47% good, 23% excellent. Oats 2% poor, 25% fair, 49% good, 24% excellent. Sugarbeets 2% poor, 6% fair, 69% good, 23% excellent. First cutting alfalfa hay 90% complete, 100% 1992, 100% avg. Second cutting alfalfa hay 18% complete, 54% 1992, 61% avg. Pasture, range feed 102% of normal, down 1 point from last week.

NEBRASKA: Temperatures 2 to 4° above normal. Scattered rain through week varying from 0.10 in. southwest to nearly 2 in. central.

Days suitable for fieldwork 6.2. Topsoil 20% short, 72% adequate, 8% surplus. Subsoil 1% short, 82% adequate, 17% surplus. Winter wheat 100% harvested, 100% 1992, 100% avg. Corn 6% poor, 15% fair, 71% good, 8% excellent; 94% silked, 99% 1992, 1992 avg.; 28% dough, 39% 1992, 60% avg. Soybeans 25% fair, 69% good, 6% excellent; 91% blooming, 99% 1992, 100% avg.; 55% setting pods, 69% 1992, 74% avg. Sorghum 20% poor, 32% fair, 45% good, 3% excellent; 49% headed, 67% 1992, 76% avg. Dry beans 8% poor, 26% fair, 66% good; 91% blooming; 50% setting pods. Alfalfa 2% poor, 23% fair, 67% good, 8% excellent; 17% third cutting, 31% 1992. Wild hay 10% fair, 66% good, 24% excellent. Pasture, range 102% of normal.

NEVADA: Cooler than normal temperatures, 2 to 5° below normal. Extremes 35°; 110°. Scattered light showers northern and central areas.

Second cutting alfalfa hay continues. Small grain harvest making good progress. Alfalfa seed harvest just starting Lovelock area. Cattle, sheep good.

NEW ENGLAND: Rainfall none to 0.92 inches. Temperatures 65 to 72° north; 65 to 73° south. Maximum temperatures 80 to 88° north; 80 to 88° south. Minimum temperatures 43 to 59° north; 49 to 62° south.

Days suitable for fieldwork 6.4. Soil moisture 29% very short, 34% short, 37% adequate. Available grazing 31% very short, 40% short, 29% adequate. Fieldwork progress 1 to 2 days behind schedule. Pasture 60% of normal. Maine early potato harvest less than 5%. Massachusetts potatoes 20% harvested, 10% 1992, 10% normal. Rhode Island potatoes 10% harvested, 5% 1992, 5% normal. Potato good regionwide. Maine oat good to excellent. Oat harvest less than 5%. Field corn fair. Second cutting hay 55% harvested, 50% 1992, 55% avg.; fair. Third cutting hay 10% harvested, 10% 1992, 15% avg. Shade tobacco 65% harvested, good. Outdoor tobacco 40% harvested, fair to good. Sweet corn harvested 45%, 30% 1992, 40% avg.; fair to good. Apples 5% harvested, size medium, color fair to good, good to fair. Peaches 30% harvested, size medium, good to fair. Pears 5% harvested, size medium to small, good. Raspberries 85% harvested, size medium, good. Highbush blueberries 80% harvested, size medium, good. Maine wild blueberries 50% harvested, fair to good. Cranberries size medium, good to excellent. Major farm activities: Applying herbicides, insecticides, fungicides as needed. Harvesting second cutting of hay continues. Early varieties of potatoes, apples being harvested. Harvesting small fruits. Harvesting tobacco. Picking vegetables for roadside markets.

NEW JERSEY: Temperatures near normal. Extremes 51°; 92°. Rainfall 0.43 in. north, 0.27 in. central, 0.28 in. south. Heaviest 24

hour total 1.05 in. on 13th, 14th. Estimated soil moisture, in percent field capacity, averaged 45% north, 66% central, 55% south. Four inch soil temperatures averaged 70° north, 71° central, 72° south.

Soil moisture content adequate. Rainfall remains beneficial to all crops. Harvesting, planting of crops active. Pesticide spraying also active. Moderate to good supply of cucumbers, eggplant, peppers (of all types), squash (of all types), sweet corn, tomatoes available. Moderate supply of beans, cantaloupe, watermelon are available. Light volume of beets, cabbage, green onions, greens, leeks, spinach, okra, parsley also available. Blueberry harvest almost complete. Peach harvest at midway point with Loring, Cresthaven as main varieties. Cranberry conditions are good. Preparations for fall hay, pasture planting. Pasture conditions improving, more rain needed.

NEW MEXICO: Temperatures about 4° above normal southeast plains, near normal elsewhere. Extremes 40° north; 104° south. Rainfall nearly all areas; higher totals near 2 in. north, northeast.

Days suitable for fieldwork 6.1. Soil moisture 68% short, 32% adequate. Crop conditions: Alfalfa 29% fair, 67% good, 4% excellent. Corn 13% fair, 74% good, 13% excellent. Onions mostly good with harvest declining. Chile 4% poor, 22% fair, 63% good, 11% excellent with harvest started. Apples 43% fair, 57% good with small amount of early harvest in south. Pecans fair to excellent, mostly good. Cattle, sheep poor to good, mostly good. Range 60% of normal.

NEW YORK: Precipitation well below normal, little or none in north to 0.10 to 0.20 in. along southern tier. Isolated thunderstorms dropped up to 0.50 inches. Temperatures seasonably warm, highs around 80° north, east, cooler elsewhere. Extremes 47°; 88°.

Days suitable for fieldwork 6.7. Soil moisture short to adequate, southeast very short. Corn poor to good, curling in dry areas. Hay fair to good. Regrowth slow. Alfalfa second cutting 81% finished, 65% 1992, 71% avg. Third cutting underway. Wheat harvest finished, 81% 1992, 93% avg. Oats 56% harvested, 20% 1992, 50% avg. Dry beans beginning to yellow. Need rain for pod fill. Potato vine kill underway. Harvest to start soon. Vegetable harvest full swing. Irrigation needed most areas. Grapes Finger Lakes area show considerable moisture stress. Tree fruits good. Irrigation continued.

NORTH CAROLINA: Temperatures 1 to 3° below normal. Precipitation 3.44 in. at Wilmington to no rain at several locations.

Days suitable for fieldwork 5.6. Soil moisture 12% very short, 44% short, 43% adequate, 1% surplus. Crop condition: Pasture 6% very poor, 29% poor, 44% fair, 20% good, 1% excellent. Field tobacco 4% poor, 56% fair, 39% good, 1% excellent. Irish potatoes 67% poor, 11% fair, 22% good. Corn 16% very poor, 46% poor, 29% fair, 9% good. Hay 8% very poor, 31% poor, 41% fair, 20% good. Peaches 30% fair, 61% good 9% excellent. Truck crops 2% very poor, 16% poor, 60% fair, 22% good. Cotton 9% poor, 46% fair, 41% good, 4% excellent. Peanuts 6% poor, 43% fair, 51% good. Soybeans 4% very poor, 10% poor, 57% fair, 29% good. Sweet potatoes 2% poor, 38% fair, 57% good, 3% excellent. Apples 15% poor, 31% fair, 54% good. Sorghum 8% very poor, 24% poor, 41% fair, 27% good. Hay, roughage supplies 4% very short, 40% short, 54% adequate, 2% surplus. Peaches harvested 85%, 86% 1992, 88% avg. Flue-cured tobacco harvested 31%, 46% 1992, 41% avg. Corn for silage harvested 27%, 14% 1992, 26% avg. Cotton setting bolls 90%, 83% 1992, 87% avg. Corn silked 98%, 98% 1992, 99% avg.; soft dough 87%, 77% 1992, 88% avg.; dented 69%, 67% 1992, 69% avg.; mature 60%, 67% 1992, 69% avg. Soybeans flowered 62%, 55% 1992, 60% avg.; setting pods 35%, 32% 1992, 33% avg. Second cutting of the hay 72% completed. Third cutting of the hay 27% completed. Major activities: Topping, suckering, harvesting tobacco. Other activities included: Scouting cotton, soybeans; spraying cotton, peanuts; harvesting fruits, vegetables; cutting hay; harvesting corn for silage; tending livestock; general farm maintenance.

NORTH DAKOTA: Mild temperatures, spotty rain statewide for the week. Precipitation 0.21 in. northwest to 1.52 in. northeast. Temperatures 0 to 3° above normal. Extremes 42° northeast; 95° east central.

Days suitable for fieldwork 5.2. Topsoil 77% adequate, 23% surplus. Subsoil 75% adequate, 25% surplus. Small grains conditions declined due to concern over stem, leaf, head disease damage. Spring wheat 6% poor, 34% fair, 55% good, 5% excellent; durum 3% poor, 36% fair, 50% good, 11% excellent; barley 40% fair, 53% good, 7% excellent; oats 15% fair, 79% good, 6% excellent; winter wheat 8% poor, 31% fair, 60% good, 1% excellent. Hard red spring wheat 1% combined, 9% 1992, 56% avg. Durum wheat none combined, 2% 1992, 38% avg. Oats 3% combined, 16% 1992, 63% avg. Barley 9% combined, 22% 1992, 73% avg. Winter wheat 18% combined, 57% 1992, 89% avg. Late season crop development still behind average but conditions improved with warm weather. Corn for grain 18% very poor, 47% poor, 23% fair, 12% good; flax 16% fair, 76% good, 8% excellent; sugarbeets 2% poor, 12% fair, 86% good; potatoes 74% fair, 26% good; dry beans 3% very poor, 19% poor, 65% fair, 13% good; soybeans 11% very poor, 13% poor, 65% fair, 11% good; sunflowers 23% poor, 38% fair, 39% good. Flax none swathed or combined, 1% 1992, 9% avg.; dry beans 2% podded/lower leaves yellowing and beyond, 3% 1992, 33% avg.; soybeans none lower leaves yellowing and beyond, 1% 1992, 16% avg.; potatoes 5% vines killed, 3% 1992, 7% avg.; corn 6% milk to dough and beyond, 25% 1992, 71% avg.; sunflowers 1% ray flowers dried or dropped, 0% 1992, 19% avg. Range, pasture 98% of normal. Hay 80% of normal. Alfalfa hay first cutting 92% complete, second cutting 38%, other hay 62%. Stockwater supplies 90% adequate, 10% surplus.

OHIO: Warm weather prevailed. Couple of disturbances crossed the State triggering showers, storms. Temperatures 1 to 6° above normal with most areas 2 or 3° above normal. Highs mostly in the middle 80s to around 90° while lows in lower to middle 60s. Rainfall variable with amounts under 0.10 in. some areas to over 1 in. parts of the southwest, far south. Most areas received 0.50 in. or less, shrinking soil moisture supplies remains a concern. Most areas received less than 3 in. of rain in the last four weeks with some areas having less than 1 inches.

Days suitable for fieldwork 6.5. Topsoil 70% short, 29% adequate, 1% surplus. Subsoil adequate to critically short. Oats harvested 93%, 67% 1992, 87% avg. Processing tomatoes harvested 13%, 14% 1992, 13% avg. Summer apples harvested 60%, 51% 1992, 53% average. Potatoes harvested 17%, 14% 1992, 13% avg. Alfalfa 2nd cut harvested 98%, 88% 1992, 91% avg.; other hay 84%, 70% 1992, 70% avg.; alfalfa 3rd cut harvested 32%, 24% 1992, 30% avg.; other hay 12%, 15% 1992, 17% avg. Pasture 7% very poor, 22% poor, 33% fair, 32% good, 6% excellent. Hay 2% very poor, 14% poor, 41% fair, 37% good, 6% excellent. Many pastures quit growing; some farmers concerned about prospects of a third hay cutting. Apples average in quality, average to below average in size. Peach, melon harvests have started. Fruit rates generally good. Squash, pumpkins suffering from dry weather. Most tobacco topped with varying levels of quality.

OKLAHOMA: Temperatures 2° above normal Panhandle to 6° above normal northeast, east central. Precipitation none in most districts to 0.42 in. the Panhandle.

Days suitable for fieldwork 6.3. Topsoil 71% short, 29% adequate. Subsoil 41% short, 59% adequate. Corn 89% milk to soft, 95% 1992, 90% avg.; 13% mature, 10% 1992, 22% avg. Sorghum 2% poor, 18% fair, 80% good; 70% heading, 45% 1992, 60% avg.; 17% milk to soft, 11% 1992, 23% avg.; 6% mature, 1% 1992, 4% avg. Soybeans 66% flowering, 64% 1992, 63% avg.; 34% setting pods, 28% 1992, 34% avg.; 3% mature, 5% 1992, 2% avg. Peanuts 1% poor, 15% fair, 84% good; 93% pegging, 88% 1992, 94% avg.; 75% setting pods, 53% 1992, 65% avg. Cotton 10% fair, 90% good; 96% setting bolls, 55% 1992, 77% avg.; 4% open bolls, 1% 1992, 0% avg. Alfalfa 88% 3rd cut, 87% 1992, 91% avg.; 25% 4th cut, 4% 1992, 27% avg. Pastures 92% of normal. Cattle prices steady. Marketings average.

OREGON: Temperatures coast 2° above normal; Willamette Valley, southwestern valleys 1° below normal; northeastern areas 4° below normal; elsewhere 2° below normal. Precipitation generally dry; heaviest rainfall Astoria 0.34 in. Heavy thunderstorms Klamath Falls, Baker City.

Soil moisture 14% short, 84% adequate, 2% surplus. Winter wheat 67% harvested. Barley 50% harvested. Grain harvest full swing, statewide. Grass seed harvest full swing, mint harvest underway; Willamette Valley. Willamette Valley grass seed, grain crops heavily

damaged, sprouting. Hay harvest continued, second, third cuttings. Willamette Valley snap beans harvest continued. Columbia Basin early potato, onion harvest continued, watermelon harvest continued. Malheur County potato harvest to begin 16th, excellent prospects; onion yields expected below normal. Cranberry fruit sizing nearly complete, showing more red coloring especially Stevens cultivar, fertilizing beds winding down; southern coast. Late variety blackberry harvest continued, peach harvest continued, Gravenstein apple harvest underway, hazelnut prospects look good; Willamette Valley. Bartlett pear harvest expected week of Aug. 16, Hood River with "pink-in" concern, 19th to 20th Medford district. Red Clapp pear harvest underway, Medford. Livestock good to excellent. Above normal stockwater supplies, eastern areas. Range, pastures above normal statewide, 106% of normal.

PENNSYLVANIA: Showers, thunderstorms statewide. Rain received in south central portion. Temperature 77°, 6° above normal. Extremes 45°; 91°. Precipitation 0.84 in., 0.01 in. below normal.

Days suitable for fieldwork 5. Soil moisture 64% short, 36% adequate. Ensilage corn harvested 1% complete, 1% 1992; 3% very poor, 11% poor, 32% fair, 42% good, 12% excellent. Soybean 2% very poor, 11% poor, 30% fair, 45% good, 12% excellent. Wheat harvest 98% complete, 85% 1992; planted 1% complete, 2% 1992. Oats harvest 75% complete, 56% 1992. Barley harvest 99% complete, 91% 1992; planted 1% complete, 4% 1992. Tobacco harvest 5% complete, 3% 1992. Potato harvest 7% complete, 9% 1992. Second cutting alfalfa 89% complete, 68% 1992; 3rd cutting alfalfa 38% complete, 20% 1992; 4th cutting alfalfa 2% complete, 0% 1992. Second cutting clover-timothy 68% complete, 45% 1992. Quality of hay made 10% poor, 50% fair, 40% good. Feed from pastures severe drought. Apple harvest 7% complete, 7% 1992. Peach harvest 35% complete, 35% 1992. Grapes harvest 8% complete, 1% 1992. Fall plowing 7% complete, 5% 1992. Activities: Making hay, filling silos; baling straw; harvesting small grains; some plowing; hauling manure; caring for livestock.

PUERTO RICO: Rainfall 0.49 in. was 1.11 in. below normal. Highest rainfall 3.38 in. at Rincon, 3.15 in. at Mayaguez, 2.12 in. at San Sebastian 2 WNW. Highest 24 hour total 2.87 in. at Mayaguez. Island temperatures 82° on the Coast, 76 to 78° in the Interior with mean station temperatures 86.4° at Roosevelt Roads to 67.6° at Pico Del Este. Extremes 61°; 97°.

SOUTH CAROLINA: Rainfall 0.90 in. Temperatures 2° below to 2° above normal.

Days suitable for fieldwork 6.2. Soil moisture 37% very short, 49% short, 14% adequate. Corn very poor to poor; 71% mature, 79% 1992, 71% avg; 17% harvested, 16% 1992, 16% avg. Sorghum poor; 21% harvested, 11% 1992, 13% avg. Soybeans 14% very poor, 38% poor, 48% fair; 67% blooming, 71% 1992, 67% avg.; 32% setting pods, 36% 1992, 30% avg.; 0% leaves turning, 1% 1992, 0% avg. Cotton 5% very poor, 64% poor, 30% fair, 1% good; 99% setting bolls, 95% 1992, 92% avg.; 3% open bolls, 0% 1992, 6% avg. Tobacco fair; 39% harvested, 67% 1992, 62% avg.; 0% stalks destroyed, 6% 1992, 5% avg. Cantaloupes poor to fair; 85% harvested, 86% 1992, 86% avg. Watermelons poor to fair; 90% harvested, 95% 1992, 90% avg. Sweet potatoes poor to fair; 3% harvested, 2% 1992, 5% avg. Fall Hay poor; 37% harvested, 46% 1992, 42% avg. Peaches poor to fair; 82% harvested, 87% 1992, 87% avg. Pasture poor.

SOUTH DAKOTA: Temperatures statewide were near normal. Extremes 39°; 95°. Rainfall most areas with 1 to 2 in. east, light rainfall in the west.

Days suitable for fieldwork 5.5. Topsoil 16% short, 70% adequate, 14% surplus. Subsoil 3% short, 72% adequate, 25% surplus. Winter wheat 24% fair, 55% good, 21% excellent. Rye 7% poor, 29% fair, 51% good, 13% excellent. Oats 1% very poor, 15% poor, 22% fair, 52% good, 10% excellent. Barley 7% poor, 18% fair, 65% good, 10% excellent. Flax 41% fair, 51% good, 8% excellent. Sunflowers 4% poor, 20% fair, 58% good, 18% excellent. Oats 62% harvested, 59% 1992, 91% avg. Barley 51% harvested, 50% 1992, 89% avg. Winter rye 63% harvested, 79% 1992, 96% avg. Most areas the

winter grains harvest nearly complete with yields varying across the State, generally good. Spring grains harvest was in full swing in most areas, some are still waiting for the fields to dry. Head scabbing in some spring wheat fields. Most areas row crops were uneven, needed a late frost to produce. Some areas across the State were missed by the rains during the last couple of weeks, could use a light rain. Livestock 1% fair, 75% good, 24% excellent. Pasture 98% of normal. Haying was in full swing in most areas due to the drier weather.

TENNESSEE: Temperatures averaged 1° above normal in west, middle regions of State to slightly below normal in the plateau, eastern regions. Highest temperature recorded 96° in Jackson, Memphis on 17th. Coolest 58° in Crossville on 9th, Bristol on 10th. Rainfall below normal except for the east which was just over a third inch above normal.

Days suitable for fieldwork 5.6. Soil moisture 8% very short, 62% short, 28% adequate, 2% surplus. Corn 81% dough stage, 86% 1992, 76% avg.; 31% dent stage, 49% 1992, 44% avg.; 3% mature, 5% 1992, 7% avg.; 5% very poor, 9% poor, 52% fair, 34% good. Cotton 0% open bolls, 2% 1992, 3% avg.; 18% fair, 82% good. Sorghum 95% headed, 95% 1992, 85% avg.; 19% turning color, 35% 1992, 31% avg.; 59% fair, 41% good. Soybeans 76% blooming, 81% 1992, 69% avg.; 39% setting pods, 48% 1992, 37% avg.; 3% poor, 47% fair, 50% good. Tobacco 58% topped, 75% 1992, 66% avg.; 6% burley harvested, 15% 1992, 13% avg.; 7% dark air harvested, 12% 1992, 10% avg.; 6% dark fire harvested, 14% 1992, 11% avg.; 4% very poor, 14% poor, 56% fair, 26% good. Pastures 3% very poor, 26% poor, 56% fair, 15% good. Cattle 1% poor, 43% fair, 54% good, 2% excellent. Moderate temperatures, generous rainfall in east, middle helped all crops. Tobacco, corn showed good growth once again. Soybean pod set, fill facilitated by the temperate conditions. Double crop beans are getting back on track after slow growth in July. Above-normal temperatures in west was beneficial to cotton. Combined with previous weeks rains, condition improved considerably. Only a few fields showing open bolls. Pastures are turning green again, hay is still being fed.

TEXAS: Upper level high pressure prevented shower development over most of State. However enough atmospheric moisture was present for some thunderstorms to develop over eastern quarter of State early in week, at various times over parts of West Texas. Rainfall ran below normal across State. Temperatures generally close to normal except 5° above normal in Blacklands.

Crops: Corn harvesting continued in Blacklands, East Texas, Edwards Plateau, Central Texas, along Upper Coast. Crop continued to make good progress in High Plains where some producers were cutting silage. Coastal Bend farmers were plowing up stubble. Corn 74% normal, 87% 1992. Cotton: Irrigated fields continued to make good progress on High Plains. Producers were cultivating in Low Plains where bolls were beginning to open. Cotton defoliation in full swing many areas of Upper Coast. Areas of State where moisture has been short crop showing signs of stress. Harvesting continued in Coastal Bend, Rio Grande Valley, South Texas. Cotton 79% normal, 62% 1992. Rice: Harvesting continued along Upper Coast harvest was getting underway in South Central Texas. Conditions continued to remain mostly open for harvest. Rice 82% normal, 87% 1992. Grain sorghum fields made good progress in High, Low Plains. Fields matured rapidly in Low Plains where some producers had started harvesting. Harvesting continued in Blacklands, East Texas, Edwards Plateau, Central Texas, Upper Coast. Some fields in Blacklands may have reduced yields due to midge. Sorghum 84% normal, 81% 1992. Peanuts irrigated fields were pegging in Low Plains. Non-irrigated fields in Cross Timbers were in need of moisture as crop was showing signs of stress. Growth remained slow in Blacklands. Peanut 76% normal, 85% 1992. Soybeans some producers in Blacklands were cutting crop for hay. Fields continued to make good progress in High Plains. Rain is needed most areas of State.

Commercial Vegetables: Rio Grande Valley, open conditions allowed land preparation for fall planting to continue. San Antonio-Winter Garden, land preparation progressed satisfactorily. East Texas, sweet potatoes showing stress from lack of moisture, harvest should begin next couple of weeks. Vegetable harvesting continued, slow pace due to dry conditions. Some producers were preparing land for fall planting. High Plains, rain halted harvesting activities in some areas.

Onion, cabbage harvest winding down. Trans-Pecos, harvest of cantaloupes, chilies, watermelons continued. Peaches harvesting almost at an end in East Texas. Pecans nuts sized well in Trans-Pecos where producers sprayed for hickory shuckworms. In some areas of Cross Timbers, scab was a problem. A good rain is needed across State as many trees are dropping nuts due to lack of moisture.

Range and Livestock: Ranges, pastures across most of State are in need of rain, supplemental feeding has increased. Haying operations slowed due to drought conditions. Potential of fire outbreaks increased across State. In Edwards Plateau a number of fires. Livestock conditions remained good for most part. Goat, sheep shearing continued in the Trans-Pecos.

UTAH: Temperature maximums 2° below normal, minimums were normal. Precipitation was heavy in south central, Uinta Basin, northern mountains, moderate throughout the rest of the State.

Days suitable for fieldwork 6.3. Soil moisture 35% short, 65% adequate. Irrigation water supply 5% short, 92% adequate, 3% surplus. Stockwater supply 8% short, 87% adequate, 5% surplus. Winter wheat: ripe 93%; harvested 56%, 94% 1992, 92% avg. Spring wheat: ripe 69%; harvested 28%, 86% 1992, 77% avg. Barley: ripe 70%; harvested 38%, 89% 1992, 79% avg. Oats: ripe 56%, 84% 1992; harvested for hay or silage 87%, 86% 1992, 80% avg.; harvested for grain 22%, 53% 1992, 47% avg. Corn tasseling 85%, 96% 1992. Alfalfa hay 2nd cutting 84% complete. Alfalfa hay 3rd cutting 9% complete, 37% 1992. Other hay cut 92%, 89% 1992, 90% avg. Peaches picked 31%, 44% 1992. Pasture, range good to excellent.

VIRGINIA: Temperatures at or slightly below normal. Extremes 48°; 92°. Scattered showers, thunderstorms produced heavy precipitation in many areas with some areas receiving 1.00 to 2.00 in.

Days suitable for fieldwork 5.8. Topsoil 16% very short, 50% short, 34% adequate. Pasture 10% very poor, 47% poor, 36% fair, 7% good. Alfalfa 2% very poor, 29% poor, 53% fair, 14% good, 2% excellent. Other hay 8% very poor, 50% poor, 31% fair, 1% good. Potatoes 98% harvested. Corn silked 91%, 92% 1992, 90% avg.; dough stage 59%, 54% 1992, 59% avg.; dented 39%, 31% 1992, 38% avg.; mature 18%, 12% 1992, 16% avg.; silage harvested 10%, 10% 1992, 6% avg.; 17% very poor, 43% poor, 36% fair, 4% good. Peanut 78% fair, 22% good. Soybeans blooming 70%, 60% 1992, 67% avg. Soybeans setting pods 42%, 38% 1992, 43% avg.; 1% very poor, 35% poor, 59% fair, 5% good. All tobacco 2% very poor, 20% poor, 37% fair, 41% good. Flue tobacco 22% harvested, 28% 1992, 27% avg.; 15% harvested, 9% 1992, 21% avg. Sun tobacco 10% harvested, 16% 1992, 16% avg. Peach harvest about 63% completed, 52% 1992, 71% avg. Apple 4% poor, 41% fair, 50% good, 5% excellent. Summer apple harvest 50% completed. Quantity reported excellent however size appears small. Livestock 2% very poor, 7% poor, 37% fair, 52% good, 2% excellent. Irrigating tobacco, peanuts, harvesting cucumbers, tomatoes, peppers, cantaloupes, watermelons, supplemental feeding to livestock. Very little hay harvesting. Higher than normal numbers of cattle moving to market. Spider mites heavy in several counties on peanuts, corn earworms on soybeans in a few southeastern locations.

WASHINGTON: Temperatures 3° below normal to 3° above normal west; 5° below normal to normal east. Precipitation none to 0.11 in. west; none east.

Days suitable for fieldwork 6.8. Soil moisture 13% short, 87% adequate. Irrigation water supply 17% short, 83% adequate. Hay, other roughage 6% very short, 9% short, 83% adequate, 2% surplus. Range, pasture 14% poor, 21% fair, 41% good, 24% excellent. Winter wheat dryland 85% good, 15% excellent; irrigated 95% good, 5% excellent. Spring wheat dryland 10% fair, 90% good; irrigated 100% good. Barley dryland 20% fair, 80% good; irrigated 100%

good. Potatoes 100% good. Warm, dry weather stayed around for another week. Grain harvest continued, although it was still behind schedule. Both yields, quality good. Most of the northern areas still have a week or two wait for the spring grain harvest due to the wet spring. Hay producers welcomed the drier weather as they tried to harvest some quality hay before the season ends. Peaches, apricots, nectarines, Bartlett pears were being picked in the southern areas of the State. Bartlett pear harvest began in the north. Gala apples were expected to be ready next week.

WEST VIRGINIA: Temperature 73°. Extremes 49°; 96°. Precipitation 0.76 in.

Days suitable for fieldwork 5.5. Soil moisture 25% very short, 50% short, 25% adequate. Tobacco 38% fair, 62% good; 61% topped. Hay 9% very poor, 29% poor, 60% fair, 2% good; 51% 2nd cut, 39% 3rd cut. Pastures 11% very poor, 42% poor, 45% fair, 2% good; 66% of normal. Gardens 13% poor, 50% fair, 37% good. Cattle 17% fair, 83% good. Sheep 25% fair, 75% good. Apples poor to fair. Peaches poor to fair. Oats 100% harvested. Corn 3% poor, 83% fair, 14% good; 84% silked, 43% dough stage. Soybeans 58% fair, 42% good; 87% blooming. Farm activities: Moving livestock, cutting hay, topping tobacco, harvesting apples, peaches, general maintenance.

WISCONSIN: Temperatures climbed into the 90s last week bringing needed heat, humidity to State. Although scattered showers passed through most parts of State, warm weather stuck for a few days, hopefully will last. Temperature 73°; 6° above normal. Extremes 50°; 95°. Precipitation 0.50 to 2.80 inches.

Days suitable for fieldwork 4.5. Soil moisture 7% short, 71% adequate, 22% surplus. Pasture condition 88% of normal, 74% 1992, 67% avg. General condition of crops: 5% poor, 51% fair, 44% good. Oats 2% very poor, 10% poor, 41% fair, 46% good, 1% excellent; 26% harvested, 24% 1992, 64% avg. Corn 2% very poor, 10% poor, 55% fair, 32% good, 1% excellent; silked or beyond 68%, 75% 1992, 87% avg.; dough or beyond 7%, 11% 1992, 33% avg.; dent or beyond 1%, 2% 1992, 9% avg. Soybean 3% poor, 27% fair, 66% good, 4% excellent. 2nd cut alfalfa 66%, 77% 1992, 82% avg.; 3rd cut alfalfa 3%, 10% 1992, 13% avg. Winter wheat 50% harvested, 56% 1992, 86% avg. Farmers, ag agents have reported that the general condition of crops seems to have improved slightly again in last weeks hotter weather. Most say the low spots, low fields hold little hope of recovery for the stunted crops. In these areas farmers will have to make grain silage or even grass hay. Additional reports of high quality second crop alfalfa were received last week. One comment stated that there has been leaf, stem diseases in the alfalfa. With scattered rainfall, hot days, third crop is coming back strong on many fields. Corn condition is steadily gaining ground, looking better. Some concerns that the crop is not very deeply rooted, it could easily be blown over in a windstorm. Soybeans are still the best crop at 70% good to excellent. Some farmers reported that their oats just about ready for harvest. Tobacco crop is behind, uneven in height. A couple people mentioned southern tobacco has begun to top. Tart cherry harvest is nearly finished.

WYOMING: Temperatures over the State were near normal. A few places did see temperatures several degrees below normal. Precipitation fell over most of the State. Amounts generally at or above normal. Areas in the southwest, northeast had slightly below normal rainfall for week.

Days suitable for fieldwork 5.6. Topsoil 18% short, 82% adequate. Spring wheat 12% harvested, 31% 1992, 48% avg. Oats 10% harvested, 26% 1992, 35% avg. Barley 24% harvested, 59% 1992, 60% avg. Winter wheat 58% harvested, 74% 1992, 87% avg. Corn in milk stage 11%, 29% 1992, 44% avg. Dry beans with leaves turning color 0%, 15% 1992, 13% avg. Alfalfa 2nd cutting completed 29%, 46% 1992, 54% avg. Other hay harvested 77%, 76% 1992, 83% avg. Range, pastures good to excellent.

International Weather and Crop Summary HIGHLIGHTS

August 8 - 14, 1993

FSU: Harvest weather continued mostly favorable. In the New Lands, hot, dry weather favored spring grain maturation in Kazakhstan.

EUROPE: Harvest weather improved, although wetness persisted in Germany.

SOUTH ASIA: Unfavorably dry, warm weather stressed crops in central and western India.

EASTERN ASIA: Across most of China, widespread showers favored summer crops. Heavy rains caused additional flooding and possible crop damage in southern Japan and South Korea.

SOUTHEAST ASIA: Warm, dry weather continued over Thailand's rainfed rice areas.

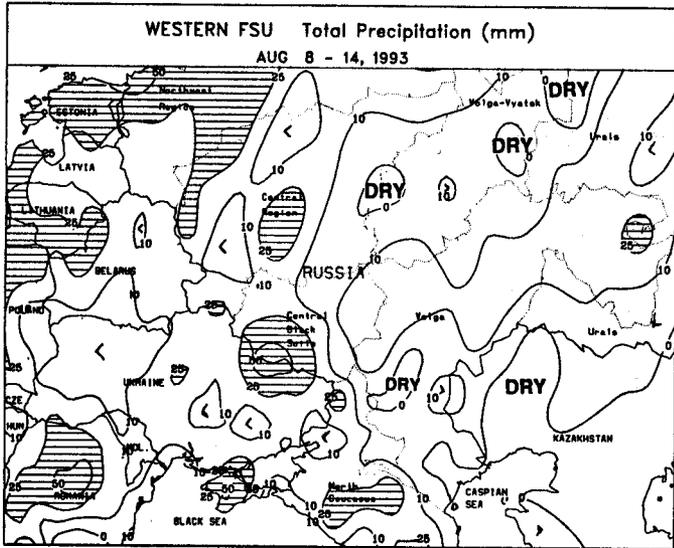
AUSTRALIA: Rain aided vegetative wheat across western and southern Australia.

SOUTH AMERICA: In southern Brazil, freezing temperatures may have damaged flowering winter wheat.

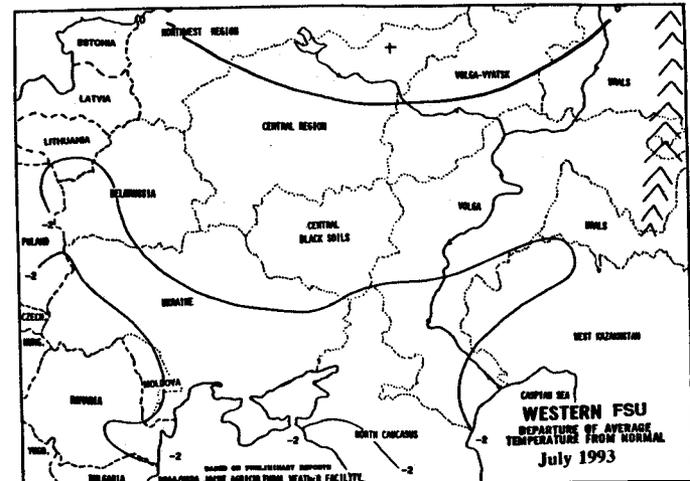
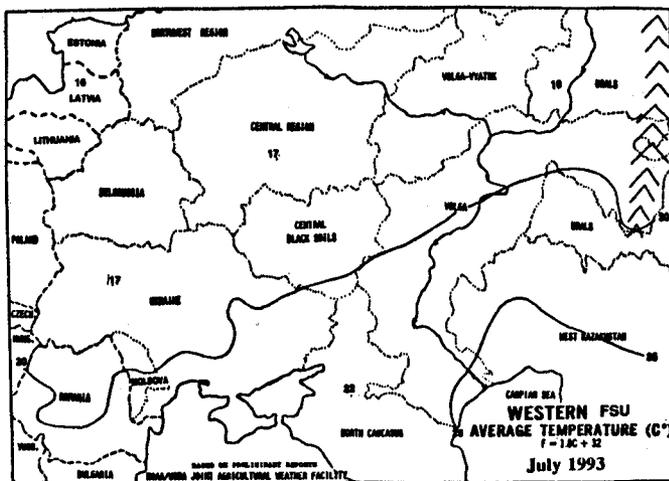
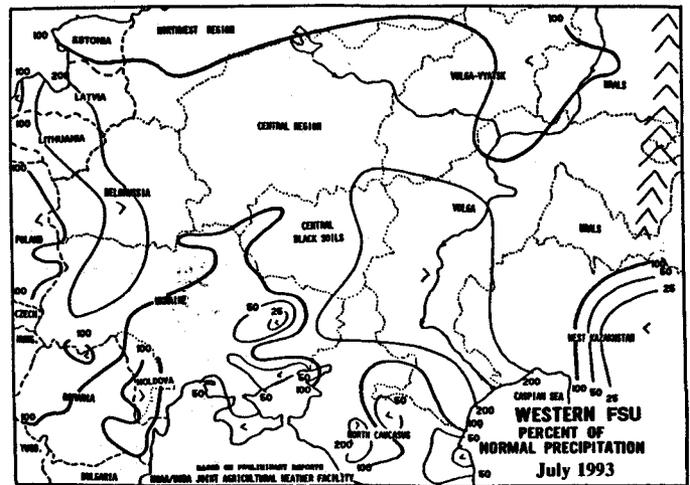
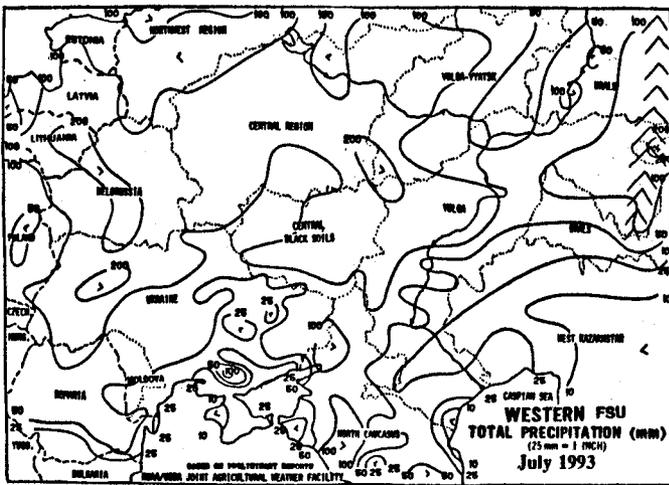
CANADA: Cool, wet weather persisted over the Prairies, raising quality and disease concerns.

MEXICO: Seasonal rains benefited summer crops.

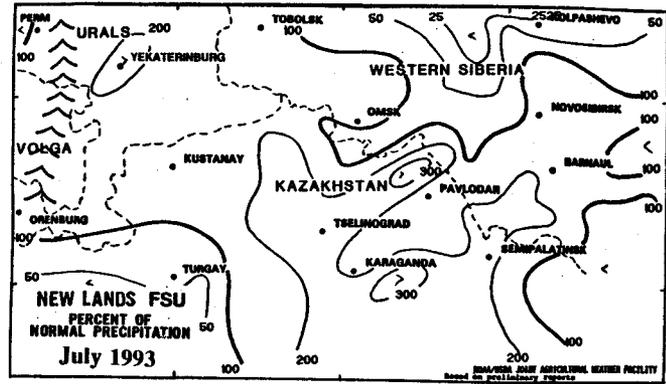
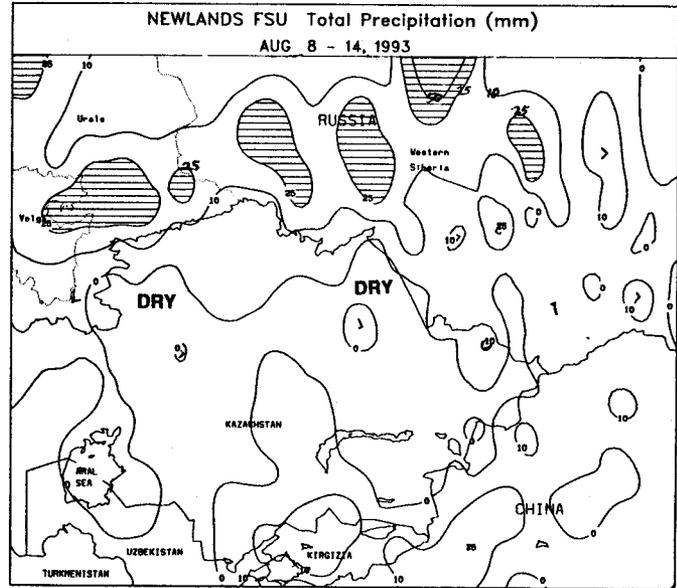




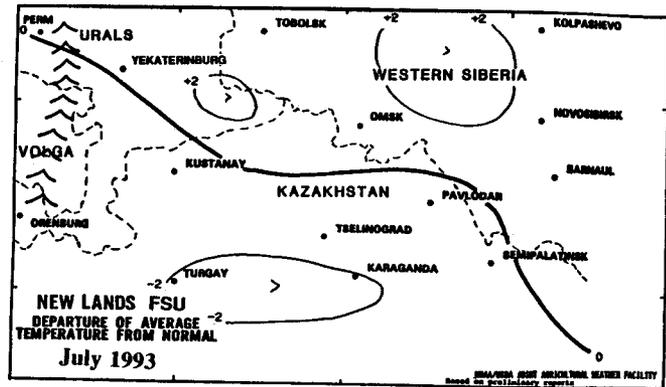
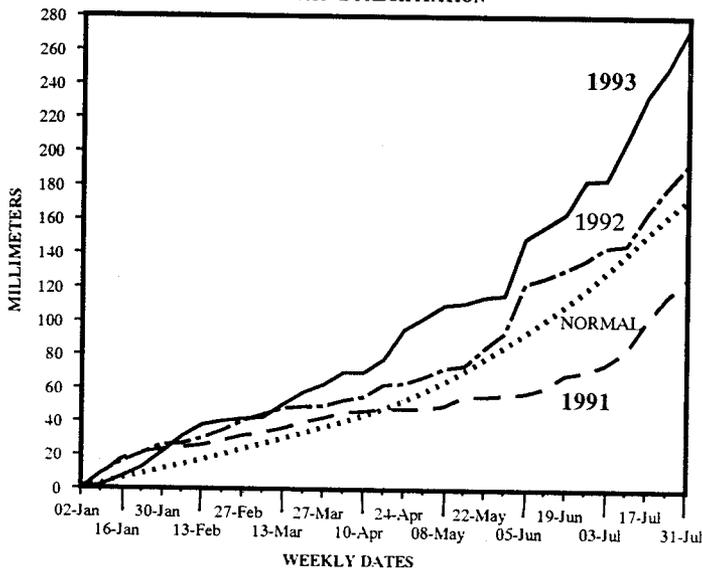
FSU-WESTERN: Favorable harvest weather covered most of the region. Early in the week, warm, dry weather allowed rapid winter and spring grain harvesting. However, by week's end, a frontal system moved eastward across the region, bringing cooler weather and light to moderate rain (10-25 mm, with local amounts in excess of 25 mm). The late-week rain caused only brief harvest delays. Moisture conditions were favorable for winter grain planting, which usually begins in northern areas in mid-August. In July, rainfall continued mostly above-normal. The rain was mostly beneficial for spring grains, which advanced through reproduction in the north and were filling in the south, but the wetness disrupted winter grain harvesting. Moderate to heavy rain (100-240 mm) in July soaked Latvia, Lithuania, Belarus, and Ukraine. In contrast, below-normal precipitation in central and southern Ukraine helped winter grain harvesting. While July's dryness in these areas limited moisture for corn, advancing through reproduction, below-normal temperatures lowered crop stress.

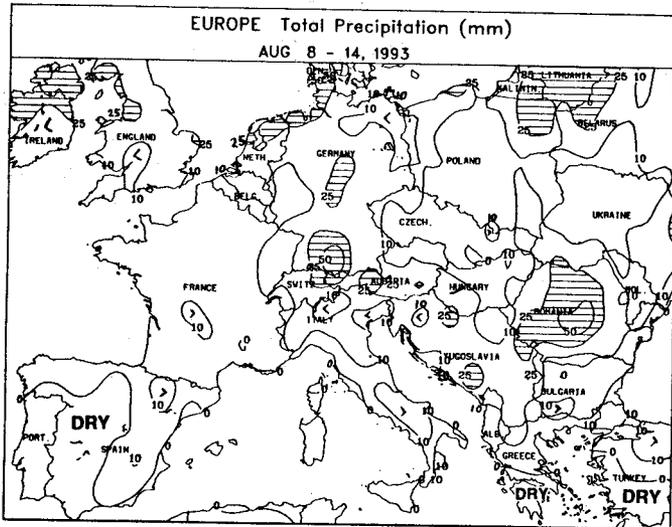


FSU-NEW LANDS: Hot, dry weather covered spring grains in southern Urals and Kazakhstan. Since spring grains were in the latter stages of development, the hot weather (maximum temperatures ranging from 31 to 36 degrees Celsius (C)) was overall favorable for spring grain maturation and early harvest. Further north, light to moderate rain (10-25 mm, with local amounts in excess of 30 mm) over Urals and Western Siberia benefited spring grains in the grain-filling stages. Weekly average temperatures were 2-4 degrees C above normal over the region. In July, favorable weather over most areas increased yield prospects. Spring grains advanced through the highly weather-sensitive reproductive phase of development in July. In Kazakhstan, the wettest July on record (43 years of data) maintained abundant moisture for crops. Heavy rain (150-235 mm) in the Urals caused localized flooding, while lesser amounts of rain in Western Siberia maintained highly favorable conditions for crop growth.

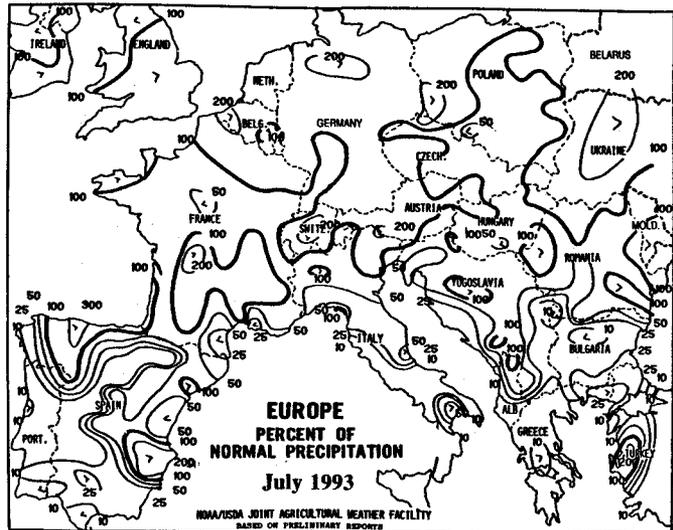
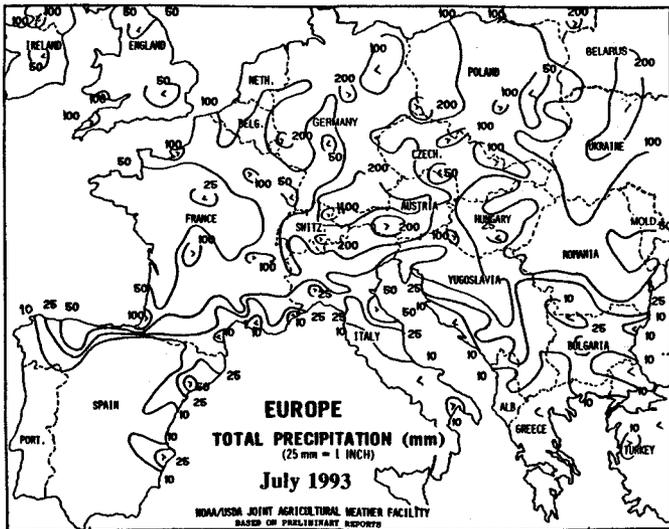


CENTRAL KAZAKHSTAN
CUMULATIVE PRECIPITATION

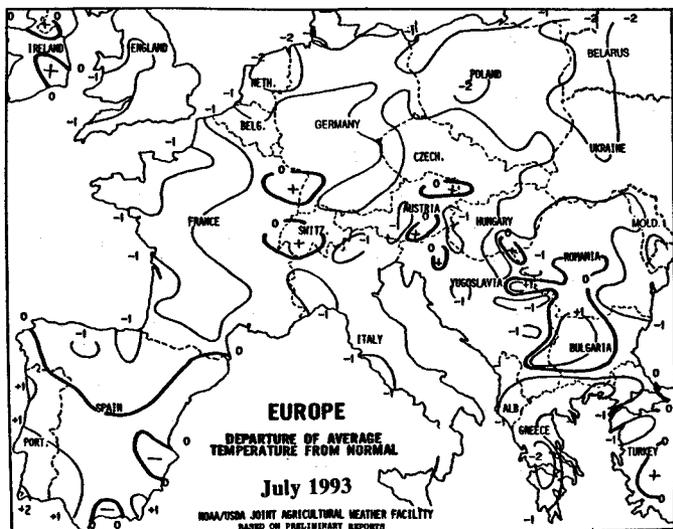
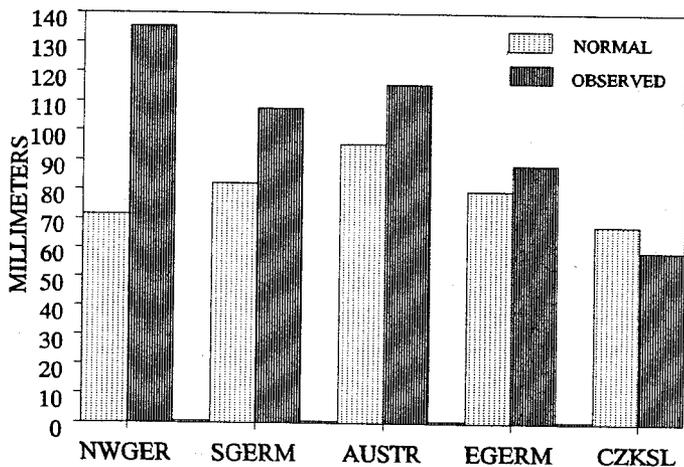




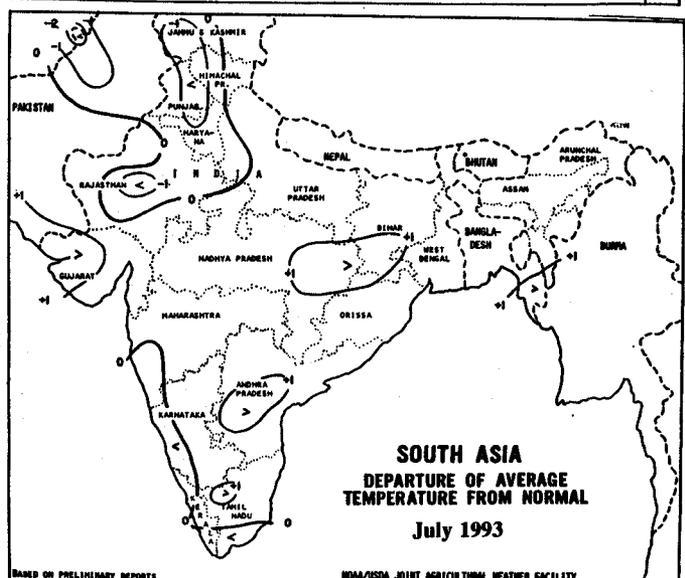
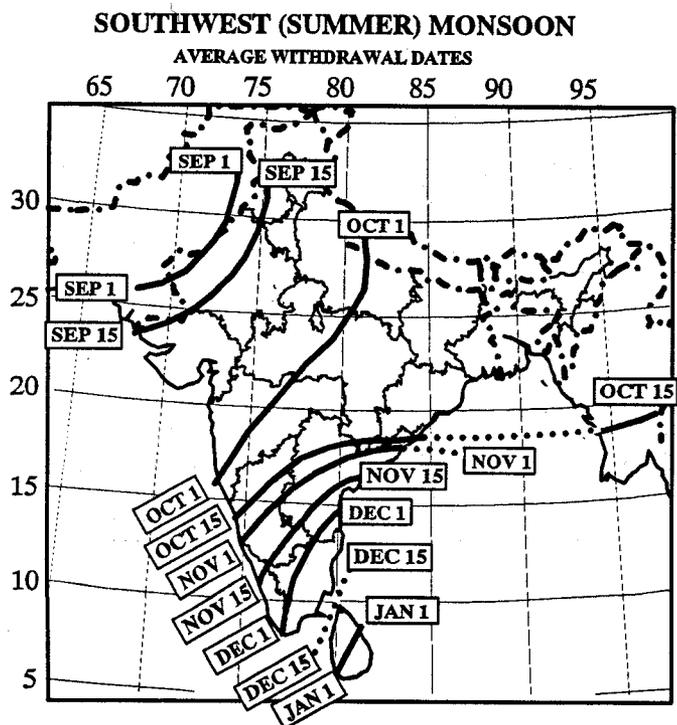
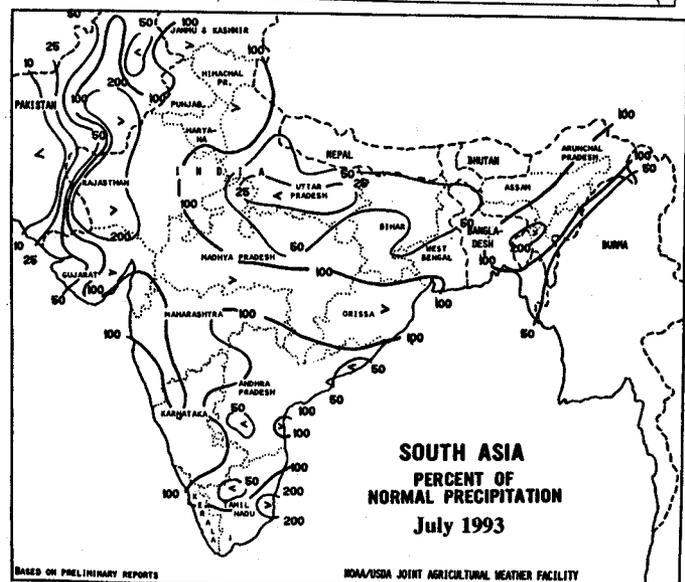
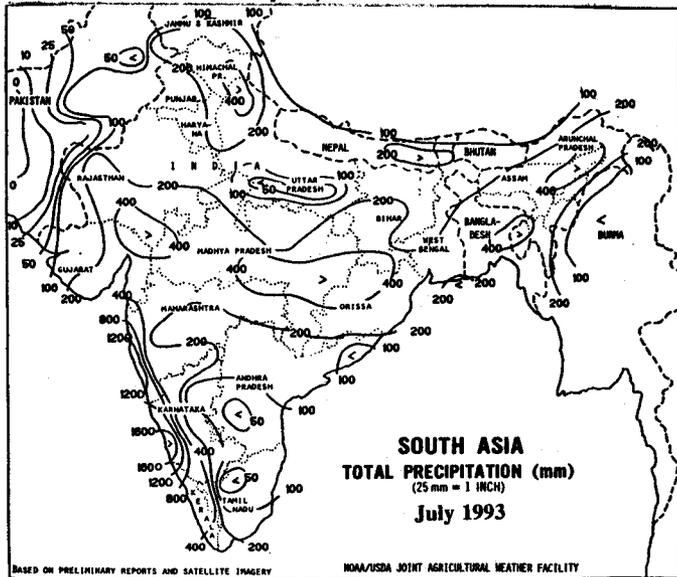
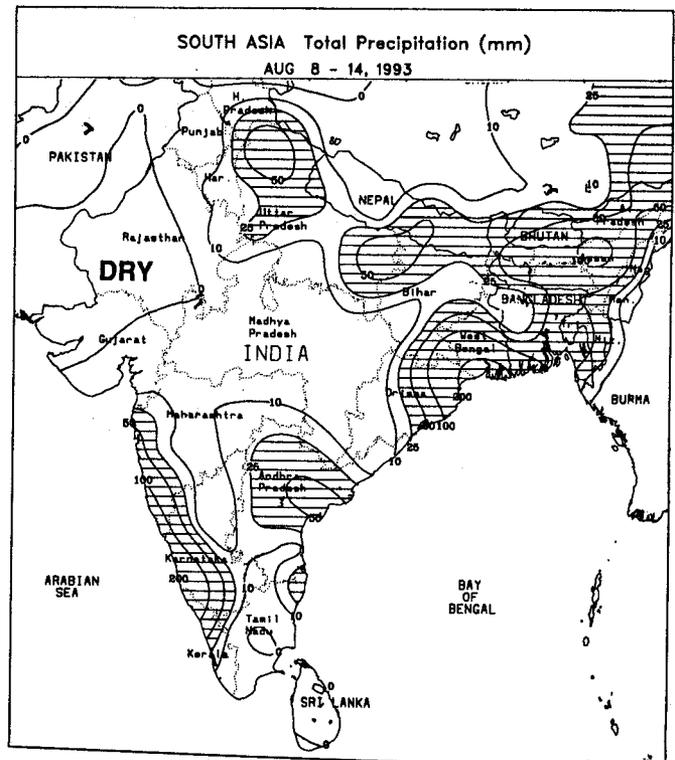
EUROPE: Harvest weather generally improved over most crop areas, but some rain fell throughout all but Mediterranean areas. Weekly rainfall averaging 14-42 mm continued to disrupt grain harvesting over most of England, the Netherlands, and Germany. Light rain (less than 10 mm) in southwestern England, France, Belgium, most of Poland, the Czech Republic, and Slovakia allowed some harvest progress. Widespread rain in southeastern Europe helped grain-filling corn and other immature summer crops, but slowed winter crop harvesting. Weekly amounts were variable (3-27 mm) in drought-affected Hungary and Bulgaria, while locally heavy rain (40-74 mm) fell in the mountains of Romania. Widespread rain (20-72 mm) soaked maturing grain throughout Scandinavian crop areas. In July, untimely above-normal rainfall across northern crop areas delayed early winter crop harvesting. Scattered areas of over 200 percent of monthly normal rainfall soaked the Benelux countries, northern Germany, and northwestern Poland. In contrast, below-normal rainfall stressed corn in Hungary, southern Romania, and Bulgaria. Moisture was mostly adequate for corn in France.

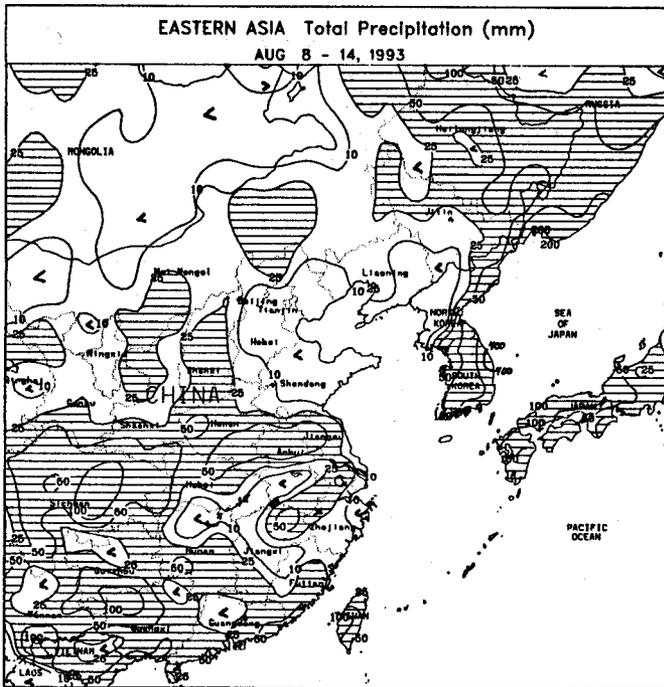


NORTHERN EUROPE
30 DAY PRECIPITATION (ENDING AUG 11, 1993)

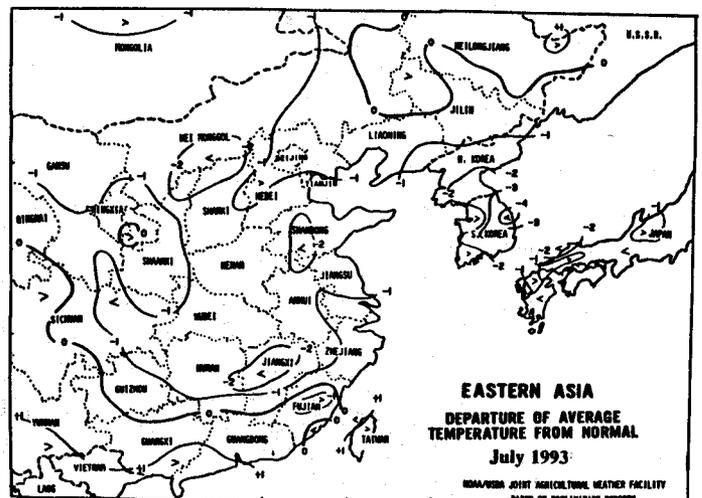
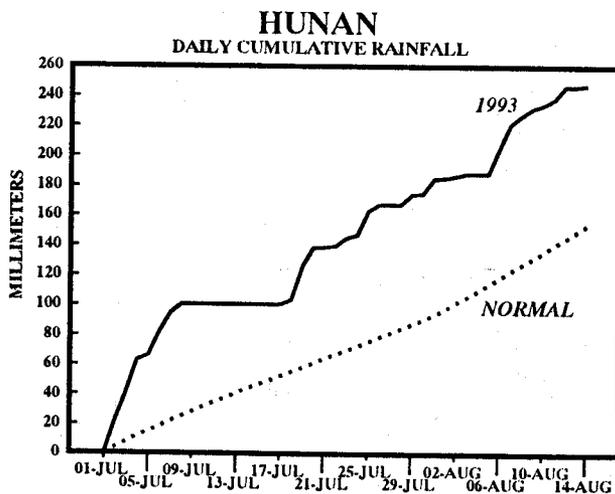
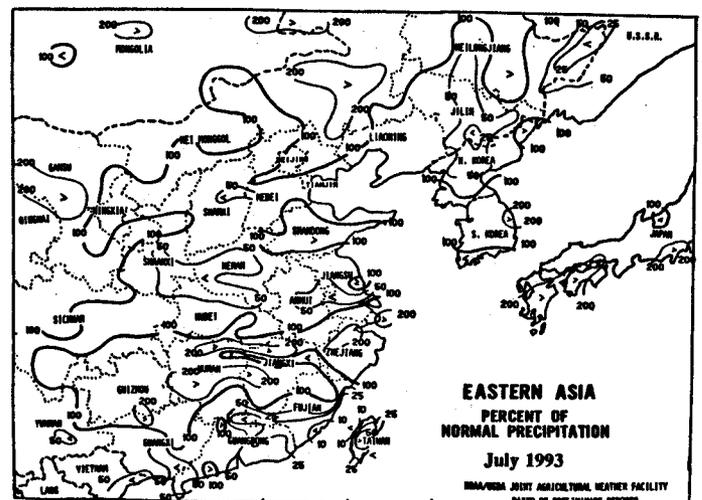
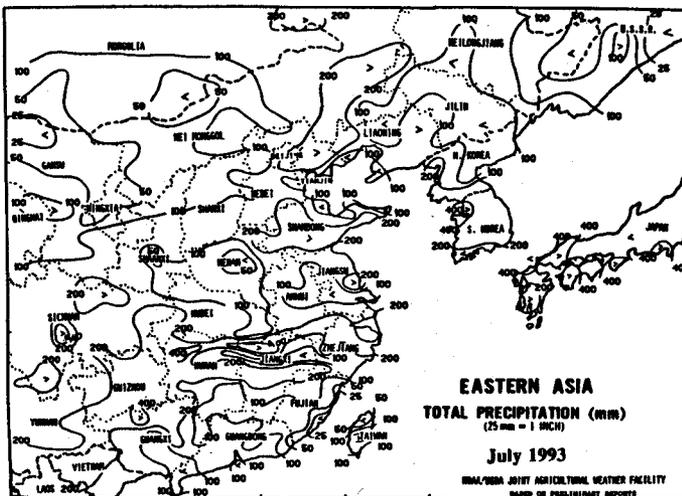


SOUTH ASIA: Unfavorably dry, warm weather covered most of central and northwestern India and Pakistan, reducing moisture for rainfed crops. Primary groundnut and cotton areas of central and western Gujarat have been dry since mid-July and need rain immediately to prevent further declines in yield potential. Rainfed grains and oilseeds throughout central and western India typically reach reproductive phases of development by late-August. Drier-than-normal conditions also prevailed in India's southern interior, except for western Andhra Pradesh, which received beneficial rain (15-37 mm) for grains and oilseeds advancing through reproduction. Moderate to heavy showers (25-100 mm or more, with isolated totals exceeding 200 mm) increased irrigation levels in rice areas of eastern India and Bangladesh. In July, rainfall totaled near to above normal at many locations with more flooding reported in northern cotton and eastern rice areas. However, unseasonable dryness continued over the southern interior and by month's end developed over much of northern and northwestern India and Pakistan. The monsoon usually begins its withdrawal from the northwest in early September.

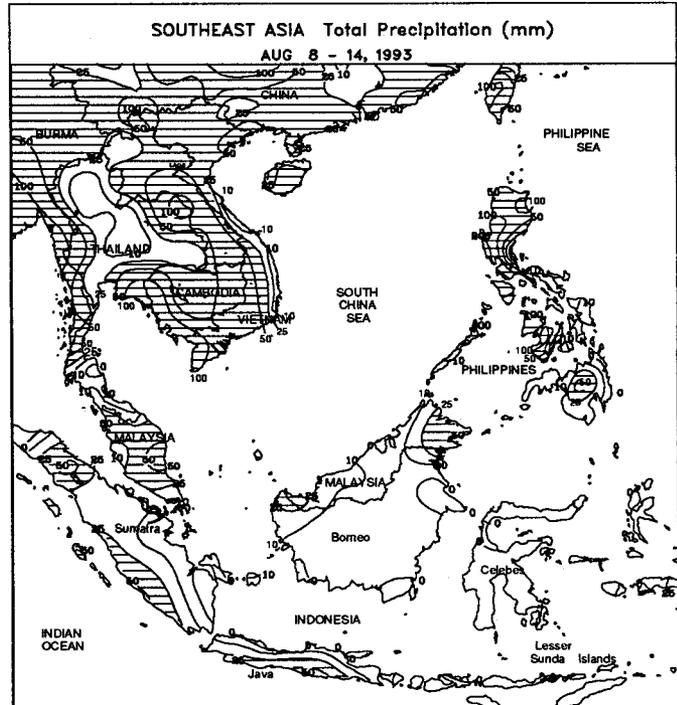




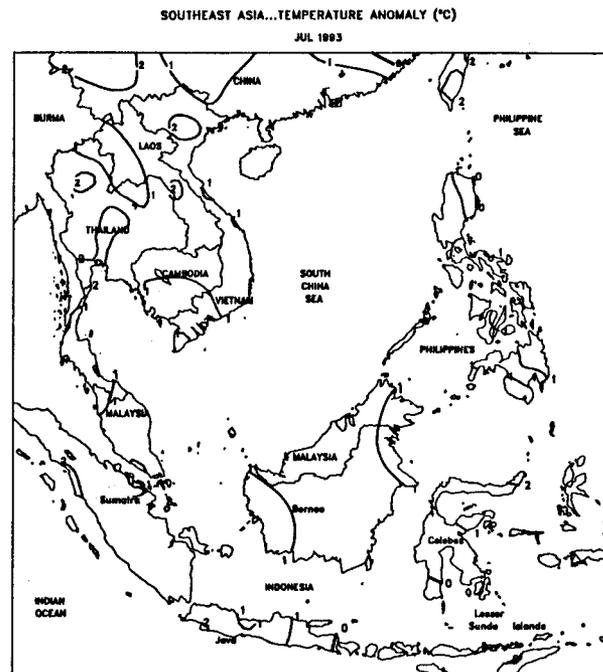
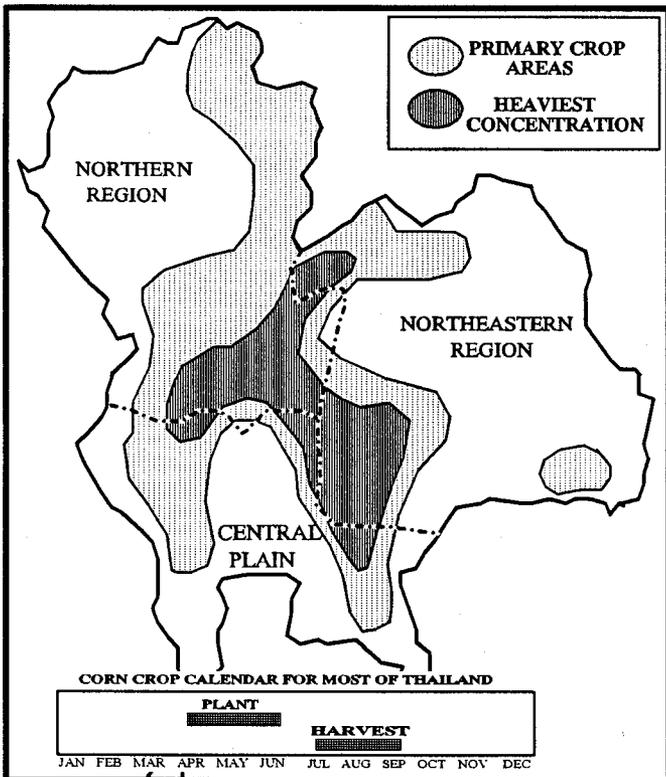
EASTERN ASIA: Somewhat drier weather (less than 15 mm) prevailed across portions of the North China Plain (Hebei and Shandong), allowing fields to dry out from previously heavy rains. Further west and south, moderate rains (20-90 mm) kept soils well watered and irrigation supplies high. However, moisture may be excessive in the cotton areas of Jiangsu and northern Anhui. Moderate to heavy rains (50-200 mm) fell across portions of Sichuan, Guizhou, and Guangxi, possibly damaging maturing single-crop rice, corn, and cotton. Elsewhere, in central and southern China, moderate showers (15-60 mm) kept moisture conditions favorable. Moderate rains (15-60 mm) fell across northern Manchuria, causing localized damage to maturing spring wheat. Early in the week, Tropical Cyclone Robyn passed through the Korea Strait, before becoming an extratropical storm in the Sea of Japan. Heavy rains (100-200, with local amounts greater than 400 mm), partly caused from Robyn, fell across southern Japan and South Korea, causing flooding and damage to rice paddy fields. During July, above- to much-above-normal rainfall produced local flooding across interior southern China (Hunan and Jiangxi) and southern Japan. Below-normal July rainfall was reported in portions of central China (Henan and Hubei) and Manchuria (eastern Jilin). Elsewhere throughout China, July rainfall averaged near normal.



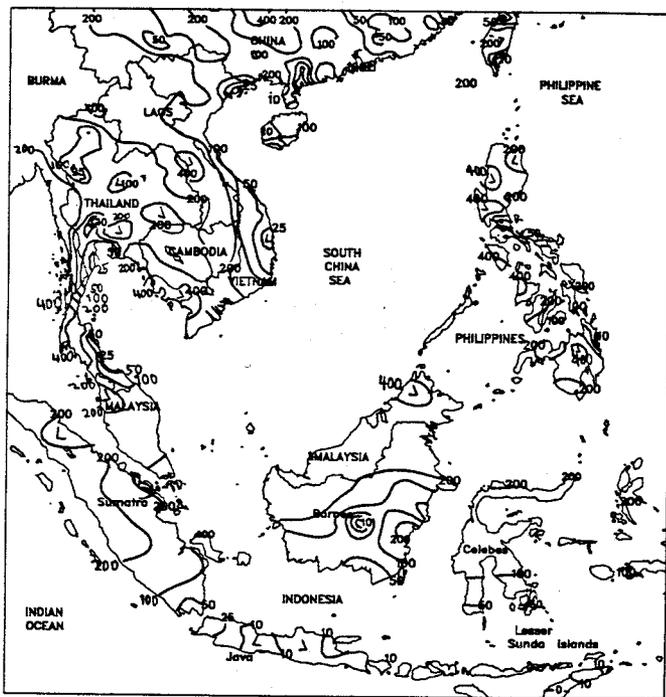
SOUTHEAST ASIA: Warm, dry weather (rainfall totaling less than 25 mm; temperatures 1-2 degrees C above normal) covered most rainfed rice areas of central and northern Thailand, reducing moisture for immature crops. However, the unseasonable conditions benefited maturing corn. The recent drying trend, which began in July, resulted in warmer- and drier-than-normal monthly totals for the second consecutive month in central and northern Thailand. Beneficial rain (25-50 mm or more) fell in rice areas of eastern Thailand and from Bangkok to the Mekong Delta. Local flooding was likely, reflecting July's pattern of infrequent, but at times, heavy precipitation. Scattered showers (25-66 mm) benefited Malaysia's oil palm and rice crops, as well as local areas of western Java. In the Philippines, showers were scattered throughout the islands, with amounts of 25-100 mm in grain areas of the western Visayas and central and northern Luzon. In July, frequent showers benefited immature grains and sugarcane, although totals were near to below normal.



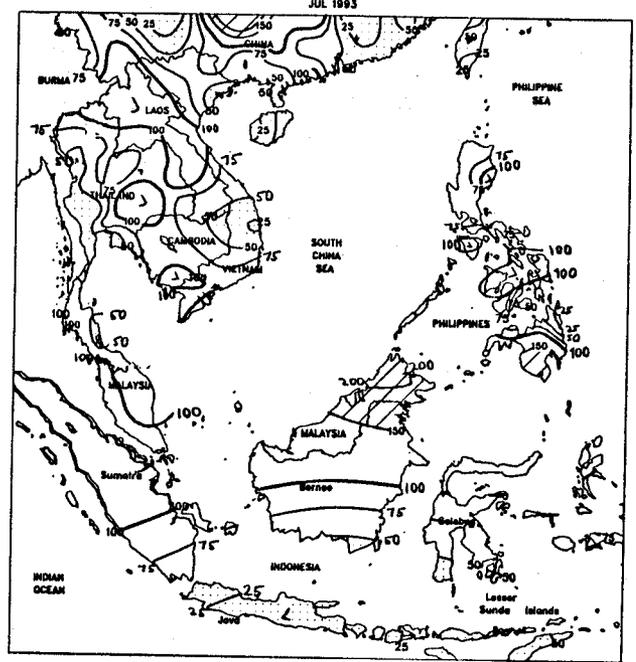
MAJOR THAI CORN AREAS



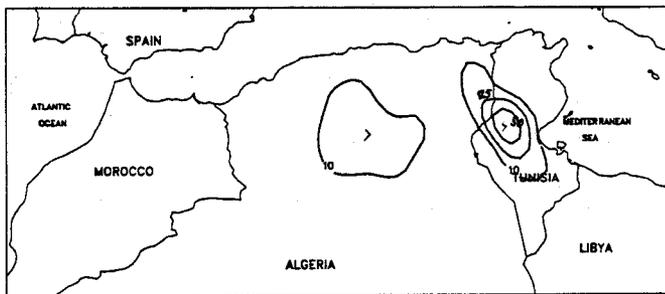
SOUTHEAST ASIA...TOTAL PRECIPITATION (mm)



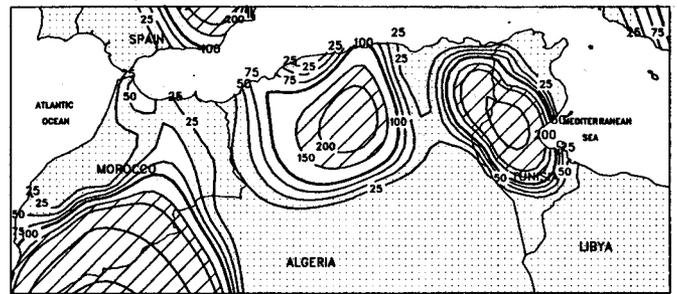
SOUTHEAST ASIA...PERCENT OF NORMAL PRECIPITATION



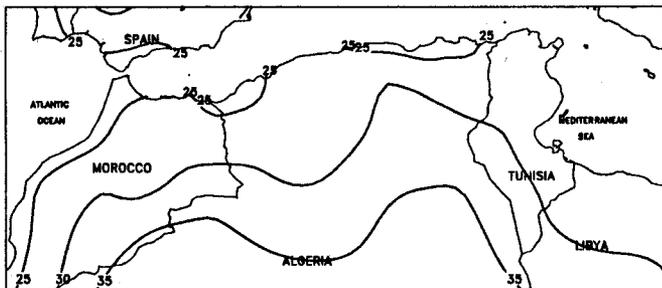
NORTHWEST AFRICA...TOTAL PRECIPITATION (mm)



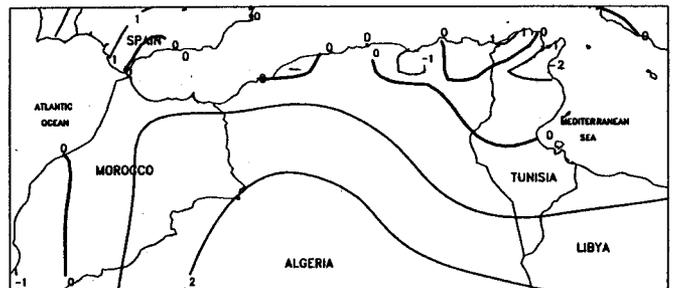
NORTHWEST AFRICA...PERCENT OF NORMAL PRECIPITATION



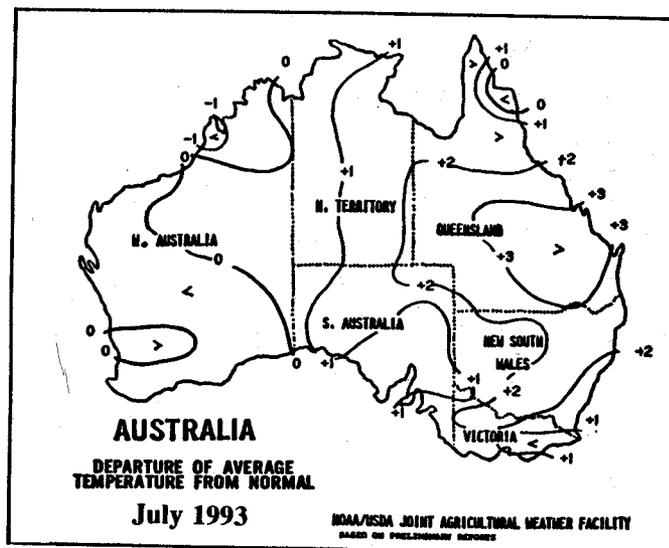
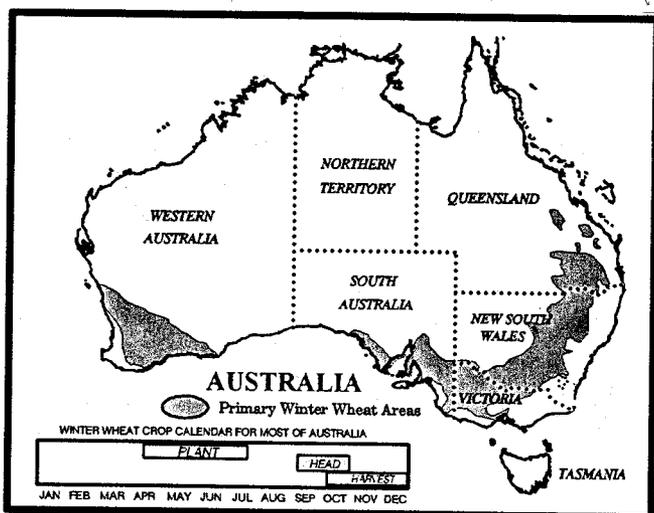
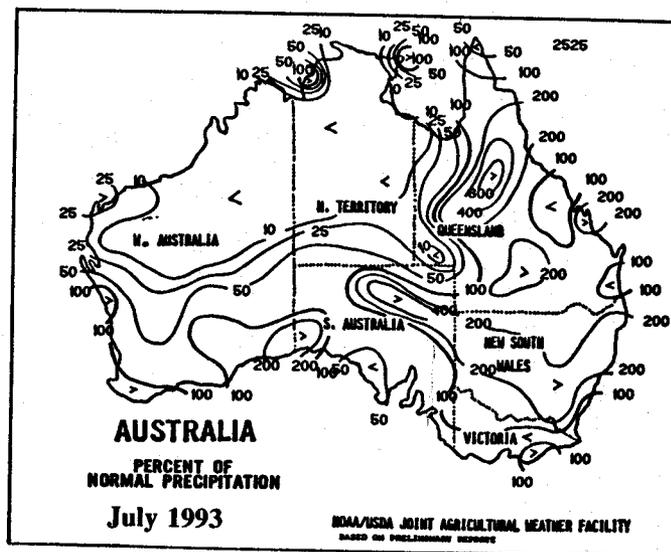
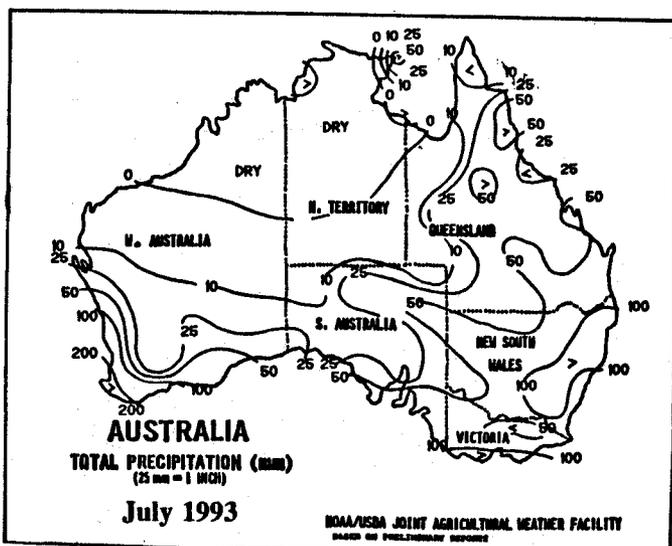
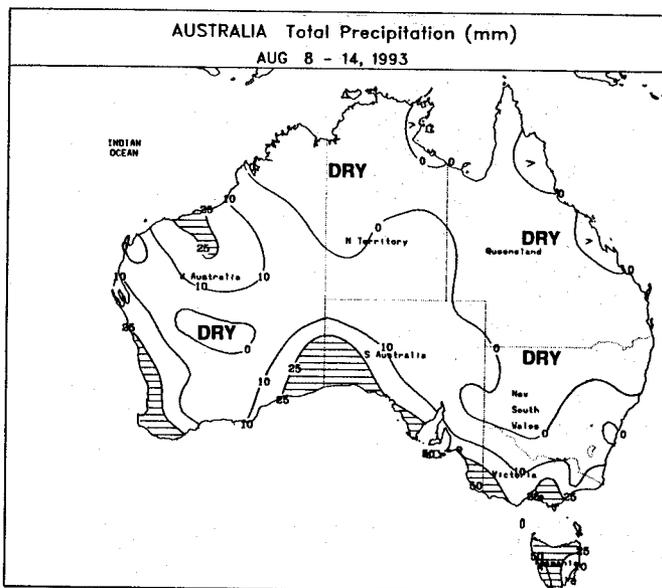
NORTHWEST AFRICA...AVERAGE TEMPERATURE (°C)

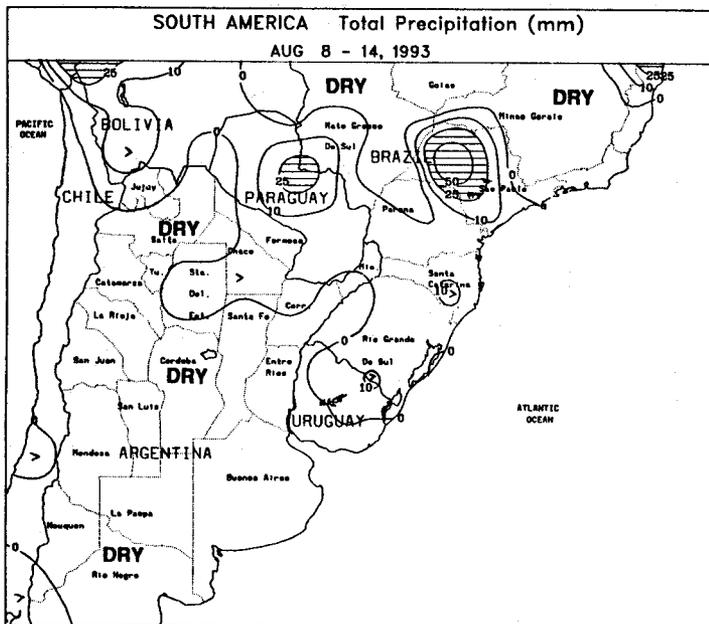


NORTHWEST AFRICA...TEMPERATURE ANOMALY (°C)

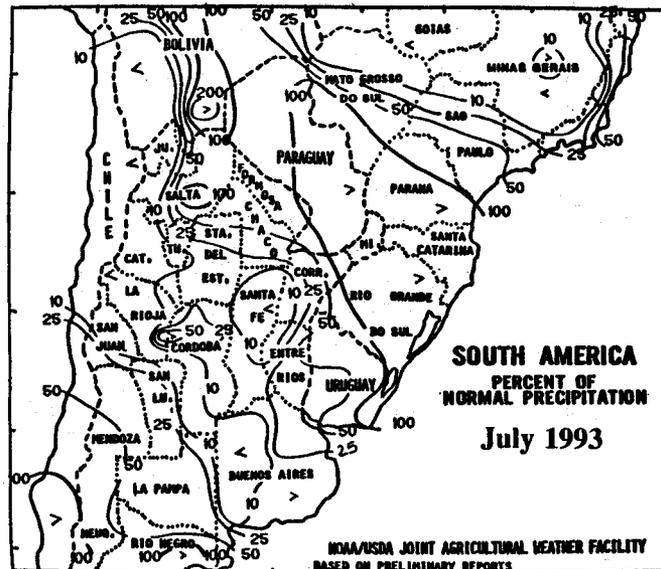
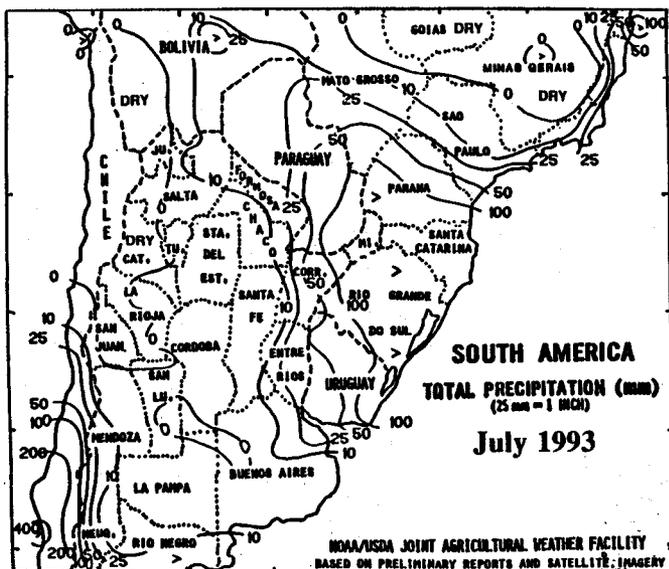


AUSTRALIA: Light to moderate rains (5-50 mm) covered the western and southern wheat regions, favoring vegetative winter wheat. Weekly temperatures averaged 1-3 degrees C above normal across eastern and southern Australia. Near- to above-normal July rainfall improved soil moisture across eastern and southern Australia. However, southern Queensland has received little or no rain since beneficial early July rains. This region has experienced significant rainfall deficits since March 1992, producing currently low soil moisture levels. Near-normal July rainfall kept soils well watered across Western Australia.

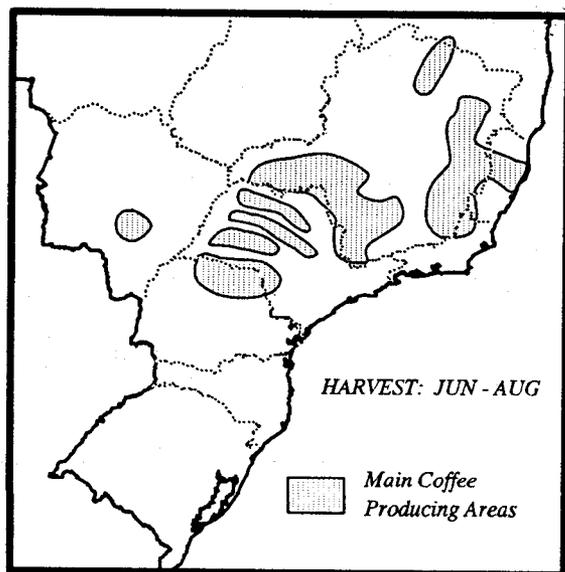




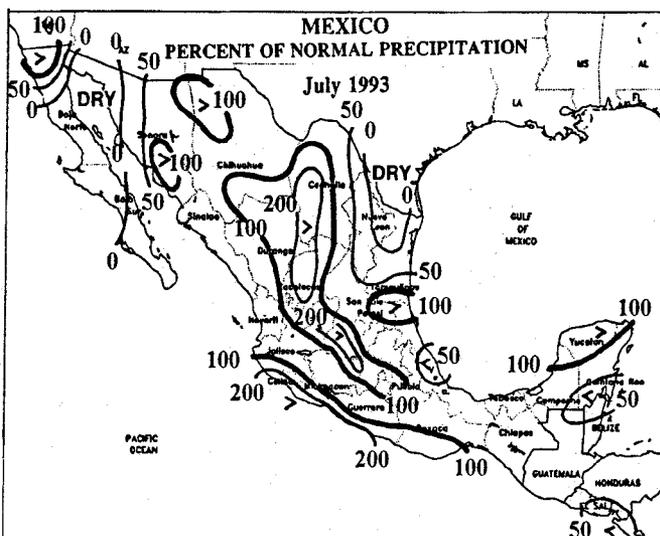
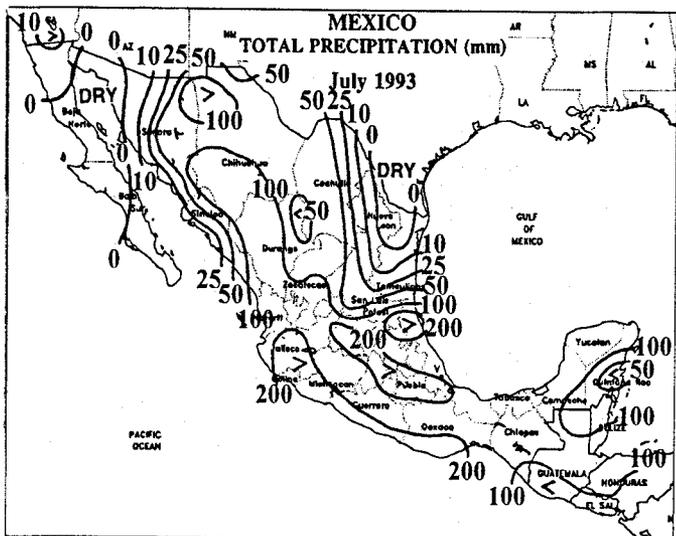
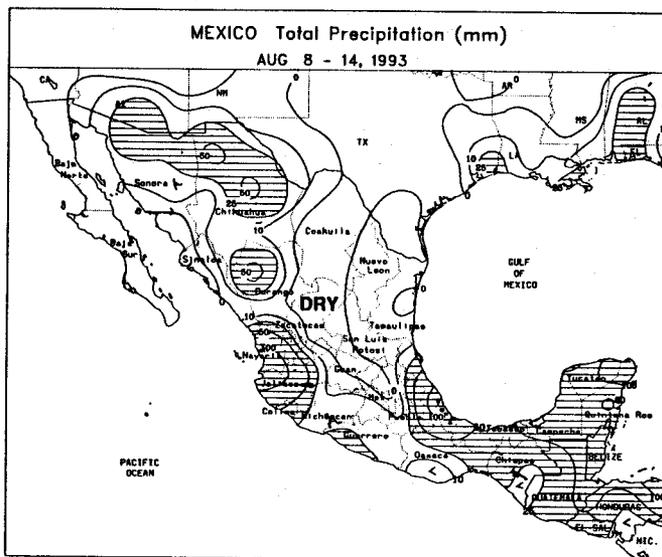
SOUTH AMERICA: In southern Brazil, minimum temperatures of -2 to 0 degrees C were reported across central and southern Parana and Santa Catarina, reaching the threshold of damage to reproductive wheat. This region also received light rain (1-13 mm), favoring soil moisture supplies. Isolated moderate showers (25-75 mm) fell across Sao Paulo, slowing fieldwork. Near-normal July rainfall favored wheat growth from Parana southward, while seasonally dry weather aided coffee, citrus, and sugarcane harvesting across Sao Paulo and Minas Gerais. July temperatures averaged 1-3 degrees C below normal from central Argentina into southern Brazil, where periodic freezing temperatures possibly damaged coffee and winter wheat in southern Brazil. In central Argentina, dryness continued as in July, drying out previously flooded fields and allowing winter fieldwork to progress. Weekly minimum temperatures ranged from -1 to -6 degrees C across central Argentina, causing only minor bumback to hardened winter wheat.



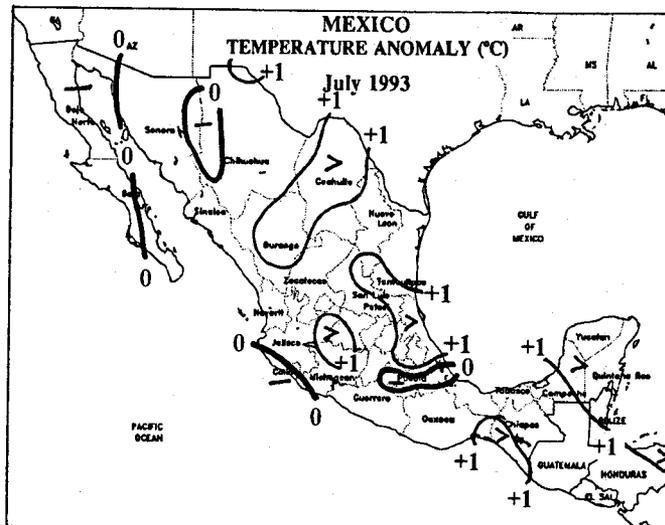
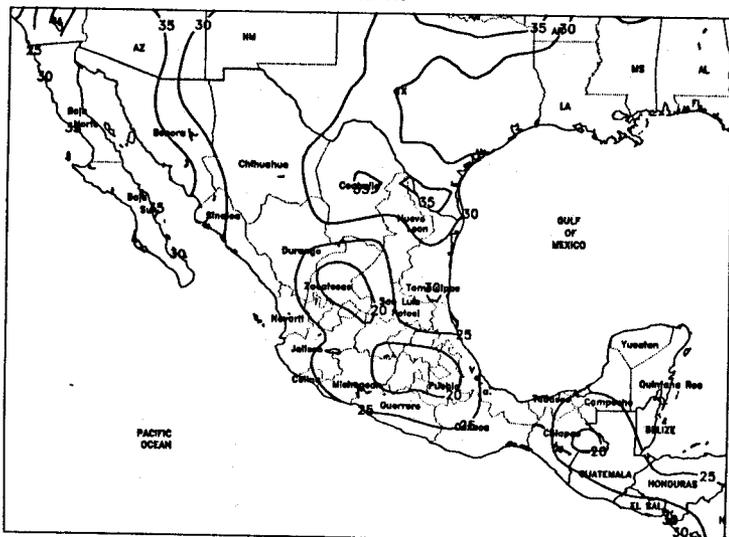
Brazilian Coffee Areas

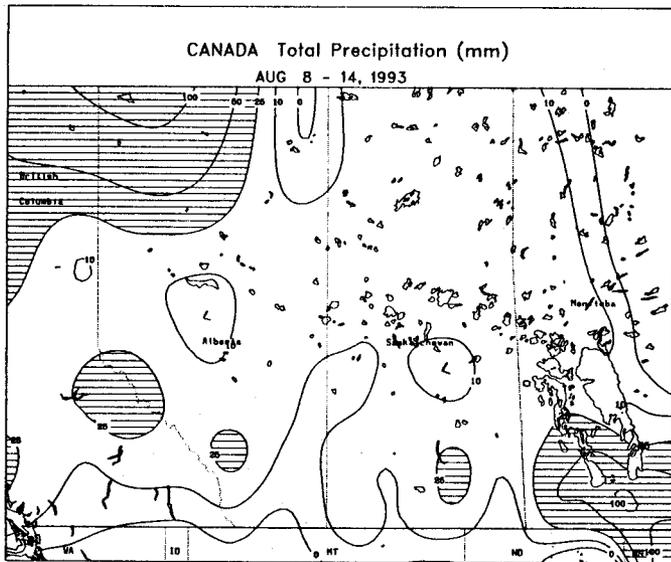


MEXICO: Moderate to heavy showers (25-125 mm) fell across the western and eastern corn belt, while the central areas received lesser amounts (5-25 mm). These rains kept moisture conditions favorable for summer crops. Scattered showers (30-70 mm) benefited reservoirs along the western Sierra Madre. Southeastern Mexico received widespread tropical showers (25-100 mm), benefiting corn. July rainfall averaged near to above normal across most of southern Plateau corn belt, favoring corn.

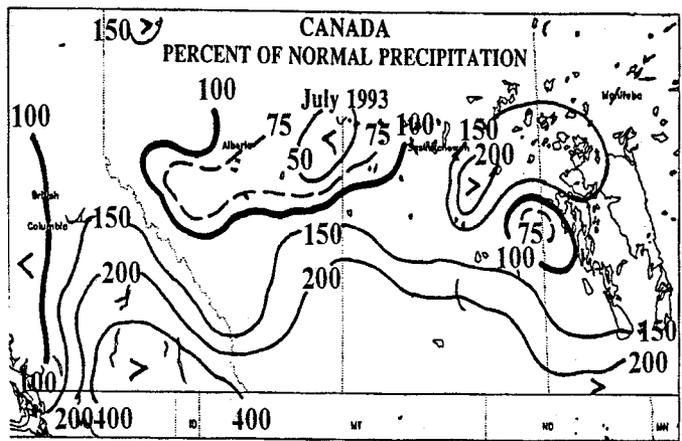
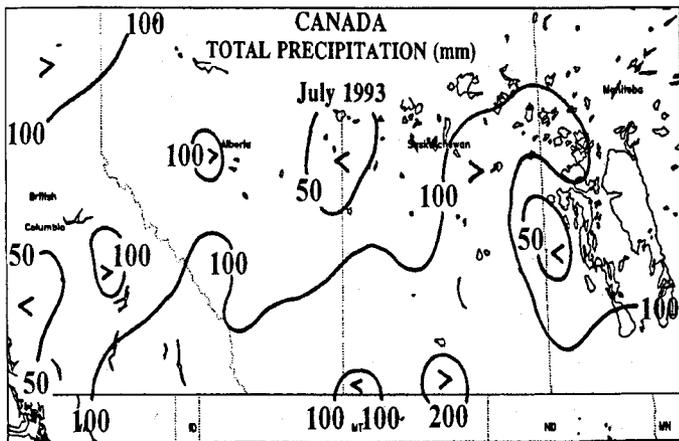


MEXICO...AVERAGE TEMPERATURE (°C)
JUL 1993



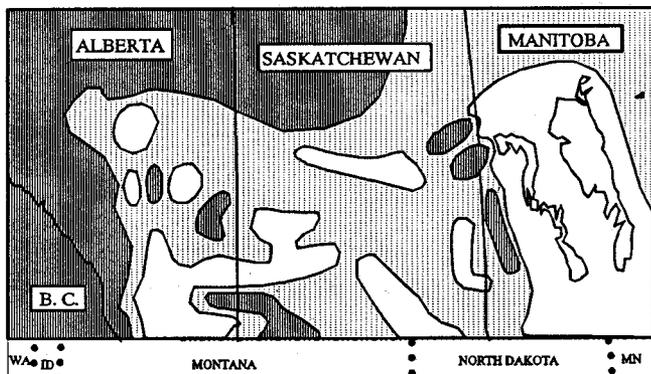


CANADA: Light to moderate showers (5-41 mm) and cooler-than-normal temperatures (2-4 degrees C below normal) persisted over Alberta and Saskatchewan, threatening to reduce the quality of filling to maturing grains and oilseeds. Grand Prairie, Alberta, located near the Peace River Valley, reported its first freeze of the season, at least 2 weeks ahead of schedule. Heavier showers (25-50 mm or more, with local reports exceeding 100 mm), accompanied by near-normal temperatures, covered Manitoba, likely causing some local lodging. Near- to above-normal July rainfall aided growth of vegetative grains and oilseeds. July temperatures averaged 2-4 degrees C below normal, and crops across the Prairies ranged from 1 to 2 weeks behind schedule in development, increasing the risk of frost damage. In Ontario, dry, mild weather favored winter wheat harvests, and aided growth of filling summer crops. Periods of rain mixed with sunny, warm weather in July aided Ontario's crop development.

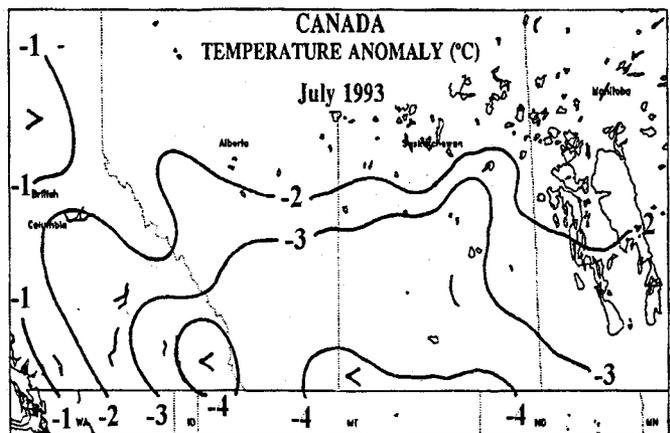


CANADIAN PRAIRIES

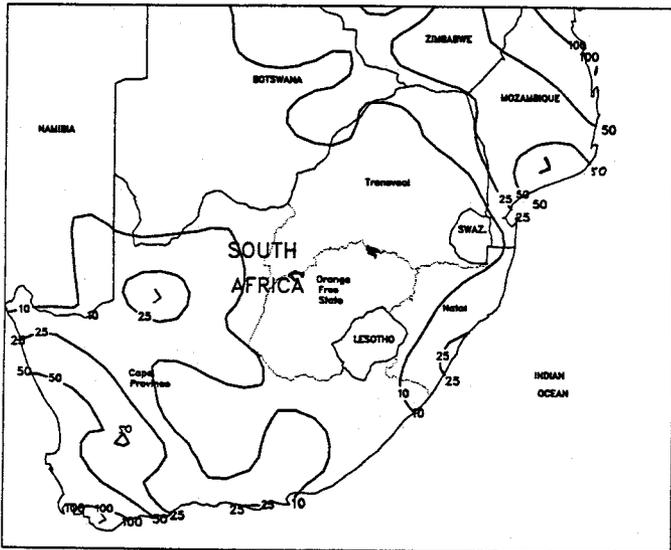
AVERAGE DATE OF FIRST AUTUMN FREEZE (0 Deg C)



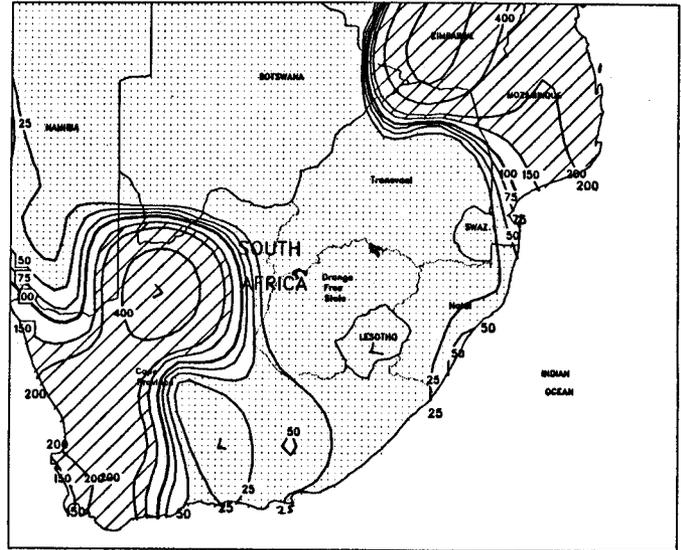
● Before August 31 ○ September 1 to 10
○ After September 10



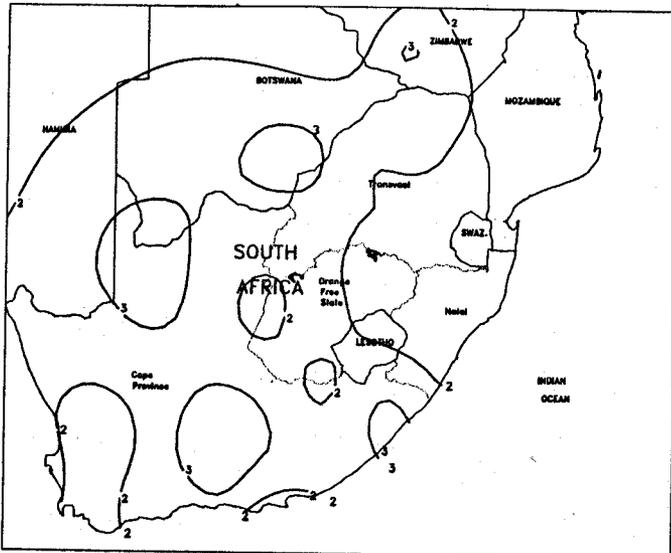
SOUTH AFRICA...TOTAL PRECIPITATION (mm)
JUL 1993



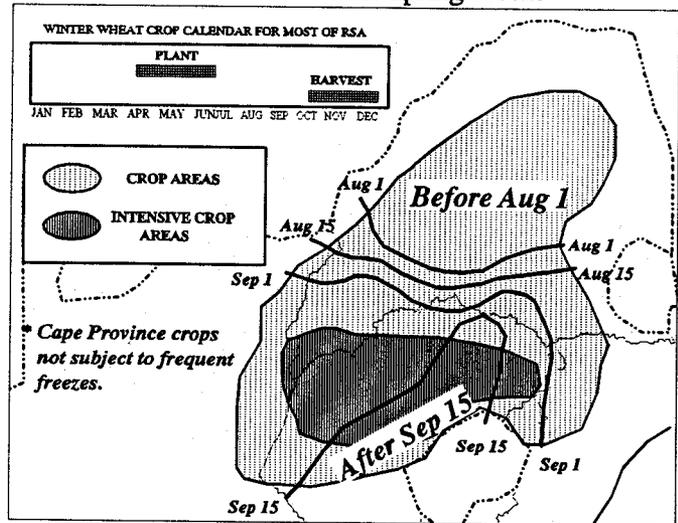
SOUTH AFRICA...PERCENT OF NORMAL PRECIPITATION
JUL 1993



SOUTH AFRICA...TEMPERATURE ANOMALY (°C)
JUL 1993



SOUTH AFRICA WINTER WHEAT
Mean Date of Last Spring Freeze



El Nino/Southern Oscillation (ENSO) Update

Atmospheric and oceanic conditions indicate that the effects of the 1991-93 warm episode have greatly diminished. The Climate Analysis Center/NMC issued the following advisory on August 10, 1993.

Warm episode conditions weakened during July, as sea surface temperature (SST) anomalies decreased and equatorial easterlies increased in many sections of the tropical Pacific. Near-normal equatorial easterlies were observed throughout the Pacific during July, following eight consecutive months of weaker-than-normal easterlies. SST anomalies continued to decrease markedly in the Niño 3 region (fig. 1), as the climatological cold tongue became well established. However, significant positive SST anomalies (near +1°C) remained in the Niño 4 region (from the date line east to near 160°W), and along the west coast of South America. Enhanced convection continued along the equator near the date line, consistent with the anomalously warm water in the region. The remainder of the tropics showed near-normal convective activity during July.

In spite of the return to near-normal equatorial easterlies, the overall pattern of sea level pressure (SLP) anomalies remained similar to that observed during the last several months. Negative SLP anomalies continued in the eastern tropical Pacific, while positive SLP anomalies were observed throughout Indonesia. Consistent with this pattern the Southern Oscillation Index (SOI) was again negative (-1.1).

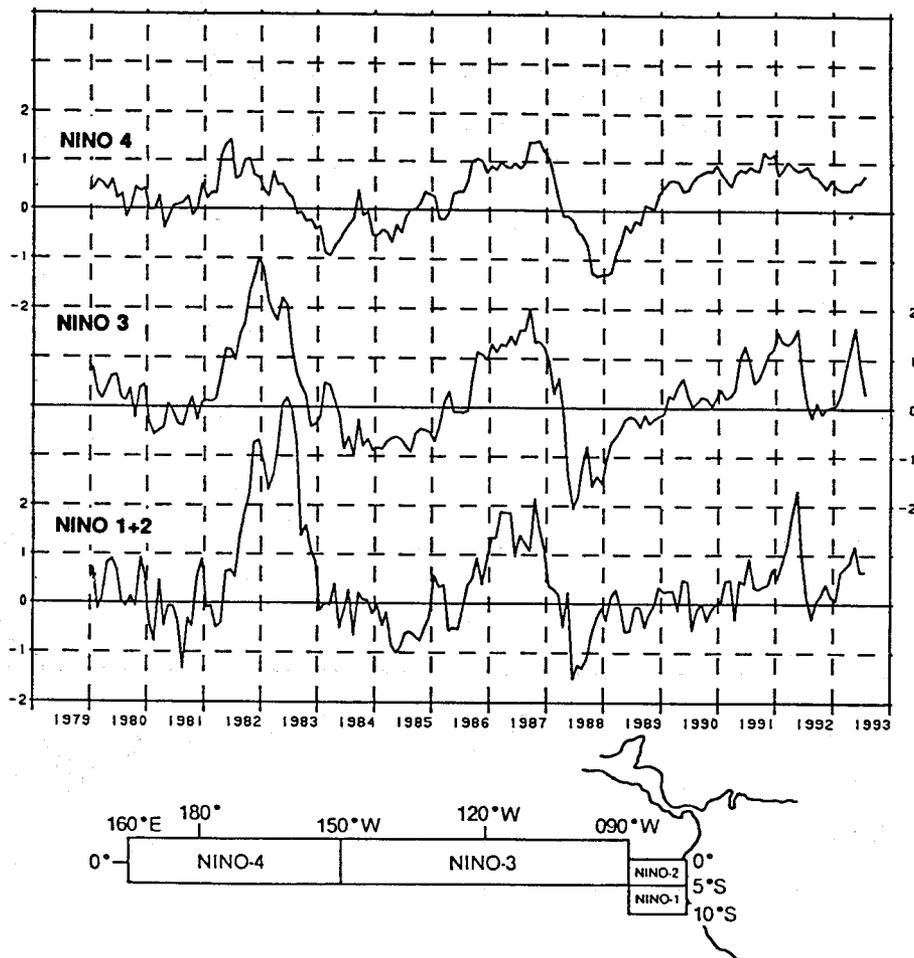


FIGURE 1. Equatorial Pacific sea surface temperature anomaly indices (°C) for the areas indicated in the figure. Niño 1+2 is the average over the Niño 1 and Niño 2 areas. Anomalies are computed with respect to the COADS/ICE climatology (Reynolds 1988, *J. Climate*, 1, 75-86).

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(Continued from front cover)

overnight into the lower Ohio Valley. Impressive rainfall amounts accumulated across northern and central Missouri, with 3.06 inches at St. Louis, 5.43 inches at Columbia, and up to 8 inches elsewhere. Champaign, IL, measured 6.49 inches. This recent wet episode allowed Columbia, MO, to record its wettest summer since records began in 1889. Numerous showers also plagued spring wheat farmers to the north. By Saturday, Aberdeen, SD, had recorded its wettest summer on record. In contrast, hot, dry weather worsened drought in Texas and Oklahoma. One hundred-degree readings were common in both States, while rainfall was negligible.

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