

# WEEKLY WEATHER AND CROP BULLETIN

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

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

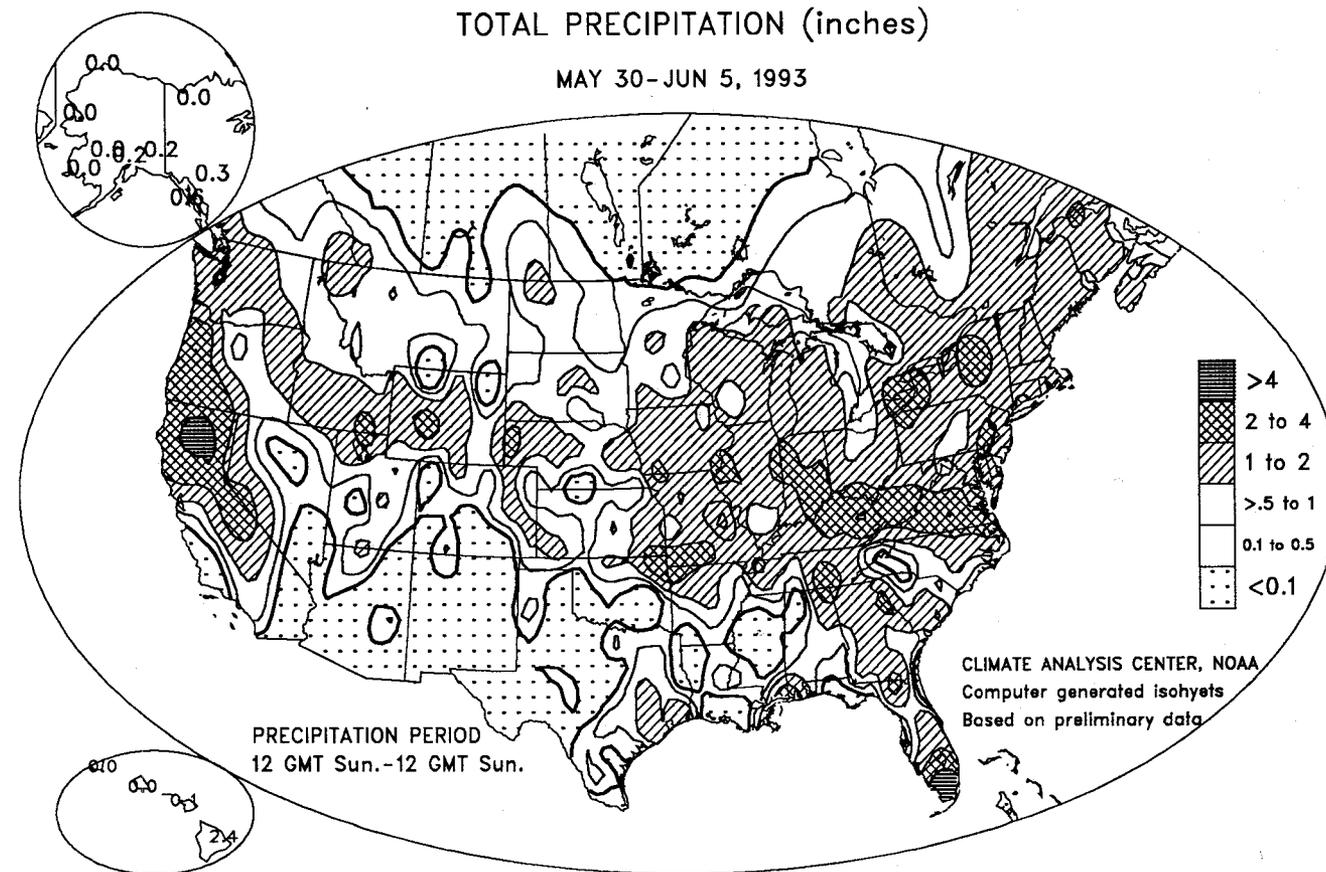
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Washington, D.C.

June 8, 1993

## TOTAL PRECIPITATION (inches)

MAY 30 - JUN 5, 1993



## HIGHLIGHTS

May 30 - June 5, 1993

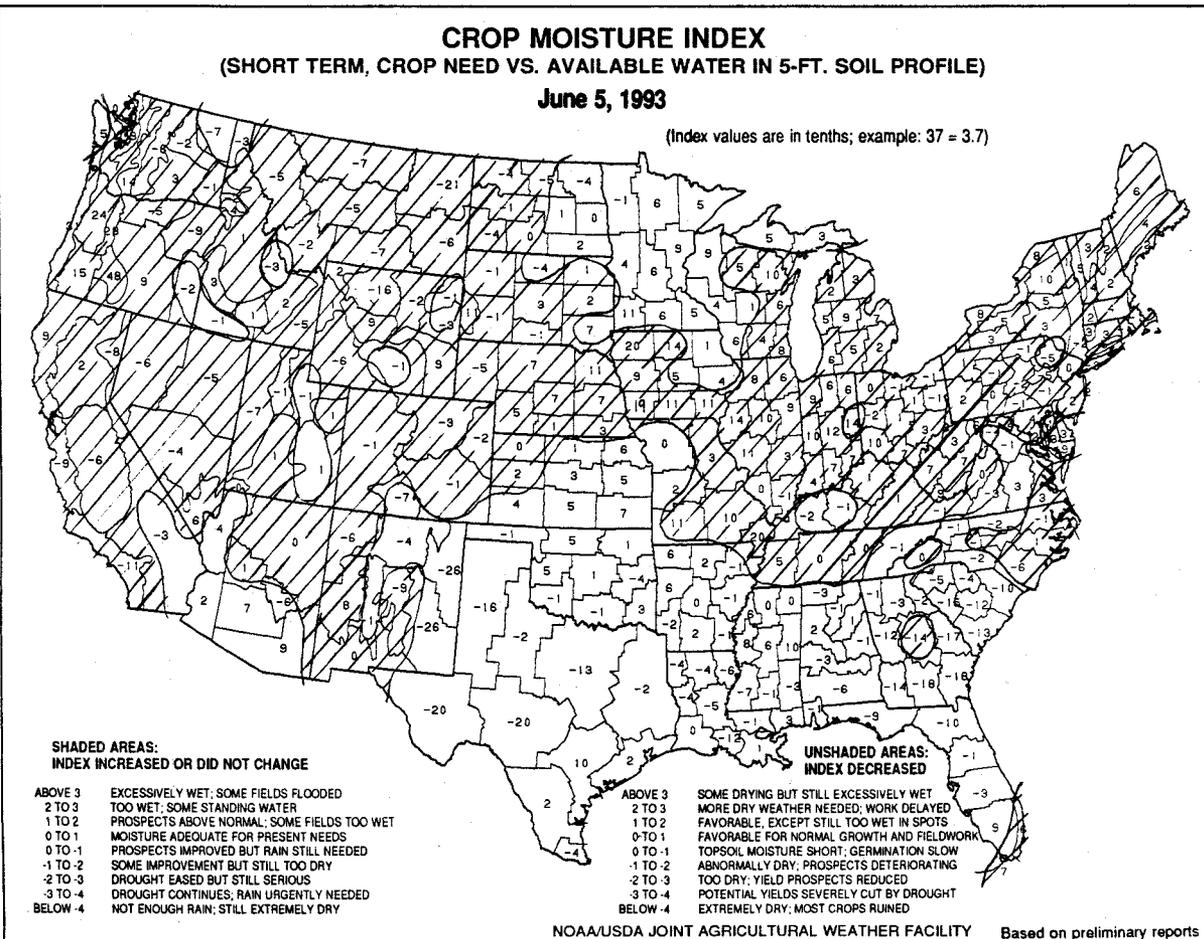
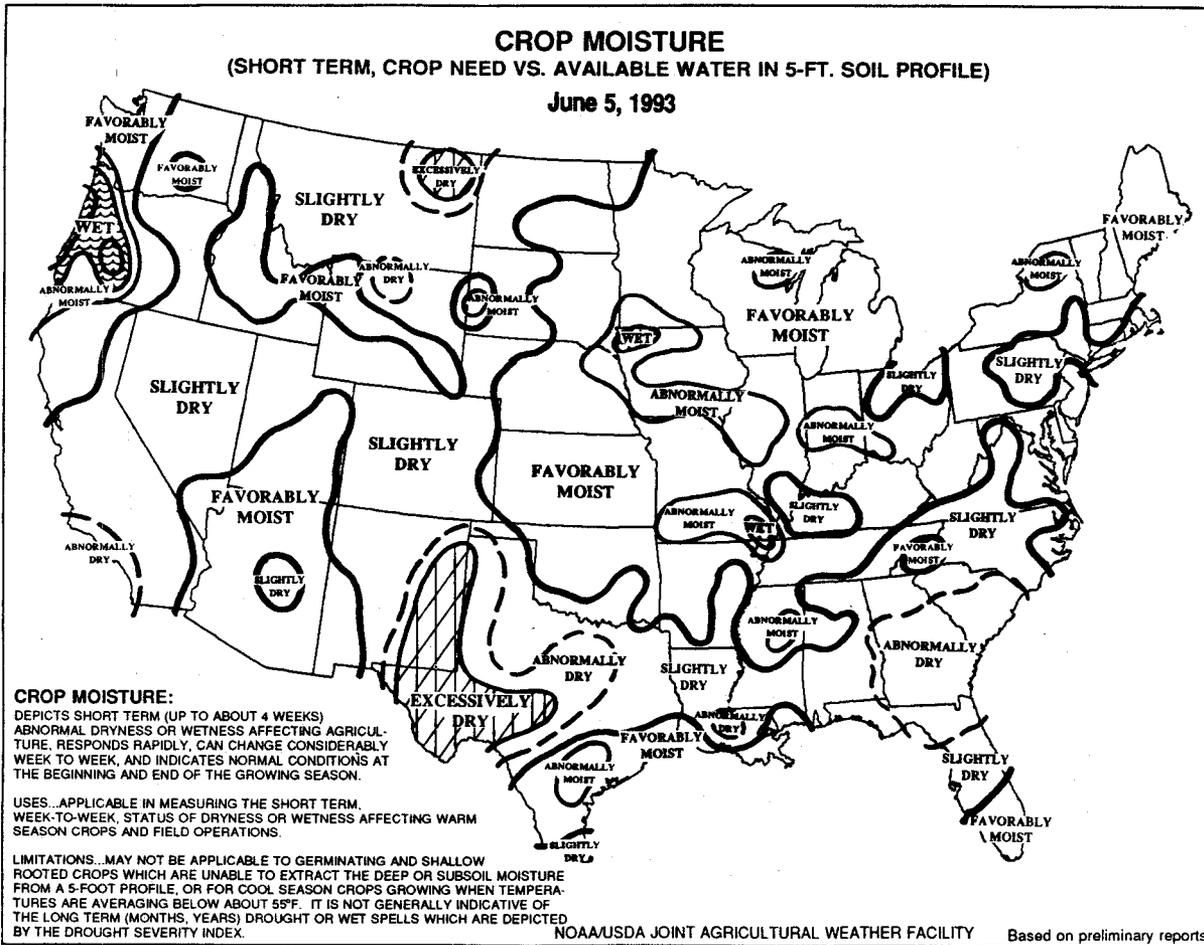
A late-week, winter-like storm thrashed the **Southwest** with heavy rains, mountain snows, and record-setting coolness. Farther east, a nearly stationary frontal boundary kept the **Midwest** and the **Northeast** cool and wet. North of the front, conditions in the **northern Corn Belt** remained too cool for normal crop development. In the **Southeast**, a tropical depression and a cold front provided temporary relief from the 6-week dry spell, but dryness, accompanied by heat, returned by week's end. The tropical depression developed over the **northwestern Caribbean Sea** on Monday morning and tracked across **Cuba** later in the day. The system traversed the **western Bahamas** on June 1 before churning into the **Atlantic Ocean** and weakening. Sustained winds never topped 35 mph, and the depression's chief impact was heavy rainfall, which locally exceeded 6 inches in **southern Florida** and in

(Continued to back cover)

## Contents

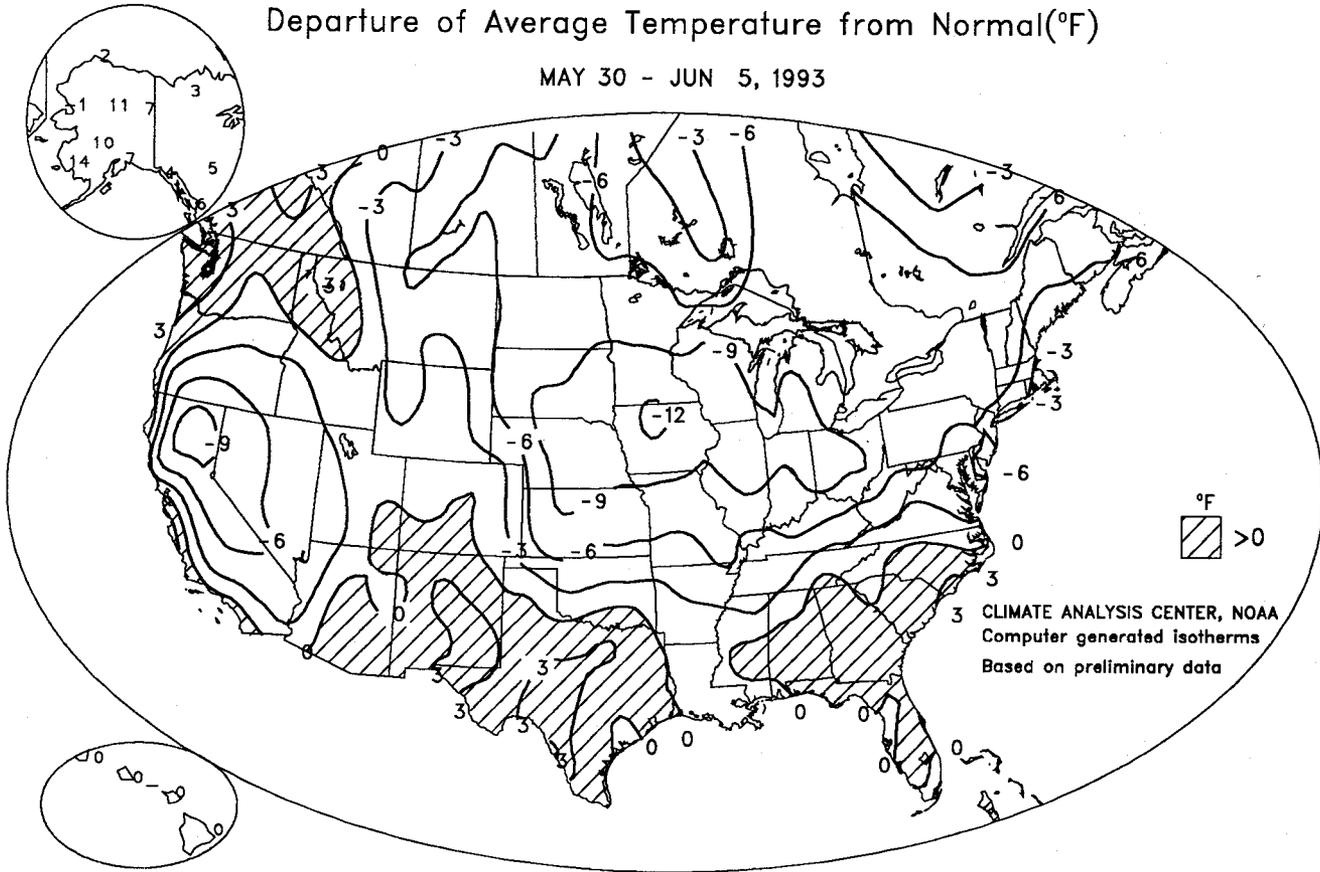
Page

Highlights & Total Precipitation Map .....	1
Crop Moisture Maps .....	2
Temperature Departure & Extreme Minimum Maps ..	3
Growing Degree Day Table .....	4
National Weather Data for Selected Cities ....	5
<b>May Weather and Crop Summary</b> .....	8
May Precipitation & Temperature Maps .....	9
May Weather Data for Selected Cities .....	11
May Heating Degree Day Table .....	12
<b>May Weather in Historical Perspective</b> .....	13
<b>Spring Weather Review</b> .....	14
Spring Precipitation & Temperature Maps .....	15
<b>Spring Weather in Historical Perspective</b> .....	17
National Agricultural Summary .....	18
Crop Progress and Condition Tables .....	19
State Summaries of Weather and Agriculture ...	20
International Weather and Crop Summary .....	28
Subscription and Mailing Permit Information ..	32



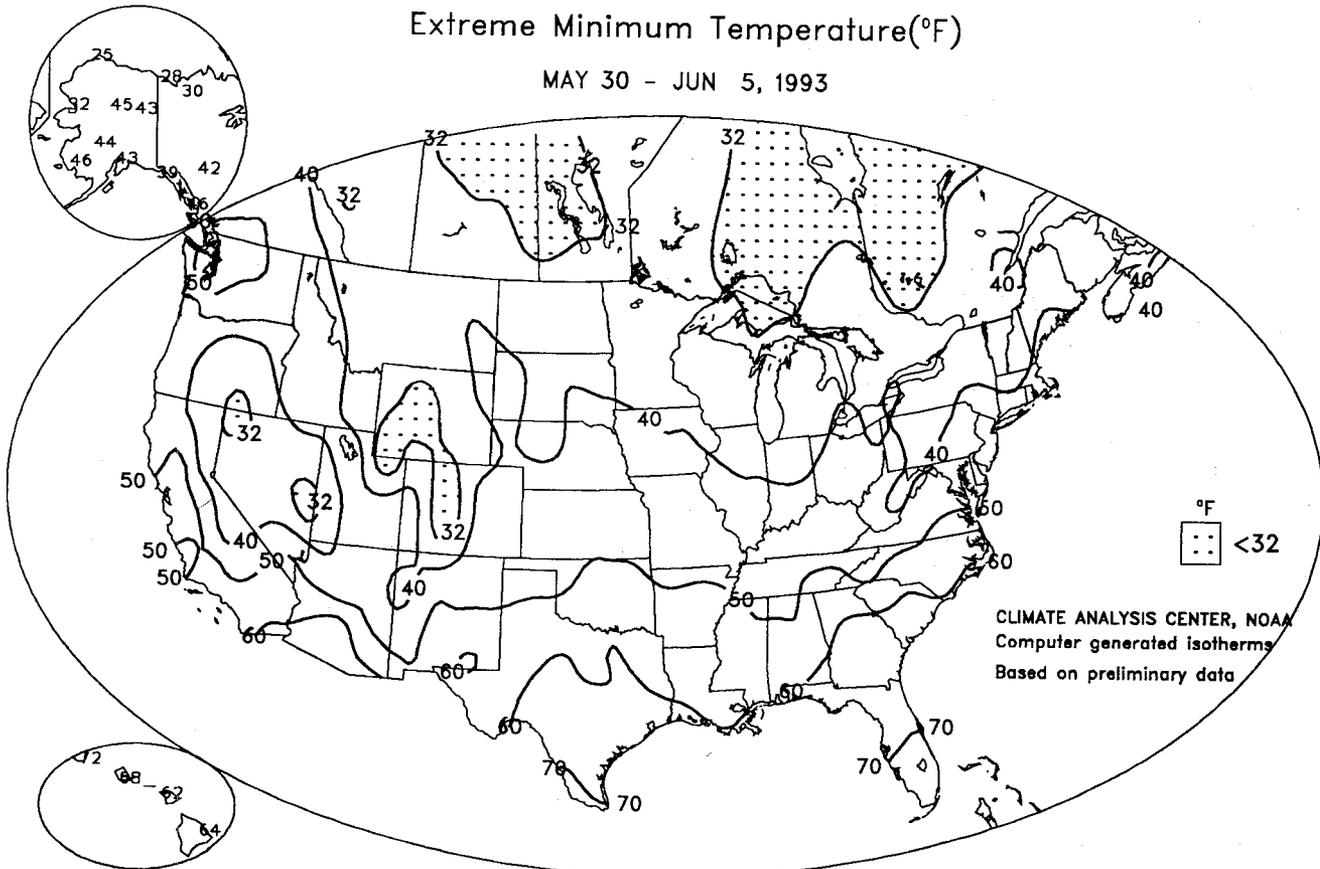
### Departure of Average Temperature from Normal(°F)

MAY 30 - JUN 5, 1993



### Extreme Minimum Temperature(°F)

MAY 30 - JUN 5, 1993



## CUMULATIVE GROWING DEGREE DAYS (CORN\*) April 1 - June 5, 1993

STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL
AL ANNISTON	1036	- 107	SALINA	698	- 131	OK ZANESVILLE	607	- 63
BIRMINGHAM	1047	- 113	TOPEKA	669	- 170	ALTUS	1060	- 123
MOBILE	1208	- 208	WICHITA	718	- 225	GAGE	852	- 98
MONTGOMERY	1154	- 72	KY LEXINGTON	757	- 68	HOBART	930	- 129
MUSCLE SHOALS	1017	- 73	BOWLING GREEN	862	- 72	MCALISTER	1082	- 41
OZARK	1201	- 120	PAUCAH	930	- 64	FONCA CITY	885	- 115
TUSCALOOSA	1117	- 104	LA LAFAYETTE	1282	- 159	TULSA	878	- 202
AZ DOUGLAS	1190	+ 144	LAKE CHARLES	1327	- 116	BAKER	488	+ 46
FLAGSTAFF	569	+ 133	MONROE	1178	- 117	EUGENE	518	+ 43
PHOENIX	1724	+ 358	NEW ORLEANS	1253	- 186	NORTH BEND	406	+ 137
TUCSON	1406	+ 170	SHREVEPORT	1163	- 136	FENDLETON	615	+ 54
YUMA	1748	+ 311	ME AUGUSTA	403	+ 45	REDMOND	438	- 10
PRESCOTT	819	+ 151	CARIBOU	274	+ 32	592	+ 119	
AR EL DORADO	1074	- 132	HOULTON	314	+ 19	PORTLAND	608	+ 138
FAYETTEVILLE	810	- 130	PORTLAND	342	+ 19	SEXTON SUMMIT	202	- 74
FORT SMITH	988	- 121	MD SALLSBURY	793	+ 31	PA ALLENTOWN	667	+ 57
JONESBORO	960	- 158	MA WORCESTER	450	+ 26	PHILADELPHIA	806	+ 136
LITTLE ROCK	1011	- 150	MI BATTLE CREEK	483	+ 26	WILLIAMSPORT	675	+ 72
TEXARKANA	1106	- 151	JACKSON	495	- 47	SC BEAUFORT	1262	- 34
CA BAKERSFIELD	1126	+ 21	LANGING	491	- 79	CHARLESTON	1223	- 16
BLUE CANYON	203	- 107	MUSKEGON	415	- 21	COLUMBIA	1164	- 45
DAGGETT	1318	+ 126	PELLSTON	290	- 63	FLORENCE	1208	+ 8
EUREKA	472	+ 277	SAULT STE. MARIE	184	- 77	SUMTER/SHAW AFB	1133	- 88
FAIRFIELD	844	+ 39	TRVERSE CITY	363	- 44	SD ABERDEEN	510	+ 26
FRESNO	1087	+ 110	DULUTH	228	- 44	BRON	471	- 77
MARYSVILLE	958	+ 3	INT'L FALLS	307	- 37	FIERRE	506	- 68
MERCED	998	+ 30	ALEXANDRIA	368	- 58	RAPID CITY	453	- 41
MT SHASTA	329	- 119	WARROAD	258	- 92	STOUX FALLS	435	- 135
PASO ROBLES	933	+ 118	MS BILOXI	1303	- 139	WATERTOWN	358	- 94
RED BLUFF	857	- 91	COLUMBUS	1053	- 134	TN BRISTOL	830	- 19
RIVERSIDE	1107	+ 180	JACKSON	1159	- 75	CHATTANOOGA	1023	- 6
SANTA ANA	1188	+ 323	MERIDIAN	1148	- 94	CROSSVILLE	790	+ 26
SAN DIEGO	1005	+ 217	GREENWOOD	1122	- 127	MEMPHIS	1070	- 97
SACRAMENTO	865	+ 2	MO COLUMBIA	704	- 90	NASHVILLE	931	- 96
THERMAL	1546	+ 114	JOPLIN	822	- 129	TX ABILENE	1231	- 22
CO ALAMOSA	437	- 19	SPRINGFIELD	745	- 133	AMARILLO	886	- 6
DENVER	614	+ 39	VICHY	748	- 113	AUSTIN	1375	- 61
EAGLE	400	- 86	MT BOZEMAN	432	+ 238	BROWNSVILLE	1702	- 34
GRAND JUNCTION	709	- 68	HELENA	462	+ 76	COLLEGE STATION	1302	- 105
LA JUNTA	788	- 14	KALISPELL	477	+ 66	DALHART	846	+ 17
DE DOVER	698	- 112	MILES CITY	550	+ 43	DALLAS/FT WORTH	1249	- 30
WILMINGTON	759	+ 63	NE GRAND ISLAND	558	- 114	GALVESTON	1459	- 37
FL DAYTONA BEACH	1317	- 144	NORFOLK	554	- 87	HOUSTON	1367	- 52
FORT MYERS	1610	- 14	NORTH PLATTE	558	- 48	KINGSVILLE	1619	- 25
GAINESVILLE	1268	- 192	VALENTINE	518	- 101	LAREDO	1707	+ 3
JACKSONVILLE	1280	- 128	SCOTTSDUFF	589	+ 17	LUBBOCK	1129	+ 70
FORT LAUDERDALE	1772	+ 77	SIDNEY	519	+ 10	MCALLEN	1752	+ 55
MIAMI	1776	+ 18	NV ELKO	466	- 16	MIDLAND	1223	- 30
MILTON	1266	- 93	ELY	481	+ 52	PALACIOS	1396	- 132
PENSACOLA	1277	- 143	LAS VEGAS	1425	+ 227	SAN ANTONIO	1411	- 62
ST PETERSBURG	1521	- 165	RENO	607	+ 4	VICTORIA	1442	- 58
TALLAHASSEE	1265	- 103	WINNEMUCCA	618	+ 43	WACO	1273	- 102
TAMPA	1462	- 116	NH CONCORD	547	+ 68	WICHITA FALLS	1067	- 125
VERO BEACH	1499	- 60	NJ NEWARK	830	+ 173	WINK	1284	+ 25
GA W. PALM BEACH	1646	- 43	NM ALBUQUERQUE	998	+ 119	UT CEDAR CITY	637	+ 60
ATHENS	1072	- 24	CARLSBAD	1273	+ 83	VT BARRE-MONTPELIER	385	+ 26
AUGUSTA	1208	+ 25	CLOVIS	972	+ 64	BURLINGTON	466	+ 46
BRUNSWICK	1212	- 163	GALLUP	750	+ 90	VA CHARLOTTESVILLE	882	+ 3
COLUMBUS	1182	- 69	TRUTH OR CONSEQ.	1120	+ 112	HAMPTON/LANGLEY	939	+ 53
MACON	1173	- 97	NY ALBANY	573	+ 46	LYNCHBURG	938	+ 93
SAVANNAH	1277	- 28	ELMIRA	550	+ 38	NORFOLK	952	+ 40
ID BOISE	636	+ 76	GLENS FALLS	509	+ 44	RICHMOND	939	+ 5
BURLEY	565	+ 80	POUGHKEEPSIE	594	+ 27	WA BELLINGHAM	460	+ 140
IDAHO FALLS	416	- 7	ROCHESTER	483	- 2	HOQUIAM	405	+ 124
POCATELLO	471	+ 23	SYRACUSE	519	+ 34	SEATTLE-TACOMA	504	+ 137
IL BELLEVILLE	769	- 114	UTICA	455	+ 14	SPOKANE	491	+ 82
CHICAGO/MIDWAY	547	- 68	WATERTOWN	422	+ 9	TACOMA	530	+ 105
DECATUR	671	- 139	ASHEVILLE	766	- 66	WALLA WALLA	651	+ 67
PEORIA	682	- 2	FAYETTEVILLE	1081	- 6	WENATCHEE	687	+ 39
ROCKFORD	561	- 19	GREENSBORO	1014	+ 64	YAKIMA	683	+ 70
SPRINGFIELD	715	- 57	HICKORY	935	- 14	WV HUNTINGTON	811	+ 22
QUINCY	655	- 84	RALEIGH	1025	+ 20	MARTINSBURG	702	- 31
IN INDIANAPOLIS	680	- 52	WILMINGTON	1148	+ 20	MORGANTOWN	707	- 14
SOUTH BEND	546	- 35	NEW BERN	1082	- 24	WI EAU CLAIRE	408	- 92
TERRE HAUTE	715	- 41	ND BISMARK	459	+ 5	GREEN BAY	402	- 25
IA DES MOINES	551	- 188	DICKINSON	393	- 15	LACROSSE	461	- 103
MASON CITY	416	- 187	JAMESTOWN	404	- 34	MADISON	523	- 33
OTTUMWA	601	- 97	MINOT	391	- 3	HAUSAU	361	- 77
KS CHANUTE	720	- 188	GRAND FORKS	441	+ 19	WY CASPER	473	+ 49
DODGE CITY	697	- 115	OH AKRON-CANTON	542	- 36	LANDER	431	+ 29
GARDEN CITY	688	- 119	COLUMBUS	629	- 63	SHERIDAN	480	+ 56
GOODLAND	572	- 71	DAYTON	615	- 83	WORLAND	600	+ 84
MEDICINE LODGE	797	- 178	FINDLAY	503	- 93			
RUSSELL	673	- 113	YOUNGSTOWN	526	- 8			

Based on 1951-80 normals.

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

# National Weather Data for Selected Cities

## Weather Data for the Week Ending June 5, 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
AL BIRMINGHAM	86	61	90	49	74	0	.3	-1.2	.3	.0	0	19.6	74	89	48	1	0	1	0		
MOBILE	87	67	91	56	77	-1	.1	-1.2	.1	.0	0	33.0	119	91	53	0	0	1	0		
MONTGOMERY	90	63	93	53	77	1	.2	-1.9	.2	.0	0	22.3	87	89	41	5	0	1	0		
AK ANCHORAGE	68	49	76	43	58	7	.0	.2	.0	.0	0	3.7	96	76	44	0	0	0	0		
BARROW	35	29	38	25	32	3	.0	.2	.0	.0	0	.9	116	94	83	0	7	0	0		
FAIRBANKS	82	50	86	47	66	10	.0	.2	.0	.0	0	3.6	150	58	20	0	0	0	0		
JUNEAU	68	51	74	47	59	9	1.1	.3	.9	.9	179	6	135	90	50	0	0	2	1		
KODIAK	56	45	72	38	50	3	1.5	.3	.9	1.5	175	33.6	120	91	64	0	0	4	1		
NOME	68	46	76	39	57	15	.0	.2	.0	.0	0	4.7	138	78	42	0	0	0	0		
AZ PHOENIX	97	73	102	71	85	1	.0	.0	.0	.0	0	8.7	333	32	12	7	0	0	0		
PRESCOTT	77	51	85	48	64	1	.0	.0	.0	.0	0	11.9	190	59	22	0	0	0	0		
TUCSON	99	62	103	59	80	0	.0	.0	.0	.0	0	7.4	269	42	7	7	0	0	0		
YUMA	96	71	102	65	84	0	.0	.0	.0	.0	0	3.3	344	34	15	7	7	0	0		
AR FORT SMITH	83	61	88	53	72	-2	.2	-.8	.2	.0	0	21.7	118	89	51	0	0	1	0		
LITTLE ROCK	81	62	89	52	71	-3	.3	-.8	.3	.0	0	21.4	98	77	46	0	0	1	0		
CA BAKERSFIELD	81	58	92	54	70	-5	.5	.4	.4	.5	>1000	6.6	176	62	29	1	0	2	0		
FURCA	64	53	68	49	59	4	2.5	2.3	1.4	.7	554	28.9	141	90	53	0	0	7	1		
FRESNO	79	58	87	54	68	4	1.7	1.7	1.3	1.6	>1000	11.4	166	83	37	0	0	3	1		
LOS ANGELES	72	61	78	58	66	2	.7	.7	.7	.7	>1000	18.5	238	86	51	0	0	1	1		
REDDING	70	54	78	50	62	-10	4.0	3.8	2.9	.6	443	35.2	192	97	54	0	0	6	1		
SACRAMENTO	74	54	78	48	64	-5	1.6	1.6	1.1	1.2	>1000	19.1	180	96	45	0	0	4	1		
SAN DIEGO	71	61	75	57	66	1	.4	.4	.4	.4	>1000	15.4	252	84	51	0	0	1	0		
SAN FRANCISCO	69	57	74	52	63	3	.4	.4	.4	.2	800	19.4	159	86	55	0	0	4	0		
CO DENVER	77	50	87	44	63	1	.5	.0	.2	.3	76	5.5	81	81	34	0	0	3	0		
GRAND JUNCTION	81	53	89	45	67	-2	.0	.0	.0	.0	0	7.5	174	59	17	1	0	0	0		
PUEBLO	82	49	89	47	65	-1	.1	-.2	.1	.1	56	5.8	157	87	29	0	0	1	0		
CT BRIDGEPORT	70	51	76	45	60	-4	2.2	1.4	1.7	.5	81	16.5	90	79	39	0	0	4	1		
HARTFORD	71	46	75	42	58	-6	1.9	1.0	1.2	.7	107	19.6	103	83	35	0	0	4	1		
DC WASHINGTON	75	57	81	51	66	-6	1.1	.3	.5	.7	116	19.7	126	90	45	0	0	5	0		
FL APALACHICOLA	85	70	91	63	78	0	.0	-.8	.0	.0	0	15.2	85	--	1	0	0	0	0		
DAYTONA BEACH	87	68	90	65	77	0	.0	-.2	.0	.0	0	13.9	90	97	61	2	0	0	0		
JACKSONVILLE	90	68	94	66	79	1	.3	-.8	.3	.0	2	15.2	87	97	50	4	0	2	0		
KEY WEST	86	77	90	73	82	-1	3.0	1.9	2.0	.0	0	15.9	137	87	72	1	0	2	2		
MIAMI	87	75	91	72	81	1	3.1	1.0	1.4	1.4	94	19.9	117	91	70	2	0	6	2		
ORLANDO	91	71	94	70	81	1	1.3	-1.1	1.0	1.0	99	17.8	119	93	55	5	0	2	1		
TALLAHASSEE	92	66	96	58	79	1	1.1	-.3	1.1	.0	0	23.2	89	92	43	5	0	1	1		
TAMPA	89	70	91	67	80	0	.3	-.7	.2	.0	0	14.0	107	90	58	2	0	2	0		
WEST PALM BEACH	86	73	90	71	80	0	.8	-1.0	.5	.1	7	25.9	134	93	67	2	0	3	0		
GA ATLANTA	87	66	90	59	76	3	.4	-.4	.4	.0	0	21.8	89	84	48	2	0	1	0		
AUGUSTA	92	67	97	65	80	5	.1	-.8	1.1	.0	0	19.5	94	85	44	6	0	2	0		
MACON	89	68	93	62	78	2	2.3	1.5	2.3	.0	0	24.6	113	89	50	3	0	1	1		
SAVANNAH	90	69	95	66	80	3	.4	-.7	.3	.1	14	21.5	115	89	52	4	0	2	0		
HI HILO	82	67	82	64	74	0	.8	-.8	.3	.8	73	34.2	57	86	63	0	0	6	0		
HONOLULU	86	72	87	68	79	1	.0	-.2	.0	.0	0	1.6	15	74	50	0	0	0	0		
KAHULUI	85	70	87	62	77	1	.0	-.1	.0	.0	0	5.4	43	73	56	0	0	0	0		
LIHUE	82	73	83	72	78	1	.0	-.5	.0	.0	0	6.2	30	79	64	0	0	0	0		
ID BOISE	68	50	86	46	59	-3	1.2	1.0	.6	1.0	638	9.1	144	88	44	0	0	6	1		
LEWISTON	73	54	79	52	63	0	.6	.3	.3	.5	200	7.9	133	81	40	0	0	3	0		
POCATELLO	68	45	82	37	56	-2	1.6	1.3	.9	1.6	800	11.1	186	88	39	0	0	3	1		
IL CHICAGO	62	44	71	37	53	-12	2.0	1.1	1.3	1.4	225	16.9	129	96	53	0	0	5	2		
MOLINE	66	48	75	39	57	-10	1.7	.8	1.2	1.5	219	18.4	126	94	60	0	0	4	1		
PRORIA	67	49	76	39	58	-10	1.6	.7	.5	1.4	222	18.9	135	89	50	0	0	4	0		
QUINCY	69	51	78	42	60	-9	2.3	1.4	2.0	2.3	348	13.0	86	86	52	0	0	4	1		
ROCKFORD	63	44	73	37	53	-12	2.2	1.2	1.0	1.2	167	17.5	136	96	61	0	0	5	2		
SPRINGFIELD	70	51	80	42	61	-9	3.4	2.6	3.1	3.3	570	17.9	124	84	51	0	0	4	1		
IN EVANSVILLE	78	55	88	45	67	-5	.5	-.4	.5	.5	81	18.5	89	85	43	0	0	1	1		
FORT WAYNE	66	48	79	38	57	-9	1.6	.7	1.0	.6	103	19.6	139	88	50	0	0	5	1		
INDIANAPOLIS	69	50	82	40	60	-9	1.7	.9	1.5	1.6	277	17.5	104	89	46	0	0	3	1		
SOUTH BEND	65	48	69	36	56	-9	1.2	.3	.7	.5	80	14.7	98	92	51	0	0	5	1		
IA DES MOINES	67	48	74	43	58	-9	1.4	.4	.6	1.4	175	18.2	144	94	48	0	0	5	2		
SIoux CITY	65	48	70	43	57	-10	1.3	.4	.4	.9	138	11.3	114	95	54	0	0	5	0		
WATERLOO	66	46	75	39	56	-9	.8	-.2	.3	.5	70	16.2	132	97	57	0	0	4	0		
KS CONCORDIA	69	51	80	43	60	-9	.2	-.8	.1	.2	30	10.9	100	97	57	0	0	3	0		
DODGE CITY	73	53	86	48	63	-7	.2	-.6	.1	.2	33	10.5	128	92	54	0	0	2	0		
GOODLAND	70	49	87	46	59	-5	.6	-.2	.4	.6	109	6.1	84	93	49	0	0	2	0		
TOPEKA	72	53	82	43	63	-7	.2	-1.1	.1	.1	12	18.6	144	94	56	0	0	4	0		
WICHITA	76	56	85	49	66	-5	.2	-1.1	.1	.1	14	15.7	123	87	51	0	0	2	0		
KY BOWLING GREEN	76	54	88	45	65	-6	.4	-.7	.2	.2	25	15.4	67	92	57	0	0	3	0		
LEXINGTON	74	51	85	43	63	-6	2.8	1.9	2.6	2.6	426	18.9	98	90	45	0	0	2	1		
LOUISVILLE	74	54	86	47	64	-6	2.0	1.1	1.5	1.5	243	20.8	102	88	44	0	0	3	2		
LA BATON ROUGE	88	66	92	56	77	-2	.0	-1.0	.0	.0	0	35.3	135	96	50	2	0	0	0		
LAKE CHARLES	87	69	91	62	78	0	.8	-.5	.8	.0	0	30.6	144	92	56	1	0	1	1		
NEW ORLEANS	88	65	91	56	76	-2	.0	-.2	.0	.0	0	28.3	109	97	58	3	0	0	0		
SHREVEPORT	88	66	91	56	77	1	.0	-1.2	.0	.0	0	22.9	100	89	50	3	0	0	0		

Based on 1961-90 normals.

Weather Data for the Week Ending June 5, 1993

STATES AND STATIONS	TEMPERATURE °F							PRECIPITATION							RELATIVE HUMIDITY, PERCENT	NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM		AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE		.50 INCH OR MORE
															TEMP. °F				PRECIP.		
ME CARIBOU	59	41	72	37	50	-7	1.5	.8	1.1	1.2	262	14.2	112	90	54	0	0	6	1		
PORTLAND	66	45	71	43	56	-3	1.2	.4	.8	.9	151	20.6	110	79	42	0	0	4	1		
MD BALTIMORE	74	52	78	44	63	-6	.8	-1	.4	.4	67	21.4	126	92	44	0	0	4	0		
SALISBURY	75	52	83	45	63	-5	.9	-1	.3	.9	146	24.4	130	97	57	0	0	0	0		
MA BOSTON	72	52	77	48	62	-6	.7	-1	.3	.4	68	21.0	115	72	36	0	0	3	0		
CHATHAM	64	51	71	49	58	-6	1.3	.5	1.1	1.3	223	19.3	98	84	42	0	0	4	1		
MI ALPENA	61	38	66	34	50	-8	.9	-2	.7	.2	32	8.3	79	96	46	0	0	3	0		
DETROIT	65	47	70	40	56	-6	.5	-3	.4	.4	69	12.3	98	82	41	0	0	4	0		
FLINT	65	43	71	36	54	-8	1.0	.3	.3	.6	106	12.0	110	87	43	0	0	0	0		
GRAND RAPIDS	63	43	67	36	53	-10	1.6	.8	.7	.3	127	15.5	120	92	48	0	0	6	1		
HOUGHTON LAKE	61	41	66	36	51	-8	1.0	.3	.5	.3	62	9.0	90	88	48	0	0	4	1		
LANSING	64	45	70	37	55	-8	1.0	.2	.4	.7	127	13.1	116	95	50	0	0	5	0		
MARQUETTE	57	35	71	26	46	-10	1.0	.2	.9	T	0	12.8	99	86	43	0	2	2	1		
MUSKOGON	62	45	65	40	54	-8	1.1	.5	.7	.3	76	12.5	102	97	49	0	0	4	1		
SAULT ST. MARIE	58	36	67	32	47	-8	.8	-1	.8	.0	0	11.1	92	94	52	0	1	2	1		
MN ALEXANDRIA	62	45	71	40	54	-8	.9	.0	.8	T	20	10.0	114	86	43	0	0	0	0		
DULUTH	62	41	73	39	52	-4	1.0	.2	1.0	T	0	9.8	100	83	38	0	0	2	1		
INT'L FALLS	64	38	75	34	51	-10	.1	-8	.1	.0	0	5.6	78	88	32	0	0	1	0		
MINNEAPOLIS	66	43	74	39	55	-10	.5	-4	.5	T	0	8.9	87	88	38	0	0	1	0		
ROCHESTER	63	42	71	38	53	-10	1.8	1.0	1.7	.1	24	14.0	139	92	47	0	0	3	1		
MS GREENWOOD	87	64	90	55	75	-1	.0	-1.1	.0	.0	0	24.1	92	90	49	2	0	0	0		
JACKSON	89	63	92	51	76	0	.0	-9	.0	.0	0	20.4	73	89	44	4	0	0	0		
MERIDIAN	88	64	92	52	76	1	.0	-8	.0	.0	0	28.9	104	88	43	4	0	0	0		
MO CAPE GIRARDEAU	77	56	85	45	67	-6	1.2	.3	.8	.9	130	21.6	100	92	51	0	0	4	1		
COLUMBIA	72	51	79	40	61	-7	.6	-4	.3	.4	58	17.3	111	95	50	0	0	3	0		
KANSAS CITY	71	52	80	44	62	-8	.9	-3	.4	.8	96	19.1	140	93	49	0	0	4	0		
SAINT LOUIS	74	57	84	48	66	-6	.2	-7	.1	.1	16	19.8	127	84	42	0	0	4	0		
SPRINGFIELD	74	54	80	45	64	-5	2.9	1.7	2.0	2.3	248	18.0	104	94	48	0	0	4	2		
MT BILLINGS	71	48	82	43	59	-1	.1	-5	.0	.1	15	3.6	49	83	38	0	0	2	0		
GLASGOW	68	44	74	38	56	-5	.1	-4	.1	.1	29	2.4	62	83	32	0	0	2	0		
GREAT FALLS	65	43	74	34	54	-4	.8	-2	.7	.8	173	9.7	139	90	40	0	0	2	1		
HAVRE	64	38	71	35	51	-9	.0	-4	.0	.0	0	2.8	63	93	33	0	0	0	0		
HELENA	67	47	79	41	57	-1	.2	-2	.2	.2	73	5.9	122	82	36	0	0	2	0		
KALISPELL	71	46	82	38	58	4	1.0	.5	.7	.7	174	7.7	110	83	31	0	0	2	1		
MILES CITY	69	48	79	41	58	-4	.4	-3	.4	.4	75	5.3	93	93	47	0	0	1	0		
MISSOULA	73	47	86	40	60	4	.3	-2	.2	.2	61	6.3	103	88	30	0	0	2	0		
NE GRAND ISLAND	66	48	75	42	57	-10	.7	-3	.5	.7	100	9.3	92	95	59	0	0	4	1		
LINCOLN	67	49	74	43	58	-10	1.1	.1	.5	.7	109	11.3	105	97	63	0	0	4	0		
NORFOLK	65	48	71	42	57	-10	1.1	.1	.4	.9	116	11.1	113	93	55	0	0	4	0		
NORTH PLATTE	67	46	82	40	56	-7	1.1	.3	.8	1.1	191	8.1	101	92	51	0	0	4	1		
OMAHA	66	49	73	45	58	-10	1.3	.3	.5	1.3	180	12.8	113	91	51	0	0	5	1		
SCOTTSBLUFF	71	47	84	40	59	-3	2.5	1.9	1.1	2.3	481	8.6	126	91	45	0	0	4	2		
VALENTINE	64	44	78	33	54	-11	.7	-2	.6	.7	110	7.5	98	94	56	0	0	4	1		
NV ELY	66	36	81	31	51	-5	1.0	.8	.6	.8	494	6.6	142	80	26	0	2	4	1		
LAS VEGAS	88	65	97	51	76	-4	.1	.0	.1	.1	400	4.4	235	44	15	3	0	1	0		
RENO	65	44	77	38	54	-7	.3	.2	.2	.3	320	4.9	122	75	38	0	0	4	0		
WINNEMUCCA	67	43	81	31	55	-6	.6	.4	.3	.5	300	5.4	136	88	33	0	1	4	0		
NH CONCORD	70	37	74	33	54	-7	.8	.1	.4	.5	89	11.4	79	91	35	0	0	3	0		
NJ ATLANTIC CITY	69	48	75	39	59	-7	.9	.3	.6	.3	59	18.6	106	95	41	0	0	4	1		
NM ALBUQUERQUE	89	58	93	51	73	3	.0	-1	.0	.0	0	3.0	118	54	9	3	0	0	0		
CLOVIS	89	57	97	51	73	3	T	-6	T	T	0	2.1	46	63	18	3	0	0	0		
ROSWELL	96	63	100	57	79	4	T	-3	T	T	0	2.5	85	50	11	7	0	0	0		
NY ALBANY	68	44	74	40	56	-7	.7	-2	.6	.6	90	17.4	120	79	39	0	0	2	1		
BINGHAMTON	60	43	64	39	52	-9	1.6	.8	1.0	1.0	175	18.7	128	85	46	0	0	3	2		
BUFFALO	65	48	73	38	56	-6	3.0	2.2	1.8	1.8	310	15.5	108	83	41	0	0	3	2		
NEW YORK	72	56	76	54	64	-3	2.0	1.2	1.8	.3	46	18.9	107	78	38	0	0	4	1		
ROCHESTER	65	47	69	37	56	-6	1.3	.6	.9	.9	178	11.5	94	87	44	0	0	2	1		
SYRACUSE	65	47	70	40	56	-6	1.5	.7	.8	.9	145	18.9	131	81	42	0	0	3	2		
NC ASHEVILLE	78	54	87	45	66	-1	.3	-9	.3	.0	0	19.9	84	92	50	0	0	1	0		
CHARLOTTE	84	65	92	57	75	2	.1	-7	.1	.0	0	21.1	111	84	48	2	0	1	0		
GREENSBORO	82	60	91	51	71	1	.3	-6	.2	.1	17	23.8	135	90	50	1	0	2	0		
HATTERAS	80	64	85	59	72	0	1.4	.4	.6	1.2	179	23.5	107	89	55	0	0	4	2		
NEW BERN	84	62	95	57	73	0	.6	-6	.5	.5	67	22.2	105	89	49	2	0	3	1		
RALEIGH	82	60	92	51	71	0	.7	-2	.6	.1	21	21.1	117	93	51	1	0	2	1		
WILMINGTON	86	68	94	61	77	4	.3	-7	.3	T	0	23.7	111	91	47	2	0	1	0		
ND BISMARCK	67	42	74	36	54	-7	.7	.1	.4	.4	86	5.0	84	90	34	0	0	2	0		
FARGO	68	41	75	38	55	-7	.2	-4	.2	.0	0	5.2	76	86	32	0	0	1	0		
GRAND FORKS	69	41	75	38	55	-6	.1	-5	.1	.0	0	2.7	45	79	27	0	0	2	0		
WILLISTON	67	43	69	37	55	-6	.5	-1	.2	.5	127	3.0	57	88	34	0	0	4	0		
OH AKRON-CANTON	66	46	74	40	56	-9	.6	-2	.2	.4	74	15.7	104	92	51	0	0	4	0		
CINCINNATI	69	50	82	41	59	-9	1.7	.8	1.4	1.4	214	17.7	97	85	52	0	0	4	1		
CLEVELAND	66	47	75	39	56	-7	1.1	.3	.7	.5	74	16.1	112	94	44	0	0	4	1		
COLUMBUS	66	48	79	44	57	-9	1.4	.5	.4	.6	91	17.0	110	89	49	0	0	5	0		
DAYTON	65	48	79	42	57	-10	1.6	.7	.7	1.0	152	22.3	142	88	50	0	0	5	1		

Based on 1961-90 normals.

Weather Data for the Week Ending June 5, 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	TEMP. °F			PRECIP.		
														AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
TOLEDO	67	48	78	41	57	-7	1.0	.2	.5	.5	90	13.1	104	93	49	0	0	4	1
YOUNGSTOWN	66	43	74	34	55	-8	.5	.3	.5	.1	13	13.7	94	89	43	0	0	3	0
OK OKLAHOMA CITY	83	61	90	53	72	-1	.5	1.2	.4	.0	20.8	146	85	47	1	0	0	0	0
TULSA	80	60	85	53	70	-4	.5	.7	.5	.5	54	19.6	115	83	51	0	0	2	0
OR ASTORIA	65	52	70	47	59	.9	.8	.1	.5	.1	24	28.3	86	97	53	0	0	4	0
BURNS	61	41	69	34	51	-3	.8	.1	.2	.3	175	6.8	151	79	46	0	0	4	0
MEDFORD	66	51	70	46	59	.2	2.2	2.0	.7	1.2	892	10.9	125	91	51	0	0	6	0
PENDLETON	69	52	80	46	60	.2	.8	.6	.3	.5	321	7.9	131	83	47	0	0	4	0
PORTLAND	70	55	74	51	62	.2	1.8	1.4	1.1	.4	143	18.3	104	98	52	0	0	6	0
SALEM	69	52	74	44	61	.2	3.5	3.1	1.1	2.7	981	23.4	122	92	53	0	0	7	0
PA ALLENTOWN	70	49	75	42	60	-6	1.2	.2	.8	.4	59	20.0	113	85	38	0	0	3	0
ERIE	65	49	68	42	57	-6	1.3	.4	.8	.6	84	13.2	89	90	47	0	0	2	0
HARRISBURG	72	54	76	49	63	-4	.6	.4	.4	.2	31	19.7	114	82	41	0	0	4	0
PHILADELPHIA	73	56	77	50	64	-3	1.8	.8	1.7	.1	10	18.3	97	82	39	0	0	4	0
PITTSBURGH	68	48	77	43	58	-7	1.0	.2	.9	.2	26	16.7	107	96	41	0	0	5	0
SCRANTON	68	48	72	43	58	-6	.5	.4	.3	.2	35	16.2	115	81	40	0	0	4	0
RI PROVIDENCE	72	49	78	45	61	-2	1.0	.2	.5	.5	84	21.2	106	82	36	0	0	4	0
SC CHARLESTON	85	68	91	64	77	0	1.1	.2	.6	.2	25	23.4	125	95	52	1	0	3	0
COLUMBIA	87	65	94	59	76	1	.8	.2	.8	.0	0	21.4	101	91	48	3	0	2	0
FLORENCE	88	67	96	60	77	2	1.0	.8	.1	.0	0	15.2	85	90	46	3	0	1	0
GREENVILLE	82	60	89	53	71	-1	.2	.9	.2	.0	0	27.0	118	86	51	0	0	1	0
SD ABERDEEN	66	43	73	38	54	-8	.2	.6	.1	.1	13	6.2	82	93	47	0	0	2	0
HURON	65	43	71	39	54	-9	1.5	.8	1.3	1.4	255	10.4	126	94	50	0	0	3	0
RAPID CITY	63	45	74	43	54	-7	.3	.4	.1	.3	62	7.7	110	92	58	0	0	4	0
STOUX FALLS	63	45	71	42	54	-10	1.1	.3	.7	.7	125	15.2	170	94	52	0	0	3	0
TN CHATTANOOGA	84	60	89	55	72	0	1.0	.1	.6	.0	0	23.0	92	91	54	0	0	2	0
KNOXVILLE	80	59	85	52	70	0	.6	.3	.5	.0	0	18.7	86	86	55	0	0	2	0
MEMPHIS	81	62	88	50	72	-4	.8	.1	.8	.0	0	19.9	81	82	52	0	0	2	0
NASHVILLE	79	58	88	50	68	-4	.8	.2	.8	.0	0	19.2	87	86	46	0	0	2	0
TX ABILENE	92	67	102	61	80	2	.0	.7	.0	.0	0	6.0	67	72	29	4	0	0	0
AMARILLO	86	55	96	50	71	0	1.1	.7	.1	.0	7	4.7	77	88	30	3	0	2	0
AUSTIN	90	69	92	64	80	1	.5	.6	.5	.0	0	16.9	122	89	54	5	0	1	0
BEAUMONT	88	69	92	62	79	0	.0	1.3	.0	.0	0	30.6	142	95	53	2	0	1	0
BROWNSVILLE	91	73	92	69	82	0	.0	.7	.0	.0	0	10.3	126	93	59	6	0	0	0
CORPUS CHRISTI	88	72	90	66	80	0	.2	.7	.1	.0	0	16.4	159	96	60	1	0	2	0
DEL RIO	99	71	107	66	85	6	.0	.7	.0	.0	0	3.9	40	77	45	7	0	0	0
EL PASO	97	67	100	61	82	4	.0	.1	.0	.0	0	1.8	108	31	15	7	0	0	0
FORT WORTH	90	69	99	60	80	4	.0	1.0	.0	.0	0	15.8	93	83	47	4	0	1	0
GALVESTON	85	75	87	70	80	1	.4	.6	.4	.0	0	26.7	184	84	66	0	0	2	0
HOUSTON	90	70	92	65	80	2	.3	1.2	.3	.0	0	31.3	153	91	53	5	0	1	0
LUBBOCK	91	60	98	55	76	1	.0	.6	.0	.0	0	5.0	88	66	22	4	0	0	0
MIDLAND	94	63	101	58	79	2	.3	.2	.3	.0	0	4.4	92	66	20	6	0	1	0
SAN ANGELO	95	68	105	61	81	4	.2	.4	.2	.0	0	7.4	93	78	29	7	0	1	0
SAN ANTONIO	92	69	94	65	81	1	1.0	.0	1.0	.0	0	20.9	167	87	48	5	0	1	0
VICTORIA	89	71	90	65	80	1	.4	.7	.4	.0	0	28.7	175	93	57	1	0	2	0
WACO	92	67	96	57	80	1	.0	.9	.0	.0	0	16.3	112	90	46	4	0	0	0
WICHITA FALLS	88	63	101	58	76	0	.0	1.0	.0	.0	0	15.8	114	87	41	2	0	1	0
UT CEDAR CITY	75	44	84	36	59	-3	.2	.0	.1	.2	214	6.9	140	59	18	0	0	2	0
SALT LAKE CITY	74	52	85	46	63	-1	.4	.1	.3	.4	220	11.9	142	74	34	0	0	4	0
VT BURLINGTON	66	44	69	39	55	-7	1.0	.2	.6	.7	125	12.3	101	83	39	0	0	3	0
VA NORFOLK	77	58	89	51	68	-3	3.0	2.1	1.2	2.5	407	22.1	120	92	47	0	0	5	2
RICHMOND	79	57	87	52	68	-3	1.4	.6	.6	1.1	193	23.6	136	89	45	0	0	5	1
ROANOKE	78	54	85	42	66	-3	1.1	.3	.9	1.1	193	21.4	126	83	41	0	0	4	1
WA QUILLAYUTE	66	50	74	48	58	5	1.4	.5	.9	.1	19	38.9	75	99	43	0	0	4	1
SEATTLE-TACOMA	69	55	77	53	62	4	1.2	.8	.6	.2	64	16.9	98	92	44	0	0	3	1
SPOKANE	71	50	77	48	61	2	.3	.1	.2	.2	92	6.9	88	89	36	0	0	5	0
YAKIMA	74	50	78	44	62	1	.7	.6	.4	.5	510	3.7	99	88	38	0	0	4	0
WV BECKLEY	70	48	74	39	59	-5	1.6	.8	1.2	1.2	203	18.7	108	92	51	0	0	3	1
CHARLESTON	73	50	84	41	62	-7	1.8	.9	1.3	1.4	247	16.7	96	93	44	0	0	4	1
HUNTINGTON	72	52	83	47	62	-4	3.0	2.1	2.4	2.5	454	18.7	104	92	44	0	0	4	1
PARKERSBURG	71	49	82	43	60	-7	1.8	1.0	.9	.6	103	18.2	102	98	54	0	0	5	2
WI GREEN BAY	63	42	76	39	53	-8	1.5	.8	1.3	.0	0	10.8	108	90	47	0	0	2	1
LACROSSE	64	45	74	40	55	-10	.7	.2	.5	.2	29	17.0	161	96	47	0	0	3	0
MADISON	64	43	76	36	54	-10	1.3	.5	.8	.5	78	15.7	138	91	49	0	0	4	1
MILWAUKEE	62	45	76	41	53	-7	2.0	1.3	.8	1.3	261	16.4	130	91	51	0	0	5	2
WAUSAU	63	41	74	35	52	-9	2.0	1.1	1.8	.0	0	12.9	120	93	41	0	0	2	1
WY CASPER	71	44	80	38	57	-1	1.3	.9	1.2	1.3	454	8.7	144	88	36	0	0	2	1
CHEYENNE	65	44	77	34	54	-3	1.7	1.1	1.0	1.6	435	7.8	132	92	47	0	0	3	2
LANDER	68	45	77	33	56	-2	2.5	2.1	1.5	2.5	810	9.0	130	79	34	0	0	2	2
SHERIDAN	67	47	80	39	57	-1	1.0	.4	.7	1.0	237	7.6	109	95	48	0	0	3	1

Based on 1961-90 normals.

## May Weather and Crop Summary

### Weather

A slow-moving low pressure center dominated the weather maps during the first half of the month, first appearing along the west coast on May 3, and finally exiting the east coast on May 14. Thereafter, a stable weather pattern evolved, consisting of out-of-season storminess along the Pacific coast, hot weather in a narrow ribbon from Alaska southeastward to western Mexico, and cool weather in the Nation's northeastern quadrant. Drier-than-normal conditions persisted in the Southeast, and pockets of dryness developed in the Northeast and the lower Great Lakes States.

The early-month storm produced torrential rain from the upper Great Lakes to southeastern Texas. Flooding was scattered across the western Corn Belt, while significant flash flood events occurred in and around Oklahoma City, OK and San Antonio, TX. Farther west, more than 10 inches of snow fell at 8,900-foot Alta, UT during 5 consecutive days, resulting in a May 4 to 8 storm-total snowfall of 75 inches. The snow compressed and melted quickly, however, and by month's end, Alta noted a snow depth of 24 inches, down from 113 inches on May 1. At Sierra Ski Ranch, CA snow cover was reduced from 91 inches to 32 inches during the month.

During the second week of May, the massive storm gradually weakened, but remained nearly stationary, inducing additional fieldwork delays from the east-central Plains to the Mississippi Delta. Warm air spread northward through the Eastern States, pushing temperatures to 90°F as far north as southeastern Ontario and southwestern Quebec, Canada. On May 10, Fort Wayne, IN noted its earliest 90°F reading on record. The next day, Hartford, CT observed its first 90°F temperature since May 23, 1992. Meanwhile, warm weather also enveloped the West, causing a rapid melting of the snowpack in the Rocky Mountain States, raising river levels and causing local flooding.

After mid-month, fields in the upper Midwest and Northeast that had been planted during the warm weather were subjected to sharply cooler weather and occasional frosts. On May 20, temperatures dipped to near-freezing as far south as Lincoln, NE (33°F). Elsewhere, fieldwork progressed under seasonable temperatures and between scattered thunderstorms.

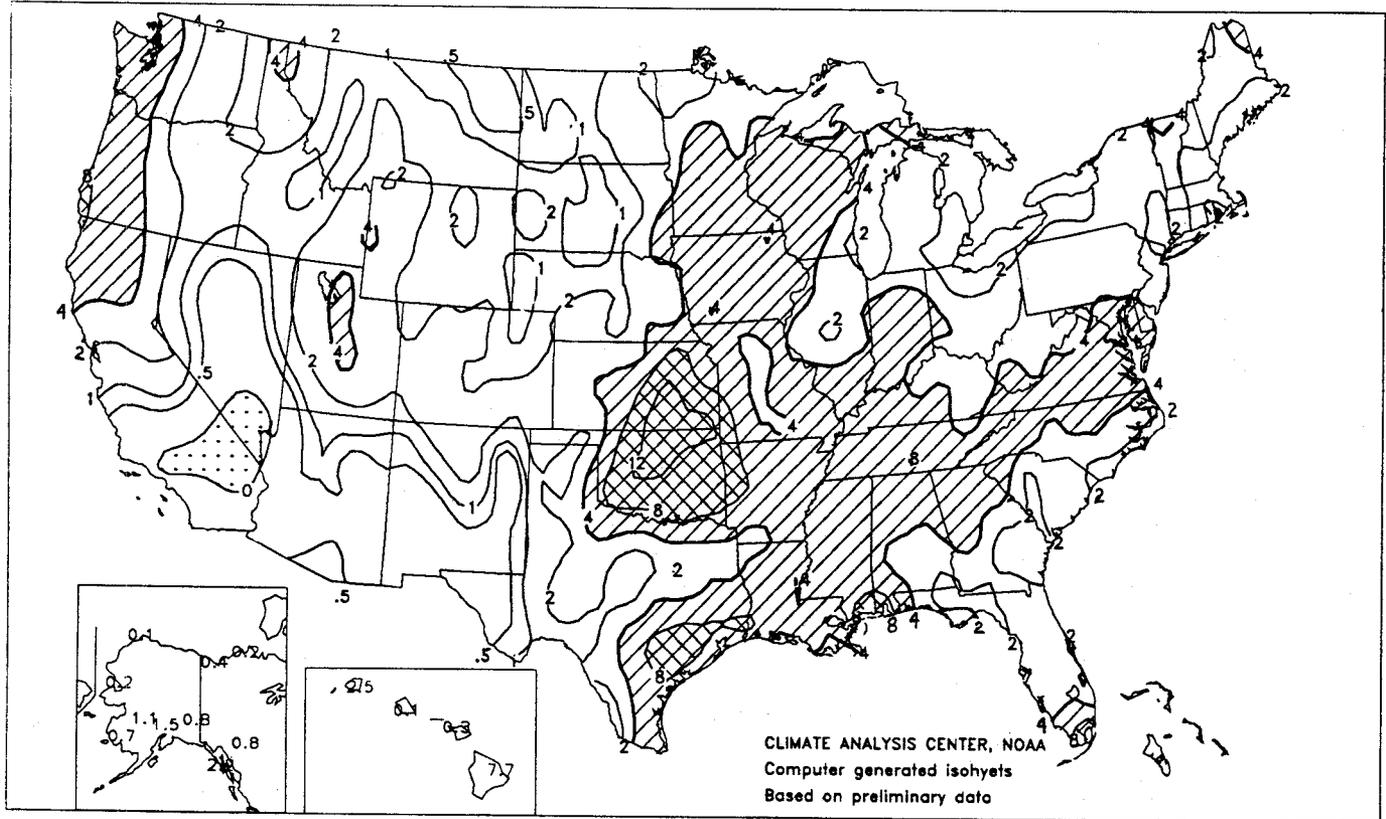
Late in the month, unseasonable rains drenched northern California. As much as 2 inches fell in the northern Sacramento Valley. On May 31, the first Atlantic tropical depression of the year formed southwest of Cuba before tracking across the island. Torrential rains overspread areas from Mexico's northern Yucatan Peninsula to the western Bahamas, including southern Florida.

### Fieldwork

The beginning of May saw many producers, especially in the central portions of the Nation, waiting for favorable conditions which would allow planting to begin. Rain and cool weather the first part of May hindered planting progress and crop development in most areas. Drier conditions and warmer weather the latter half of the month allowed planting to progress and crops to develop. However, by the end of May, planting progress and crop development averaged behind normal for many crops. At the beginning of May, the **winter wheat** crop was in good condition but crop development was about 1 week behind normal. Wet conditions across the central Mississippi Valley and dry conditions in the Southeast allowed winter wheat conditions to decline slightly at the end of the month. **Spring wheat** planting was also delayed by wet fields at the beginning of May. However, favorable conditions over the major growing areas allowed planting to finish on time by the end of the month. The beginning of May saw **corn** planting progress 2 weeks behind normal. Progress remained 2 weeks behind until mid-month, when dry weather over the central Corn Belt allowed planting to make good progress. The end of May saw planting progress 1 week behind normal, with progress lagging in the central Corn Belt, but ahead of normal in the eastern part. Early in the month, **soybean** progress was well behind normal, except for the Southeast. Wet conditions kept planting progress at the national level, more than a week behind average throughout the month. Soybean planting progress in the Southeast was hindered by excessive dryness. Although **cotton** planting progress started the month behind average, it ended the month ahead of average. Cool, wet conditions hindered planting and condition of the crop in the Mississippi Delta. **Sorghum** planting progress was 1 week behind normal in early May. Wet fields, especially in the central Mississippi Valley, prevented sorghum producers from making up the delay during the month. **Rice** planting progress at the beginning of May stood at 2 weeks behind normal. Favorable conditions near the end of the month allowed planting progress to reach 1 week behind normal by the end of May. Wet conditions delayed crop progress in Texas. Rain, the end of the month, ended a 5-week dry spell for Florida's citrus groves.

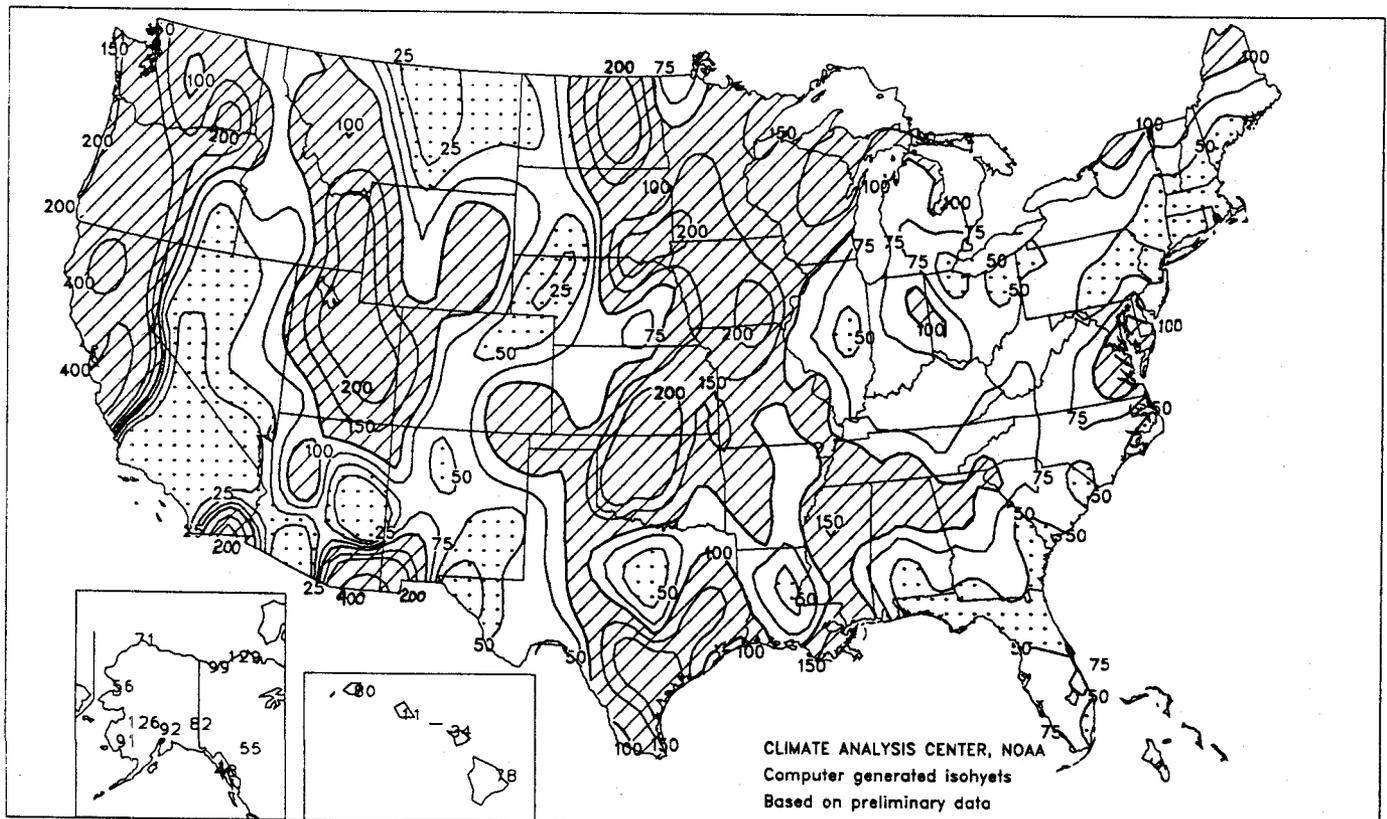
TOTAL PRECIPITATION (inches)

MAY 1993



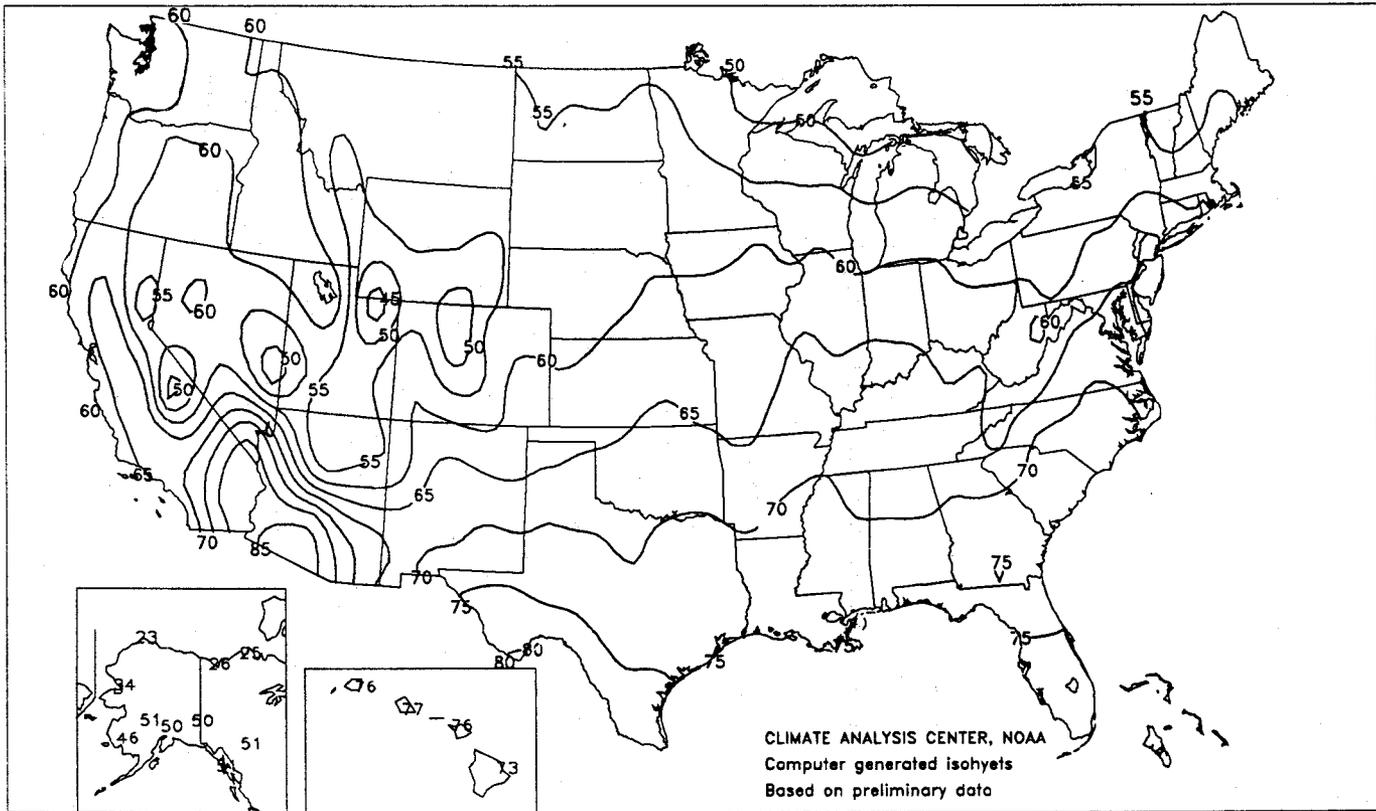
PERCENT OF NORMAL PRECIPITATION

MAY 1993



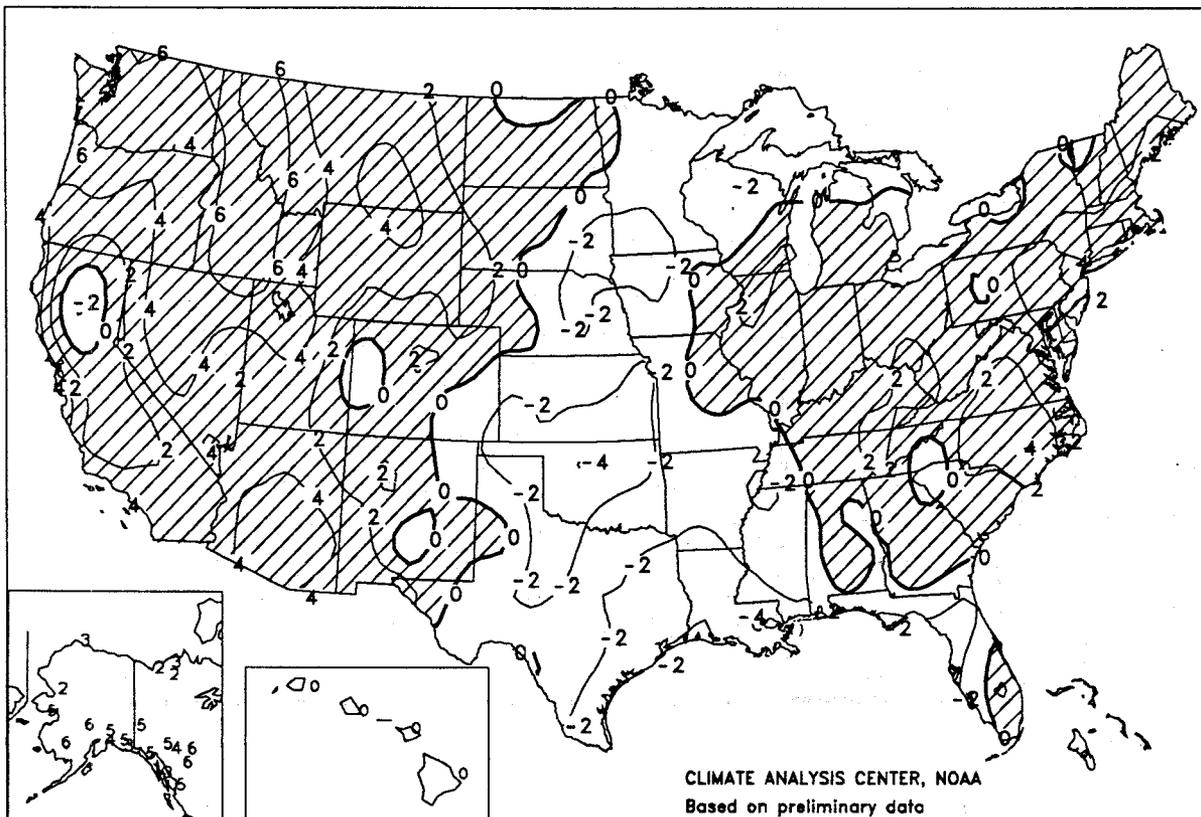
AVERAGE TEMPERATURE(°F)

MAY 1993



Departure of Average Temperature from Normal(°F)

MAY 1993



## TEMPERATURE AND PRECIPITATION SUMMARY May 1993

STATES AND STATIONS	Temp. °F		Precip.		STATES AND STATIONS	Temp. °F		Precip.		STATES AND STATIONS	Temp. °F		Precip.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	69	-1	3.9	-0.9	LA BATON ROUGE	71	-4	2.2	-2.7	OK YOUNGSTOWN	58	0	0.9	-2.6
AL HUNTSVILLE	69	0	8.3	3.7	LA LAKE CHARLES	73	-1	6.6	1.0	OK OKLAHOMA CITY	66	-2	10.9	5.7
AL MOBILE	72	-3	5.2	-0.5	LA NEW ORLEANS	72	-3	7.2	2.7	OK TULSA	66	-3	6.9	1.3
AK MONTGOMERY	71	1	1.6	-2.4	ME SHREVEPORT	71	-2	3.3	-1.9	OR ASTORIA	56	4	4.7	1.7
AK ANCHORAGE	51	4	1.2	0.4	ME CARIBOU	51	0	3.6	0.5	OR BURNS	55	4	0.8	-0.2
AK BARROW	23	4	0.1	0.0	ME PORTLAND	55	1	1.1	-2.5	OR MEDFORD	60	3	2.6	1.6
AK FAIRBANKS	54	5	0.6	0.0	MD BALTIMORE	65	2	3.6	-0.1	OR PENDLETON	62	4	1.5	0.5
AK JUNEAU	52	5	2.2	-1.2	MD SALISBURY	64	1	5.6	2.0	OR PORTLAND	61	4	4.4	2.3
AK KODIAK	47	4	5.4	-0.2	MA BOSTON	60	2	1.0	-2.2	OR SALEM	61	6	3.6	1.7
AK NOME	40	5	0.5	-0.1	MA CHATHAM	55	2	1.9	-1.9	PA ALLENTOWN	63	2	1.4	-2.8
AZ FLAGSTAFF	54	4	0.4	-0.4	MI ALPENA	51	-1	2.5	-0.2	PA ERIE	58	1	1.3	-2.2
AZ PHOENIX	84	5	0.1	0.0	MI DETROIT	60	2	1.2	-1.7	PA HARRISBURG	65	4	2.0	-2.2
AZ PRESCOTT	62	5	1.0	0.5	MI FLINT	58	1	1.7	-1.0	PA PHILADELPHIA	66	5	2.4	-2.0
AZ TUCSON	78	4	0.6	0.4	MI GRAND RAPIDS	58	0	2.2	-1.0	PA PITTSBURGH	62	2	2.8	-0.7
AZ WINSLOW	63	1	0.2	-0.1	MI HOUGHTON LAKE	55	1	2.5	-0.1	PA SCRANTON	62	3	1.4	-2.3
AR YUMA	82	4	0.1	0.1	MI LANSING	58	0	1.4	-1.5	PA WILLIAMSPORT	66	4	2.4	-1.3
AR FORT SMITH	68	-1	5.3	0.1	MI MARQUETTE	50	-1	4.6	1.6	RI PROVIDENCE	62	5	1.1	-2.6
CA LITTLE ROCK	69	-1	4.8	-0.4	MI MUSKEGON	57	1	2.3	-0.3	SC CHARLESTON	73	0	2.7	-1.3
CA BAKERSFIELD	71	0	0.0	-0.2	MI SAULT ST. MARIE	48	-2	4.5	1.8	SC COLUMBIA	71	1	3.0	-0.7
CA BISHOP	--	--	0.0	-0.3	MN ALEXANDRIA	55	-1	5.1	2.2	SC FLORENCE	73	1	1.0	-2.5
CA EUREKA	58	5	4.4	3.0	MN DULUTH	50	0	4.7	1.7	SC GREENVILLE	67	-1	3.1	-1.3
CA FRESNO	70	1	0.2	0.0	MN INT'L FALLS	51	-1	2.8	0.4	SD ABERDEEN	58	1	3.1	0.3
CA LOS ANGELES	65	3	0.0	-0.1	MN MINNEAPOLIS	57	-1	4.0	0.6	SD HURON	57	0	3.3	0.4
CA REDDING	65	-1	6.7	5.4	MN ROCHESTER	56	-1	4.3	0.9	SD RAPID CITY	56	1	2.2	-0.5
CA SACRAMENTO	65	-1	1.1	0.9	MS ST. CLOUD	55	-1	5.6	2.3	SD SIOUX FALLS	57	-1	8.3	5.2
CA SAN DIEGO	66	2	T	-0.2	MS GREENWOOD	71	-1	8.0	2.7	TN BRISTOL	65	1	3.4	-0.2
CA SAN FRANCISCO	62	4	0.6	0.4	MS JACKSON	71	0	4.3	-1.1	TN CHATTANOOGA	69	2	3.4	-1.0
CA STOCKTON	67	1	0.8	0.5	MS MERIDIAN	71	0	2.9	-1.5	TN KNOXVILLE	67	1	3.8	-0.4
CO ALAMOSA	51	1	1.0	0.3	MS TUPELO	69	-1	5.8	0.1	TN MEMPHIS	70	-1	4.6	-0.4
CO CO. SPRINGS	56	0	1.6	-0.7	MO CAPE GIRARDEAU	67	0	5.0	-0.2	TN NASHVILLE	68	0	4.5	-0.4
CO DENVER	59	2	0.9	-1.5	MO COLUMBIA	63	1	4.8	0.0	TX ABILENE	70	-2	2.0	-1.0
CO GRAND JUNCTION	62	-1	2.0	0.9	MO KANSAS CITY	64	-1	7.3	2.3	TX ARLING	65	-1	1.9	-0.6
CO PUEBLO	59	-2	2.0	0.7	MO SAINT LOUIS	66	0	3.9	0.0	TX AUSTIN	74	-2	5.3	0.5
CT BRIDGEPORT	61	3	0.6	-3.4	MO SPRINGFIELD	64	0	4.4	-0.4	TX BEAUMONT	74	-1	4.6	-1.1
CT HARTFORD	61	2	1.9	-2.2	MT BILLINGS	60	5	0.4	-2.2	TX BROWNSVILLE	78	-2	3.6	0.7
DC WASHINGTON	67	1	3.4	-0.3	MT GLASGOW	58	3	0.5	-1.3	TX CORPUS CHRISTI	75	-3	8.1	4.7
FL APALACHICOLA	72	-2	0.3	-2.3	MT GREAT FALLS	56	3	2.7	0.2	TX DEL RIO	77	1	1.3	-2.0
FL DAYTONA BEACH	73	-2	0.6	-2.8	MT HAVRE	57	2	0.2	-1.5	TX EL PASO	75	3	0.0	-0.2
FL FT. MYERS	78	0	1.9	-2.2	MT HELENA	57	5	1.7	-0.1	TX FORT WORTH	72	0	1.8	-3.5
FL JACKSONVILLE	73	-2	1.6	-1.9	MT KALISPELL	58	7	1.9	0.1	TX GALVESTON	74	-1	3.3	-0.3
FL KEY WEST	79	-1	4.4	1.0	MT MILES CITY	59	2	1.0	-1.2	TX HOUSTON	73	-1	8.5	3.2
FL MIAMI	79	1	2.2	-4.0	MT MISSOULA	59	7	2.0	0.2	TX LAREDO	80	-1	1.9	-0.6
FL ORLANDO	76	-1	2.3	-1.2	NE GRAND ISLAND	60	-2	3.3	-0.5	TX LUBBOCK	69	0	2.1	-0.3
FL TALLAHASSEE	74	0	1.8	-3.0	NE LINCOLN	60	-2	5.0	1.1	TX MIDLAND	71	-2	1.4	-0.8
FL TAMPA	76	-1	1.7	-1.4	NE NORFOLK	60	-1	2.4	-1.3	TX SAN ANGELO	72	-2	3.9	0.9
FL WEST PALM BEACH	78	0	2.1	-4.5	NE NORTH PLATTE	59	1	2.5	-1.0	TX SAN ANTONIO	74	-2	12.5	8.2
GA ATHENS	70	1	3.2	-1.6	NE OMAHA	61	-2	4.9	0.5	TX VICTORIA	74	-2	14.7	10.1
GA ATLANTA	71	2	4.9	0.6	NE SCOTTSBLUFF	59	3	1.0	-1.8	TX WACO	72	-2	2.1	-2.5
GA AUGUSTA	72	2	1.3	-2.5	NE VALENTINE	57	-2	1.1	-2.3	TX WICHITA FALLS	68	-3	5.2	0.9
GA MACON	71	0	2.7	-0.9	NV ELKO	56	4	0.4	-0.6	UT BLANDING	--	--	1.6	1.0
GA SAVANNAH	74	0	1.3	-2.8	NV ELY	53	2	0.9	-0.3	UT CEDAR CITY	59	2	0.5	-0.3
HI HILO	73	-1	7.6	-2.4	NV LAS VEGAS	77	3	T	-0.3	UT SALT LAKE CITY	63	5	4.0	2.2
HI HONOLULU	77	0	0.2	-0.9	NV RENO	58	2	0.3	-0.4	VT BURLINGTON	57	0	2.2	-0.9
HI KAHULUI	76	0	0.3	-0.5	NH WINNEMUCCA	59	4	0.7	-0.2	VA LYNCHBURG	68	3	2.2	-1.5
HI LIHUE	76	0	2.6	-0.5	NH CONCORD	57	2	1.0	-2.2	VA NORFOLK	69	2	2.9	-0.9
ID BOISE	63	6	0.9	-0.2	NJ ATLANTIC CITY	61	1	2.2	-1.1	VA RICHMOND	68	1	4.7	0.8
ID LEWISTON	63	5	2.0	0.7	NM ALBUQUERQUE	66	2	0.2	-0.3	VA ROANOKE	66	1	2.4	-1.6
ID POCATELLO	58	4	1.9	0.6	NM CLOVIS	66	1	0.8	-1.1	WA COLVILLE	--	--	--	--
IL CAIRO	--	--	--	--	NM ROSWELL	70	0	0.4	-0.6	WA QUILLYUTE	56	5	6.8	1.4
IL CHICAGO	60	1	1.8	-1.5	NY ALBANY	60	2	1.4	-2.0	WA SEATTLE-TACOMA	60	5	2.9	1.2
IL MOLINE	63	2	3.6	-0.7	NY BINGHAMTON	57	1	2.0	-1.4	WA SPOKANE	60	6	1.4	0.0
IL PEORIA	64	2	3.2	-0.4	NY BUFFALO	57	0	1.8	-1.4	WA WALLA WALLA	60	6	1.4	0.0
IL QUINCY	63	0	2.1	-2.5	NY NEW YORK	65	3	2.3	-1.5	WA YAKIMA	62	5	0.4	0.0
IL ROCKFORD	61	2	3.0	-0.6	NY ROCHESTER	57	-1	1.2	-1.5	WV BECKLEY	60	1	4.1	0.1
IL SPRINGFIELD	64	1	2.0	-1.6	NY SYRACUSE	58	1	2.2	-1.0	WV CHARLESTON	65	1	2.0	-2.0
IN EVANSVILLE	67	0	4.2	-0.4	NC ASHEVILLE	63	0	4.6	-0.4	WV ELKINS	58	1	2.7	-1.4
IN FORT WAYNE	62	1	3.9	0.5	NC CHARLOTTE	71	3	2.6	-1.2	WV HUNTINGTON	65	3	2.5	-1.7
IN INDIANAPOLIS	64	0	2.8	-1.2	NC GREENSBORO	69	3	3.0	-1.1	WV PARKERSBURG	63	0	2.3	-1.4
IN SOUTH BEND	61	1	2.3	-0.9	NC HATTERAS	68	1	0.6	-3.4	WI GREEN BAY	56	1	4.3	1.5
IA DES MOINES	61	0	7.5	3.4	NC NEW BERN	70	1	2.2	-2.4	WI LACROSSE	59	-1	5.4	2.2
IA DUBUQUE	59	1	5.4	1.5	NC RALEIGH	69	2	3.3	-0.6	WI MADISON	60	1	3.8	0.6
IA SIOUX CITY	59	-2	3.1	-0.6	NC WILMINGTON	71	3	2.8	-1.2	WI MILWAUKEE	57	2	1.6	-1.3
IA WATERLOO	61	1	6.1	2.0	ND BISMARCK	55	0	2.4	0.2	WI WAUSAU	55	-1	6.4	2.8
KS CONCORDIA	62	-1	3.4	-0.9	ND FARGO	57	1	2.7	0.2	WI CASPER	56	4	2.8	0.7
KS DODGE CITY	63	-1	2.1	-0.9	ND GRAND FORKS	56	1	1.6	-0.5	WI CHEYENNE	53	2	1.9	-0.5
KS GOODLAND	58	-1	2.9	-0.6	ND WILLISTON	56	1	0.8	-1.2	WI LANDER	56	3	1.8	-0.5
KS TOPEKA	63	-2	7.0	2.5	OH AKRON-CANTON	59	0	1.4	-2.4	WI SHERIDAN	57	4	2.4	0.0
KS WICHITA	64	-3	9.6	5.2	OH CINCINNATI	63	0	2.3	-2.0	PR SAN JUAN	82	1	4.5	-1.4
KY BOWLING GREEN	66	1	2.9	-2.1	OH CLEVELAND	59	1	1.6	-1.9					
KY JACKSON	66	--	3.7	--	OH COLUMBUS	62	2	2.5	-1.6					
KY LEXINGTON	65	1	2.4	-2.0	OH DAYTON	62	0	4.0	0.1					
KY LOUISVILLE	67	1	2.8	-1.8	OH MANSFIELD	59	1	2.5	-1.8					
KY PADUCAH	67	1	2.6	-2.4	OH TOLEDO	61	2	1.1	-1.8					

Based on 1961-90 normals.

## HEATING DEGREE DAYS (Base 65° F) May 1993

STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL
AL BIRMINGHAM	20	-16	SHREVEPORT	3	3	DAYTON	129	-42
MOBILE	3	3	ME CARIBOU	423	-36	TOLEDO	156	-81
MONTGOMERY	8	-2	PORTLAND	311	-67	YOUNGSTOWN	239	-28
AK ANCHORAGE	436	-144	MD BALTIMORE	61	-54	OK OKLAHOMA CITY	53	13
BARROW	1294	-138	MI SALISBURY	70	-34	TULSA	57	24
FAIRBANKS	343	-178	MA BOSTON	167	-51	OR ASTORIA	268	-129
JUNEAU	395	-179	CHATHAM	319	-59	BURNS	323	-82
KODIAK	540	-136	MI ALPENA	418	-1	MEDFORD	150	-95
NOME	764	-144	DETROIT	161	-86	PENDLETON	153	-67
AZ FLAGSTAFF	339	-129	FLINT	218	-70	PORTLAND	135	-128
PHOENIX	0	0	GRAND RAPIDS	227	-35	SALEM	150	-166
PRESCOTT	93	-162	HOUGHTON LAKE	331	-33	PA ALLENTOWN	103	-87
TUCSON	0	-7	LANSING	234	-35	ERIE	227	-96
WINSLOW	103	-29	MARQUETTE	474	5	HARRISBURG	67	-83
YUMA	0	0	MUSKEGON	277	-20	PHILADELPHIA	47	-80
AR FORT SMITH	33	-1	SAULT ST MARIE	512	32	PITTSBURGH	135	-66
LITTLE ROCK	19	0	MN ALEXANDRIA	287	-30	SCRANTON	136	-91
CA BAKERSFIELD	9	-27	DULUTH	451	-5	RI PROVIDENCE	118	-121
EUREKA	213	-184	INT'L FALLS	434	-5	SC CHARLESTON	1	-5
FRESNO	9	-44	MINNEAPOLIS	243	5	COLUMBIA	9	-13
LOS ANGELES	23	-83	ROCHESTER	294	17	FLORENCE	5	-13
REDDING	54	-5	SALT CLOUD	297	-8	GREENVILLE	34	-6
SACRAMENTO	52	-31	MS GREENWOOD	9	-7	SD ABERDEEN	240	-34
SAN DIEGO	7	-64	JACKSON	5	-7	HURON	243	-16
SAN FRANCISCO	100	-126	MERIDIAN	7	-12	RAPID CITY	269	-29
STOCKTON	25	-28	MO CAPE GIRARDEAU	53	-19	SIoux FALLS	244	4
CO DENVER	195	-58	COLUMBIA	87	-33	TN CHATTANOOGA	21	-35
GRAND JCT.	146	-2	KANSAS CITY	88	-24	KNOXVILLE	38	-25
PUEBLO	195	32	SAINT LOUIS	52	-58	MEMPHIS	15	-8
CT BRIDGEPORT	127	-93	SPRINGFIELD	94	-13	NASHVILLE	32	-23
HARTFORD	139	-58	MT BILLINGS	177	-141	TX ABILENE	24	16
DE WILMINGTON	66	-64	GLASGOW	240	-92	AMARILLO	82	-10
DC WASHINGTON	32	-35	GREAT FALLS	291	-78	AUSTIN	0	0
FL APALACHICOLA	0	0	HAVRE	242	-91	BEAUMONT	0	0
DAYTONA BEACH	0	0	HELENA	228	-169	BROWNSVILLE	0	0
FORT MYERS	0	0	KALISPELL	234	-185	CORPUS CHRISTI	0	0
JACKSONVILLE	1	1	MILES CITY	195	-76	DEL RIO	0	0
KEY WEST	0	0	MISSOULA	209	-191	EL PASO	4	4
MIAMI	0	0	NE GRAND ISLAND	181	12	FORT WORTH	4	4
ORLANDO	0	0	LINCOLN	164	13	GALVESTON	0	0
TALLAHASSEE	0	0	NORFOLK	167	-14	HOUSTON	0	0
TAMPA	0	0	NORTH PLATTE	204	-31	LUBBOCK	40	7
W. PALM BEACH	0	0	OMAHA	146	16	MIDLAND-ODESSA	16	5
GA ATLANTA	13	-24	SCOTTSBLUFF	199	-55	SAN ANGELO	4	-2
AUGUSTA	6	-11	VALENTINE	244	-9	SAN ANTONIO	0	0
MACON	9	2	NV ELY	363	-99	VICTORIA	0	0
SAVANNAH	0	0	LAS VEGAS	3	-21	WACO	6	6
ID BOISE	140	-113	RENO	200	-133	WICHITA FALLS	30	13
LEWISTON	124	-101	WINNEMUCCA	192	-142	UT BLANDING	126	-136
POCATELLO	226	-122	NH CONCORD	248	-66	CEDAR CITY	184	-101
IL CHICAGO	184	-40	NJ ATLANTIC CITY	150	-15	SALT LAKE CITY	151	-69
MOLINE	116	-61	NM ALBUQUERQUE	69	-12	VT BURLINGTON	256	-70
PEORIA	96	-80	CLOVIS	59	-9	VA LYNCHBURG	29	-68
QUINCY	98	-48	ROSWELL	23	12	NORFOLK	22	-31
ROCKFORD	167	-60	NY ALBANY	185	-67	RICHMOND	24	-40
SPRINGFIELD	85	-64	BINGHAMTON	257	-56	ROANOKE	52	-47
IN EVANSVILLE	46	-54	BUFFALO	257	-37	WA COLVILLE	183	-149
FORT WAYNE	128	-84	NEW YORK	61	-88	QUILLAYUTE	288	-146
INDIANAPOLIS	103	-55	ROCHESTER	263	-11	SEATTLE-TACOMA	167	-146
SOUTH BEND	157	-73	SYRACUSE	230	-39	SPOKANE	192	-147
IA DES MOINES	151	-5	NC ASHEVILLE	82	-32	YAKIMA	153	-101
DUBUQUE	194	-41	CAPE HATTERAS	16	-21	WV BECKLEY	147	-39
SIoux CITY	194	35	CHARLOTTE	16	-34	CHARLESTON	73	-52
WATERLOO	167	-55	GREENSBORO	18	-55	HUNTINGTON	71	-54
KS CONCORDIA	133	-4	NEW BERN	4	-29	PARKERSBURG	111	-27
DODGE CITY	129	5	RALEIGH-DURHAM	15	-38	WI GREEN BAY	277	-48
GOODLAND	218	3	WILMINGTON	5	-5	LA CROSSE	213	-3
TOPEKA	101	-16	ND BISMARCK	296	-28	MADISON	196	-77
WICHITA	100	11	FARGO	269	-42	MILWAUKEE	245	-89
KY BOWLING GREEN	47	-31	GRAND FORKS	303	-52	WAUSAU	332	12
LEXINGTON	64	-57	WILLISTON	277	-58	WY CASPER	266	-118
LOUISVILLE	46	-52	OH AKRON-CANTON	192	-36	CHEYENNE	351	-46
LA BATON ROUGE	0	0	CLEVELAND	192	-52	LANDER	278	-106
LAKE CHARLES	0	0	COLUMBUS	130	-48	SHERIDAN	250	-122
NEW ORLEANS	0	0	CINCINNATI	103	-40			

Based on 1961-90 normals.

# May Weather in Historical Perspective

Preliminary national climatic data for May indicate that temperatures were above normal and precipitation was below normal. The contiguous States' average temperature of 60.7°F was about 1.0°F above normal (fig. 1), ranking May as the 26th warmest such month on record (table 1). The national normalized precipitation index (fig. 2), weighted so that typically wet areas do not dominate the index, achieved its 33rd driest May ranking (table 1). Climatological records date to 1895.

Considerable variability in temperature and precipitation occurred across the nine climatic regions (see the March 16, 1993, *Weekly Weather and Crop Bulletin*, Vol 80, No. 11, for a map of the regions). Temperatures averaged below normal only in the South region (20th coldest May). Near-record May warmth covered the Northwest (5th hottest), while above-normal temperatures were observed in the West North Central (21st warmest), West (24th warmest), Southwest (25th warmest), and Northeast regions (33rd warmest).

Precipitation was below normal in the Northeast (12th driest May) and the Southeast (19th driest), as well as the Southwest (26th driest), West North Central (28th driest), and the Central regions (29th driest). In contrast, unusually wet conditions prevailed in the East North Central (21st wettest), Northwest (24th wettest), and West regions (32nd wettest).

The trend toward drier conditions after a very wet winter and early spring allowed Palmer Drought indices to return closer to normal in portions of the Plains, Corn Belt, Northeast, and Gulf Coast States. The portion of the Nation experiencing a severe to extreme wet spell (Palmer Drought index above +3.0) dropped to 29 percent in May, down from a peak of 37 percent (revised number) in April (fig. 3). Meanwhile, the area covered by severe to extreme drought (Palmer index below -3.0) remained virtually unchanged at about 2 percent.

Brad Rippey

Figure 1

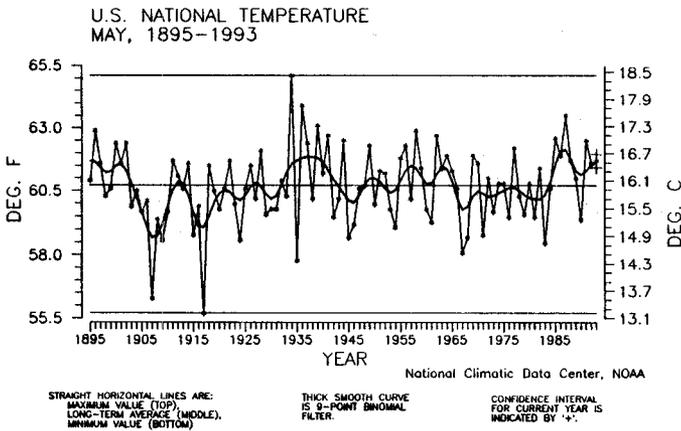


Figure 2

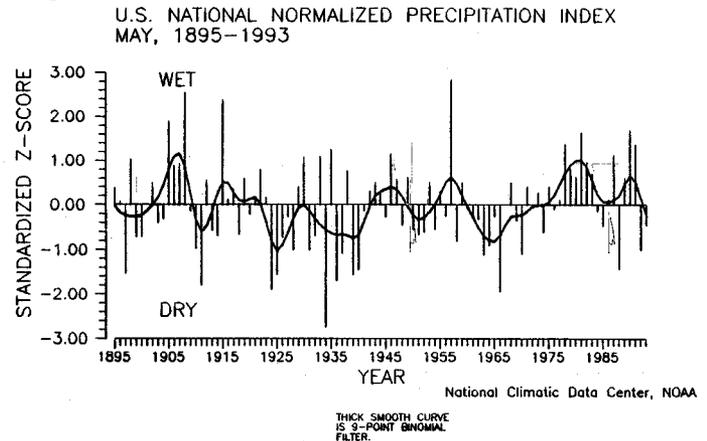
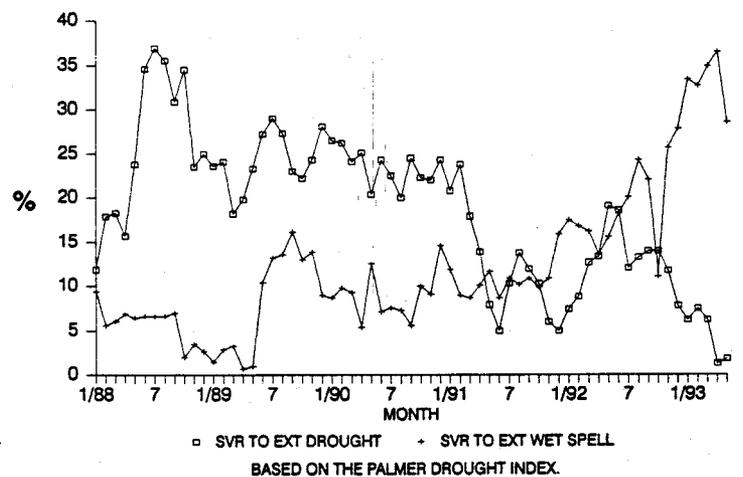


TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR MAY 1993, BASED ON THE PERIOD 1895-1993. 1 = DRIEST/COLDEST, 99 = WETTEST/HOTTEST.

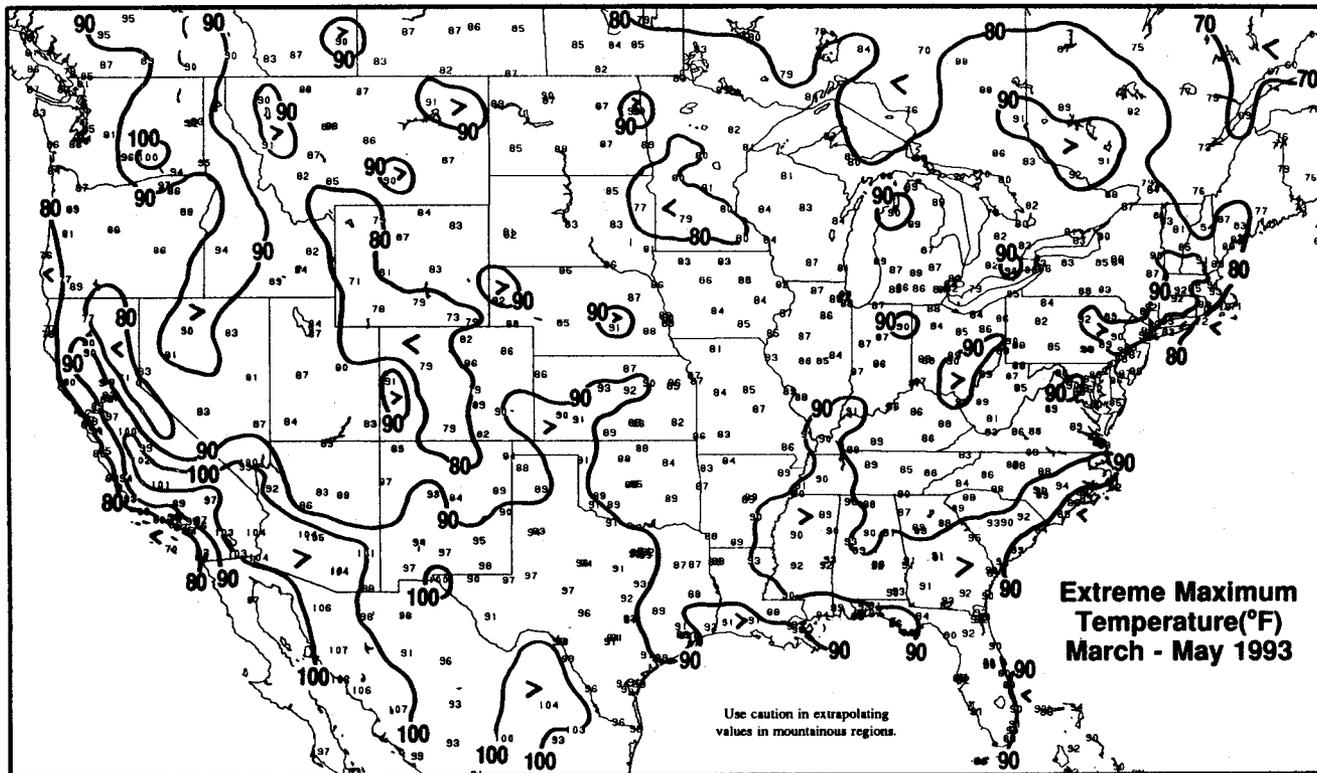
REGION	PRECIPITATION	TEMPERATURE
NORTHEAST	12	67
EAST NORTH CENTRAL	79	47
CENTRAL	29	56
SOUTHEAST	19	51
WEST NORTH CENTRAL	28	79
SOUTH	62	20
SOUTHWEST	26	75
NORTHWEST	76	95
WEST	68	76
NATIONAL	33	74

Figure 3

U.S. PERCENT AREA DRY AND WET  
JANUARY 1988 THROUGH MAY 1993



National Climatic Data Center, NOAA



Although temperatures rose into the 80's throughout the Corn Belt in early May, temperatures reverted to April-like levels during the latter half of the month, slowing crop emergence and development. A lack of spring warmth along with heavy rainfall was also detrimental to crop progress in the Mississippi Delta and the east-central Plains. Omaha, NE observed its first 75°F reading of the spring on May 4, the latest date this century. In contrast, warm spring conditions prevailed in the northern Plains and west of the Rocky Divide. A spring heatwave pushed temperatures to 100°F as far north as eastern Washington State on May 12.

## Spring Weather Review

**HIGHLIGHTS:** Damp, cool weather in the western Corn Belt, east-central Plains, and the Mississippi Delta significantly delayed spring fieldwork and crop progress. Farther east, the "Blizzard of '93" was the mid-point of a 2-month wet spell that caused major flooding in the Northeast. In the western third of the Nation, temperatures averaged as much as 4°F above normal (up to 8°F above normal in Alaska), while precipitation ranged from below-normal in Alaska, Hawaii, and the Southwest, to well-above normal in the Northwest.

**MARCH:** A memorable winter storm bombarded the Eastern States with record-breaking snowfall, high winds, and late-season bitter cold at mid-month. Effects of the storm were felt as far south as the Gulf coast, where snow whitened the ground in northwestern Florida, and the temperature dropped to 21°F in Mobile, AL. In the Northeast, the storm was preceded by a month-long series of snowstorms, and followed by a spate of rainstorms, causing severe and widespread flooding.

More pleasant weather prevailed in the western half of the Nation, where temperatures averaged as much as 6°F above normal. The Southwest was able to recover from its own bout of (late-winter) flooding, and California's wet season tapered off after assuring the State of its best water supplies in a decade.

**APRIL:** Spring fieldwork was delayed in the lower Mississippi Valley and from the east-central Plains and western Corn Belt to the

Northeast. Flooding persisted until mid-month in the Northeast, and Lake Champlain attained its highest level this century. Farther south, a drying trend centered in southern Georgia developed over the Southern Atlantic States. In the Pacific Northwest, the arrival of late-season precipitation was welcomed as the region neared the end of a seventh consecutive drier-than-normal wet season.

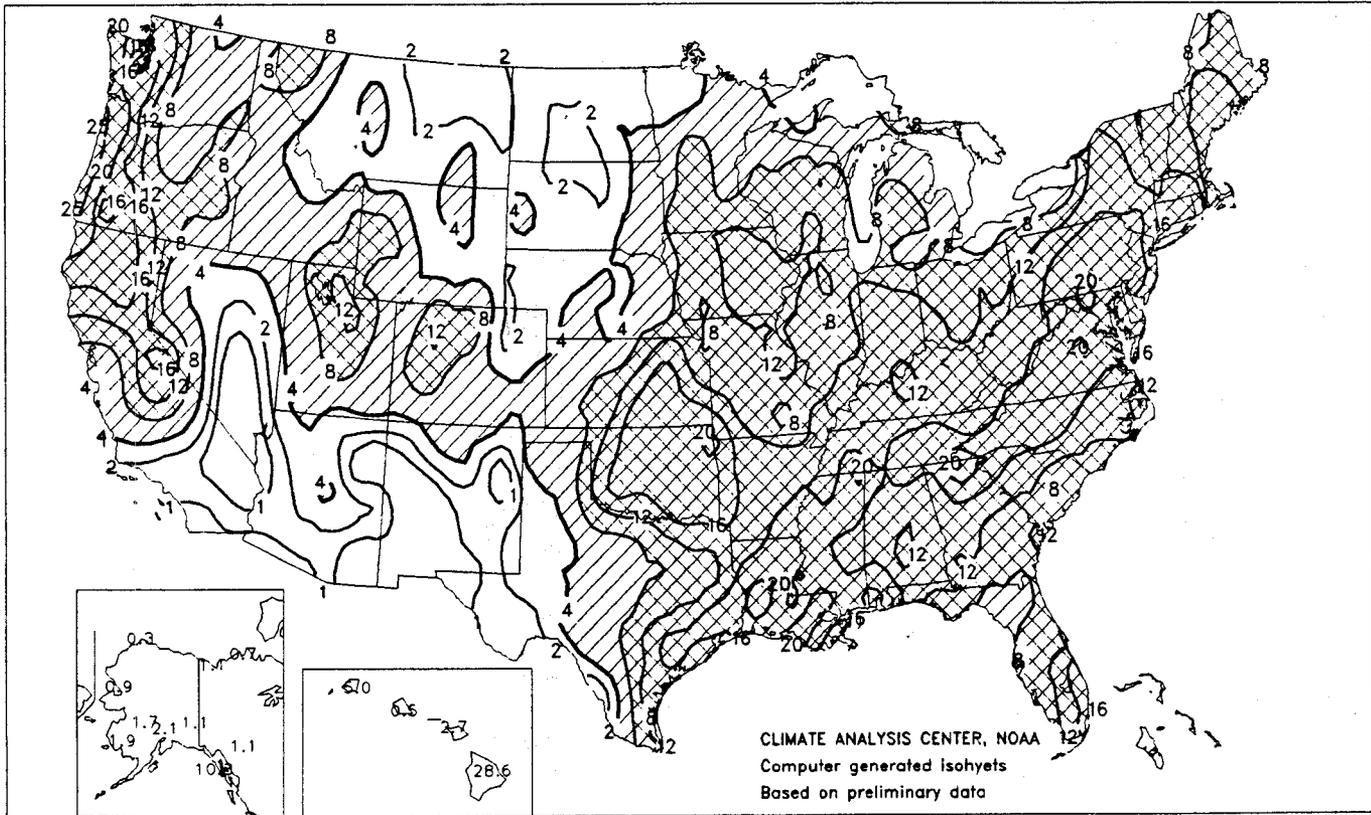
Very cool air often covered the Central and Southeastern States, slowing evaporation rates. Several wet snows plagued the Northern States, and frosty conditions often punched deep into the Southeast. Tallahassee, FL had its latest freeze by more than 2 weeks with a 31-degree reading on April 23.

**MAY:** Major crop hindrances included heavy early-month rains from the western Corn Belt to the western Gulf Coast States, and a late-month chill in the upper Midwest, Great Lakes States, and the Northeast. Warm weather prevailed in the northern Plains and west of the Rocky Divide, while drier-than-normal conditions were observed in the High Plains and in the eastern third of the Nation.

Weather surprises late in the month included out-of-season rains in western Oregon and northern California, and the formation of a tropical depression near Cuba. The western rains slowed fieldwork in northern California, but added to reservoir supplies. In southern Florida, rainfall was needed, especially for citrus groves, but caused local flash flooding.

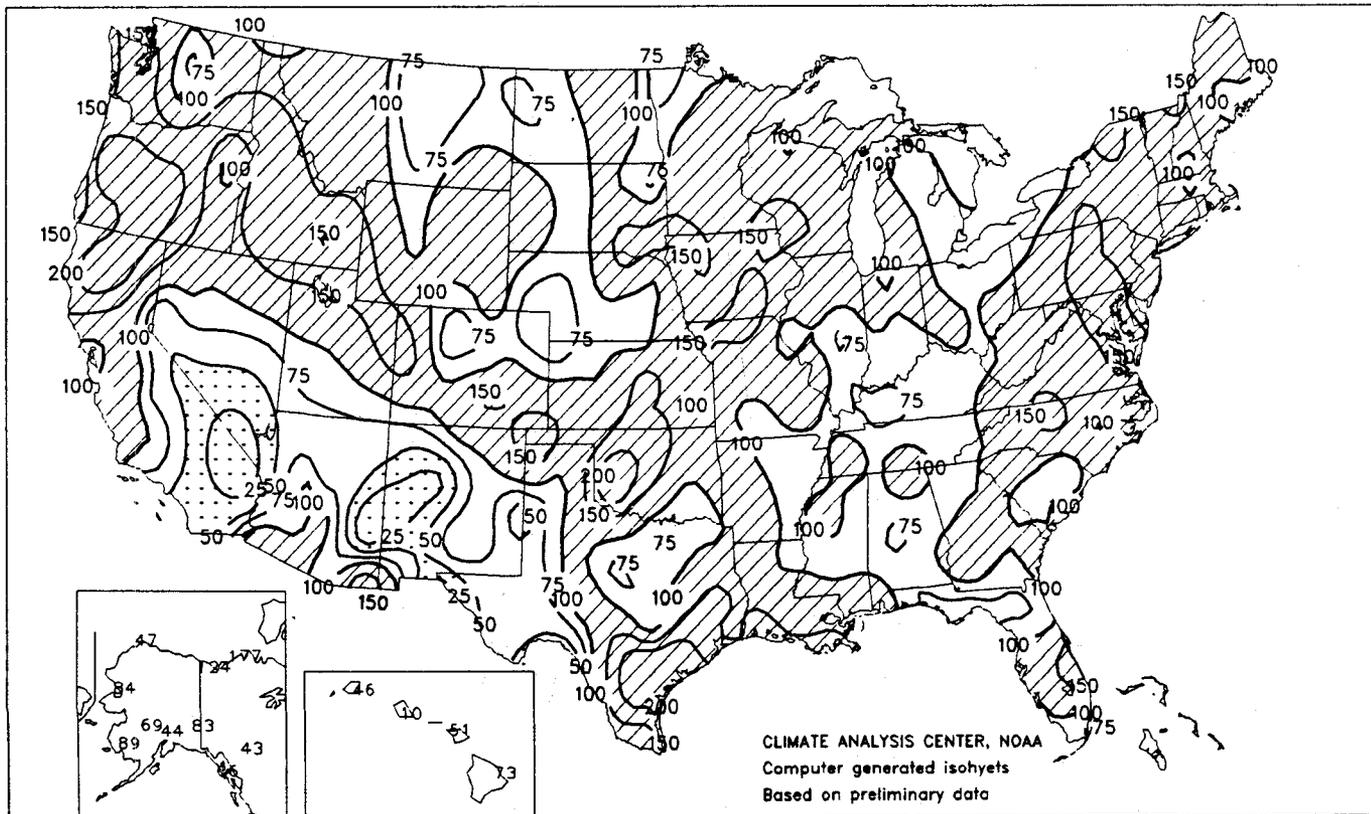
SPRING TOTAL PRECIPITATION (inches)

MAR-MAY 1993



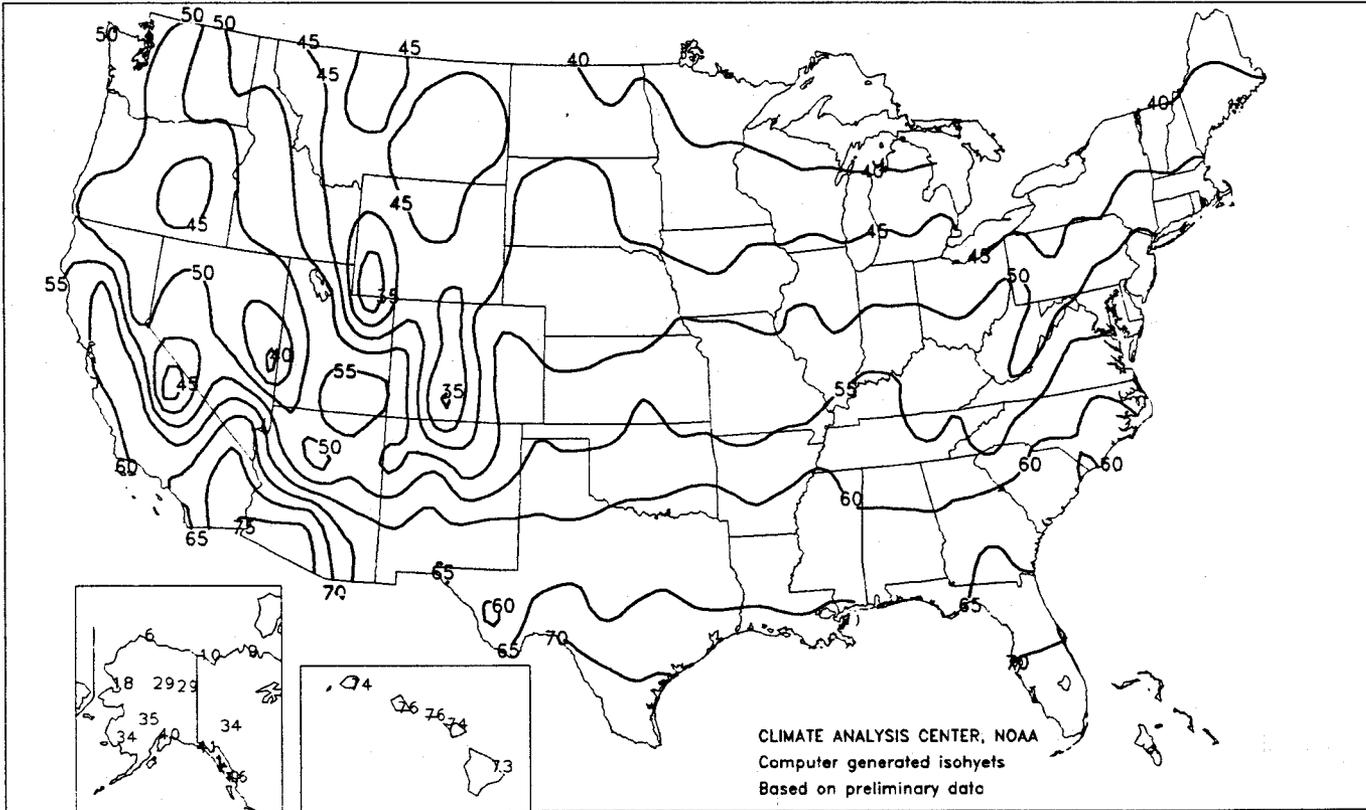
SPRING PERCENT OF NORMAL PRECIPITATION

MAR-MAY 1993



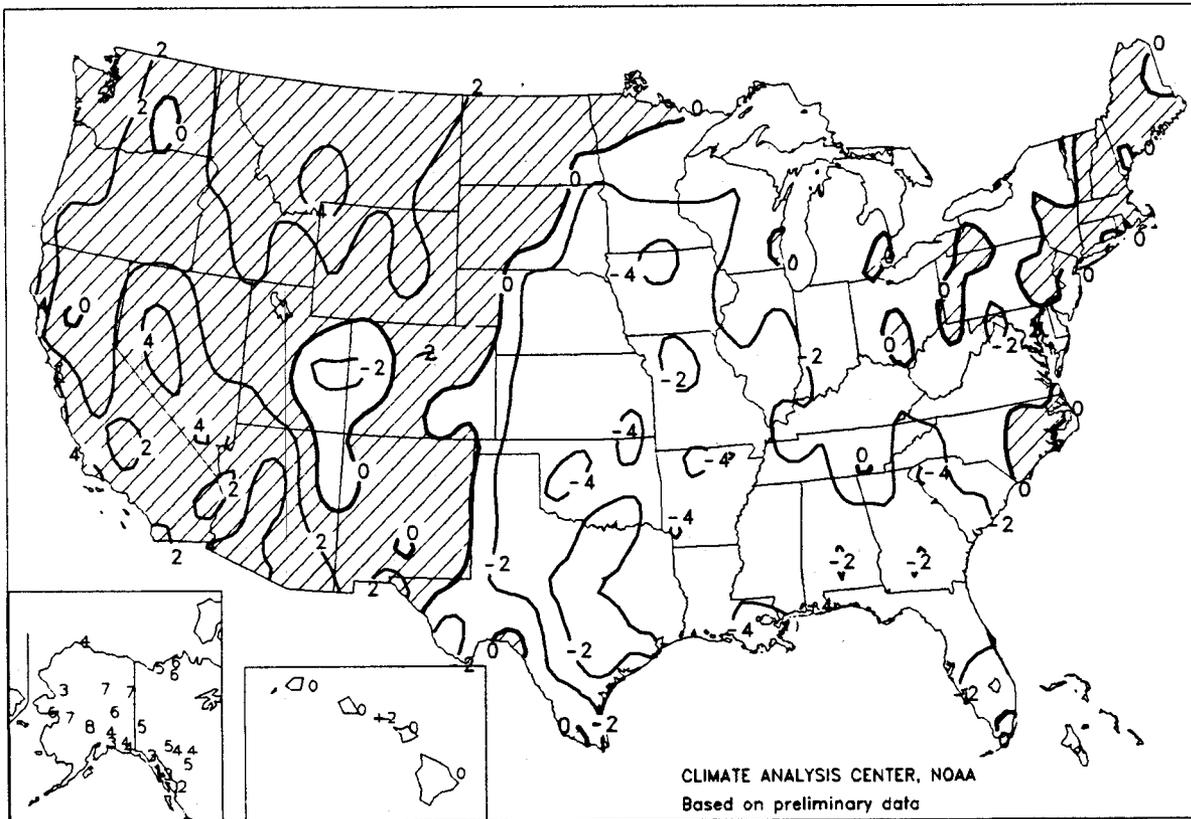
SPRING Average Temperature(°F)

MAR-MAY 1993



SPRING Departure from Normal Average Temperature (°F)

MAR-MAY 1993



# Spring Weather in Historical Perspective

Spring weather in the contiguous United States was wetter than normal with slightly below-average temperatures. Although no single month was particularly wet (April was the highest-ranking month at 36th wettest), a consistently stormy pattern led to the 32nd wettest spring since 1895 (table 1). With the exception of a 5-year period between 1985 and 1989, springs during the past 21 years have tended to be wetter than the 100-year mean (fig 1). Although the national average spring temperature of 51.2°F was less than a half-degree below normal (fig. 2), it was the first spring since 1984 that temperatures were not considerably above the long-term mean. The spring of 1993 was the 41st coldest such period on record (table 1).

Regionally, spring temperature rankings ranged from 10th coldest in the Southeast and South regions to 17th warmest in the West. Temperatures were also in the coldest third of the historical distribution in the Central (23rd coldest) and East

North Central regions (26th coldest), and in the warmest third in the Northwest (25th warmest), Southwest (25th warmest), and West North Central regions (30th warmest).

Regional spring precipitation was significantly above normal in the Northwest (6th wettest) and the East North Central regions (10th wettest). Above-normal precipitation was also observed in the Northeast (13th wettest) and the South (28th wettest). Drier-than-normal conditions were noted only in the Southwest, which registered its 32nd driest spring on record.

Seven States (AL, AR, FL, GA, LA, MS, and SC) had a tenth coldest, or colder, spring in 1993 (table 2). Only Arizona mustered a tenth warmest, or warmer, ranking. Six States (ID, MD, NY, OR, PA, and WI) endured a tenth wettest, or wetter, spring, while Nevada was the driest-ranking State at 15th driest (table 3).

Figure 1

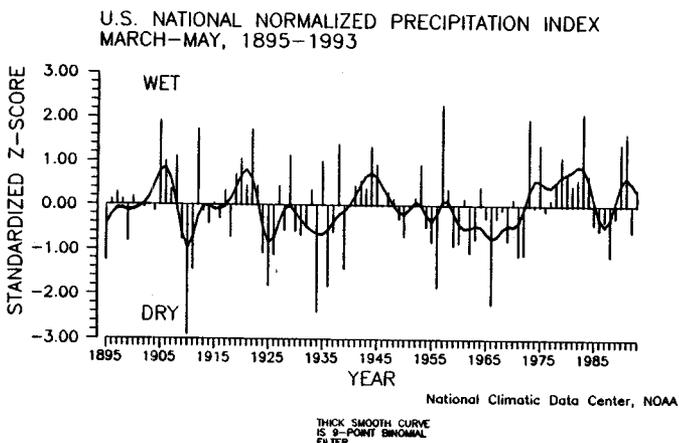


Figure 2

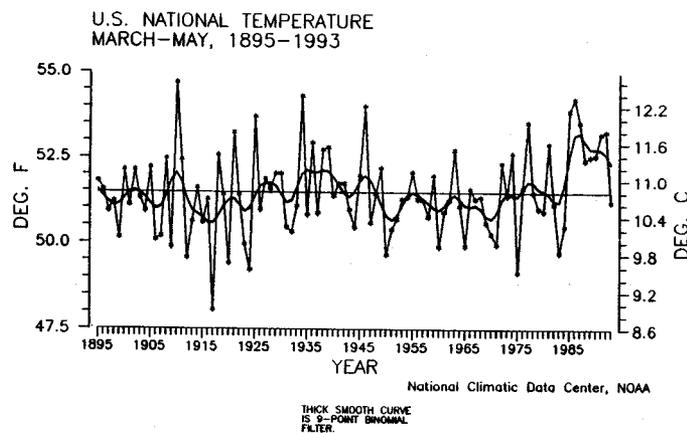


TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR MAR-MAY 1993, BASED ON THE PERIOD 1895-1993. 1 = DRIEST/COLDEST, 99 = WETTEST/HOTTEST.

REGION	PRECIPITATION	TEMPERATURE
NATIONAL	68	41
NORTHEAST	87	45
EAST NORTH CENTRAL	90	26
CENTRAL	43	23
SOUTHEAST	58	10
WEST NORTH CENTRAL	42	70
SOUTH	72	10
SOUTHWEST	32	75
NORTHWEST	94	75
WEST	47	83

TABLE 2. TEMPERATURE RANKINGS FOR MAR-MAY 1993, BASED ON THE PERIOD 1895 TO 1993. 1 = COLDEST, 99 = WARMEST.

STATE RANK	STATE RANK	STATE RANK	STATE RANK
AL 9	IA 11	NE 26	RI 69
AZ 92	KS 11	NV 79	SC 4
AR 5	KY 25	NH 61	SD 57
CA 81	LA 6	NJ 56	TN 16
CO 43	ME 45	NM 63	TX 26
CT 54	MD 38	NY 41	UT 58
DE 21	MA 52	NC 28	VT 59
FL 9	MI 36	ND 60	VA 31
GA 8	MN 32	OH 44	WA 76
ID 77	MS 8	OK 11	WV 37
IL 26	MO 17	OR 68	WI 29
IN 27	MT 84	PA 45	WY 73

TABLE 3. PRECIPITATION RANKINGS FOR MAR-MAY 1993, BASED ON THE PERIOD 1895 TO 1993. 1 = DRIEST, 99 = WETTEST. THESE RANKS ARE BASED ON PRELIMINARY ESTIMATES AND SHOULD BE USED WITH CONSIDERABLE CAUTION.

STATE RANK	STATE RANK	STATE RANK	STATE RANK
AL 45	IA 86	NE 31	RI 78
AZ 39	KS 79	NV 15	SC 50
AR 57	KY 24	NH 42	SD 83
CA 57	LA 84	NJ 77	TN 34
CO 42	ME 57	NM 22	TX 65
CT 74	MD 93	NY 93	UT 62
DE 80	MA 70	NC 81	VT 51
FL 35	MI 61	ND 33	VA 89
GA 50	MN 78	OH 33	WA 84
ID 97	MS 51	OK 83	WV 64
IL 54	MO 65	OR 94	WI 93
IN 37	MT 20	PA 92	WY 54

## National Agricultural Summary

May 31 - June 6, 1993

**HIGHLIGHTS:** Storms continued to move across the northern and central parts of the Nation, hindering field work. Rain fell along the Pacific coast, hampering harvest activities. The southern portions of the country stayed mostly dry, causing some producers to delay planting. Temperatures were well below normal across much of the country, delaying crop development.

**SMALL GRAINS:** Wet conditions and lack of abundant sunshine caused winter wheat condition to decline slightly again in the 19 major producing States. Heading of the winter wheat crop was at 83 percent (%), compared with 91% last year and the 5-average of 87%. Winter wheat harvested, at 3%, compared with 1% last year and 4% average. Ideal conditions intensified pressures from foliar diseases in Kansas. Wet weather slowed harvest in California. Spring wheat condition declined slightly from the previous week in the five major producing States. Lack of warm weather has slowed the development of small grains in North and South Dakota. Small grains in Minnesota progressed well with the cool, wet conditions. Washington cereal grains showed strong growth. Small grain harvests were active in California and North Carolina.

**CORN:** Corn planting reached 93% complete, compared with 99% last year and 96% average. Iowa, Missouri, South Dakota, and Wisconsin all have less than 90% of their crop planted and are behind the average. Corn condition rated mostly fair to good in the 17 major producing States. Cool, wet conditions slowed crop development in Iowa, Minnesota, Kansas, New York, and Illinois. Yellow or stunted corn was reported in Minnesota and Iowa. Intended corn acreage in Tennessee and Missouri may be planted to other crops. Warm conditions in the Texas High Plains promoted growth. Corn fields in south Texas needed more moisture to maintain good growth.

**SOYBEANS:** Soybean planting progress in the 19 major producing States reached 59% complete, compared with 85% last year and 73% average. Lack of moisture delayed planting in Louisiana and Georgia. Planting of double-crop soybeans in Tennessee will be delayed by the late maturing winter wheat crop. Cold weather hurt the emergence of the crop in Minnesota. Soybeans in Texas looked good, although the crop in the Badlands needed moisture.

**COTTON:** Cotton planting progress, at 93%, compared with 89% last year and 88% average. Cotton squaring, at 9% compared with 11% last year and 9% average. Cool weather in Mississippi and Arkansas helped cotton condition decline slightly from the previous week. Dry fields slowed planting in Georgia, and caused spotty stands in the Texas Low Plains. Some replanting occurred in Georgia and hail-damaged fields in the Texas High Plains may need replanting. Cool weather continued to hamper growth in many areas of California. The desert fields continued rapid development. In Texas, the hot weather promoted development but rain was needed in many areas.

**SORGHUM:** Planting progress in the 12 major producing States remained behind last year's progress and average. Acreage planted, at 63% complete, compared with 73% last year and 70% average. Planting was slowed by dry conditions in Louisiana and Georgia. Progress continued to lag in Kansas, Nebraska, and Missouri. Planting in the plains of Texas continued at a fast pace. Green bug damage occurred in some fields in the Texas High Plains, while the crop grew well in the Coastal Bend area.

**RICE:** Rice planting progress in the five major States reached 93% complete, compared with 99% last year and 95% average.

Rice emergence, at 77%, compared with 94% last year and 87% average. Rice condition remained mostly fair to good. Control of water weevils in Louisiana fields continued. Rice planting remained behind average in California, Mississippi, and Texas.

**OTHER FIELD CROPS:** Peanut condition was fair to good in Alabama and Georgia. In Texas, the crop progressed well but fields in the Low Plains showed stress from the dry conditions. Hay harvest continued across the Nation, with progress behind average in many areas. Wet weather hurt the quality of hay in California and Idaho. Above average hay yields occurred in many areas of Tennessee. Shortages of burley tobacco plants occurred in Kentucky, but most growers expect to find needed plants. Tobacco condition in North Carolina rated mostly good. Dry bean planting remained active, but trailed last year's progress in Minnesota, Wyoming, and Idaho. Warmer weather was needed for the crop in New York. Potato planting continued across the Nation with progress behind last year and average in Idaho and Maine. Sunflower planting neared completion in Minnesota and continued in North and South Dakota. Flax planting neared completion in North Dakota and continued in South Dakota.

**FRUIT AND NUTS:** Rain improved the crop condition in the citrus areas of Florida. In California, rain caused problems for the producers. Rain caused damage and harvest losses to strawberries, cherries, and apricots. Wet conditions also hurt strawberries in Oregon. A hail storm damaged fruit in Utah. Cool, wet conditions hampered fruit development in New York. Winter damage was evident on grapes growing in the Finger Lakes region of New York. Wet conditions forced California grape producers to treat their crop for mildew. Nationally, the peach crop rated fair to good. Harvest was behind last year and average in Louisiana, Georgia, and South Carolina. In Texas, brown rot remained a problem in some orchards. New England cranberries and blueberries had average set. The sweet and tart cherry crop appeared light in Willamette Valley of Oregon. The Texas pecan crop was in good condition in most areas. The hazelnut crop looked good in the Willamette Valley and rated below normal in the northern valley of Oregon.

**VEGETABLES:** Vegetable growth was hindered by the cool conditions in New York and Ohio. Scattered rain brought welcomed moisture over the north and central vegetable-producing areas of Florida. Tomato harvest should start in north Florida next week. The Georgia melon harvest should start next week. Vegetable harvests advanced seasonally in Arizona, New Jersey, Texas, and California.

**PASTURE AND LIVESTOCK:** Pastures rated from fair to excellent over most of the Nation. Dry conditions in the South caused some pastures to rate only fair. In Texas, many pastures needed moisture and cattle were supplementally fed. Excellent grazing conditions occurred in Nebraska and Nevada. Recent rains in California allowed pastures to supply adequate amounts of quality feed. Livestock condition across the Nation rated fair to good. Wet weather and mud stressed livestock in feedlots in Iowa. Parasites remained a problem for livestock in Texas. Some sheep losses were reported in the western mountains of Virginia. Western cattle and sheep continued to move to summer pastures.

### Crop Progress

for the Week Ending June 6, 1993

#### COTTON (Percent Planted)

	Current	Last Wk	1992	Avg.
AL	91	86	99	98
AZ	100	100	100	100
AR	99	95	98	97
CA	100	100	100	100
GA	96	92	95	95
LA	100	100	100	95
MS	97	93	100	96
MO	100	97	100	97
NM	99	97	98	99
NC	98	95	97	97
OK	83	62	55	66
SC	100	97	100	98
TN	99	93	99	93
TX	86	65	77	78
14 States	93	82	89	88

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

#### COTTON (Percent Squaring)

	Current	Last Wk	1992	Avg.
AL	3	NA	10	9
AZ	41	NA	38	44
AR	0	NA	2	2
CA	5	NA	5	4
GA	6	NA	10	10
LA	3	NA	17	10
MS	4	NA	16	13
MO	0	NA	0	0
NM	0	NA	4	6
NC	0	NA	0	0
OK	0	NA	5	1
SC	0	NA	2	4
TN	0	NA	0	0
TX	14	NA	12	11
14 States	9	NA	11	9

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

#### GRAIN SORGHUM (Percent Planted)

	Current	Last Wk	1992	Avg.
AR	91	78	98	91
CO	46	21	30	37
IL	42	12	82	66
KS	30	15	45	50
LA	90	88	95	88
MS	82	71	95	88
MO	55	38	89	67
NE	67	34	99	87
NM	30	28	31	NA
OK	63	56	35	41
SD	45	27	72	53
TX	86	80	80	82
12 States	63	49	72	NA
Excl. States with NA	63	49	73	70

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

#### WINTER WHEAT (Percent Headed)

	Current	Last Wk	1992	Avg.
AR	100	99	100	100
CA	99	99	99	99
CO	82	64	90	77
GA	100	100	100	100
ID	8	4	44	20
IL	93	89	100	99
IN	74	63	85	90
KS	100	98	100	100
MI	15	5	25	45
MO	87	80	99	100
MT	2	0	42	24
NE	72	34	100	92
NC	100	96	100	100
OH	80	45	66	79
OK	100	99	100	100
OR	82	53	96	77
SD	23	9	71	59
TX	100	97	99	99
WA	59	29	81	64
19 States	83	74	91	87

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

#### WINTER WHEAT (Percent Harvested)

	Current	Last Wk	1992	Avg.
AR	0	NA	2	8
CA	10	NA	10	6
CO	0	NA	0	0
GA	21	NA	25	46
ID	0	NA	0	0
IL	0	NA	0	0
IN	0	NA	0	0
KS	0	NA	0	0
MI	0	NA	0	0
MO	0	NA	0	1
MT	0	NA	0	0
NE	0	NA	0	0
NC	3	NA	2	9
OH	0	NA	0	0
OK	5	NA	1	9
OR	0	NA	0	0
SD	0	NA	0	0
TX	16	NA	7	15
WA	0	NA	0	0
19 States	3	NA	1	4

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

#### CORN (Percent Planted)

	Current	Last Wk	1992	Avg.
CO	95	90	100	97
GA	100	100	100	100
IL	95	86	100	97
IN	98	94	100	94
IA	88	83	100	97
KS	97	90	99	99
KY	96	92	100	92
MI	97	90	96	97
MN	90	85	99	95
MO	86	79	100	91
NE	99	95	100	99
NC	100	100	100	100
OH	100	96	100	89
PA	88	80	87	81
SD	76	69	100	95
TX	100	100	100	100
WI	85	75	97	95
17 States	93	87	99	96

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

#### SOYBEANS (Percent Planted)

	Current	Last Wk	1992	Avg.
AL	60	54	61	54
AR	37	18	49	41
GA	47	36	48	52
IL	71	56	93	85
IN	84	70	98	75
IA	45	34	100	88
KS	35	15	60	55
KY	45	25	53	46
LA	73	57	76	56
MI	85	65	90	80
MN	61	49	99	87
MS	36	18	59	43
MO	44	25	77	57
NE	68	46	100	90
NC	60	48	56	52
OH	93	85	91	71
SC	49	38	42	48
SD	45	37	96	86
TN	36	21	56	43
19 States	59	45	85	73

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

#### RICE (Percent Planted)

	Current	Last Wk	1992	Avg.
AR	93	85	99	94
CA	90	80	98	98
LA	98	98	99	97
MS	80	65	100	90
TX	95	93	100	100
5 States	93	86	99	95

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

#### RICE (Percent Emerged)

	Current	Last Wk	1992	Avg.
AR	76	61	96	85
CA	50	35	85	80
LA	96	91	96	93
MS	63	47	95	81
TX	88	84	92	96
5 States	77	65	94	87

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

### Crop Condition (Percent)

for the Week Ending June 6, 1993

State	COTTON				
	VP	P	F	G	EX
AL	0	3	51	46	0
AZ	0	0	10	75	15
AR	8	8	59	25	0
CA	0	0	5	95	0
GA	0	3	76	21	0
LA	0	12	41	47	0
MS	13	16	70	1	0
MO	0	8	67	25	0
NM	0	8	38	54	0
NC	0	0	18	79	3
OK	0	0	69	31	0
SC	0	28	55	17	0
TN	0	20	54	26	0
TX	0	2	52	45	1
14 State	2	6	49	42	1
Prev Week	0	10	45	42	3
Prev Year	4	18	49	26	3

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

## RICE

State	VP	P	F	G	EX
AR	0	7	62	31	0
CA	0	0	10	90	0
LA	0	1	63	36	0
MS	0	26	53	21	0
TX	0	0	27	66	7
5 State	0	6	50	43	1
Prev Week	0	2	57	40	1
Prev Year	0	4	46	47	3

## SPRING WHEAT

State	VP	P	F	G	EX
ID	0	1	10	77	12
MN	0	7	32	55	6
MT	1	8	24	38	29
ND	0	0	17	79	4
SD	1	0	15	74	10
5 State	0	2	20	69	9
Prev Week	0	1	21	67	11
Prev Year	4	10	27	54	5

## WINTER WHEAT

State	VP	P	F	G	EX
AR	0	21	53	26	0
CA	0	0	10	70	20
CO	5	3	12	61	19
GA	0	18	51	28	3
ID	1	3	15	72	9
IL	0	0	27	67	6
IN	0	2	21	71	6
KS	1	1	13	47	38
MI	5	10	30	40	15
MO	0	14	59	26	1
MT	1	4	21	54	20
NE	0	0	20	71	9
NC	0	0	33	67	0
OH	2	7	30	46	15
OK	0	0	46	54	0
OR	0	2	7	50	41
SD	0	0	12	65	23
TX	0	6	32	57	5
WA	0	0	9	78	13
19 State	1	3	25	54	17
Prev Week	0	3	24	57	16
Prev Year	7	15	40	34	4

## CORN

State	VP	P	F	G	EX
CO	0	3	12	68	17
GA	0	11	49	40	0
IL	0	1	23	72	4
IN	0	3	44	52	1
IA	3	10	59	27	1
KS	3	7	20	42	28
KY	0	4	26	65	5
MI	1	9	35	40	15
MN	6	19	55	20	0
MO	0	11	53	35	1
NE	0	0	27	71	2
NC	0	0	18	82	0
OH	1	4	30	51	14
PA	1	7	31	44	17
SD	2	4	37	55	2
TX	0	2	33	45	20
WI	4	13	50	32	1
17 State	2	7	40	47	4
Prev Week	N/A	N/A	N/A	N/A	N/A
Prev Year	1	8	45	42	4

## State Summaries of Weather and Agriculture

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

**ALABAMA:** Rainfall none to 1.05 in. north; none to 1.00 in. central; none to 1.17 in. south. Temperatures 5° below normal to normal north; 4° below normal to 3° above normal central; 1° below normal to 4° above normal south. Lows 45 to 54° north; 45 to 59° central; 52 to 63° south. Highs 85 to 92° north; 88 to 96° central; 90 to 98° south.

Days suitable for fieldwork 6.0. Soil moisture 51% short, 47% adequate, 2% surplus. Corn silked 9%, 18% 1992, 40% avg.; 10% poor, 34% fair, 48% good 8% excellent. Sorghum planted 56%, 53% 1992, 66% avg.; 7% poor, 49% fair, 44% good. Peanuts planted 96%, 98% 1992, 98% avg.; pegged 1%, 3% 1992, 5% avg.; 50% fair, 50% good. Wheat turning color 75%, 97% 1992, 98% avg.; harvested 10%, 31% 1992, 45% avg.; 5% poor, 43% fair, 52% good. Hay harvested 74%, 77% 1992, 70% avg. Pasture 5% poor, 41% fair, 50% good, 4% excellent. Primary activities: Planting cotton, peanuts, soybeans, vegetables; applying fertilizer; spraying fruit; marketing cattle; general care of livestock, poultry, catfish.

**ALASKA:** Railbelt-wide, temperatures were warm and skies clear for most of the week. Although scattered showers were received in some areas of the State most agricultural areas are badly in need of some significant rainfall.

Days suitable for fieldwork 6. Crop growth mostly moderate to slow throughout the State primarily due to lack of adequate moisture, drying winds. Barley, oat emergence was virtually complete. Commercial potato emergence stood at approximately 10%; with the planting of potatoes for seed nearly completed by weeks end. General crop conditions mostly average to below average for this time of year. In some areas of the Kenai Peninsula, Mat-Su Valley winterkill to hay fields, pastures severe. Topsoil 80% short, 20% adequate. Subsoil 60% short, 40% adequate.

**ARIZONA:** Sunny, windy, cooler most areas. Precipitation limited except light scattered showers 5th, north, northwest, central. Temperatures 3° below to 2° above normal. Extremes 35°; 98° higher elevations, 50°; 108° deserts.

Cotton planted 100%, 100% 1992, 100% avg. Squaring 41%, 38% 1992, 44% avg. Activities included: Irrigating, pesticide applications, pest monitoring, cultivating. Cotton 10% fair, 75% good, 15% excellent. Insects, weeds mostly light. Alfalfa mostly good. Harvest activities moderate to active. Weeds, insects mostly light; disease light. Small grains turning color 100%, 100% 1992, 99% avg.; harvested 55%, 41% 1992, 49% avg. Fields good to excellent. Bell peppers, chile peppers, grapes, apricots watermelons, honeydews, cantaloupes, crenshaws, harvested in western areas. Cabbage, carrots, sweet corn, mixed greens, green onions, chile peppers, dry onions, potatoes, squash, harvested central areas. Tomatoes, head lettuce, dry onions, cherries harvested eastern. Cattle, calves mostly good north, central; good southeast. Citrus harvest limited to grapefruit, central areas. Soil moisture short to adequate, north; adequate, central, southeast. Stockwater mostly adequate, north; adequate, central, southeast. Range, feed supplies average north, southeast; average to above average central. Insect damage light all areas.

**ARKANSAS:** Cool week, temperatures below normal. Southern region predominately dry, with scattered showers across the central, northern regions. Extremes 44°; 94°. Rainfall none to 1.68 in.

Days suitable for fieldwork 6. Moderate rate of crop growth. Soil moisture supplies 8% short, 84% adequate, 8% surplus. Wheat poor to good, needs sunshine, dry weather before harvesting can begin. Head scab disease reported in some wheat fields. Producers continued to apply burn down chemicals to rice fields. Corn, sorghum, cotton cultivation continued. Some

cotton fields sprayed for thrips. Corn 91% planted, 100% 1992, 99% avg. Fruit, vegetable crops good. Livestock good, cattle making good gains. Pastures good, hay cuttings continued.

**CALIFORNIA:** Weather system moved through the State early, late last week. Midweek was mostly dry. Most areas of State reported measurable rain. Redding, Eureka, Yosemite reported over 2.00 in. of rain last week. Daily, monthly rainfall records fell at several places. Only dry part of the State was the southern desert area.

Cool temperatures, precipitation cut fieldwork many areas. Small grains mature except higher elevations. Wheat harvest continuing most areas. Wet weather slowed activity. Barley harvest underway. Rice seeding progressed. Planting, development behind normal. Fertilizer, herbicide application ongoing. Cotton planting complete. Development hampered by cool temperatures many areas. Desert area fields growing rapidly. Pesticide application continued. Planting new crop sugarbeets winding down. Emerging crop irrigated, treated for mildew. Corn planted, irrigated, sprayed for weeds. Dry bean planting underway. Oats, winter forage silage, greenchop cut. Alfalfa, oat, sudangrass hay cut. Wet weather adversely affected hay quality. Rain plagued fruit growers. Fungicides applied. Strawberries suffered losses. Most cherries picked; late varieties had some damage. Apricot picking active, some loss from rain. Grape growers treating for mildew. Table grape picking active in Coachella Valley. One fifth nectarine, freestone peach, Valencia orange crops picked. Plum harvest progressing. Clingstone peach thinning winding down. Walnuts treated for blight prevention. South coast lemon, avocado harvests active. Navel orange picking near end. Asparagus harvest steady San Joaquin delta region. Broccoli harvest moderate Salinas-Watsonville area, fairly light Santa Maria region; generally good quality both locations. Bell pepper harvest ongoing Coachella Valley, planting continued Merced County. Cabbage harvest continued Fresno, winding down Imperial County. Imperial carrot harvesting winding down. Cauliflower harvest Santa Maria fairly light. Cauliflower harvesting Salinas-Watsonville moderate. Variable quality reported both areas. Santa Maria celery harvest fairly light. Fresh market tomato harvesting continued Coachella, Imperial valleys; planting continued other regions. Processing tomato harvest continued Imperial County. Head lettuce harvest moderate, central coast. Harvest of leaf lettuce Salinas-Watsonville region moderate, variable quality. Romaine lettuce harvest fairly heavy, Salinas-Watsonville. Onions harvested in Imperial, Fresno counties, San Jacinto district. Onion harvest winding down Merced county. Honeydews, watermelons harvested Riverside, Imperial counties. Melon planting continued Merced, Tulare counties. Squash harvested Tulare, Riverside counties. Squash harvest continued San Jacinto region of Riverside County. Imperial County squash harvest winding down. Other crops harvested included: Cucumbers, garlic, green onions, peas, green beans, eggplant, oriental vegetables. Rains beneficial to livestock. Rangeland continues to dry, feed supply adequate, good quality. Supplemental feeding light. Ranchers cutting firebreaks.

**COLORADO:** Mostly dry conditions prevailed in the San Luis Valley, west of the Continental Divide during the period. In the east, widely scattered showers on 31st, some severe

weather on the 1st as hail hit the front range. Activity increased on the 2nd with widespread rain in the east along with marble-sized hail. Rainfall with these storms amounted to over 1.00 in. Ft. Collins, Greeley while amounts in the east were mostly around 0.25 in. It was cooler, mostly dry over the weekend. Temperatures on the eastern plains 2 to 5° below normal. Elsewhere they were mostly within a couple of degrees of normal for the period.

Days suitable for fieldwork 4.2. Soil moisture 1% very short, 14% short, 72% adequate, 13% surplus. Alfalfa 1st cutting 28%, 48% 1992, 28% avg. Spring barley headed 16%, 19% 1992, 18% avg. Oats headed 10%, 39% 1992, 17% avg. Summer storage onions, sugarbeets both mostly good to excellent. Sugarbeets thinned 33%, 62% 1992, 39% avg. Dry beans planted 35%, 34% 1992, 30% avg.; emerged 8%, 6% 1992, 5% avg. Sorghum planted 46%, 30% 1992, 37% avg.; emerged 23%, 16% 1992, 22% avg. Corn 91% emerged, 94% 1992, 87% avg. Fall potatoes are 20% emerged 45% 1992, 15% avg. Winter wheat headed 82%, 90% 1992, 77% avg.; 5% very poor, 3% poor, 12% fair, 61% good, 19% excellent. First significant hail storm of season on June 2nd caused moderate to severe loss of acreage, yield potential in East Central localities. Livestock mostly good to excellent. Pasture, range feed excellent.

**FLORIDA:** Temperatures near normal to 2° above normal. Highs; upper 90s interior north, low to mid 90s elsewhere, except upper 80s near lower southeast coast. Lows; upper 50s northwest, low, mid 70s southeast. Showers, thunderstorms numerous southern areas, rain 1.00 to 3.00 in., isolated areas exceeded 5.00 in. Elsewhere rain amounts scattered, varying from less than 0.25 in. to locally 1.00 to 2.00 in.

Soil moisture Panhandle mostly short, Peninsula short to adequate. Winter wheat harvest active. Cotton, peanut planting winding down. Soybean planting active. Haying active. Dry land crops under stress some areas. Irrigated corn, sugarcane, tobacco making good progress. Citrus groves, trees very good. Rain has improved conditions. New crop fruit progressing all areas, has many sizes, stages of growth. Valencia harvest slowing as supplies are running low. Grapefruit harvest is almost complete. Caretakers are cutting cover crops, spraying, fertilizing. Scattered thunderstorms brought trace to over 2.80 in. rain north, central vegetable production areas. Tomato harvest north to begin this week. Volume leaders: Tomatoes, potatoes, watermelons, sweet corn, cucumbers. Also available: Snap beans, cabbage, carrots, celery, eggplant, peppers, radishes, squash, cherry tomatoes. State's pastures poor to good. Pasture 5% poor, 45% fair, 50% good. State's cattle herds fair to good.

**GEORGIA:** Temperatures near normal north, 2 to 5° above southeast. Hottest mid 80s mountains to mid to upper 90s central, south. Coolest from mid to upper 40s mountains to upper 60s southeast. Rain mostly 31st. Rain less than 0.10 in. to locally 1.00 to 2.00 in.

Days suitable for fieldwork 5.7. Soil moisture 15% very short, 46% short, 39% adequate. Corn 5% silked, 16% 1992, 31% avg.; irrigation active. Cotton planting slowed due to dry fields. Some replanting. Sorghum 44% fair, 56% good; 68% planted, 68% 1992, 72% avg.; planting slowed. Peanuts 2% poor, 50% fair, 48% good; 99% planted, 99% 1992, 98% avg.; 15% blooming, 12% 1992, 20% avg.; 1% pegging, 1% 1992, 4% avg. Soybeans 2% poor, 59% fair, 38% good, 1% excellent; planting

stopped drier areas. Tobacco 12% poor, 31% fair, 57% good. Weather near ideal for wheat harvest. Onions 43% fair, 57% good; 98% harvested, 100% 1992, 100% avg.; harvest slowed, demand not keeping up with supply. Watermelons 4% poor, 68% fair, 28% good; harvest expected to start central areas in 10 days. Other vegetables 3% poor, 35% fair, 62% good; harvest cantaloupes expected to start central by mid-week. Apples 22% fair, 78% good. Peaches 3% poor, 3% fair, 94% good; 18% harvested, 26% 1992, 32% avg. Hay, pastures variable. Cattle, hogs good.

**HAWAII:** Weather continued sunny, dry. High pressure system brought brisk trades, local gusts. Temperatures mid 60s to high 80s. Rainfall none to 1.70 in.

Most farming areas sunny, dry with some receiving variable showers. Sunny weather allowed normal farming schedules to continue. Irrigation, spraying efforts stepped up to maintain normal crop development. Banana production lower. Papaya shipments were light.

**IDAHO:** Temperatures 4° above to 4° below normal. Precipitation 0.34 to 0.60 in. north; 0.51 to 0.99 in. southwest; 0.02 to 0.61 in. south central; 0.10 to 0.99 in. east.

Days suitable for fieldwork 5. Soil moisture 2% short, 94% adequate, 4% surplus. Spring wheat planted 99%, 100% 1992, 100% avg. Spring wheat emerged 91%, 100% 1992, 100% avg.; 79% not yet jointed, 18% jointed, 3% booted. Spring barley planted 99%, 100% 1992, 100% avg.; emerged 87%, 100% 1992, 100% avg.; 80% not yet jointed, 17% jointed, 3% booted. Oats planted 97%, 100% 1992, 100% avg.; emerged 81%, 99% 1992, 94% avg. Potatoes planted 95%, 100% 1992, 97% avg.; emerged 42%, 80% 1992, 51% avg. Sugarbeets emerged 99%, 100% 1992, 100% avg.; thinned 30%, 79% 1992, 63% avg. Dry peas planted 99%, 100% 1992, 100% avg.; emerged 89%, 100% 1992, 99% avg. Lentils planted 100%, 100% 1992, 100% avg.; emerged 89%, 100% 1992, 99% avg. Field corn planted 96%, 98% 1992, 96% avg.; emerged 71%, 89% 1992, 83% avg. Dry beans planted 59%, 74% 1992, 56% avg.; emerged 16%, 38% 1992, 19% avg. Alfalfa first cutting 16%, 56% 1992, 25% avg. Irrigation water supplies 10% fair, 82% good, 8% excellent. Activities: irrigation, land preparation, planting, machinery service, cultivation, hay harvest, thinning sugarbeets, hoeing onions. Pasture, range condition 97% of normal. Livestock mostly good.

**ILLINOIS:** A cold dome of high pressure brought dry skies, cool temperatures last week, as readings were slightly below normal north, above normal south. Highs 63 to 73°. Lows 44 to 55°. Precipitation 0.60 to 3.00 in. across State, as storms were common especially in the west.

Days suitable for fieldwork 3.5. Cool, wet weather slowed fieldwork, crop development across the northern, central three quarters of the State, while southern farmers in the lower quarter were able to accomplish some planting due to drier conditions. General farm activities included planting corn, soybeans, sorghum, applying post-emergence herbicides, pesticides, anhydrous ammonia, nitrogen, cutting, baling hay, cultivating soil, tending livestock.

**INDIANA:** High temperatures mid 60s north to upper 60s to mid 70s south which was 10 to 15° below normal. Lows upper 40s to lower 50s north to the upper 40s to mid 50s south, which was 5 to 10° below normal. Rainfall 0.60 to 1.50 in.

across most of State. Rain during middle, end of week halted all activity. Southern area had a few extras days to play catch up.

Days suitable for fieldwork 3. Pastures 96% of normal, 95% last week. Wheat crop declined, 77% good to excellent. Topsoil 5% short, 62% adequate, 33% surplus. Subsoil 2% short, 75% adequate, 23% surplus. Corn 87% emerged, 100% 1992, 82% avg.; 5 in. high, 8 in. 1992, 10 in. avg. Soybeans 58% emerged, 84% 1992, 62% avg. Alfalfa hay 1st cutting 48%, 56% 1992, 56% avg.

**IOWA:** Temperatures 9 to 10° below normal. Extremes 33° northeast; 75° central. Precipitation 0.42 in. northeast to 4.92 in. southwest; average 1.47 in. (normal 1.02 in.).

Days suitable for fieldwork 1.2. Topsoil 9% adequate, 91% surplus. Subsoil 12% adequate, 88% surplus. Fertilizer application 88%, 100% 1992, 100% normal. Primary seedbed preparation completed 84%, 100% 1992, 100% normal. Oats emerged 95%, 100% 1992, 100% normal. Corn replanted 2%; emerged 100%, 100% 1992, 93% normal. Soybeans emerged 10%, 80% 1992, 69% first crop alfalfa hay harvested 3%, 45% 1992, 34% normal. Corn 3% very poor, 10% poor, 59% fair, 27% good, 1% excellent. Oat 1% very poor, 10% poor 42% fair, 40% good, 7% excellent. Winter wheat 1% very poor, 12% poor, 40% fair, 41% good, 6% excellent. Pasture 4% poor, 21% fair, 54% good, 21% excellent. Hay 3% very poor, 15% poor, 34% fair, 40% good, 8% excellent. Corn cultivated for the first time 0%, 26% 1992, 33% normal. Cool, wet weather is slowing the growth, germination of plants. Corn is yellow. Cattle are stressed because of mud in feedlots, wet weather.

**KANSAS:** District temperatures 3 to 7° below normal over the State. Precipitation received all districts, moderate in some districts, with averages ranging from 0.45 to 1.70 in.

Days suitable for fieldwork 4.0. All districts experienced at least 3 days suitable. Topsoil 5% short to very short, 68% adequate, 27% surplus. Subsurface moisture 4% short, 69% adequate, 27% surplus. Corn planting 97% complete, 99% avg. Areas with the most corn yet to be planted are the north central, central, northeast districts. Wet, cool conditions have slowed corn growth. Crop needs warmer temperatures, sunny weather. Corn acreage 70% good to excellent, 20% fair, 10% poor to very poor. Sorghum acreage 30% planted, 50% avg. Soybeans planted stand at 35%, 55% avg. All wheat across the State is now headed. Growth still behind normal. Wheat 20% turning color, 55% avg. Diseases pressure in wheat is widespread. Because of ideal conditions, pressure from foliar diseases is becoming more intense. Wheat 85% good to excellent, 13% fair, 2% poor to very poor. Across the State, 70% of the alfalfa has been cut the first time. Alfalfa weevils are reaching treatment levels in many areas of central, eastern areas. Pastures very good.

**KENTUCKY:** Cool week. Highest temperatures low, mid 80s with overnight lows 40s. Temperatures low to mid 60s, 5 to 7° below normal. Most of the rain fell in strong thunderstorms, on 4th. Several east locations received more than 2.00 in.

Days suitable fieldwork 4.7. Soil moisture 2% very short, 32% short, 63% adequate, 3% surplus. Farmers finishing corn planting, shifting to soybean planting. Emerged corn, soybeans mostly good. Burley tobacco 64% set, 77% 1992, 75% avg. Plant supply short some localities, most growers expect to find needed plants. Dark tobacco 69% set, 82% 1992, 72% avg. Barley harvest underway, 3% combined. Wheat 3% poor, 16%

fair, 74% good, 7% excellent. Pastures good to excellent, 93% of normal.

**LOUISIANA:** Temperatures 1.3° below to 0.2° above normal. Extremes 50°; 97°. Rainfall none most areas to 0.26 in. southwest.

Days suitable for fieldwork 6.4. Soil moisture 2% very short, 42% short, 53% adequate, 3% surplus. Corn 50% fair, 40% good, 10% excellent; 16% silked, 44% 1992, 38% avg.; 0% dough stage, 3% 1992, 4% avg. Cotton 98% emerged, 99% 1992, 89% avg. Hay 68% first cutting, 60% 1992, 54% avg. Peaches 12% poor, 65% fair, 23% good; 8% harvested, 17% 1992, 13% avg. Rice 1% poor, 63% fair, 36% good; 3% headed, 0% 1992, 0% avg. Spraying for water weevils continued. Sorghum 1% poor, 58% fair, 41% good; 82% emerged, 90% 1992, 82% avg.; 0% headed, 0% 1992, 0% avg. Planting was slowed due to lack of moisture. Soybeans 26% fair, 73% good, 1% excellent; 59% emerged, 68% 1992, 45% avg. Planting was slowed due to lack of moisture. Spring plowing 98% plowed, 100% 1992, 95% avg. Sweet potatoes 44% planted, 37% 1992, 44% avg. Dry conditions slowed planting. Wheat 3% very poor, 43% poor, 29% fair, 25% good; 100% turning color, 100% 1992, 100% avg.; 43% harvested, 60% 1992, 70% avg. Sugarcane 2% poor, 2% fair, 86% good, 10% excellent. Growing rapidly, layby was active. Livestock 22% fair, 71% good, 7% excellent. Pastures 1% very poor, 3% fair, 96% good. Rain needed for most areas. Vegetables 35% fair, 62% good, 3% excellent.

**MARYLAND & DELAWARE:** **MARYLAND:** Precipitation 1.08 in. Temperature 64.6°, normal 69.1°. Extremes 32°; 90°.

Days suitable for fieldwork 4.8. Topsoil 91% adequate, 9% surplus. Subsoil 4% short, 87% adequate, 9% surplus. Small grains fair to mostly good. Wheat 12% turned, 19% 1992, 34% avg. Barley 81% turning, 75% 1992, 82% avg. Rye 19% turning, 33% 1992, 51% avg. Oats 28% headed, 31% 1992, 38% avg. Corn for grain 96% planted, 96% 1992, 96% avg. Sweet corn 83% planted, 80% 1992, 81% avg. Soybeans 41% planted, 58% 1992, 51% avg. Sorghum 31% planted, 51% 1992, 27% avg. Pasture mostly excellent. Alfalfa hay 88% first cut, 68% 1992, 76% avg. Other hay 66% first cut, 38% 1992, 52% avg. Strawberries 45% harvested, 38% 1992, 56% avg. Tobacco 45% transplanted, 80% 1992, 65% avg. Peaches, apples mostly fair; early fruit set above average. Insect populations building in all crops.

**DELAWARE:** Precipitation 1.25 in. Temperature 62.3°, normal 69.4°. Extremes 35°; 79°.

Days suitable for fieldwork 4.8. Topsoil 80% adequate, 20% surplus. Subsoil 20% short, 80% adequate, 20% surplus. Small grains fair to mostly good. Wheat 10% turned, 5% 1992, 49% avg. Barley 78% turning, 100% 1992, 91% avg.; 2% combined. Rye 35% turning, 17% 1992, 34% avg. Corn for grain 98% seeded, 100% 1992, 98% avg. Soybeans 50% planted, 39% 1992, 48% avg. Sorghum 40% planted, 74% 1992. Sweet corn 94% planted, 91% 1992, 89% avg. Strawberries 57% harvested, 38% 1992, 58% avg. Alfalfa hay 89% first cut, 81% 1992, 71% avg. Other hay 76% first cut, 97% 1992, 86% avg. Pastures excellent, hay supplies adequate. Strawberry crop flavor improved to excellent, peach, apple crop in good condition, fruit set above average. Army worm pressure up in wheat, barley.

**MICHIGAN:** Extremes 32°; 78°. Precipitation 0.46 to 1.93 in. across the State.

Days suitable for fieldwork 6.0. Soil moisture 20% short, 70% adequate, 10% surplus. Corn 65% emerged, 85% 1992, 85% avg. Oats 1% very poor, 7% poor, 35% fair, 45% good, 12% excellent. Potatoes 95% planted, 96% 1992, 90% avg. Soybeans 40% emerged, 65% 1992, 55% avg. Hay 10% first cutting, 20% 1992, 20% avg.; 5% very poor, 20% poor, 35% fair, 30% good, 10% excellent. Pasture 85% of normal. Major activities: Spraying, pruning, spreading fertilizer, planting.

**MINNESOTA:** Temperatures 7 to 10° below normal for the State, extremes 32°; 78°. Precipitation 0.20 to 0.90 in. below normal for the State. Greatest weekly precipitation was 1.36 in. Cold wet week did very little to help emergence of corn, soybeans which have been in the ground up to 2 weeks; the ones that have emerged look yellow, stunted. In contrast small grains are doing very well in most parts of the State with the exception of the extreme western edge of the northwest district with is very short to short on topsoil moisture.

Days suitable for fieldwork 3.0. Topsoil 2% very short, 2% short, 43% adequate, 53% surplus. Spring wheat 30% jointing, 45% 1992, 41% avg. Oats 25% jointing, 43% 1992, 44% avg. Barley 30% jointing, 23% 1992, 34% avg. Sunflowers 96% planted 91% 1992, 95% avg. Dry bean 88% planted, 96% 1992, 95% avg. Sweet corn 62% planted, 93% 1992, 80% avg. Green peas 85% planted, 99% 1992, 96% avg. Alfalfa 9% first cutting, 41% 1992, 23% avg. Corn 90% planted, 99% 1992, 95% avg.; 59% emerged, 98% 1992, 89% avg.; 5% cultivated once, 34% 1992, 29% avg. Soybeans 61% planted, 99% 1992, 87% avg.; 23% emerged, 10% 1992, 67% avg.; 2% cultivated once, 13% 1992, 10% avg. Spring wheat 7% poor, 32% fair, 55% good, 6% excellent. Oats 5% poor, 34% fair, 56% good, 5% excellent. Barley 8% poor, 26% fair, 58% good, 8% excellent. Corn 6% very poor, 19% poor, 55% fair, 20% good.

**MISSISSIPPI:** Temperature 74°, 1.4 below normal. Extremes 44°; 95°. State received only a trace of rainfall, average 0.09 in., 0.89 in. below normal. Soil temperatures 78°.

Days suitable for fieldwork 5.8, 3.7 1992, 4.9 avg. Soil moisture 4% short, 92% adequate, 4% surplus. Corn 95% planted, 100% 1992, 93% avg.; 85% emerged, 100% 1992, 92% avg.; 3% silked, 15% 1992, 13% avg.; 13% poor, 51% fair, 35% good, 1% excellent. Cotton 97% planted, 100% 1992, 96% avg.; 87% emerged, 97% 1992, 90% avg.; 4% squaring, 16% 1992, 13% avg.; 13% very poor, 16% poor, 70% fair, 1% good. Peanuts 73% planted, 78% 1992, 80% avg. Rice 80% planted, 100% 1992, 90% avg.; 63% emerged, 95% 1992, 81% avg.; 26% poor, 53% fair, 21% good. Sorghum 82% planted, 95% 1992, 88% avg.; 72% emerged, 92% 1992, 83% avg.; 7% poor, 79% fair, 14% good. Soybeans 36% planted, 59% 1992, 43% avg.; 22% emerged, 51% 1992, 32% avg.; 60% fair, 40% good. Sweet potatoes 60% planted, 54% 1992, 71% avg.; 33% fair, 67% good. Watermelons 95% planted, 94% 1992, 95% avg.; 90% fair, 10% good. Wheat 69% mature, 84% 1992, 89% avg.; 4% harvested, 16% 1992, 30% avg.; 5% very poor, 18% poor, 65% fair, 12% good. Hay 38% harvested, 44% 1992, 30% avg. Peaches 11% harvested, 32% 1992, 20% avg.; 3% very poor, 10% poor, 74% fair, 13% good. Livestock 5% fair, 91% good, 4% excellent. Pasture 94% of normal. Activities: Planting soybeans, pest control.

**MISSOURI:** Temperatures 3° below normal Bootheel to 12° below normal east central. Rainfall 1.80 in., ranging from 1.18 in. southeastern district to 2.78 in. north central. Several central, north central counties received 3.00 to 5.00 in. on 6th.

Days suitable for fieldwork 3.6. Topsoil 4% short, 56% adequate, 40% surplus. Corn planting least advanced west central district 65%, east central 73%. All districts except southeast avg. less than 90% complete, little additional corn planting expected. Sorghum planted ranges by district from 22% west central to 90% southeast. Wheat turning color 21%, 45% 1992, 69% avg. First crop alfalfa 47%, 66% 1992, 62% avg. Other hay cut 27%, 29% 1992, 32% avg. Pasture 13% fair, 64% good, 23% excellent.

**MONTANA:** Temperatures slightly above normal in the southern half of State, while slightly below normal in the northern half. Moderate precipitation occurred statewide.

Days suitable for fieldwork 4.3. Topsoil 41% short, 50% adequate, 9% surplus. Subsoil 48% short, 45% adequate, 7% surplus. Spring wheat emerged 93%, 100% 1992, 97% avg. Barley 1% very poor, 5% poor, 22% fair, 41% good, 31% excellent; emerged 92%, 100% 1992, 96% avg. Oats 1% very poor, 9% poor, 28% fair, 40% good, 22% excellent; emerged 86%, 100% 1992, 96% avg. Sugarbeets 1% poor, 12% fair, 75% good, 12% excellent; emerged 92%, N.A. 1992, N.A. avg. Corn emerged 94%, N.A. 1992, N.A. avg. Dry beans emerged 91%, N.A. 1992, N.A. avg. Potatoes planted 87%, 100% 1992, 100% avg.; emerged 37%, N.A. 1992, N.A. avg. Pasture, range feed 76% of normal. Stockwater supply 18% short, 70% adequate, 12% surplus. Movement of cattle, calves to summer ranges 84%, sheep, lambs 73%.

**NEBRASKA:** Temperatures 6° below normal west, 11° below normal east. Precipitation 0.50 in. north central to 2.80 in. northwest.

Days suitable for fieldwork 3.1. Topsoil 49% adequate, 51% surplus. Subsoil 68% adequate, 32% surplus. Winter wheat 20% fair, 71% good, 9% excellent; 72% headed, 100% 1992, 92% avg. Corn 27% fair, 71% good, 2% excellent; 99% planted, 100% 1992, 99% avg.; 83% emerged, 99% 1992, 96% avg. Sorghum 67% planted, 99% 1992, 87% avg.; 28% emerged, 73% 1992, 63% avg. Soybeans 68% planted, 100% 1992, 90% avg.; 33% emerged, 78% 1992, 68% avg. Dry beans 35% planted, 27% 1992. Alfalfa 1% poor, 7% fair, 78% good, 14% excellent; 1st cutting 27% harvested, 62% 1992, 45% avg. Pasture, range condition 101% of normal.

**NEVADA:** Early-week low pressure system dealt cool, windy weather, some shower activity northern, central areas. Southern areas were dry, but windy. A second system moved in on the 3rd bringing snow to higher elevations, widespread thunderstorms, gusty winds. Unseasonably cold storm system lowered daytime highs 15 to 30° below normal.

Irrigation water supplies 100% adequate. Small grains, potatoes, alfalfa hay generally good condition. First cutting alfalfa hay completed many areas. Range, pasture condition 105% of normal. Stockwater supplies 100% adequate. About 80% of cattle, 70% of sheep moved to summer ranges.

**NEW ENGLAND:** Precipitation 0.53 to 2.20 in. north; 0.95 to 2.17 in. south. Temperatures 49 to 57° north; 52 to 62° south. Maximum temperatures 69 to 77° north; 69 to 78° south. Low temperatures 31 to 43° north; 32 to 46° south.

Days suitable for fieldwork 5.2. Soil moisture 9% short, 67% adequate, 24% surplus. Available grazing 14% short, 76% adequate, 10% surplus. Fieldwork progress 2 days behind schedule. Maine potatoes 85% planted, 95% 1992, 95% avg.; good. Maine potatoes emerged 10%, 15% 1992, 20% avg. Connecticut River Valley potatoes 100% planted, 100% 1992, 95% avg. Connecticut River Valley potatoes emerged 90%, 75% 1992, 80% avg.; good. Rhode Island potatoes 90% planted, 100% 1992, 95% avg. Rhode Island potatoes emerged 70%, 70% 1992, 70% avg.; good. Maine oats 85% planted, 95% 1992, 90% avg.; good. Field corn 90% planted, 90% 1992, 85% avg. Field corn emerged 50%, 65% 1992, 60% avg.; good. Sweet corn 75% planted, 85% 1992, 80% avg. Sweet corn emerged 50%, 65% 1992, 60% avg.; good. First cut hay 20% harvested, 20% 1992, 20% avg. Cranberry, blueberry, strawberry, pear, peach set average. Apple set, fruit drop average. Shade tobacco 95% planted in CT; 95% in MA; good. Outdoor tobacco 70% planted in CT and 60% in MA; good. Major farm activities: Finishing planting corn, potatoes, tobacco, vegetables; irrigation of fields, spraying weeds. Cutting first stand of hay. Setting vegetable transplants.

**NEW JERSEY:** Temperatures much below normal. Extremes 36°; 77°. Rainfall 1.14 in. north, 1.08 in. central, 1.21 in. south. Heaviest 24 hour total 1.43 in. on 31st, 1st. Estimated soil moisture, in percent field capacity, averaged 71% north, 71% central, 81% south. Four inch soil temperatures averaged 58° north, 61° central, 62° south.

Soil moisture content adequate overall. Harvesting of strawberries, squash, spring vegetables continues. Planting of sweet corn, fresh tomatoes completed in most areas. Endive, leafy greens, escarole, green onions, leeks, lettuce (all types), parsley, spinach, squash available in good supply. Moderate supply of asparagus, beets, peas, radish, pickles available. Thinning of peaches reported. Harvest active, good volume available for strawberries. Peach set good. Wheat, barley, rye have headed. Pastures look good.

**NEW MEXICO:** Temperatures 1° below normal to 7° above normal. Extremes 24° northwest; 105° southeast. Precipitation very light with only 3 stations reporting totals over 0.10 in.

Days suitable for fieldwork 6.7. Soil moisture 79% short, 21% adequate. Crop conditions Alfalfa 12% poor, 24% fair, 61% good, 3% excellent. Corn 40% fair, 60% good. Irrigated wheat 30% fair, 66% good, 4% excellent. Dryland wheat 29% very poor, 36% poor, 14% fair, 21% good. Wheat 100% headed, less than 1% harvested. Chile 40% fair, 60% good. Onions 9% poor, 18% fair, 73% good; harvest active. Cattle, sheep poor to good. Range, pasture 72% of normal.

**NEW YORK:** Wet, cool week. Temperatures 5° below normal. Scattered frosts, freezes occurred mornings of 30th, 31st. Extremes 33°; 76°. Most areas received 1.00 to 2.00 in. of rain, some received up to 3.00 in. Thunderstorms occurred on 5th.

Days suitable for fieldwork 5.0. Soil moisture mostly adequate. Pasture 91% of normal. Hay fair to good. First cutting alfalfa 13% complete, 23% 1992, 20% avg. Clo-tim 4% harvested, 12% 1992, 14% avg. Corn 88% planted, 85% 1992, 77% avg. Growth slow. Oat planting near completion. Dry beans 20% planted. Warmer weather needed. Cool, wet conditions continued to hamper fruit development. Winter damage evident in Finger Lakes grape growing region,

especially to vinifera varieties. Too early to tell how extensive the damage is. Vegetable growth, development slowed by coolness. Strawberries were in bloom. Planting continued for many crops. Orange County onions in good condition.

**NORTH CAROLINA:** Temperatures 1° below normal to 4° above normal. Precipitation 2.32 in. at Williamston to 0.01 in. at Cliffside, Hickory, Jacksonville.

Days suitable for fieldwork 5.7. Soil moisture 5% very short, 28% short, 66% adequate, 1% surplus. Crop condition: Pasture 6% poor, 15% fair, 73% good, 6% excellent. Winter wheat 33% fair, 67% good. Field tobacco 24% fair, 70% good, 6% excellent. Irish potatoes 30% fair, 70% good. Corn 18% fair, 82% good. Hay 15% fair, 79% good, 6% excellent. Peaches 25% fair, 65% good, 10% excellent. Truck crops 15% fair, 85% good. Cotton 18% fair, 79% good, 3% excellent. Peanuts 19% fair, 81% good. Soybeans 20% fair, 78% good, 2% excellent. Sweet potatoes 15% fair, 85% good. Apples 17% fair, 83% good. Hay, roughage supplies 8% short, 84% adequate, 8% surplus. Cotton planted 98%, 97% 1992, 97% avg. Sorghum planted 71%, 64% 1992, 59% avg. Soybeans planted 60%, 56% 1992, 52% avg. Peanuts planted 100%, 96% 1992, 95% avg. Sweet potatoes transplanted 65%, 75% 1992, 65% avg. Burley tobacco transplanted 62%, 66% 1992, 73% avg. Wheat harvested 3%, 2% 1992, 9% avg. Oats harvested 13%, 8% 1992, 18% avg. Barley harvested 16%, 7% 1992, 21% avg. Rye harvested 11%, 12% 1992, 17% avg. Major activities: Transplanting tobacco plants; planting sorghum, soybeans; cutting hay. Other activities: Sidedressing tobacco; applying nitrogen to corn; spraying peanuts, cotton; tending livestock; general farm maintenance.

**NORTH DAKOTA:** Scattered showers, thunderstorms along with cool temperatures dominated last week. Temperatures 6 to 9° below normal. Extremes 33° south central; 77° northeast. Precipitation 1.27 in. northwest to 0.24 in. northeast.

Days suitable for fieldwork 5.1. Topsoil 11% short, 84% adequate, 5% surplus. Subsoil 9% very short, 37% short, 52% adequate, 2% surplus. Emerged crop mostly good, development behind last year, average due to a lack of abundant sunshine, warm temperatures. Spring wheat 17% fair, 79% good, 4% excellent; durum 21%, 78%, 1%; oats 24%, 72%, 4%; barley 15%, 83%, 2%; winter wheat 26%, 74%, 0%. Hard red spring wheat 81% emerged thru stooling, 17% jointing and beyond; 70%, 28% 1992; 68%, 28% avg.; durum wheat 84% emerged thru stooling, 11% jointing and beyond; 82%, 14% 1992; 77%, 15% avg.; barley 82% emerged thru stooling, 17% jointing and beyond; 71%, 27% 1992; 65%, 32% avg.; oats 75% emerged thru stooling, 23% jointing and beyond; 65%, 33% 1992; 67%, 28% avg. Winter wheat 65% jointing, 22% boot and beyond; 43%, 50% 1992; 42%, 47% avg. Corn 98% planted, 81% emerged; 99%, 93% 1992; 96%, 80% avg.; flax 96% planted, 73% emerged; 95%, 74% 1992; 92%, 68% avg.; potatoes 100% planted, 41% emerged; 99%, 44% 1992; 99%, 58% avg.; soybeans 98% planted, 67% emerged; 99%, 88% 1992; 97%, 73% avg.; dry beans 95% planted, 52% emerged; 95%, 73% 1992; 94%, 67% avg.; sunflower 86% planted, 40% emerged; 89%, 48% 1992; 86%, 52% avg. Height of emerged late season crops: corn, sugarbeets 3 in.; flax, soybeans, sunflower, potatoes 2 in.; dry beans 1 in. Post emerged herbicide application for broadleaf control 46% complete, wild oats 65%. Range, pasture conditions 87% of normal; furnished 97% roughage

requirements. Stockwater supplies 5% very short, 1% short, 94% adequate.

**OHIO:** High temperatures in the mid to upper 60s were more than 10° below normal. Highest readings were in the mid 70s except in parts of the southeast. Lows were in the upper 30s or higher, averaged in the upper 40s to around 50°, below normal by 5 to 8°. Rainfall widespread, 7-day totals in excess of 1.00 in. reported at only a few southern locations. Weekly base 50 growing degree day accumulations were 40 to 60 below normal; however, season totals are still above normal in most cases. Soil temperatures at 4 in. under bare ground averaged from the upper 50s to the mid 60s, 5 to 10° below normal for the period.

Days suitable for fieldwork 4.3. Topsoil 24% short, 69% adequate, 7% surplus. Potatoes planted 100%, processing tomatoes planted 80%, strawberries harvested 12%. Alfalfa 1st cut harvested 55%, other hay 1st cut harvested 35%. Pasture 2% very poor, 4% poor, 25% fair, 57% good, 12% excellent. Hay 1% very poor, 4% poor, 26% fair, 57% good, 12% excellent. Oats 5% very poor, 10% poor, 31% fair, 50% good, 4% excellent. Cool, wet weather helped emergence, limited growth of spring-planted crops. Vegetables, specialty crops continued to be irrigated. Fruit crops continued to look good. Cabbage harvest has begun, strawberry harvest is underway although it is one to two weeks behind normal.

**OKLAHOMA:** Temperatures 3° below normal north central to 2° above normal southwest, southeast. Precipitation none many areas to 0.62 in. north central.

Days suitable for fieldwork 5.5. Topsoil 3% short, 75% adequate, 22% surplus. Subsoil 3% short, 97% adequate. Wheat 46% fair, 54% good; 67% soft dough, 93% 1992, 85% avg.; 5% harvested, 1% 1992, 9% avg. Oats 97% heading, 100% 1992, 95% avg.; 50% soft dough, 77% 1992, 73% avg.; 10% harvested, 0% 1992, 7% avg. Barley 83% heading, 100% 1992, 90% avg.; 40% soft dough, 84% 1992, 67% avg.; 7% harvested, 0% 1992, 6% avg. Corn 97% up to stand, 99% 1992, 95% avg.; 10% tasselling, 3% 1992, 1% avg. Sorghum 94% seedbed prepared, 92% 1992, 100% avg.; 63% planted, 35% 1992, 41% avg.; 34% up to stand, 18% 1992, 25% avg. Soybeans 67% seedbed prepared, 95% 1992, 100% avg.; 29% planted, 31% 1992, 45% avg.; 20% up to stand, 17% 1992, 22% avg. Peanuts 95% seedbed prepared, 100% 1992, 100% avg.; 73% planted, 53% 1992, 58% avg.; 43% up to stand, 40% 1992, 34% avg. Cotton 94% seedbed prepared, 100% 1992, 100% avg.; 83% planted, 55% 1992, 66% avg.; 52% up to stand, 39% 1992, 41% avg. Alfalfa 90% 1st cut, 72% 1992, 92% avg.; 6% 2nd cut, 1% 1992, 8% avg. Pastures 98% of normal. Livestock 19% fair, 79% good, 2 percent excellent. Prices for feeder steers, heifers steady. Marketings average.

**OREGON:** Temperatures 2 to 4° above normal coast, normal northwestern interior, northeastern areas, up to 5° below normal elsewhere. Precipitation western, south central areas 0.50 to 4.50 in., elsewhere 0.50 to 1.00 in.

Soil moisture 79% adequate, 21% surplus. Winter wheat 2% poor, 7% fair, 50% good, 41% excellent; headed 82%. Barley planted 98%. Wet conditions halted most fieldwork, statewide. Hay harvest delayed, wet conditions; concern over rain damaged hay, over mature hay. Mint growth delayed, eastern areas. Potato planting complete, except Klamath Basin. Melons beginning to bloom, Hermiston. Snap peas past full bloom, Columbia Basin. Cranberry blooms 50% complete in Stevens

beds, 10 to 20% complete in McFarlin beds; southern coast. Tree fruit development nearing normal. Tart cherry crop very light, sweet cherry crop light; Willamette Valley. Strawberries harvest underway, early mold, fruit rot causing concern; dry weather desperately needed. Hazelnut crop looks good southern Willamette Valley, crop below normal, northern valley. Livestock excellent. Ranges, pastures excellent condition. Summer range turn out continued. Range, pasture condition 104% of normal.

**PENNSYLVANIA:** Extremely variable, but average precipitation, temperature for week. Temperature 62°, normal. Extremes 30°; 80°. Precipitation 0.83 in. normal.

Days suitable for fieldwork 5. Soil moisture 55% short, 45% adequate. Corn 88% planted, 87% 1992, 81% avg.; height 4 in., 3 in. 1992, 3 in. avg.; 1% very poor, 7% poor, 31% fair, 44% good, 17% excellent. Tobacco 33% transplanted, 21% 1992, 24% avg. Soybeans 70% planted, 60% 1992, 50% avg.; 5% very poor, 3% poor, 32% fair, 37% good, 23% excellent. Potatoes 88% planted, 96% 1992, 92% avg. Barley 95% boot, 96% 1992; 84% heading or headed, 88% 1992; 21% turning yellow, 7% 1992. Wheat 90% boot, 95% 1992; 68% heading or headed, 87% 1992; 2% turning yellow, 0% 1992; 3% very poor, 2% poor, 24% fair, 53% good, 18% excellent. Oats 1% very poor, 7% poor, 30% fair, 51% good, 11% excellent. Alfalfa first cutting 45% complete, 42% 1992. Quality of hay made 5% poor, 43% fair, 52% good. First cutting of timothy clover 25%, 18% 1992. Feed from pastures good to excellent. Peach 6% below avg., 82% avg., 12% above avg. Apple 5% below avg., 80% avg., 15% above avg. Activities: Hauling manure; planting of soybeans, corn, potatoes; making hay; spraying; fixing fence; caring for livestock.

**PUERTO RICO:** Island rainfall of 0.59 in. was 0.79 in. below normal. Highest weekly totals 3.12 in. at Mayaguez, 2.70 in. at Arecibo Ionos. Obs. Highest 24 hour total 3.12 in. at Mayaguez on 30th. Temperatures 82 to 83° coasts; 75 to 79° interior with mean station temperature 84.7° at San Juan WSFO to 67.9° at Pico Del Este Luquillo. Extremes 61°; 95°.

**SOUTH CAROLINA:** Average rainfall less than 0.05 in. Isolated showers yielded rains in excess of 1.00 in. Temperatures near normal.

Days suitable for fieldwork 6.2. Soil moisture 10% very short, 75% short, 15% adequate. Corn fair to good; 2% silked, 2% 1992, 8% avg. Tobacco fair to good. Cantaloupes fair to good; 92% planted, 97% 1992, 91% avg. Watermelons fair to good; 93% planted, 96% 1992, 94% avg. Cucumbers fair to good; 95% planted, 98% 1992, 96% avg. Snapbeans fair to good; 87% planted, 81% 1992, 85% avg. Tomatoes fair to good. Oats fair to good; 95% turning color, 95% 1992, 96% avg.; 68% ripe, 67% 1992, 76% avg.; 16% harvested, 17% 1992, 31% avg. Rye fair to good; 87% turning color, 85% 1992, 91% avg.; 58% ripe, 68% 1992, 71% avg. Wheat fair to good; 96% turning color, 95% 1992, 98% avg.; 65% ripe, 60% 1992, 77% avg.; 6% harvested, 8% 1992, 31% avg. Grain hay fair to good; 85% harvested, 80% 1992, 83% avg. Peaches fair to good; 3% harvested, 12% 1992, 11% avg. Pasture fair to good.

**SOUTH DAKOTA:** Temperatures 5 to 10° below normal. Extremes 32°; 85°. Precipitation was above normal in the southeast, southwest, west central, below normal elsewhere.

Days suitable for fieldwork 2.7. Topsoil 2% very short, 9% short, 64% adequate, 25% surplus. Subsoil 3% very short, 9% short, 63% adequate, 25% surplus. Rye 3% very poor, 14% fair, 73% good, 10% excellent. Oats 1% very poor, 4% poor, 11% fair, 78% good, 6% excellent. Barley 1% very poor, 1% poor, 16% fair, 75% good, 7% excellent. Flax 3% very poor, 26% fair, 71% good. Soybeans 5% very poor, 10% poor, 37% fair, 47% good, 1% excellent. Flax 77% planted, 95% 1992, 86% avg. Sunflowers 56% planted, 64% 1992, 50% avg. Small grain development was slowed by below normal temperatures. Field conditions vary greatly from dry in the northwest to wet in the southeast. Livestock 1% very poor, 85% good, 14% excellent. Pasture 95% of normal.

**TENNESSEE:** Temperatures 3 to 6° below normal. Warmest temperature 90° Memphis on the 4th, the coolest was 46° at Bristol on the 2nd. Rainfall below normal, except Jackson 0.52 in. above normal. Memphis least rain with only 0.02 in.

Days suitable for fieldwork 4.6. Soil moisture 5% short, 88% adequate, 7% surplus. Corn 23% fair, 77% good. Cotton 99% planted, 99% 1992, 93% avg.; 20% poor, 54% fair, 26% good. Sorghum 81% planted, 96% 1992, 72% avg. Soybeans 36% planted, 56% 1992, 43% avg. Tobacco 75% transplanted, 83% 1992, 78% avg.; 25% fair, 74% good, 1% excellent. Wheat 73% turning color, 93% 1992, 85% avg.; 42% fair, 56% good, 2% excellent. Alfalfa 95% 1st cutting harvested, 91% 1992, 84% avg. Hay 7% fair, 79% good, 14% excellent. Pastures 3% fair, 77% good, 20% excellent. Cattle 3% fair, 77% good, 20% excellent. Tobacco transplanting, hay harvest were most active during the week. Cool nights have hindered early crop development, dry weather during the past two weeks has kept disease, insect problems from spreading. Many corn growers decided to plant sorghum or soybeans after the weather hampered planting progress early in the season. Pastures are growing extremely well, hay yields have been above average in many locations. With the wheat crop running 2 to 3 weeks behind normal, the planting of double-crop soybeans will be delayed.

**TEXAS:** Upper level high pressure squelched shower activity across the State. Surface low pressure in west Texas lead to windy conditions for much of period. Sunny skies, south to southwest winds produced near to above normal temperatures. Departures from normal were greatest on Edwards Plateau. Rainfall was limited to light amounts in northern panhandle with none reported elsewhere over the State.

**Crops:** Corn growth good in High Plains due to warmer temperatures, irrigation continued. In Southern areas, moisture is needed to maintain good growth. Corn 83% normal, 92% 1992. Cotton planting made rapid progress in High, Low Plains. Some fields damaged by previous weekend's hailstorm in High Plains may have to be replanted. Some stands are spotty in Low Plains due to dry weather. Irrigation continued in Trans-Pecos. Hot temperatures across state have been good for growth of existing stands, rain is needed in most areas. Cotton 73% normal, 50% 1992. Rice planting neared completion. Flooding of fields continued. Rice 83% normal, 87% 1992. Grain sorghum planting in full swing High, Low Plains. Green bug damage occurred to some fields in High Plains. Some fields were being planted in Blacklands where some of the early fields have started heading. Crop was growing well in Coastal Bend area. Sorghum 81% normal, 81% 1992. Small grain harvest continued across most areas except for High, Low Plains where hot temperatures, windy conditions have helped to ripen grain.

Some excellent yields were being obtained in Blacklands. Wheat 78% normal, 81% 1992. Peanut fields were off to good start in most areas. Some fields in Low Plains, however, were showing signs of stress from dry conditions. Soybean planting in Upper Coast winding down, crop looked good. Rain would be beneficial to soybeans in Blacklands. In High Plains where farmers continued to plant, early stands looked good.

**Commercial Vegetables:** In Rio Grande Valley, watermelon harvesting continued, but supplies are diminishing as some fields are finished. In San Antonio-Winter Garden, cabbage harvest winding down in some fields. Some onions continued to be available. Watermelon crop making normal progress. East Texas, sweet potatoes planting continued, early planted crop was making normal growth. In High Plains, onions progressing well, some fields experiencing problems with thrips. Pepper crop made good growth. In Trans-Pecos, onion harvesting continued, peppers beginning to bloom. Cantaloupe, watermelons made good growth. Peach harvesting continued in Central Texas. Brown rot a problem in some orchards East Texas. Pecan spraying, irrigation continued. Crop looked good most areas.

**Range and Livestock:** Range, pastures in many areas were in need of moisture. Hornfly populations building in High Plains where most cattle have been moved off of graze out wheat. Some supplemental feeding still taking place in the Trans Pecos, South Texas. Spraying for control of parasites occurred in the Edwards Plateau. Livestock conditions good in most areas.

**UTAH:** Temperature maximums 1° below normal, minimums 0.5° above normal. Precipitation was heavy in the north central, northern mountains, light for the rest of the State, except Dixie which reported no precipitation.

Days suitable for fieldwork 5.8. Soil moisture 23% short, 60% adequate, 17% surplus. Winter wheat jointed or better 93%; headed or better 44%, 77% 1992, 57% avg. Spring wheat jointed or better 65%, 97% 1992, 73% avg. Barley jointed or better 78%, 94% 1992. Oats jointed or better 46%, 76% 1992, 61% avg. Corn height 5 inches, 6 inches 1992; emerged 86%. Alfalfa hay 1st cutting 33% complete, 60% 1992, 37% avg. Other hay cut 10% complete, 5% 1992. Cattle moved to summer range 81%, 80% 1992. Sheep moved to summer range 76%, 71% 1992. Fruit damage reported due to hail storm, extent unknown. Pasture, range good to excellent.

**VIRGINIA:** Temperatures began above normal, moved to below normal before ending near normal. Extremes 30°; 91°. Precipitation 0.06 to 4.21 in.

Days suitable for fieldwork 5.2. Topsoil 22% short, 68% adequate, 10% surplus. Pasture 13% fair, 66% good, 21% excellent. Alfalfa 10% fair, 66% good, 24% excellent. Other hay 27% fair, 58% good, 15% excellent. Barley 4% harvested, 1% 1992, 14% avg. Oats 2% harvested, 7% 1992, 8% avg. Apple 8% fair, 69% good, 23% excellent. Potato 5% poor, 95% good. Corn 96% planted, 96% 1992, 95% avg.; 4% poor, 33% fair, 60% good, 3% excellent. Peanut 20% fair, 80% good. Soybeans 40% planted, 36% 1992, 47% avg.; 16% poor, 23% fair, 61% good. Flue tobacco 96% transplanted, 100% 1992, 99% avg. Burley tobacco 46% transplanted, 46% 1992, 68% avg. Dark-fired tobacco 91% transplanted, 95% 1992, 85% avg. Sun-cured tobacco 86% planted, 100% 1992, 96% avg. All tobacco 13% poor, 28% fair, 59% good. Cutting, baling hay, harvesting barley silage, cultivating tobacco,

cotton, snaps, cucumbers, sheep predation losses reported in the western mountains.

**WASHINGTON:** Temperatures 1° above normal to 5° above normal west; 4° below normal to 2° above normal east. Precipitation 0.83 to 2.42 in. west; 0.12 to 1.73 in. east.

Days suitable for fieldwork 4.7. Soil moisture 16% short, 83% adequate, 1% surplus. Irrigation water supply 17% short, 83% adequate. Hay, other roughage 35% short, 65% adequate. Range, pasture 10% poor, 10% fair, 77% good, 3% excellent. Winter wheat dryland 10% fair, 75% good, 15% excellent; irrigated 100% good. Spring wheat dryland 15% fair, 85% good; irrigated 100% good. Barley dryland 25% fair, 75% good; irrigated 100% good. Cool, wet weather returned to the State. Spring grain seeding was completed in almost all areas of the State. Growth was strong in the cereal grains. First cutting of alfalfa continued, with some fields damaged due to the rains. Strawberry harvest began. Apple thinning began.

**WEST VIRGINIA:** Temperature 61°. Extremes 35°; 83°. Precipitation 1.63 in.

Days suitable for fieldwork 4.0. Soil moisture 20% short, 75% adequate, 5% surplus. Soil prepared 90%. Wheat 4% fair, 96% good; 97% headed. Barley good; 62% ripe. Oats 13% fair, 87% good; 94% emerged. Corn 11% fair, 89% good; 83% planted, 71% emerged. Soybeans 40% planted, 39% emerged. Hay 28% fair, 72% good; 29% 1st cut. Apples good. Peaches good. Tobacco 65% fair, 35% good; 54% set. Pastures 9% fair, 91% good; 91% of normal. Cattle 2% fair, 97% good, 1% excellent. Sheep good. Gardens 28% fair, 72% good; 77% planted, 57% emerged. Farm activities: General maintenance, planting corn, gardens, soybeans, cutting hay, setting tobacco.

**WISCONSIN:** Temperature 53°; 9° below normal. Extremes 26°; 81°. Precipitation trace to 0.90 in.

Days suitable for fieldwork 3.7. Soil moisture 45% adequate, 55% surplus. Pasture 88% of normal, 69% 1992, 76% avg. General condition of crops 2% very poor, 9% poor, 33% fair, 51% good, 5% excellent. Oats 6% poor, 29% fair, 56% good, 9% excellent. Corn 4% very poor, 13% poor, 50% fair, 32% good, 1% excellent; 85% planted, 97% 1992, 95% avg.; height 3 in., 5 in. 1992, 5 in. avg. Winter wheat 3% poor, 28% fair, 57% good, 12% excellent. Soybeans 60% planted, 94% 1992, 83% avg. 1st cut alfalfa 6% harvested, 30% 1992, 25% avg.

**WYOMING:** Wet, cool. Temperatures 2° below normal, except the extreme west where temperatures 2° above normal. Southeast, west central areas received an average of over 2.00 in.

Days suitable for fieldwork 4.4. Topsoil 86% adequate, 14% surplus. Spring wheat 95% emerged, 98% 1992, 94% avg.; 14% jointed, 48% 1992. Oat 89% emerged, 90% 1992, 90% avg.; 11% jointed, 39% 1992. Barley 82% emerged, 97% 1992, 95% avg.; 30% jointed, 62% 1992. Sugarbeets 95% emerged, 91% 1992, 94% avg.; 37% thinned, 26% 1992, 33% avg. Corn 95% planted, 97% 1992, 93% avg.; 72% emerged, 77% 1992, 70% avg. Dry beans 47% planted, 77% 1992, 62% avg.; 12% emerged, 22% 1992, 22% avg. Winter wheat 82% jointed, 87% 1992; 58% boot, 56% 1992; 26% headed, 45% 1992. Alfalfa 1st cutting completed 1%, 3% 1992. Corn good. All classes of livestock mostly good. Range ewes lambing 94%. Percent of cattle, calves moved to summer ranges 68%. Sheep, lambs moved to summer ranges 57%. Range, pasture good to excellent. Stockwater 5% short, 78% adequate, 17% surplus.

## International Weather and Crop Summary HIGHLIGHTS

May 30 - June 5, 1993

**FSU:** Variable rain continued to improve moisture for crops in Belarus and western Russia. Widespread rain soaked spring grain areas in central Kazakhstan and parts of Western Siberia, benefiting early crop growth.

**EUROPE:** Much-needed rain eased stress on emerging corn in Hungary. Drier weather helped winter grain harvesting in Spain. Growing conditions were favorable in northwestern Europe.

**SOUTH ASIA:** Showers benefited rice in southern and eastern India and Bangladesh but caused more flooding.

**SOUTHEAST ASIA:** Rain helped Thailand's rice and corn, but warm weather enhanced crop moisture demand and losses through evaporation.

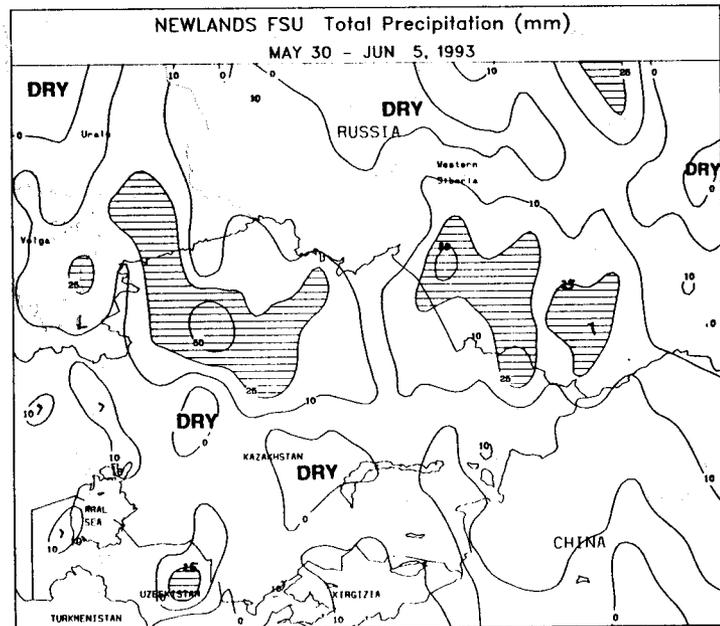
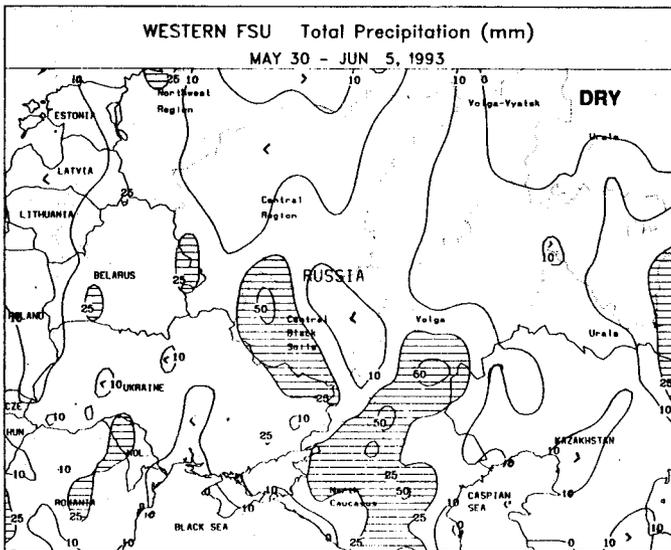
**EASTERN ASIA:** Rain favored germinating summer crops across Manchuria. Heavy showers continued to cause flooding across southern China.

**AUSTRALIA:** Much-needed rain fell across eastern Australia, promoting wheat planting and pasture growth.

**SOUTH AMERICA:** Dry weather benefited summer crop harvesting across central Argentina. Widespread showers delayed coffee, citrus, and sugarcane harvesting in southern Brazil

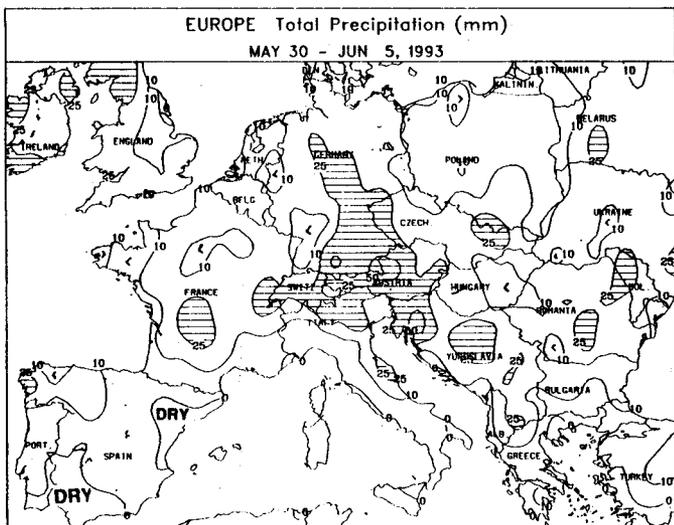
**CANADA:** Lingering cold weather slowed development of emerging spring crops and vegetative winter wheat.

**MEXICO:** Unseasonable dryness persisted across the southern Plateau corn belt, hampering crop establishment.

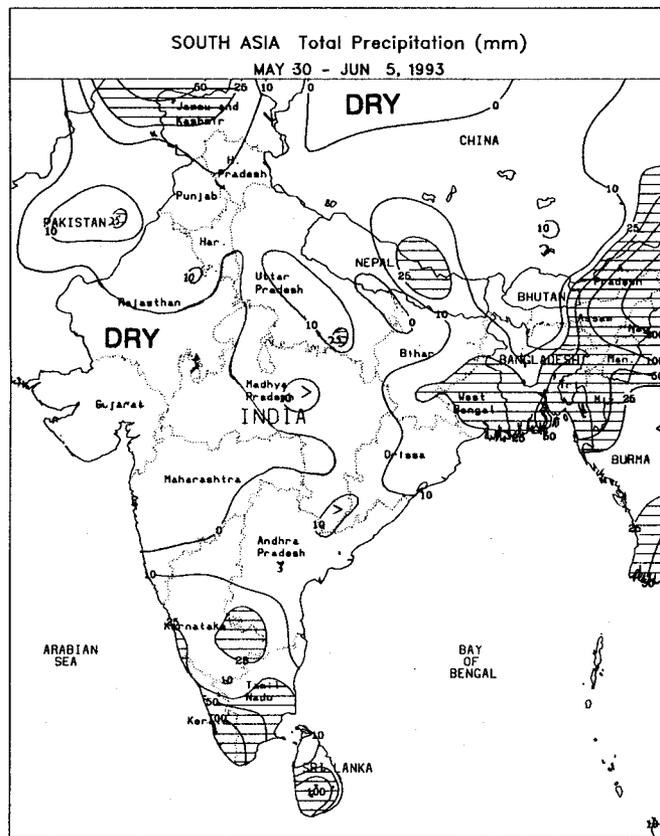


**FSU-WESTERN:** Widespread variable rain (10-30 mm, with local amounts in excess of 40 mm) continued to improve moisture conditions for heading winter grains and spring growth in Belarus and Russia. Both rainfall and coverage were greater than those during the previous week, especially in the western Black Soils Region and middle to lower Volga Valley, where soaking rains (25-58 mm) fell. Continued generally dry weather (less than 10 mm) over the Baltic States increased crop stress. Light to moderate showers (5-20 mm, with local amounts in excess of 25 mm) over Ukraine and widespread rain (25-40 mm) over North Caucasus maintained abundant moisture for winter grains in reproduction, as well as corn, sunflowers, and sugar beets in the early vegetative stage. However, continued frequent precipitation in North Caucasus has created conditions which favor the potential development of diseases. Although crop progress for spring grains is likely behind normal due to later-than-usual planting, reports indicate crop progress for winter grains is about 1 week ahead of usual dates, especially in Belarus and the Baltic States. Average temperatures this past week were near normal in the west and 2-4 degrees C below normal in the east.

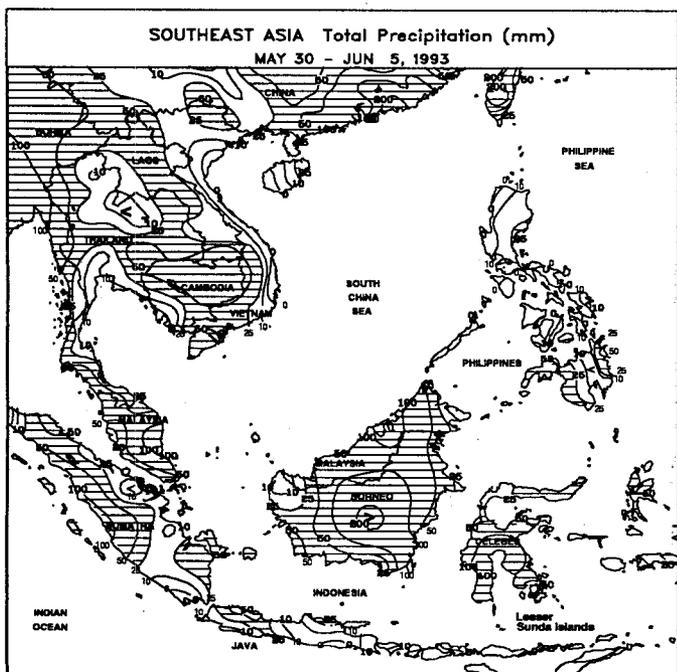
**FSU-NEW LANDS:** Unsettled weather prevailed over the region. Widespread rain (15-35 mm, with local amounts in excess of 40 mm) covered central Kazakhstan, eastern Urals, and southern oblasts in Western Siberia. The rain in these areas provided abundant moisture for spring grain emergence and early growth. Light, scattered rain (2-11 mm) over the eastern portion of the Volga Valley and adjacent areas of the southern Urals continued a drying trend. Average temperatures were 3-5 degrees C above normal in Western Siberia and 1-3 degrees C below normal in Kazakhstan. Spring grain planting is usually complete in southern areas and nearing completion in the north.



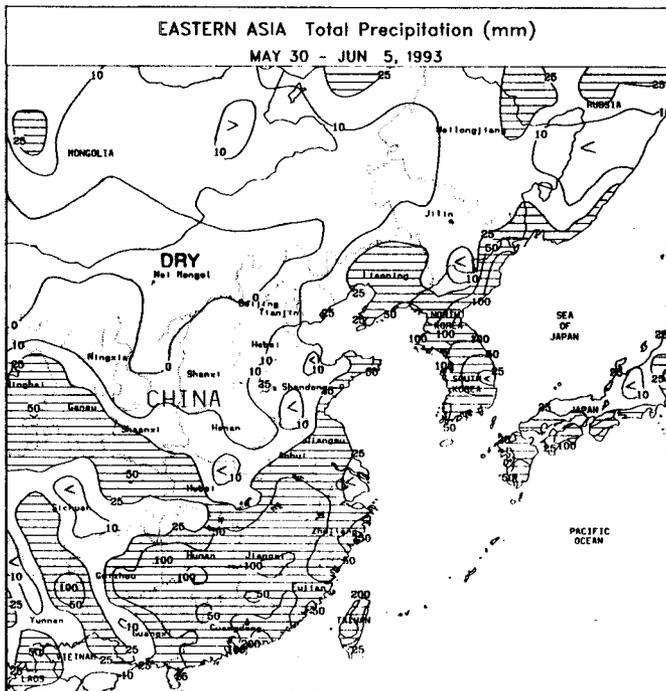
**EUROPE:** Rainfall diminished over western crop areas, with weekly totals averaging 15 mm or less from southern England to western Germany and across the Iberian Peninsula. The drier weather aided fieldwork, including winter crop harvesting in Spain. Heavier rain (15-50 mm) fell in southern France, southern and eastern Germany, and much of east-central Europe. While moisture is adequate for corn growth in France, the recent rain in eastern Europe was extremely beneficial for late winter crop development and summer crop establishment. Weekly rainfall averaged 10-42 mm from the Czech Republic and extreme southern Poland to former Yugoslavia and Romania, moistening topsoils for crop growth. Much-needed rain (10-28 mm) in Hungary eased stress on filling winter grains and emerging corn. Light showers fell over most of Poland, bringing some topsoil moisture for heading winter grains. Widespread showers helped Scandinavian grain crops, with weekly totals averaging 6-24 mm in the primary oat-growing areas of southwestern Finland, southern Sweden, and southeastern Norway.



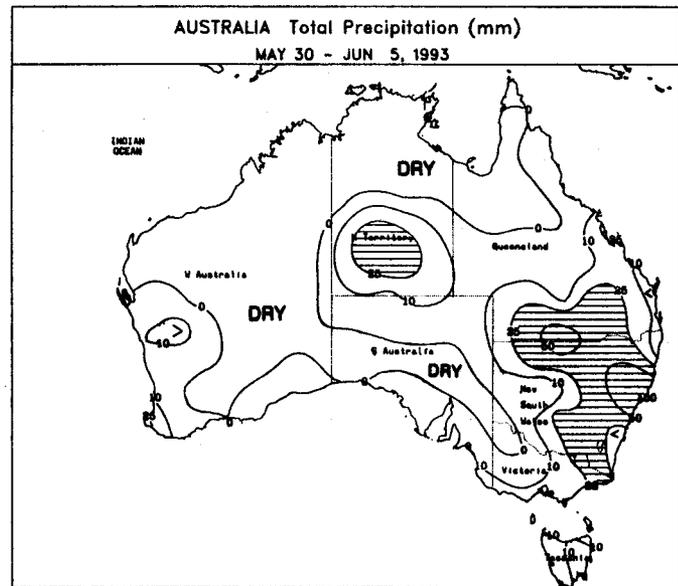
**SOUTH ASIA:** Scattered showers (10-50 mm, with the typically wettest areas receiving 100-272 mm) continued over southern and eastern India and Bangladesh, increasing moisture for rice planting but causing additional flooding. However, shower activity declined over rainfed rice areas of Madhya Pradesh and Orissa, where planting was likely underway. While temperatures averaged near to above normal over central India and near to below normal across Pakistan and northern India, most regions frequently experienced highs in the low to mid 40's C. Isolated showers (5-40 mm) across the north brought some relief from the heat.



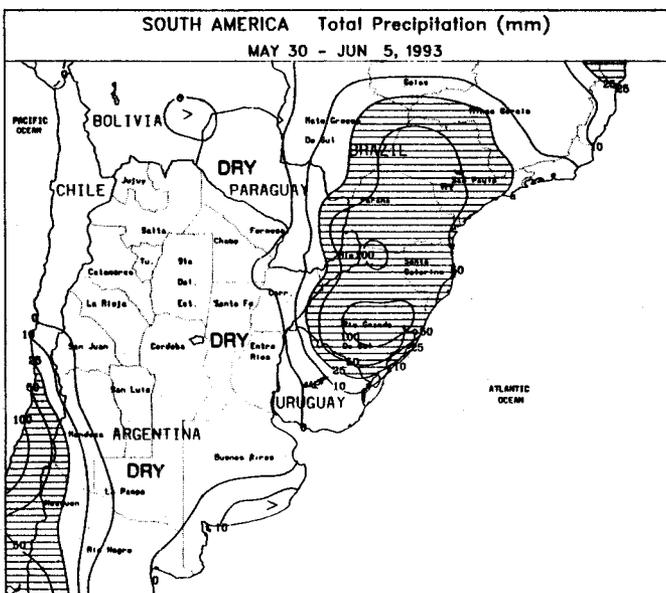
**SOUTHEAST ASIA:** Rainfall tapered off from last week, but variable amounts of 10 to 96 mm benefited most of Thailand's rainfed rice and corn. Mostly dry weather (10 mm or less) covered Vietnam's northern and central rice areas. Moderate to heavy showers (25-147 mm) continued over primary oil palm areas of Malaysia. Further south, seasonal drying continued over southern Indonesia's rice areas although moderate, isolated showers (25 mm or more) dotted the region. In the Philippines, drier- and warmer-than-normal weather persisted over primary main season rice and corn areas, worsening prospects for both rainfed and irrigated crops.



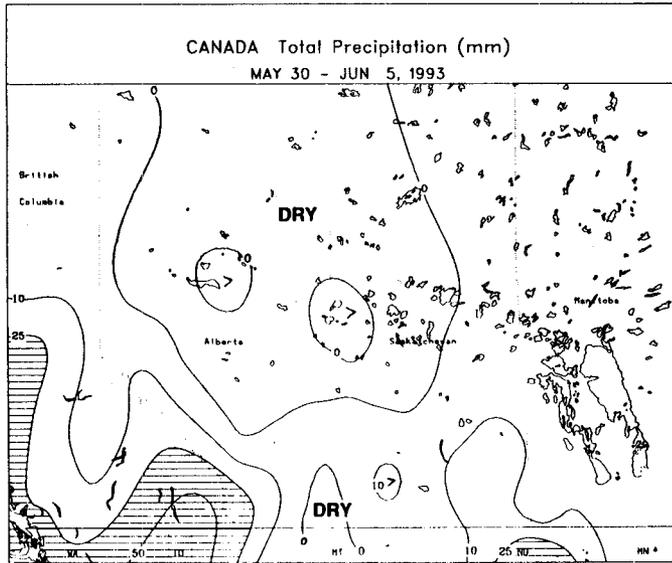
**EASTERN ASIA:** Light to moderate rains (11-35 mm) benefited germinating summer crops across Manchuria. Scattered rains (10-35 mm) fell across the eastern portions of North China Plain, favoring vegetative summer crops. The majority of the winter wheat should be nearing maturity with early harvesting progressing normally. Central and southern China received widespread showers (20-110 mm), keeping irrigation supplies plentiful. Heavier showers (125-220 mm) continued to produce flooding in extreme southern China (Guangdong). Temperatures averaged 1-2 degrees C below normal across central China and near normal elsewhere.



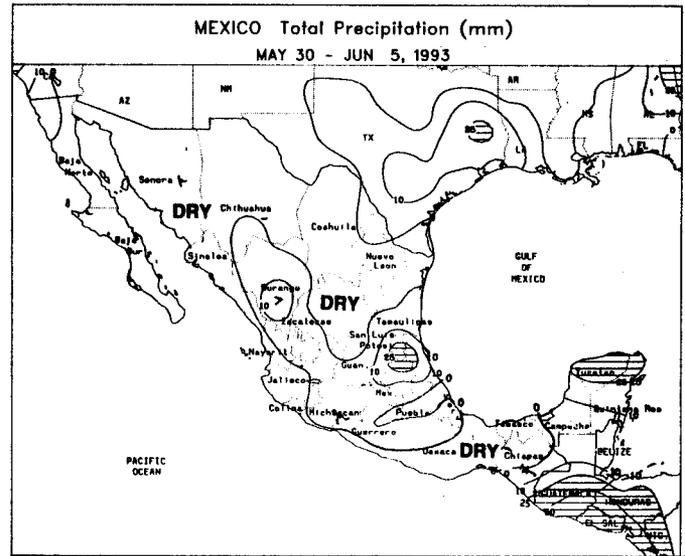
**AUSTRALIA:** Much-needed rain (20-50 mm) fell across southern Queensland and most of New South Wales, favoring topsoil moisture for winter wheat planting and pasture growth. This was the first significant rain since February across portions of southern Queensland. The moisture should promote rapid planting progress. Mostly dry weather aided wheat planting across the western wheat areas.



**SOUTH AMERICA:** Across Argentina, drier weather benefited corn and soybean harvesting, and winter wheat planting. Soil moisture reserves are adequate to excellent for early wheat growth. Most of central Argentina experienced subfreezing temperatures (minimum temperatures ranging from -1 to -7 degrees C), with weekly temperatures averaging 1-3 degrees C below normal. Minimum temperatures ranged from -1 to -3 degrees C across portions of the eastern citrus areas (Entre Rios and Corrientes), possibly causing minor damage to citrus trees. Widespread moderate to heavy rains (25-130 mm) covered southern Brazil from Rio Grande do Sul northward to Sao Paulo. The rains benefited vegetative winter wheat, but delayed sugarcane, citrus, and coffee harvesting, especially in Sao Paulo. Corn and soybean harvesting has mostly been completed. Freezing temperatures again occurred across eastern Santa Catarina (minimum temperatures ranged from -1 to -3 degrees C), causing some minor wheat burnback.



**CANADA:** Unfavorably cold weather continued across the Prairies, slowing early growth of spring grains and oilseeds. Temperatures dropped to -2 degrees C over northern crop areas from Prince Albert, Saskatchewan to Lake Winnipeg, burning back wheat, barley, and canola. Light to moderate precipitation (5-21 mm) was limited to crop areas of Saskatchewan and western Manitoba. Drier-than-normal weather has dominated the Prairies since April and moisture will be needed once temperatures begin to increase to more seasonable levels. In Ontario, rain (18-65 mm) returned following a brief dry spell, but unseasonably cool weather (3 to 4 degrees C below normal) continued to slow winter wheat growth and keep soils too cool for corn germination and establishment.



**MEXICO:** Isolated light to moderate showers (13-61 mm) continued to favor corn and coffee across east-central Mexico (between Mexico City and Tampico). However, only light rain (less than 10 mm) fell across the main southern Plateau corn belt, where unseasonably dry topsoils hampered corn establishment. The rainy season is late in this region. Dry weather aided fieldwork for vegetables and winter wheat in northwestern Mexico. Temperatures averaged 2-3 degrees C above normal across most of the country.

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(Continued from front cover)

**central and eastern Cuba.** In Florida's northern Keys, Tavernier reported nearly 9 inches. Flooding in Cuba was exacerbated by the rugged terrain which quickened runoff rates. Meanwhile, a cold front generated widespread thundershowers and dragged unseasonably cool air across the eastern half of the Nation. Among the 30 daily record lows set during the week were readings of 34°F in Youngstown, OH on Sunday, 36°F in South Bend, IN on Tuesday, 33°F in Concord, NH on Wednesday, and 43°F in Topeka, KS on Saturday. Columbia, MO dropped to 40°F on June 5 to set a record low for the month of June. A 32-degree reading on June 1 was the latest freeze on record at St. Cloud, MN. Near the stationary front, rain-cooled air held maximum temperatures to 51°F in Scottsbluff, NE on Thursday, and to 56°F in Moline, IL on Friday. Heavy rainfall and strong thunderstorms in southern Wyoming at midweek spread to the Middle Atlantic States by Friday. But farther south, heat enveloped the southern Plains and the Southwest. Daily records were established at locations such as Tucson, AZ (103°F) on May 31, and Del Rio, TX (107°F) on June 3. Along the West coast, significant rain fell early in the week prior to the arrival of the winter-like storm. Totals exceeded 2 inches in Redding, CA and Brookings, OR. Late in the week, precipitation and colder air pushed ashore into the West Coast States. Several California locations broke 24-hour June rainfall records, including the Los Angeles Civic Center (0.76 inches) and Sacramento (0.81 inches). One-half inch of snow accumulated at a 6,745-foot elevation near Big Bear Lake, northeast of San Bernardino, CA. Farther north and east, significant snow accumulated at locations such as Mt. Charleston, NV (10 inches) and Mammoth Mountain Ski Area, CA (12 inches). Even on the valley floors, Saturday temperatures languished at levels 20°F or more below normal. Highs of 71°F in Bakersfield, CA and 75°F in Las Vegas, NV were daily record low maxima.

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