

# 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

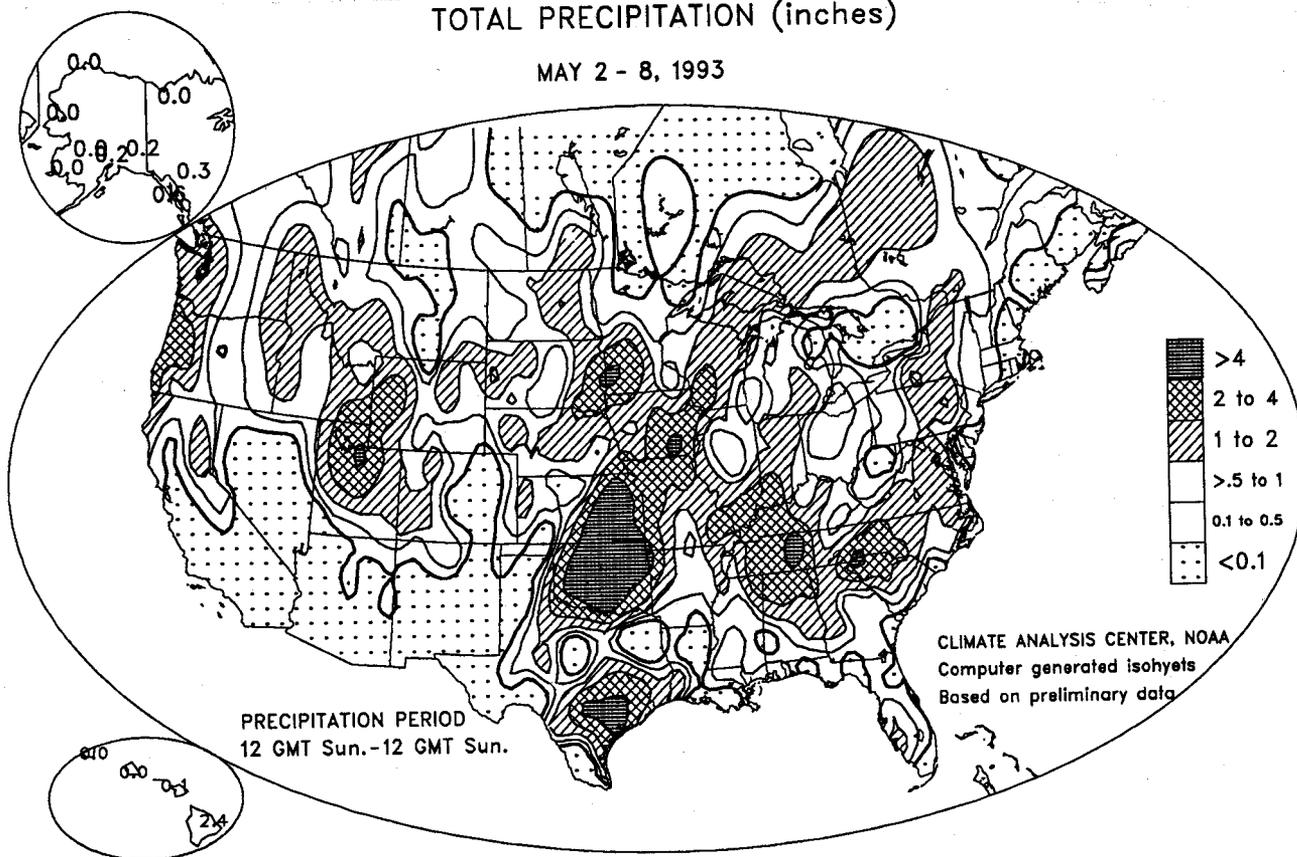
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May 11, 1993

## TOTAL PRECIPITATION (inches)

MAY 2 - 8, 1993



## HIGHLIGHTS

May 2 - 8, 1993

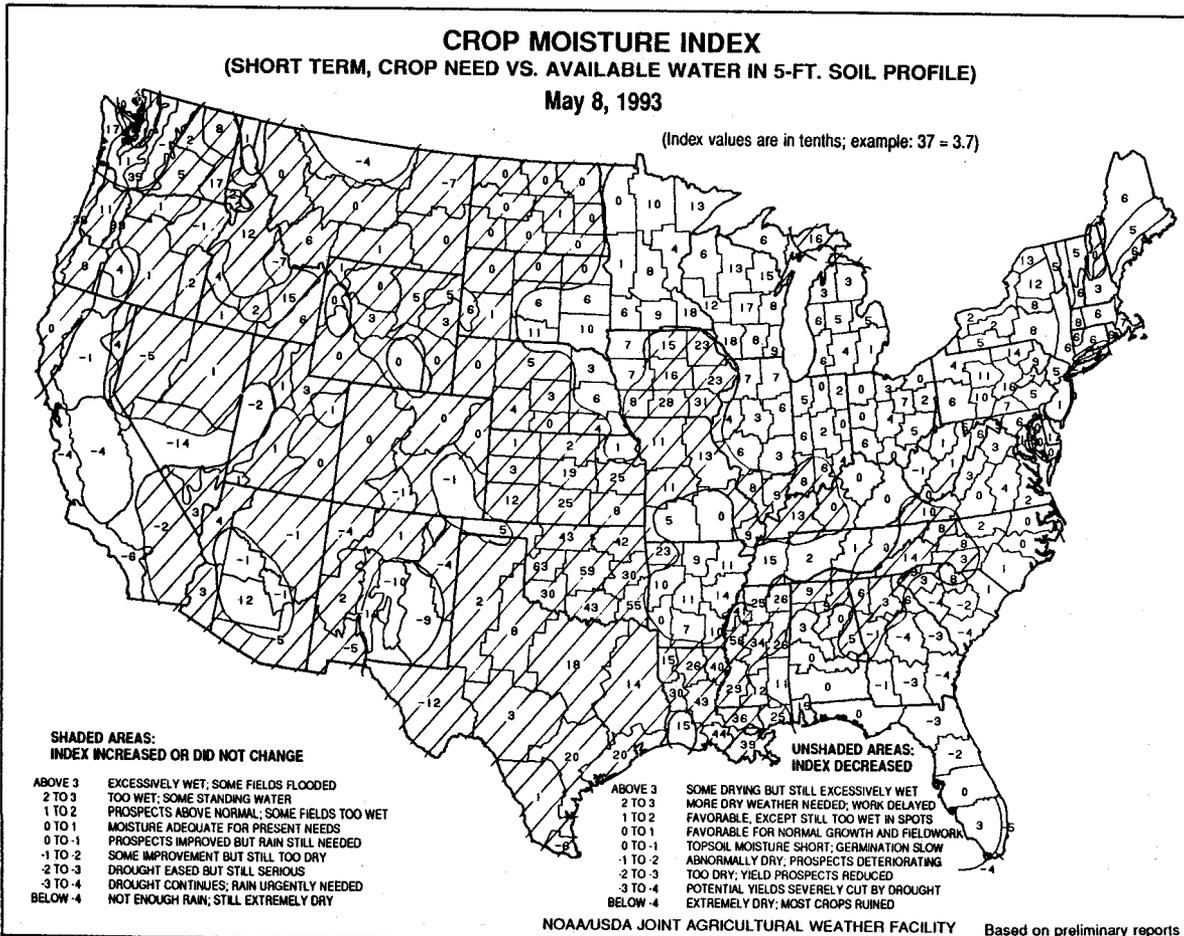
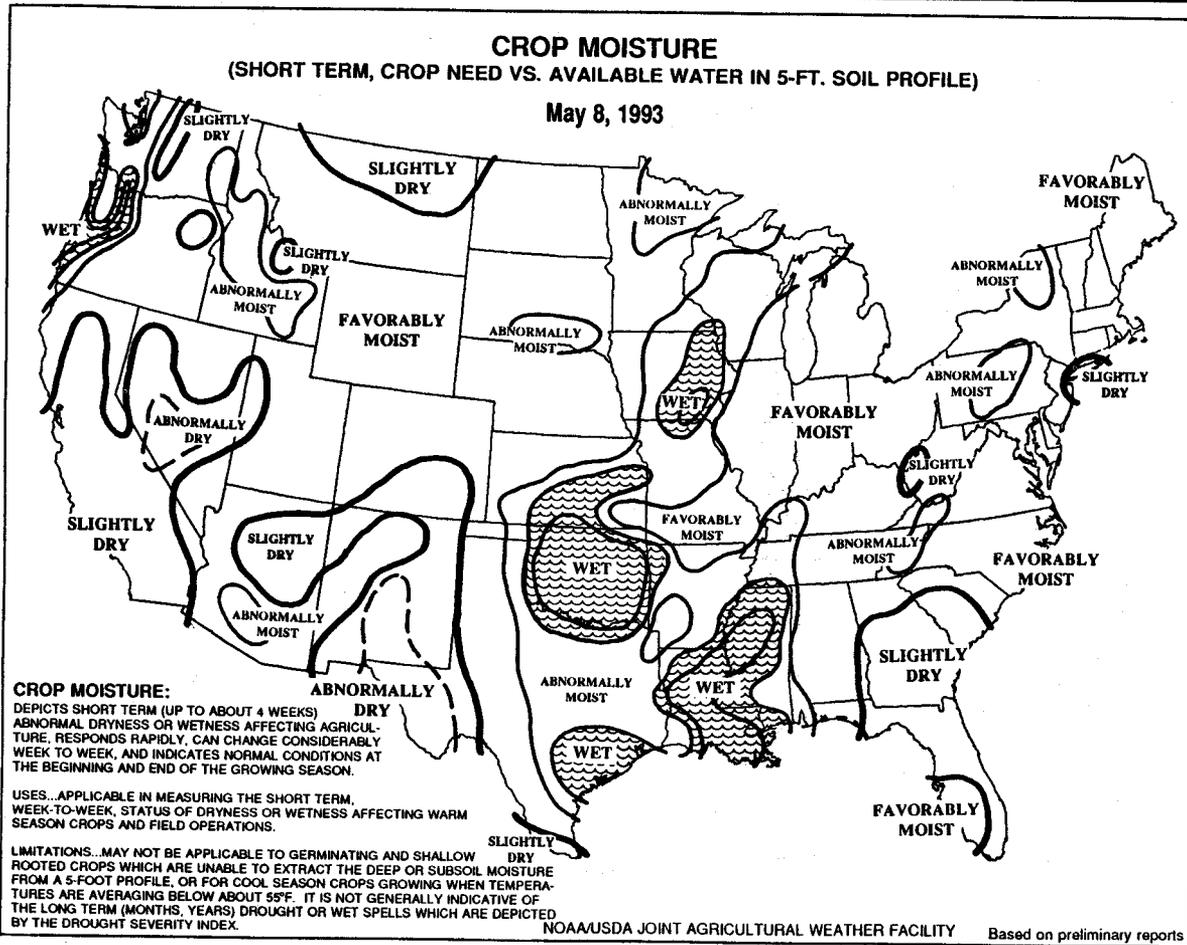
Torrential rains caused flooding and brought fieldwork to a halt in the eastern Plains and the western Corn Belt. But in the High Plains and east of the Mississippi River, planting progressed under favorable conditions. During the first half of the week, one storm system traveled from the southern Plains to the Great Lakes, while another plowed into the West. The first storm dropped locally heavy rain on the east-central Plains and the western Corn Belt, contributing to the soil saturation that led to late-week flooding. Farther east, scattered strong thunderstorms moved across the Tennessee Valley, the Carolinas, and the Middle Atlantic States. By midweek, the second storm lashed the Northwest with thunderstorms, buried the higher elevations under heavy snow, and spurred a flash flood in south-central Texas. In Alta, UT, at 8,700 feet, more than 10 inches of snow fell on each day from May 4 to May 8, and the storm-total snowfall was 75 inches. In the San Antonio, TX area, flooding on Wednesday resulted from as much as 8 inches of rainfall. During the last 3 days of the week, powerful thunderstorms, packing more than 100 tornadoes, erupted repeatedly from Oklahoma to the northern Plains and the upper Mississippi Valley. Attendant downpours caused flash flooding and river

flooding from southwestern Minnesota to south-central Oklahoma. In Oklahoma City, OK (Will Rogers World Airport), weekly rainfall was 8.07 inches, more than half of which fell during a 3-hour period on Saturday afternoon. Late-week temperatures ranged from sub-freezing readings in the interior West to summer-like heat in the East. Daily records on Friday included 30°F in Yakima, WA, and 94°F in Tallahassee, FL. A day later, Louisville, KY reached 91°F and Madison, WI attained 85°F.

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## CUMULATIVE GROWING DEGREE DAYS (CORN\*) April 1 - May 8, 1993

STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL	STATES AND STATIONS	TOTAL	DEP. FROM NORMAL
AL ANNISTON	486	- 80	RUSSELL	303	- 41	YOUNGSTOWN	257	+ 45
AL BIRMINGHAM	492	- 80	SALINA	311	- 52	ZANESVILLE	299	+ 11
AL MOBILE	561	-154	TOPEKA	292	- 80	OK ALTUS	481	- 98
AL MONTGOMERY	540	- 71	WICHITA	311	-125	GAGE	400	- 50
AL MUSCLE SHOALS	472	- 52	KY LEXINGTON	348	- 21	HOBART	412	- 87
AL OZARK	556	-117	BOWLING GREEN	401	- 29	MCALESTER	538	- 1
AL TUSCALOOSA	525	- 81	LA PADUCAH	438	- 31	PONCA CITY	401	- 60
AZ DOUGLAS	616	+ 84	LA LAFAYETTE	612	-128	TULSA	413	- 98
AZ FLAGSTAFF	246	+ 73	LA LAKE CHARLES	641	- 82	OR BAKER	138	- 40
AZ PHOENIX	886	+196	MO MONROE	558	- 81	EUGENE	201	- 6
AZ TUCSON	713	+ 96	ME NEW ORLEANS	603	-135	NORTH BEND	158	+ 43
AZ YUMA	936	+194	ME SHREVEPORT	547	-117	REDBESTON	201	- 33
AR PRESCOTT	393	+ 86	ME AUGUSTA	175	+ 70	REDMOND	131	- 87
AR EL DORADO	512	- 79	ME CARIBOU	130	+ 88	PORTLAND	205	0
AR FAYETTEVILLE	393	- 56	ME HOULTON	148	+ 82	SALEM	233	+ 29
AR FORT SMITH	477	- 52	ME PORTLAND	126	+ 31	SEKTON SUMMIT	42	- 58
AR JONESBORO	438	- 93	MD SALISBURY	360	+ 33	PA ALLENTOWN	294	+ 52
AR LITTLE ROCK	480	- 90	MA WORCESTER	200	+ 54	PHILADELPHIA	356	+ 76
AR TEXARKANA	518	- 94	MI BATTLE CREEK	210	- 7	WILLIAMSPORT	313	+ 72
CA BAKERSFIELD	552	+ 23	MI JACKSON	220	+ 8	SC BEAUFORT	587	- 59
CA BLUE CANYON	84	- 20	MI LANSING	219	- 7	CHARLESTON	573	- 32
CA BURBANK	611	+388	MI MUSKEGON	180	+ 27	COLUMBIA	560	- 39
CA DAGGETT	677	+ 95	MI PELLSTON	123	+ 13	FLORENCE	574	- 12
CA EUREKA	204	+116	MI SAULT STE. MARIE	69	+ 1	TX SUMTER/SHAW AFB	542	- 66
CA FAIRFIELD	432	+ 33	MI TRAVERSE CITY	154	+ 16	SD ABERDEEN	219	+ 46
CA FRESNO	533	+ 64	MN DULUTH	72	- 4	HURON	200	- 12
CA MARYSVILLE	467	+ 9	MN INT'L FALLS	125	+ 22	PIERRE	213	- 21
CA MERCED	487	+ 10	MN ALEXANDRIA	159	+ 21	RAPID CITY	187	- 14
CA MT. SHASTA	139	- 44	MS WARROAD	97	- 2	STOUX FALLS	184	- 36
CA PASO ROBLES	506	+ 96	MS BILOXI	607	-118	WATERTOWN	152	- 5
CA RED BLUFF	421	- 12	MS COLUMBUS	488	- 99	TN BRISTOL	387	- 7
CA RIVERSIDE	577	+ 99	MS JACKSON	562	- 52	CHATTANOOGA	479	- 14
CA SANTA ANA	632	+179	MS MERIDIAN	548	- 74	CROSSVILLE	363	+ 8
CA SAN DIEGO	537	+122	MS GREENWOOD	531	- 75	MEMPHIS	514	- 38
CA SACRAMENTO	434	+ 17	MO COLUMBIA	341	- 15	NASHVILLE	437	- 45
CA THERMAL	822	+ 78	MO JOPLIN	409	- 32	TX ABILENE	613	- 10
CO ALAMOSA	159	- 23	MO SPRINGFIELD	370	- 37	AMARILLO	421	- 2
CO DENVER	258	+ 6	MT VICHY	366	- 27	AUSTIN	679	- 53
CO EAGLE	105	- 85	MT BOZEMAN	114	+ 60	BROWNSVILLE	936	- 2
CO GRAND JUNCTION	251	- 87	MT HELENA	131	- 17	COLLEGE STATION	629	- 85
CO LA JUNTA	369	- 4	MT KALISPELL	112	- 39	DALHART	403	+ 8
DE DOVER	291	- 59	NE MILES CITY	229	+ 34	DALLAS/FT WORTH	595	- 41
FL WILMINGTON	335	+ 53	NE GRAND ISLAND	242	- 40	GALVESTON	716	- 33
FL DAYTONA BEACH	653	-108	NE NORFOLK	234	- 24	HOUSTON	677	- 49
FL FORT MYERS	837	- 37	NE NORTH PLATTE	237	- 26	KINGSVILLE	853	- 30
FL GAINESVILLE	633	-132	NE VALENTINE	212	- 45	LARDO	922	+ 1
FL JACKSONVILLE	627	- 89	NE SCOTTSBLUFF	236	- 12	LUBBOCK	564	+ 51
FL FORT LAUDERDALE	947	+ 21	NV SIDNEY	211	- 13	MC ALLEN	973	+ 51
FL MIAMI	951	- 11	NV ELKO	132	- 66	MIDLAND	632	- 2
FL MILTON	587	-108	NV ELY	171	+ 3	PALACIOS	713	- 65
FL PENSACOLA	588	-119	NV LAS VEGAS	701	+126	SAN ANTONIO	720	- 39
FL ST. PETERSBURG	771	-128	NH RENO	267	- 4	VICTORIA	744	- 29
FL TALLAHASSEE	615	- 81	NH WINNEMUCCA	221	- 29	WACO	621	- 67
FL TAMPA	728	-106	NH CONCORD	264	+ 91	WICHITA FALLS	510	- 73
FL VERO BEACH	761	- 67	NJ NEWARK	350	+104	WINK	660	+ 30
FL W. PALM BEACH	851	- 77	NM ALBUQUERQUE	450	+ 18	UT CEDAR CITY	254	+ 10
GA ATHENS	486	- 42	NM CARLSBAD	646	+ 55	VT MONTPELIER	196	+ 88
GA AUGUSTA	587	+ 4	NM CLOVIS	465	+ 25	BURLINGTON	229	+103
GA BRUNSWICK	537	-148	NM GALLUP	341	+ 47	VA CHARLOTTESVILLE	421	+ 11
GA COLUMBUS	551	- 73	NY TRUTH OR CONSEQ.	535	+ 54	HAMPTON	405	+ 19
GA MACON	547	- 90	NY ALBANY	274	+ 81	LYNCHBURG	442	+ 53
GA SAVANNAH	608	- 42	NY ELMIRA	260	+ 60	NORFOLK	420	+ 13
ID BOISE	190	- 41	NY GLENS FALLS	240	+ 79	RI RICHMOND	433	- 5
ID BURLEY	153	- 49	NY FOUCHER/SIE	271	+ 54	WA BELLINGHAM	140	+ 12
ID IDAHO FALLS	80	- 84	NY ROCHESTER	232	+ 58	HQUTAM	110	- 6
ID POCATELLO	118	- 58	NY SYRACUSE	251	+ 79	SEA-TLE-TACOMA	148	+ 4
IL BELLEVILLE	353	- 47	NY UTICA	220	+ 73	SPOKANE	101	- 53
IL CHICAGO (MIDWAY)	235	- 3	NC WATERTOWN	225	+ 91	TACOMA	169	- 11
IL DECATUR	292	- 64	NC ASHEVILLE	351	- 53	WALLA WALLA	213	- 36
IL PEORIA	318	+ 34	NC FAYETTEVILLE	493	- 33	WENATCHEE	216	- 71
IL ROCKFORD	252	+ 32	NC GREENSBORO	470	+ 23	YAKIMA	247	- 30
IL SPRINGFIELD	320	- 8	NC HICKORY	425	- 22	WV HUNTINGTON	397	+ 30
IL QUINCY	302	- 9	NC RALEIGH	482	- 1	MARTINSBURG	318	- 1
IN INDIANAPOLIS	309	- 2	NC WILMINGTON	527	- 6	MORGANTOWN	355	+ 36
IN SOUTH BEND	230	- 1	ND NEW BERN	497	- 38	WI EAU CLAIRE	161	- 23
IN TERRE HAUTE	326	0	ND BISMARCK	187	+ 25	GREEN BAY	147	+ 1
IA DES MOINES	236	- 78	ND DICKINSON	149	+ 5	LACROSSE	184	- 30
IA MASON CITY	165	- 65	ND JAMESTOWN	172	+ 27	MADISON	227	+ 17
IA OTTUMWA	267	- 13	ND MINOT	159	+ 32	WAUSAU	128	- 22
KS CHANUTE	325	- 89	ND GRAND FORKS	192	+ 61	WY CASPER	160	- 5
KS DODGE CITY	300	- 66	OR AKRON-CANTON	263	+ 29	LANDER	132	- 21
KS GARDEN CITY	314	- 56	OR COLUMBUS	304	+ 7	SHERIDAN	182	+ 12
KS GOODLAND	256	- 34	OR DAYTON	296	+ 5	WORLAND	224	+ 12
KS MEDICINE LODGE	353	-107	OR FINDLAY	225	- 13			

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 May 8, 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 Mar 1	PCT. NORMAL SINCE Mar 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	
																			0	1	0	1
AL BIRMINGHAM	81	57	90	51	69	3	1.6	.5	1.6	9.0	72	17.3	78	93	52	1	0	0	0	0	1	0
MOBILE	83	59	87	54	71	-1	3.3	.9	3.3	16.8	137	29.4	130	98	52	0	0	0	0	1	1	0
MONTGOMERY	85	59	92	53	72	4	3.3	.6	3.3	11.3	97	20.9	96	95	47	2	0	0	0	2	2	0
AK ANCHORAGE	52	37	58	33	43	0	0	0	0	0	0	0	0	86	55	0	0	0	0	2	2	0
BARRROW	18	7	29	-2	12	2	0	0	0	0	0	0	0	37	25	81	0	0	0	0	2	0
FAIRBANKS	59	36	64	31	47	4	0	0	0	0	0	0	0	87	79	119	0	0	0	1	1	0
JUNEAU	50	41	53	35	45	1	1	1	1	1	1	1	1	87	34	197	0	0	0	4	4	0
KODIAK	46	39	50	37	43	1	2.4	1.2	1.1	4.8	69	22.9	151	96	69	0	0	0	0	3	3	0
NOME	37	26	44	22	31	1	0	0	0	0	0	0	0	190	29.7	130	94	75	0	0	7	2
AZ PHOENIX	90	64	95	59	77	1	0	0	0	1.9	135	4.2	149	85	71	0	0	0	0	0	0	0
PRESCOTT	72	41	76	32	56	2	0	0	0	1.6	141	8.6	342	33	14	4	4	0	0	0	0	0
TUCSON	90	55	94	51	73	2	0	0	0	2.5	88	10.9	186	55	19	0	1	0	0	0	0	0
YUMA	93	66	99	62	80	3	0	0	0	.5	44	6.8	259	38	11	4	4	0	0	0	0	0
AR FORT SMITH	81	61	87	54	71	4	5	5	5	9.7	105	16.9	122	91	52	0	0	0	0	2	2	0
LITTLE ROCK	80	61	86	57	71	4	9	9	9	10.8	101	17.8	103	84	53	0	0	0	0	2	1	0
CA BAKERSFIELD	81	53	90	46	67	-1	0	0	0	1.8	105	6.1	170	48	24	1	0	0	0	0	0	0
EUREKA	59	49	61	44	54	2	1.0	.6	0	11.7	135	24.8	128	87	41	0	0	0	0	5	1	0
FRESNO	80	54	88	48	67	1	0	0	0	2.0	66	9.6	143	74	27	0	0	0	0	0	0	0
LOS ANGELES	70	58	73	53	64	2	0	0	0	1.9	67	17.7	231	83	61	0	0	0	0	0	0	0
REDDING	76	50	83	41	63	0	2	2	2	10.2	149	28.1	162	81	28	0	0	0	0	2	0	0
SACRAMENTO	76	48	83	42	62	-1	0	0	0	3.0	79	16.7	160	92	34	0	0	0	0	1	0	0
SAN DIEGO	69	59	72	54	64	1	0	0	0	1.2	46	15.0	251	81	63	0	0	0	0	0	0	0
SAN FRANCISCO	65	51	70	48	58	1	0	0	0	2.8	61	18.7	155	86	45	0	0	0	0	1	0	0
CO DENVER	70	42	80	30	56	2	0	0	0	3.0	85	4.4	94	85	21	0	1	0	0	2	0	0
GRAND JUNCTION	63	39	79	35	51	-8	7	7	7	166	6.3	186	80	28	0	0	0	0	0	2	0	0
PUEBLO	73	38	81	30	56	-2	0	0	0	2.7	138	3.3	128	80	19	0	0	0	0	1	0	0
CT BRIDGEPORT	67	51	79	48	59	4	2	2	2	10.5	122	15.7	106	86	44	0	0	0	0	0	0	0
HARTFORD	75	51	79	44	63	7	0	0	0	11.6	135	17.2	113	89	38	0	0	0	0	1	0	0
DC WASHINGTON	78	58	84	55	68	5	1.3	1.3	1.3	11.7	174	16.9	138	94	54	0	0	0	0	1	1	0
FL APALACHICOLA	81	62	84	54	72	1	-1	-1	-1	4.6	61	15.0	97	94	0	0	0	0	0	1	0	0
DAYTONA BEACH	81	63	87	59	72	0	0	0	0	5.9	102	13.2	113	94	60	0	0	0	0	1	0	0
JACKSONVILLE	84	63	88	60	74	1	4	4	4	7.3	106	14.0	101	91	53	0	0	0	0	2	0	0
KEY WEST	83	75	84	74	79	0	0	0	0	3.2	78	11.5	144	82	68	0	0	0	0	1	0	0
MIAMI	84	73	86	73	79	1	0	-1	-1	9.1	140	16.2	154	75	55	0	0	0	0	0	0	0
ORLANDO	86	66	89	64	76	1	2	-3	-3	8.3	147	14.6	134	89	48	0	0	0	0	1	0	0
TALLAHASSEE	87	61	94	56	74	3	1	-9	-1	7.4	67	21.5	101	90	44	3	0	0	0	3	0	0
TAMPA	86	67	88	65	77	1	3	-2	-3	6.7	142	12.6	129	89	53	0	0	0	0	2	0	0
WEST PALM BEACH	83	71	84	69	77	0	3	-1	-3	13.9	190	23.9	189	77	59	0	0	0	0	1	0	0
GA ATLANTA	81	63	89	58	72	6	2.3	1.3	1.8	10.8	96	19.2	92	82	45	0	0	0	0	3	2	0
AUGUSTA	87	60	93	58	73	6	2	-6	2	9.3	104	18.4	107	89	42	2	0	0	0	1	0	0
MACON	85	60	91	54	72	3	0	-8	0	12.3	134	21.9	119	90	44	2	0	0	0	2	0	0
SAVANNAH	84	66	90	63	75	4	2	-6	2	11.3	147	20.2	139	81	47	1	0	0	0	1	0	0
HI HILO	81	67	83	66	74	0	1.9	-8	-5	23.4	72	28.2	54	90	61	0	0	0	0	7	0	0
HONOLULU	84	71	86	68	78	1	0	-3	0	3	7	1.4	14	72	49	0	0	0	0	0	0	0
KAHULUI	84	70	84	69	77	2	1	-1	-1	2.6	53	5.0	42	71	50	0	0	0	0	0	0	0
LIRUE	80	72	81	70	76	1	4	-4	-4	2.7	32	3.9	22	77	64	0	0	0	0	2	0	0
ID BOISE	62	41	72	34	52	-3	7	4	2	5.2	183	7.8	146	92	32	0	0	0	0	0	0	0
LEWISTON	60	44	65	41	52	-3	9	6	4	4.8	192	6.3	134	83	45	0	0	0	0	4	0	0
POCATELLO	55	39	71	32	47	-3	1.6	1.3	6	4.8	171	9.2	192	84	39	0	1	6	2	0	0	0
IL CHICAGO	74	53	85	45	63	8	4	-3	-3	9.5	132	14.2	141	88	45	0	0	0	0	3	0	0
MOLINE	77	59	87	55	68	10	3	-6	-1	10.8	135	13.7	127	88	62	0	0	0	0	5	0	0
PRORIA	76	60	87	55	68	10	6	-3	-5	9.8	128	15.0	142	87	57	0	0	0	0	2	0	0
QUINCY	73	60	83	54	67	7	1.3	-3	-4	6.6	81	9.9	91	95	62	0	0	0	0	6	0	0
ROCKFORD	76	55	85	46	65	10	4	-4	-2	10.6	151	13.9	147	91	55	0	0	0	0	4	0	0
SPRINGFIELD	74	59	86	52	67	7	9	0	4	8.0	102	13.5	121	83	64	0	0	0	0	4	0	0
IN EVANSVILLE	79	60	89	58	70	6	2.1	1.0	1.6	9.7	94	15.9	95	89	61	0	0	0	0	4	1	0
FORT WAYNE	76	54	83	50	65	9	5	-3	-3	8.5	119	15.5	142	87	46	0	0	0	0	3	0	0
INDIANAPOLIS	76	58	85	54	67	8	1.5	6	8	9.0	106	14.7	110	85	54	0	0	0	0	3	1	0
SOUTH BEND	74	54	81	49	64	8	8	1	5	7.1	91	12.6	106	87	50	0	0	0	0	3	0	0
IA DES MOINES	69	54	78	47	62	4	3.0	2.1	1.3	9.6	141	12.7	145	95	60	0	0	0	0	5	2	0
SIoux CITY	72	48	79	34	60	2	1.1	4	7	5.7	111	8.5	133	92	49	0	0	0	0	3	1	0
WATERLOO	70	58	85	52	64	8	1.3	4	5	9.7	146	11.5	136	96	70	0	0	0	0	5	0	0
KS CONCORDIA	70	53	78	41	62	3	5	-4	-2	5.2	95	7.7	114	97	64	0	0	0	0	4	0	0
DODGE CITY	73	49	83	36	61	1	0	-6	0	5.1	119	9.0	165	93	39	0	0	0	0	0	0	0
GOODLAND	72	42	84	29	57	1	1.1	4	1.0	2.3	72	3.7	93	91	35	0	1	3	1	0	0	0
TOPKA	70	56	82	50	63	2	4.1	3.2	2.2	12.1	185	15.6	183	95	70	0	0	0	0	5	2	0
WICHITA	70	55	78	44	62	-1	3.9	3.0	1.6	8.6	134	11.5	137	95	68	0	0	0	0	5	3	0
KY BOWLING GREEN	77	58	86	55	68	5	1.4	3	1.4	8.0	75	13.8	74	93	56	0	0	0	0	3	1	0
LEXINGTON	76	57	86	55	67	6	6	-4	-5	7.9	84	14.5	94	87	55	0	0	0	0	3	1	0
LOUISVILLE	79	59	91	55	69	7	5	-6	-2	9.3	92	17.0	104	85	52	1	0	0	0	3	0	0
LA BATON ROUGE	81	58	86	53	70	-4	3	-9	-3	18.1	157	34.3	156	99	49	0	0	0	0	2	0	0
LAKE CHARLES	81	64	84	57	72	0	1.1	-1	1.1	14.1	177	25.2	157	97	64	0	0	0	0	1	1	0
NEW ORLEANS	81	58	87	53	70	-3																

Weather Data for the Week Ending May 8, 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 Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN., SINCE Jan 1		PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE		32 AND BELOW
													90 AND ABOVE				32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
ME CARIBOU	68	43	77	35	56	9	.4	-1.3	.3	5.6	98	9.8	98	83	34	0	0	2	0
PORTLAND	65	46	76	41	55	6	.1	-1.8	.1	12.1	138	18.7	120	91	32	0	0	3	0
MD BALTIMORE	77	55	80	49	66	6	.4	-1.5	.4	12.2	164	17.7	130	89	50	0	0	1	0
SALISBURY	76	51	82	44	63	4	.4	-1.4	.4	11.8	143	18.3	119	99	58	0	0	1	0
MA BOSTON	68	51	80	45	60	3	.4	-1.8	.4	12.5	154	19.6	128	84	43	0	0	0	0
CHATAM	58	46	64	42	52	2	.2	-1.7	.2	10.8	126	16.9	104	95	40	0	0	0	0
MI ALPENA	66	45	74	35	56	7	.4	-1.3	.4	3.8	75	5.9	75	93	50	0	0	0	0
DETROIT	73	53	79	46	63	8	.6	-1.1	.5	6.0	97	11.2	115	84	43	0	0	0	0
FLINT	74	50	79	42	62	9	.6	-1.0	.4	6.4	111	10.4	123	87	47	0	0	4	0
GRAND RAPIDS	73	52	80	49	62	9	.4	-1.3	.4	7.6	112	13.0	129	90	55	0	0	0	0
HOUGHTON LAKE	69	51	79	41	60	10	.6	-1.1	.4	4.2	87	6.8	91	87	49	0	0	0	0
LANSING	74	50	80	43	62	9	.6	-1.0	.3	7.2	123	11.6	136	91	53	0	0	0	0
MARQUETTE	63	43	77	39	53	7	1.5	-1.3	.7	6.6	108	9.7	96	91	45	0	0	0	0
MUSKOGON	72	51	84	43	61	9	.9	-1.2	1.0	5.6	112	10.3	104	88	45	0	0	0	0
SAULT ST. MARIE	62	45	71	38	53	6	1.4	-1.9	2.0	5.6	105	8.0	85	86	41	0	0	4	0
MN ALEXANDRIA	71	48	80	37	59	7	1.3	-1.8	1.2	5.7	133	6.7	114	94	44	0	0	1	0
DULUTH	62	43	80	32	53	6	.2	-1.4	-1.1	4.0	83	6.3	91	93	47	0	1	3	0
INT'L FALLS	71	42	83	28	56	8	.1	-1.3	-1.1	2.5	80	3.3	71	89	41	0	2	3	0
MINNEAPOLIS	70	52	79	44	61	7	.8	-1.1	-1.6	4.5	88	6.2	88	90	48	0	0	2	1
ROCHESTER	66	53	80	47	60	7	.2	-1.6	-1.1	8.2	153	10.2	148	95	51	0	0	2	0
MS GREENWOOD	83	61	90	55	72	3	-1.1	-1.1	1.1	13.2	108	18.9	87	95	52	1	0	2	0
JACKSON	85	58	90	52	72	3	1.7	-1.4	1.7	11.4	88	19.5	84	95	46	3	0	2	0
MERIDIAN	85	58	90	51	72	3	T	-1.1	T	12.1	90	26.6	111	93	45	1	0	1	0
MO CAPE GIRARDEAU	78	59	87	55	69	5	2.0	-1.8	1.6	10.1	93	18.7	110	93	60	0	0	2	1
COLUMBIA	77	58	85	52	68	8	2.7	-1.6	2.6	10.5	132	14.9	132	97	64	0	0	4	1
KANSAS CITY	72	57	82	53	64	4	3.6	-2.6	1.9	11.4	167	14.7	163	93	71	0	0	5	2
SAINT LOUIS	77	61	86	54	69	7	1.1	-1.2	-1.9	10.7	132	17.0	141	89	62	0	0	4	1
SPRINGFIELD	78	60	83	56	69	8	1.2	-1.2	-1.8	7.0	78	12.5	99	86	53	0	0	4	1
MT BILLINGS	65	45	72	38	55	3	-1.1	-1.5	-1.1	2.5	69	3.2	64	74	30	0	0	1	0
GLASGOW	70	47	78	38	58	7	-1.1	-1.2	-1.1	1.4	94	1.9	92	73	30	0	0	2	0
GREAT FALLS	59	40	65	34	50	0	1.0	-1.5	-1.4	5.3	171	7.2	156	88	32	0	0	5	0
HAVRE	64	44	73	35	54	3	-1.1	-1.3	-1.1	1.1	56	1.8	61	86	30	0	0	1	0
HELENA	59	41	71	34	50	1	1.1	-1.7	-1.9	3.2	154	5.1	161	82	30	0	0	3	1
KALISPELL	58	39	67	27	49	0	.4	-1.0	-1.2	3.2	128	5.5	107	88	31	0	1	4	0
MILES CITY	71	46	80	40	59	5	.4	-1.1	-1.2	3.4	135	4.3	123	90	36	0	0	4	0
MISSOULA	58	40	66	31	49	0	1.1	-1.7	-1.9	3.6	155	5.1	117	89	34	0	1	5	1
NE GRAND ISLAND	71	46	81	35	59	1	1.6	-1.9	1.0	4.3	80	6.9	106	94	46	0	0	3	1
LINCOLN	70	51	81	38	61	2	.6	-1.2	-1.3	5.4	93	6.6	94	95	62	0	0	4	0
NORFOLK	72	48	78	35	60	3	1.1	-1.4	-1.6	5.9	120	8.9	143	90	48	0	0	3	1
NORTH PLATTE	72	42	80	27	57	2	.9	-1.2	-1.7	3.3	82	5.4	113	91	36	0	2	3	1
OMAHA	69	52	79	43	61	2	1.5	-1.5	-1.7	6.5	110	8.3	114	91	53	0	0	4	1
SCOTTSBLUFF	71	41	81	27	56	4	.3	-1.3	-1.3	3.6	109	5.7	134	85	27	0	1	2	0
VALENTINE	71	44	80	24	58	2	.8	-1.1	-1.6	5.3	124	6.5	123	87	40	0	1	3	1
NV ELY	57	31	74	29	44	-4	-1.5	-1.3	-1.3	1.9	86	5.4	150	76	32	0	6	4	0
LAS VEGAS	83	59	89	48	71	1	T	-1.1	-1.2	.2	21	4.3	258	35	14	0	0	0	0
RENO	66	40	72	35	53	-1	-1.1	-1.0	-1.1	.7	54	4.4	131	65	24	0	0	2	0
WINNEMUCCA	62	39	71	31	51	-1	.6	-1.4	-1.4	2.3	128	4.9	152	81	31	0	1	3	0
NH CONCORD	73	45	78	38	59	8	-1.1	-1.6	-1.1	7.0	108	10.1	88	91	35	0	0	2	0
NJ ATLANTIC CITY	70	48	79	42	59	3	-1.1	-1.7	-1.1	11.1	137	16.2	111	96	50	0	0	2	0
NM ALBUQUERQUE	75	43	84	35	59	-2	T	-1.1	T	.2	14	2.9	141	58	17	0	0	1	0
CLOVIS	80	47	88	38	63	1	T	-1.3	T	.6	35	1.5	57	72	12	0	0	0	0
ROSWELL	86	50	91	41	68	2	.0	-1.2	-1.0	1.2	115	2.1	116	48	10	1	0	0	0
NY ALBANY	73	49	77	41	61	7	-1.1	-1.6	-1.1	10.7	158	15.7	137	82	39	0	0	2	0
BINGHAMTON	70	48	74	39	59	6	.9	-1.2	-1.9	11.7	172	16.5	143	86	39	0	0	1	1
BUFFALO	71	50	80	40	61	8	.4	-1.3	-1.3	5.9	94	12.2	108	76	31	0	0	2	0
NEW YORK	71	53	77	50	62	4	-1.2	-1.7	-1.2	10.2	121	16.5	116	91	51	0	0	1	0
ROCHESTER	70	50	79	38	60	6	.4	-1.2	-1.4	5.9	105	9.8	100	86	42	0	0	1	0
SYRACUSE	73	49	78	38	61	8	.5	-1.2	-1.5	10.8	155	16.3	142	83	35	0	0	1	0
NC ASHEVILLE	74	54	80	49	64	3	2.2	-1.1	1.9	11.6	108	17.4	91	93	52	0	0	3	1
CHARLOTTE	81	64	86	58	72	8	1.2	-1.4	1.2	10.8	135	19.7	127	84	48	0	0	2	1
GREENSBORO	80	59	84	51	70	7	.8	-1.1	-1.7	14.4	192	21.5	153	91	55	0	0	2	1
HATTERAS	78	59	81	48	68	4	T	-1.9	T	10.6	121	21.7	119	91	57	0	0	0	0
NEW BERN	82	59	86	51	71	4	.6	-1.4	-1.3	11.2	137	20.1	120	95	47	0	0	3	0
RALEIGH	81	59	85	54	70	6	.7	-1.1	-1.4	11.7	161	18.4	127	94	50	0	0	3	0
WILMINGTON	81	61	87	53	71	5	-1.1	-1.7	-1.1	12.2	146	21.0	120	96	54	0	0	2	0
ND BISMARCK	72	45	81	25	59	7	.6	-1.2	-1.4	2.3	77	2.9	75	87	37	0	1	3	0
FARGO	77	49	83	29	63	11	.3	-1.2	-1.1	1.9	54	2.9	62	85	34	0	1	2	0
GRAND FORKS	78	47	84	30	63	12	.7	-1.3	-1.6	1.4	53	1.8	47	77	30	0	1	2	1
WILLISTON	72	47	81	40	60	8	.2	-1.2	-1.2	1.5	62	2.0	57	84	34	0	0	3	0
OH AKRON-CANTON	75	52	80	45	63	8	.3	-1.5	-1.3	8.3	111	14.2	120	79	38	0	0	2	0
CINCINNATI	76	57	85	56	67	7	.4	-1.5	-1.2	7.1	79	14.4	100	82	51	0	0	4	0
CLEVELAND	74	52	78	42	63	9	.6	-1.1	-1.5	7.6	111	14.7	132	90	45	0	0	2	1
COLUMBUS	78	55	84	47	66	10	.2	-1.7	-1.2	8.2	106	14.1	119	82	48	0	0	2	0
DAYTON	76	55	83	52	66	8	.6	-1.3	-1.5	11.2	142	17.9	147	79	48	0	0	2	1

Based on 1961-90 normals.

Weather Data for the Week Ending May 8, 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 Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																		90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
TOLEDO	74	54	79	49	64	9	.2	-.4	.1	6.7	106	11.6	118	85	46	0	0	0	0	3	0
YOUNGSTOWN	75	51	80	42	63	9	.1	-.6	.1	7.2	102	12.9	115	79	37	0	0	0	1	0	0
OK OKLAHOMA CITY	72	57	81	50	64	-1	2.4	1.3	1.0	7.8	116	12.3	131	96	71	0	0	0	5	5	2
TULSA	75	59	81	50	67	1	2.9	1.7	1.8	10.3	120	15.2	126	96	65	0	0	0	3	2	2
OR ASTORIA	56	46	58	45	51	0	1.8	1.1	.8	17.9	143	25.5	85	96	63	0	0	0	6	2	2
BURNS	56	35	65	27	46	-2	.3	.1	.1	3.6	191	6.0	164	85	32	0	1	3	0	0	0
MDPORD	66	43	76	36	54	-1	.4	.2	.2	3.5	107	7.5	95	90	31	0	0	0	4	4	0
PENDLETON	59	43	65	38	51	-4	.7	.5	.6	4.1	162	6.7	129	83	31	0	0	0	0	1	1
PORTLAND	62	46	68	42	54	-1	1.0	.5	.6	10.8	165	14.6	93	93	36	0	0	0	5	1	1
SALEM	64	44	70	39	54	2	1.3	.8	.8	12.1	169	18.4	105	90	35	0	0	0	5	1	0
PA ALLENTOWN	74	52	78	49	63	6	2.2	.7	.2	13.6	173	18.4	132	84	47	0	0	0	1	0	0
ERIE	71	52	81	44	62	9	.2	-.6	.1	6.1	86	11.5	99	91	48	0	0	0	2	1	0
HARRISBURG	76	56	79	49	66	8	1.1	-.1	-.1	6.1	86	11.5	99	91	48	0	0	0	2	1	0
PHILADELPHIA	77	55	82	52	66	8	.1	-.9	.1	10.9	130	15.9	106	88	53	0	0	0	2	1	0
PITTSBURGH	77	55	82	47	66	10	.7	-.1	.6	8.5	114	14.4	116	78	39	0	0	0	1	0	1
SCRANTON	75	52	82	44	63	8	.8	.0	.8	12.3	192	15.3	143	82	42	0	0	0	1	1	1
RI PROVIDENCE	72	51	82	47	62	8	.8	-.9	.8	12.1	131	19.6	118	90	42	0	0	0	0	0	0
SC CHARLESTON	83	65	87	61	74	4	.4	-.3	.4	8.9	114	20.9	144	93	56	0	0	0	2	2	0
COLUMBIA	84	61	88	59	73	5	.6	-.2	.6	8.2	92	19.0	108	93	43	0	0	0	1	1	0
FLORENCE	85	63	88	59	74	6	.4	-.3	.3	5.6	72	14.6	101	93	44	0	0	0	2	1	0
GREENVILLE	78	58	84	53	68	3	1.9	1.0	1.9	15.1	146	25.8	137	93	58	0	0	0	2	1	0
SD ABERDEEN	76	44	84	26	60	7	.8	.3	.6	2.9	82	4.0	84	95	41	0	1	3	1	3	1
HURON	72	47	78	32	59	5	1.9	1.3	1.0	7.1	162	8.0	146	96	48	0	0	1	3	2	2
RAPID CITY	67	43	80	32	55	3	1.7	1.1	1.0	5.6	157	6.9	155	87	40	0	0	1	4	1	1
SIOUX FALLS	72	46	77	33	59	4	2.5	1.8	1.9	7.7	157	9.2	152	94	47	0	0	0	3	1	1
TN CHATTANOOGA	81	58	89	53	70	6	.8	-.2	.4	11.6	100	20.4	96	98	55	0	0	0	4	0	0
KNOXVILLE	79	57	86	54	68	6	.7	-.2	.5	9.4	95	15.7	87	94	55	0	0	0	2	0	0
MEMPHIS	82	63	90	60	73	4	.7	-.5	.6	10.4	85	16.5	81	87	52	1	0	0	2	1	1
NASHVILLE	79	59	87	53	69	4	1.1	.0	1.0	10.0	95	15.9	89	94	55	0	0	0	2	1	1
TX ABILENE	80	57	86	44	69	-1	.1	-.6	.1	2.3	59	4.5	73	87	48	0	0	0	1	0	0
AMARILLO	78	49	86	40	63	1	.5	.1	.5	2.7	110	3.8	107	81	21	0	0	0	2	0	0
AUSTIN	80	62	85	51	71	-2	2.2	1.2	1.2	7.2	130	13.8	146	93	62	0	0	0	3	2	2
BEAUMONT	82	65	84	53	74	1	1.0	-.2	1.0	13.0	160	27.0	166	93	62	0	0	0	1	1	1
BROWNSVILLE	87	71	89	60	79	1	T	-.6	T	2.0	73	6.7	124	91	65	0	0	0	1	0	0
CORPUS CHRISTI	83	67	86	60	75	-1	1.7	1.0	1.6	7.8	230	10.0	141	94	66	0	0	0	2	1	0
DEL RIO	88	64	91	55	78	3	T	-.7	T	1.2	29	2.6	38	88	55	2	0	0	1	0	0
EL PASO	86	57	89	43	72	3	.0	.0	.0	.1	23	1.8	129	32	13	0	0	0	0	0	0
FORT WORTH	78	62	83	55	70	1	.3	-.9	.3	7.1	88	14.6	119	90	61	0	0	0	2	1	0
GALVESTON	78	69	79	60	73	0	.9	.2	.9	11.7	214	24.7	225	89	75	0	0	0	2	0	1
HOUSTON	81	63	85	51	72	0	2.9	1.8	1.9	18.7	240	27.2	179	93	62	0	0	0	3	2	2
LUBBOCK	85	56	92	42	70	4	T	-.4	T	1.7	73	3.1	91	86	16	3	0	0	0	0	0
MIDLAND	88	57	94	43	73	2	.0	-.5	.0	.8	48	2.9	106	76	16	4	0	0	0	0	0
SAN ANGELO	84	58	87	44	71	-1	1.2	.6	1.2	2.9	89	4.7	91	81	45	0	0	0	1	1	1
SAN ANTONIO	82	62	87	48	72	-1	6.4	5.5	6.3	9.8	194	14.8	173	91	58	0	0	0	4	1	1
VICTORIA	81	66	85	58	74	0	8.0	7.1	7.7	15.3	256	22.1	182	93	66	0	0	0	2	1	1
WACO	79	61	85	50	70	-2	1.2	.2	.8	9.6	144	15.9	153	92	63	0	0	0	2	1	1
WICHITA FALLS	75	57	83	49	66	-2	1.3	.4	1.2	8.3	128	12.8	132	96	64	0	0	0	2	1	1
UT CEDAR CITY	64	36	74	31	50	-3	.1	-.1	.1	2.0	75	6.4	149	75	25	0	1	3	0	0	0
SALT LAKE CITY	59	40	80	33	50	-6	3.5	3.1	1.2	6.4	141	11.0	159	82	31	0	0	0	6	3	3
VT BURLINGTON	71	48	77	37	59	7	.5	-.2	.3	5.8	101	9.8	107	82	36	0	0	0	2	0	0
VA NORFOLK	76	58	81	54	67	4	.4	-.4	.2	9.9	128	17.1	115	89	58	0	0	0	2	0	0
RICHMOND	79	55	84	48	67	4	.8	-.1	.8	11.2	149	18.6	133	89	47	0	0	0	1	1	1
ROANOKE	77	56	81	48	66	5	.6	-.3	.6	11.3	146	18.5	138	84	49	0	0	0	2	1	1
WA QUILLAYUTE	55	42	58	36	48	-1	2.5	1.1	.9	26.2	127	34.9	73	98	32	0	0	0	7	2	0
SEATTLE-TACOMA	59	46	64	44	53	0	.8	.4	.3	10.3	163	14.8	94	90	32	0	0	0	6	0	0
SPOKANE	56	40	64	36	48	4	.9	.6	.5	3.9	130	6.2	96	93	37	0	0	0	4	0	0
YAKIMA	65	37	73	30	51	-3	.2	-.1	.1	1.3	98	2.9	89	89	31	0	1	3	0	0	0
WV BECKLEY	74	55	81	45	64	8	.2	-.7	.2	9.2	117	13.6	99	78	44	0	0	0	1	1	0
CHARLESTON	80	55	89	46	68	7	.1	-.8	.0	8.5	108	13.4	97	81	43	0	0	0	3	0	0
HUNTINGTON	79	56	80	50	68	9	.3	-.7	.3	8.0	97	13.9	97	91	45	1	0	0	2	0	0
PARKERSBURG	79	54	85	43	66	7	.2	-.6	.2	11.0	132	15.5	108	90	38	0	0	0	2	0	0
WI GREEN BAY	71	51	80	47	61	10	1.5	.9	.6	6.4	124	8.1	111	88	54	0	0	0	5	1	1
LACROSSE	70	56	84	51	63	7	.8	-.1	.5	11.1	195	13.4	179	94	60	0	0	0	4	1	1
MADISON	74	56	89	46	65	8	1.1	.7	.4	10.3	168	13.1	157	87	63	0	0	0	5	0	0
MILWAUKEE	67	49	76	46	58	7	.2	-.5	.1	10.1	145	13.7	137	91	38	0	0	0	3	0	0
WAUSAU	67	50	81	46	59	2	2.2	1.4	1.1	7.1	127	8.9	120	98	67	0	0	0	5	2	1
WY CASPER	61	40	73	35	50	2	2.0	1.5	1.7	4.9	159	6.6	156	81	34	0	0	0	4	1	0
CHEYENNE	63	48	73	27	51	2	.2	-.1	.3	3.5	119	4.7	125	71	25	0	1	4	0	1	0
LANDER	59	37	70	30	48	-1	1.0	.5	.9	4.4	113	5.7	116	81	39	0	1	2	1	0	1
SHERIDAN	64	41	73	34	53	3	1.6	1.1	.6	5.0	152	5.8	125	85	42	0	0	0	4	1	1

Based on 1961-90 normals.

# April Weather in Historical Perspective

Preliminary data for April indicate that the Nation's average temperature of 50.5°F was 1.2°F below normal, breaking a string of eight consecutive warmer-than-normal Aprils (fig. 1). Especially cool weather prevailed in the Central and Southeastern States. Regionally, the South region observed its eighth coldest April, and the Southeast region noted its ninth coldest (table 1). The warmest-ranking region was the Northeast, which notched its 34th warmest April since 1895.

Nationally, April was the 36th wettest such month on record, according to the normalized precipitation index (fig. 2). Six of nine regions ranked in the wet third of the April precipitation distribution, paced by near-record wetness in the Northeast (fourth wettest April) and the Northwest (also fourth wettest). The driest-ranking region was the Southwest (33rd driest April), which benefited from a drier weather regime after a record-wet winter.

While wet weather in the Northeast was a nuisance, causing extensive flooding as rain fell and snow melted, precipitation

in the Northwest was welcomed, as prospects for summer water supplies improved. The Northwest region (Washington, Oregon, and Idaho) received more than 3 inches of precipitation (about 168 percent of normal) during April, but remains drier than normal for the year-to-date. Since January 1, 1993, the Northwest region's average precipitation of 10 inches is about 90 percent of normal.

Nationally, the portion of the Nation enduring a severe to extreme wet spell (Palmer Drought index above +3.0) climbed slightly in April to 35 percent, the greatest area since December 1983 (fig. 3). Meanwhile, the area covered by severe to extreme drought shrank to about 2 percent, the smallest area since December 1986.

Outside of the continental United States, significant weather anomalies included a fourth consecutive drier-than-normal month in Hawaii, and average temperatures of up to 10°F above normal in Alaska.

Figure 1

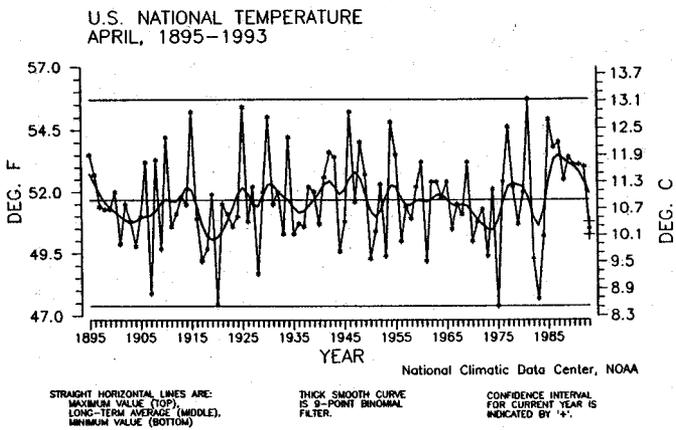


Figure 2

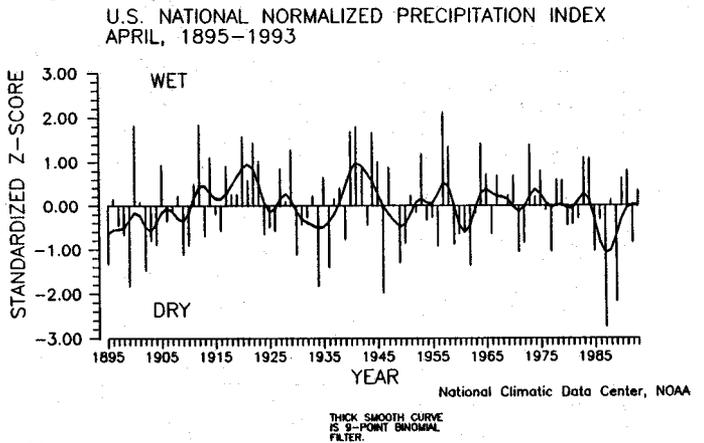
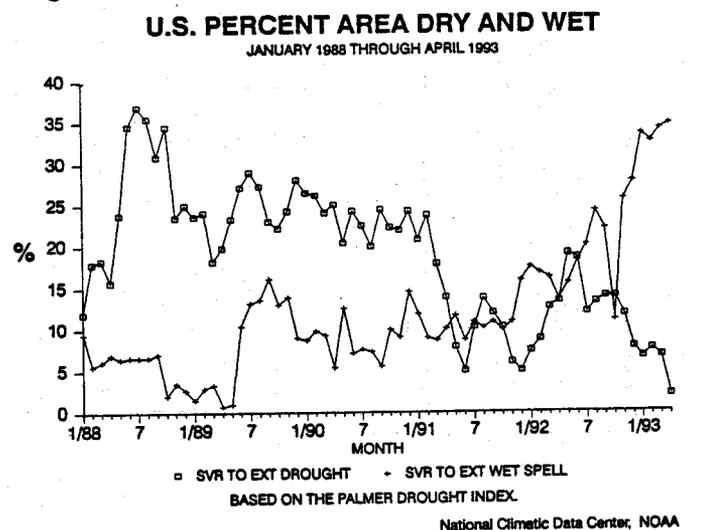


TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR APRIL 1993, BASED ON THE PERIOD 1895-1993. 1 = DRIEST/COLDEST, 99 = WETTEST/HOTTEST.

REGION	PRECIPITATION	TEMPERATURE
NORTHEAST	96	66
EAST NORTH CENTRAL	90	26
CENTRAL	67	28
SOUTHEAST	40	9
WEST NORTH CENTRAL	70	44
SOUTH	67	8
SOUTHWEST	33	51
NORTHWEST	96	36
WEST	35	54
NATIONAL	64	23

Figure 3



## National Agricultural Summary

May 3 - 9, 1993

**HIGHLIGHTS:** Rain at the beginning and end of the week fell across the central part of the Nation, severely limiting fieldwork across the central Corn Belt. Much of the rest of the country experienced drier conditions, which allowed producers to fertilize their fields and start planting. Above-normal temperatures aided the development of emerged crops and helped to dry fields.

**SMALL GRAINS:** Winter wheat remained in good condition in the 19 major producing States. Crop development was more than a week behind normal. Heading of the winter wheat crop stood at 19 percent (%), compared with 48% last year and the 5-year average of 36%. Above-normal temperatures promoted crop maturity in most regions, especially in Arkansas, North Carolina, and Oklahoma. Continued damp conditions allowed foliar disease potential to remain great in Kansas wheat fields. Leaf rust continued to be a problem in some wheat fields in the Texas Blacklands. Dryland fields in the Texas High Plains needed moisture. Favorable conditions across the major spring wheat States allowed planting progress to continue. Spring wheat acreage was 70% planted, compared with 77% last year and average. Warm weather pushed crop emergence to 25%, compared with 47% last year and 43% average. Rain hindered planting progress in Idaho. Planting progress was ahead of last year and near average in Minnesota. Oats and barley planting continued.

**CORN:** Corn planting progress continued nearly 2 weeks behind average. Planting was 18% complete in the 17 major corn-producing States, compared with 67% last year and 59% average. Dry weather in western Kansas, western Nebraska, and eastern Colorado allowed good progress. Favorable conditions also allowed good progress in Pennsylvania and Ohio. Progress in the central Corn Belt continued to be limited by rain and wet fields. Warm weather benefited the emerged crop in the Southeast.

**SOYBEANS:** Soybean planting progress in the 19 major producing States was 2% complete, compared with 18% last year and 12% average. Progress in the Southeast was slightly ahead of average. Wet conditions caused progress to be well behind average in the other production areas.

**COTTON:** Cotton planting progress averaged less than a week behind normal with 36% planted, compared with 57% last year and 45% average. Warmer weather aided germination and emergence of the crop in California. Dryland fields on the High Plains of Texas needed more moisture. Higher temperatures were needed across Texas to prevent seedling disease.

**SORGHUM:** Planting progress in the 12 major producing States remained about 1 week behind average, with 28% of the acreage planted. This compared with 37% last year and 32% average. Sorghum planting had just begun in Kansas and in the southern portion of Missouri. Warmer weather was needed to promote growth in the Low Plains of Texas. The Texas crop condition was 73% of normal, compared with 84% of normal last year. The sorghum crop looked good in Louisiana.

**RICE:** Rice planting progress in the five major States reached 38% complete, compared with 83% last year and 63% average. Progress averaged 2 weeks behind normal. Rice emergence was at 24%, compared with 56% last year and 39% average. Emergence was more than 1-week behind normal. Wet conditions disrupted plantings in Texas. Seeding in California gained momentum as warmer weather caused ground temperatures to rise.

**OTHER FIELD CROPS:** Onion seeding advanced in Colorado, New York, and Oregon and was virtually completed in Idaho. The onion crop was rated in good condition in Colorado, Georgia, New Mexico, and Texas. Harvest continued in California, Texas, and Georgia. Progress of the Georgia harvest stood at 27% complete, compared with 60% last year and 67% average. Sugar beet planting moved toward completion in Nebraska, Colorado, Wyoming, and Idaho. Planting progress in Minnesota remained ahead of last year and average, as progress in Michigan and Montana lagged. Harvest of California over-winter sugar beets continued. Potato planting continued across the Nation, but was behind last year and average in most areas. Cool weather delayed emergence of the Washington crop. In Texas, the crop progressed well. Harvest continued in Florida and California. Tobacco condition ranged from fair to good in Georgia and South Carolina. Some fields in Georgia had a virus infection. About 3% of the burley and dark tobacco was set in Kentucky. Transplanting of tobacco in Tennessee, at 6% lagged last year and average. Peanut planting advanced with progress near normal. Rain was needed in Georgia for adequate germination. The Texas crop needed sunshine and higher temperatures to promote growth.

**FRUIT AND NUTS:** Florida citrus trees were in very good condition. Continued dry conditions caused many producers to irrigate their groves. The Valencia harvest remained active, but the grapefruit harvest slowed. The citrus harvest continued in western and central Arizona. The California navel orange harvest concluded. Wind damage occurred to some orchards in California. Jacket rot damage evident on some California almonds. Brown rot was visible on some California prunes. Apple trees bloomed in the Northeast. Excessive rain slowed apple crop development in Oregon. Rainy weather caused some pollination problems to the fruit crop in western Washington and in Oregon. Peaches are in fair to good condition across the South. Peach harvest advanced in Arizona, Texas, and California. Harvest of early peach varieties began in Georgia. The central Texas pecan crop was in above-average condition.

**VEGETABLES:** Cool weather hampered watermelon growth, and blowing sand stressed pepper plants in Texas. Persistent winds depleted soil moisture in the Trans Pecos region of Texas. Soil moisture was also low in the southern Florida vegetable-producing area. Dry conditions prevailed over all Florida vegetable production areas. Wet fields in western New York continued to delay vegetable planting there. Plantings in Oregon were also delayed by wet conditions. Vegetable condition continued mostly good across the South. The vegetable harvests advanced in Florida, Arizona, and California. California and Washington asparagus harvests advanced, though the Washington harvest was delayed at times by rain.

**PASTURE AND LIVESTOCK:** Pastures continued in good condition in most areas. Rain-soaked pastures caused problems for some Oregon producers. Muddy conditions in South Dakota also caused livestock producer problems. Florida pastures needed more moisture. Cool weather delayed pasture growth in Washington. Livestock condition remained good across most of the Nation. Continued dampness in Iowa added stress to livestock. Fire ants caused some kid goat deaths in Texas. Pasture, range, and feed supplies rated adequate.

### Crop Progress

for the Week Ending May 9, 1993

#### COTTON (Percent Planted)

	Current	Last Wk	1992	Avg.
AL	53	40	85	86
AZ	87	76	82	87
AR	21	16	56	40
CA	95	85	95	93
GA	53	35	53	40
LA	45	34	90	62
MS	22	11	82	61
MO	12	7	48	41
NM	76	61	82	87
NC	40	12	36	43
OK	6	3	15	11
SC	53	25	51	49
TN	22	6	67	47
TX	27	23	38	26
14 States	36	28	57	45

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

#### GRAIN SORGHUM (Percent Planted)

	Current	Last Wk	1992	Avg.
AR	32	23	80	54
CO	6	0	13	3
IL	0	0	13	10
KS	1	0	10	5
LA	33	23	69	64
MS	37	31	74	60
MO	3	2	32	21
NE	0	0	9	7
NM	15	9	10	NA
OK	5	3	11	6
SD	0	0	6	2
TX	67	63	69	64
12 States	28	25	37	NA
Excl. States with NA	28	25	37	32

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

#### RICE (Percent Planted)

	Current	Last Wk	1992	Avg.
AR	24	15	93	58
CA	20	3	30	31
LA	70	64	89	79
MS	24	14	89	68
TX	67	63	86	90
5 States	38	29	83	63

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

#### RICE (Percent Emerged)

	Current	Last Wk	1992	Avg.
AR	12	3	61	27
CA	1	0	2	2
LA	60	46	76	67
MS	10	5	61	44
TX	46	40	60	71
5 States	24	16	56	39

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

#### WINTER WHEAT (Percent Headed)

	Current	Last Wk	1992	Avg.
AR	69	34	90	91
CA	97	96	97	95
CO	0	0	8	4
GA	95	86	100	100
ID	0	0	0	0
IL	2	0	19	18
IN	0	0	6	10
KS	1	0	60	35
MI	0	0	0	0
MO	5	0	31	34
MT	0	0	0	0
NE	0	0	3	2
NC	60	30	86	85
OH	0	0	0	0
OK	46	18	96	74
OR	0	0	5	2
SD	0	0	0	0
TX	55	45	80	63
WA	0	0	5	2
19 States	19	12	48	36

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

#### CORN (Percent Planted)

	Current	Last Wk	1992	Avg.
CO	52	28	72	57
GA	97	96	99	97
IL	4	1	77	73
IN	10	3	54	54
IA	7	3	84	65
KS	65	25	85	70
KY	37	28	71	58
MI	5	1	15	35
MN	18	4	75	54
MO	13	10	73	67
NE	27	9	73	62
NC	76	61	89	83
OH	25	4	40	52
PA	16	3	18	24
SD	7	3	58	35
TX	87	84	91	93
WI	8	1	31	30
17 States	18	9	67	59

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

### Crop Condition (Percent)

for the Week Ending May 9, 1993

#### SOYBEANS (Percent Planted)

	Current	Last Wk	1992	Avg.
AL	12	NA	12	12
AR	5	NA	10	5
GA	7	NA	2	6
IL	0	NA	30	20
IN	3	NA	24	19
IA	0	NA	21	11
KS	1	NA	10	10
KY	2	NA	9	6
LA	4	NA	11	7
MI	3	NA	5	5
MN	3	NA	24	14
MS	4	NA	17	10
MO	0	NA	13	10
NE	0	NA	12	8
NC	8	NA	7	7
OH	5	NA	12	16
SC	5	NA	5	4
SD	0	NA	11	5
TN	0	NA	7	4
19 States	2	NA	18	12

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

#### SPRING WHEAT (Percent Planted)

	Current	Last Wk	1992	Avg.
ID	56	51	98	91
MN	80	48	62	82
MT	70	46	89	81
ND	65	36	69	68
SD	77	58	100	95
5 States	70	43	77	77

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

#### SPRING WHEAT (Percent Emerged)

	Current	Last Wk	1992	Avg.
ID	29	11	87	68
MN	24	3	31	51
MT	17	5	54	41
ND	23	2	34	30
SD	37	1	89	77
5 States	25	3	47	43

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

#### WINTER WHEAT

State	VP	P	F	G	EX
AR	0	0	38	62	0
CA	0	0	5	55	40
CO	0	4	24	56	16
GA	0	6	51	43	0
ID	1	7	22	63	7
IL	0	0	21	77	2
IN	0	1	12	73	14
KS	0	1	8	49	42
MI	5	15	30	40	10
MO	0	4	66	30	0
MT	1	3	23	50	23
NE	0	0	19	66	15
NC	0	0	30	68	2
OH	2	9	26	48	15
OK	0	0	16	84	0
OR	0	1	14	67	18
SD	0	0	14	61	25
TX	0	3	41	51	5
WA	0	0	0	100	0
19 State	0	2	20	61	17
Prev Week	0	2	20	62	16
Prev Year	5	11	41	37	6

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

## State Summaries of Weather and Agriculture

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

**ALABAMA:** Rainfall 0.05 to 3.57 in. north; none to 1.70 in. central; none to 0.58 in. south. Temperatures 1° below normal to 4° above normal north; 1 to 4° above central; 1° below normal to 3° above normal south. Lows 46 to 54° north; 47 to 56° central; 51 to 61° south. Highs 85 to 90° north; 88 to 92° central; 87 to 92° south.

Days suitable for fieldwork 4.5. Soil moisture 7% short, 66% adequate, 27% surplus. Acreage prepared 84%, 91% 1992, 87% avg. Corn planted 82%, 97% 1992, 91% avg. Sorghum planted 21%, 30% 1992, 37% avg. Peanuts planted 58%, 55% 1992, 57% avg. Wheat headed 63%, 97% 1992, 95% avg. turning color 15%, 35% 1992, 44% avg.; 3% poor, 30% fair, 67% good. Hay harvested 10%, 20% 1992, 18% avg. Pasture conditions 28% fair, 70% good, 2% excellent. Primary activities: Harvesting timber; land preparation; planting corn, cotton, peanuts, soybeans, spring vegetables; applying fertilizer; spraying fruit; marketing cattle; general care of livestock, poultry, catfish.

**ALASKA:** Railbelt-wide, daytime temperatures 2 to 9° above normal.

Days available for planting, fertilizing were 5. Fieldwork progress ranged from on schedule to 9 days ahead of normal. Small grain seeding for grain began last week. Commercial potato growers were cutting seed potatoes, have begun planting. Local hay supplies were rated as short to adequate. Livestock reportedly in mostly good to excellent shape after winter. Topsoil, subsoil moisture supplies were short for the Mat-Su Valley, adequate to the north, south.

**ARIZONA:** Sunny, windy and warm statewide. Few light showers 4th north, 6th to 7th north. Temperatures 2° below to 3° above normal. Extremes 23°; 88° higher elevations: 35°; 99° deserts.

Cotton planting active. Planted 87%, 82% 1992, 87% avg. Activities included: Irrigating, planting, pesticide applications, pest monitoring. Cotton condition good, insects light, moderate west, weeds light to moderate east, wind damage some areas. Alfalfa good to excellent. Harvest activities active west, central; moderate, eastern. Weeds light, moderate east; insect infestations light to moderate statewide; disease light. Small grains heading 99%, 98% 1992, 97% avg.; turning color 75%, 68% 1992, 70% avg. Fields in mostly good condition. Western areas vegetable harvest virtually complete; Broccoli, cabbage, carrots, mixed greens, leaf lettuce, green onions, kale, parsley, dry onions, potatoes, squash, turnips, radishes, spinach available, central. Fruit harvest limited to valencia oranges, lemons, grapefruit, peaches available both western, central areas. Tomatoes, head lettuce were harvested east.

**ARKANSAS:** Temperatures a little above normal. Scattered showers statewide first part of week, heavy rains in northwest areas latter part week. Extremes 50°; 90°. Rainfall 0.01 to 3.51 in.

Days suitable for fieldwork 4. Moderate rate of crop growth. Soil moisture supplies 59% adequate, 41% surplus. Wheat fair to good condition, needs sunshine, dry weather. Rust, septoria leaf blotch, powdery mildew diseases spotted in some wheat fields. Fruit crop good. Vegetable crop good. Corn 75% planted, 98% 1992, 91% avg. Cotton, rice, soybean, sorghum plantings continued as weather allowed. Livestock good condition. Producers feeding hay, supplies adequate. Pastures good condition.

**CALIFORNIA:** Warm, dry over the southern half of the State. Temperatures remained below 100° at all reporting stations. Precipitation confined to northern areas with some stations at the far north end of the State reporting more than an inch for the week.

Good progress field activities, open weather. Small grains maturing rapidly most areas. Lodging becoming problem some fields, high winds. Seeding higher elevation fields winding down. Rice seeding gained momentum, temperatures rose. Ground preparation, weed, water weevil treatments ongoing. Cotton planting

neared completion all areas. Warmer temperatures aided germination, emergence. New crop sugarbeets planted, hand weeded, sprayed mildew. Harvest over-wintered beets progressed. Established alfalfa treated weevils, cut hay. Corn, dry edible beans planted. Seeded fields excellent growth. Oats, winter forage cut hay, green chopped. Grape growers suckered vines, pulled leaves. Grape harvest Coachella Valley; bunches forming other areas. Late variety plums, peaches, apples thinned. Picking, early season peaches, nectarines. Wind damage some fruit orchards. Almond trees dropping nuts, jacket rot. Blight sprays applied walnuts. Coddling moth control, walnut orchards. Brown rot problems evident, prunes. Olive, kiwifruit, pomegranate bloom underway. Cherry harvest initial stages. Navel orange harvest closing. Grapefruit, lemon, avocado harvest, western Riverside County. Strawberry harvest continued, ideal growing conditions. Boysenberry bloom neared completion. Asparagus harvest slowed San Joaquin Delta, Fresno areas. Bell pepper planting continued, Merced, Stockton; harvest Coachella Valley. Broccoli harvest moderate Salinas-Watsonville, Santa Maria generally good quality. Cabbage harvest continued Fresno. Imperial County carrots harvested. Cauliflower harvest Salinas-Watsonville region moderate, fairly light Santa Maria. Variable quality both areas. Fresh market tomato harvest continued Coachella Valley, planting continued other regions. Head lettuce harvest fairly heavy Salinas-Watsonville, Santa Maria. Fresno County head lettuce harvesting complete. Harvest leaf, romaine lettuce Salinas-Watsonville fairly heavy, variable quality. Onion harvest began El Centro, Fresno. Mixed melons planted several areas. Potato harvest continued Coachella Valley, El Centro. Processing tomatoes weeded, thinned Fresno; planting continues other areas. Spinach harvested Modesto. Squash harvest increasing Visalia. Other crops harvested included: radishes, green onions, peas, turnips, celery and oriental vegetables. Lower foothill rangeland grasses matured rapidly, warmer temperatures, natural seeding. Feed plentiful well into summer. Cattle, calves doing well. Some cattle moved to summer range. Sheep grazing seed alfalfa fields, westside.

**COLORADO:** Mostly dry, windy 3rd to 4th. Rain with strong winds near the Front Range, west of the Divide on the 5th with precipitation 0.10 to 0.25 in. Thunderstorms hit the Central Plains, southeast on the 6th to 7th with up to 0.25 in. southeast. Mostly sunny on the 8th to 9th with only a few showers in the east. Temperatures near normal except in the San Luis Valley, west of the Continental Divide where temperatures were 3 to 4° below normal.

Days suitable for fieldwork 5.4. Soil moisture 3% very short, 24% short, 67% adequate, 6% surplus. Spring barley seeded 86%, 92% 1992, 90% avg.; emerged 57%, 65% 1992, 63% avg. Oats seeded 59%, 83% 1992, 84% avg. Spring wheat seeded 40%, 64% 1992, 70% avg.; emerged 23%, 27% 1992, 36% avg. Sugarbeets planted 97%, 97% 1992, 97% avg. Dry onions planted 84%, 95% 1992, 86% avg. Dry onions condition rated 11% fair, 80% good, 9% excellent. Corn planted 52%, 72% 1992, 57% avg.; 6% emerged, 25% 1992, 8% avg. Sorghum planted 6%, 13% 1992, 3% avg. Summer potatoes are 78% planted, Fall potatoes are 33% planted. Winter wheat jointed 56%, 81% 1992, 62% avg.; 4% poor, 24% fair, 56% good, 16% excellent. Livestock mostly good to excellent. Pasture, range feed condition good.

**FLORIDA:** Temperatures near normal to 2° warmer than normal. Highs; upper 80s to low 90s, except mid 80s immediate Atlantic Coast. Lows; low to mid 50s northwest, to low 70s lower southeast coast. Mostly dry, showers, thunderstorms widely scattered. Rain 0.25 in. or less, isolated totals exceeding 0.50 in, Peninsula.

Soil moisture short to adequate throughout State. Peanut planting winding down. Dry soil delaying cotton, peanut planting. Farmers making preparation for small grain harvest. Corn, tobacco responded favorably to warm weather, both crops recovering from freeze on

April 23rd. Sugarcane made good progress. Citrus trees very good condition. Rain needed, irrigation most areas. Bloom complete most trees. Valencia harvest active. Grapefruit movement slowing as supplies are short. Caretakers cutting cover crops, post bloom spraying, hedging, topping. Dry spell continued in major vegetable production areas. Isolated central locations received over 1.00 in. rain. Soil moisture low south. Season winding down for many crops in southern production areas. Most production coming from central, north. Volume leaders: Tomatoes, potatoes, cucumbers, peppers, cabbage. Also available: Snap beans, carrots, celery, chinese cabbage, sweet corn, eggplant, escarole, romaine lettuce, specialty lettuces, radishes, squash, cherry tomatoes. State's pastures poor to good. Pasture 15% poor, 50% fair, 35% good. State's cattle herds fair to good condition.

**GEORGIA:** Rain on 1 to 2 days. Rainfall 1.00 to 2.00 in. northern third, generally under 0.50 in. central, south. Temperatures 1 to 4° above normal. Extreme highs from lower 80s higher mountains, to lower 90s south. Lows middle to upper 40s mountains, to middle 50s central, south, except for 60s coast.

Days suitable for fieldwork 5.5. Soil moisture 6% very short, 31% short, 58% adequate, 5% surplus. Corn 37% fair, 61% good, 2% excellent; planting nearly finished, warm temperatures improved growth. Cotton 31% fair, 69% good; planting at 1992 pace. Sorghum 18% fair, 82% good; 33% planted, 27% 1992, 26% avg. Peanuts 23% fair, 77% good; 65% planted, 54% 1992, 51% avg.; needing rain for adequate germination. Tobacco 16% poor, 35% fair, 46% good, 3% excellent; 100% transplanted, 100% 1992, 100% avg.; tomato spotted wilt virus showing up few fields. Wheat 6% poor, 51% fair, 43% good; Needing rain. Other small grains 4% poor, 61% fair, 35% good. Onions 6% fair, 94% good; 27% harvested, 60% 1992, 67% avg. Watermelons 14% poor, 51% fair, 35% good; 97% planted, 95% 1992, 95% avg. Other vegetables 5% poor, 46% fair, 47% good, 2% excellent. Apples 5% fair, 95% good; 98% blooming, 100% 1992, 100% avg. Peaches 8% poor, 2% fair, 77% good, 13% excellent; 0% harvested, 4% 1992, 7% avg. Few early season peaches harvested. Pasture 1% very poor, 1% poor, 24% fair, 72% good, 2% excellent. Cattle, hogs good.

**HAWAII:** Weather seasonally warmer with passing showers, gusty trade winds. A high pressure weather system generated gusty winds as week progressed. Temperatures mid 60s to mid 80s. Rainfall none to 2.60 in.

Growers continued irrigation, spraying efforts to maintain normal crop progress. Prevailing dry weather in some areas was adversely affecting crops. Banana production steady near last week's level, papaya output seasonally low, watermelon harvesting increasing.

**IDAHO:** Temperatures 7° below normal to 4° above normal throughout State. Precipitation across most of the State, with some areas of the north, east receiving more than 2.00 in.

Days suitable for fieldwork 3. Soil moisture 0% very short, 5% short, 68% adequate, 27% surplus. Spring barley planted 51%, 97% 1992, 89% avg.; emerged 25%, 81% 1992, 65% avg. Oats planted 38%, 88% 1992, 77% avg.; emerged 14%, 74% 1992, 48% avg. Potatoes planted 32%, 75% 1992, 60% avg. Sugarbeets planted 95%, 100% 1992, 99% avg.; emerged 26%, 85% 1992, 74% avg. Onions planted 99%, 100% 1992, 99% avg.; emerged 9%, 100% 1992, 95% avg. Dry peas planted 5%, 96% 1992, 86% avg.; emerged 2%, 76% 1992, 43% avg. Lentils planted 1%, 94% 1992, 78% avg. Field corn planted 13%, 44% 1992, 42% avg. Irrigation water supplies 3% poor, 17% fair, 65% good, 15% excellent. Hay, roughage supplies 8% very short, 20% short, 72% adequate. Activities: Land preparation, planting of corn, beets, potatoes, grain. Part of the State preparing for and beginning the irrigation season, while other regions still waiting for fields to dry so they can begin spring fieldwork. Pasture, range condition 93% of normal. Livestock mostly good condition.

**ILLINOIS:** Continued wet conditions, with occasional sunshine, as temperatures rose to unseasonably mild levels, precipitation 0.10 to 1.20 in. Highs mid 70s to near 80°. Lows mid 50s to low 60s.

Days suitable for fieldwork 1.0. Soil moisture 10% adequate, 90% surplus. Oats planted 44%, 95% 1992, 97% avg. Alfalfa 9% excellent, 71% good, 17% fair, 3% poor. Fieldwork progressed some as farmers applied fertilizers, seeded oats, planted some corn, tended livestock. Pasture condition 93% of normal.

**INDIANA:** Temperatures 5 to 10° above normal. Highs middle to upper 70s. Mean lows were in the middle to upper 50s. Rainfall averaged 0.20 to 0.60 in.

Warm weather late in the week helped farmers to start planting at a more serious rate. Pastures are rated 93% of normal, 89% last week. Wheat crop ratings good with 87% of the ratings in good to excellent category. Topsoil 35% adequate, 65% surplus. Subsoil moisture 37% adequate, 63% surplus. Oats seeded 55%, 91% 92, 90% avg. Spring tillage 52%, 89% 92, 88% avg. Tobacco beds seeded 88%, 100% 92.

**IOWA:** Temperatures 5 to 10° above normal. Extremes 34°, 87°. Precipitation 0.27 in. east central to 4.64 in. southwest; average 1.99 in. (normal 0.73 in.). Widespread flooding along major rivers statewide.

Days suitable for fieldwork 0.9. Topsoil 9% adequate, 91% surplus. Subsoil 12% adequate, 88% surplus. Fertilizer application 40%, 92% 1992, 91% normal. Primary seedbed preparation completed 35%, 91% 1992, 91% normal. Oats sown 45%, 98% 1992, 98% normal; emerged 20%, 89% 1992, 89% normal. Corn emerged 1%, 20% 1992, 15% normal. Winter wheat condition 5% poor, 30% fair, 61% good, 4% excellent. Pasture condition 5% poor, 34% fair, 47% good, 14% excellent. Hay condition 4% very poor, 11% poor, 38% fair, 41% good, 6% excellent. General health problems for livestock brought on by wet conditions.

**KANSAS:** Temperatures mostly 1 to 4° above normal over the State. Precipitation received all districts. Heaviest fell in central, eastern districts.

Days suitable for fieldwork 2.5. Western districts experienced 4 to 5 days suitable. Rain slowed fieldwork the past week in the central, eastern districts. In eastern half of the State, significant rains late in the week on saturated soils caused flooding in some areas. For State, topsoil moisture 4% short, 46% adequate, 50% surplus. Subsurface moisture 3% short, 60% adequate, 37% surplus. Corn planting is 65% complete, 70% avg. Western districts made good progress planting corn. Only 1% of the soybean, sorghum acreage planted thus far. Wheat 1% poor, 8% fair, 91% good to excellent. Warmer weather this week helped wheat growth, progress still behind normal. Eighty percent of State's wheat acreage jointed compared to 95% avg. Diseases pressure in wheat is widespread. Infestations have been light but are becoming more severe. Because wet conditions, potential for foliar diseases is great. Cattle mostly already moved to pasture. Pastures are in good condition. Activities are seedbed tillage, corn planting as weather allows.

**KENTUCKY:** Unseasonably warm. Daytime highs 80s, lows 60s, 10° above normal. Rainfall well above average west, below normal central, east. Average in excess of 2.00 in. west, more than 1.00 in. above the means. Central, east 0.50 in. below normal.

Days suitable for fieldwork 3.2. Soil moisture 29% surplus, 71% adequate. Wheat 33% headed, 69% 1992, 65% avg.; 1% very poor, 4% poor, 20% fair, 65% good, 10% excellent. Emerged corn 26% of planted corn, 48% 1992, 39% avg. Emerged corn condition 1% poor, 33% fair, 61% good, 5% excellent. Tobacco plants 8% greater than 4 inches, 27% 2 to 4 inches, 65% less than 2 inches. Burley 3% set, 6% 1992, 4% avg. Dark tobacco 3% set. Alfalfa harvest beginning. Hay crop 2% poor, 15% fair, 70% good, 13% excellent. Pastures continues to be rated good to mostly excellent.

**LOUISIANA:** Temperatures 2.0° below to 0.5° above normal. Extremes 49°, 89°. Rainfall none north central to 0.85 in. southwest.

Days suitable for fieldwork 3.5. Soil moisture 2% short, 59% adequate, 39% surplus. Corn 3% very poor, 15% poor, 51% fair, 31% good; 97% planted, 100% 1992, 99% avg.; 94% emerged, 99% 1992, 96% avg. Planting virtually complete. Cotton 25% emerged, 69% 1992, 45% avg. Planting in full swing. Hay 16% first cutting, 17%

1992, 16% avg. Harvesting rye grass, other hay, rye grass haylage was made. Rice 13% poor, 87% fair. Planting made good progress. Sorghum 33% planted, 69% 1992, 64% avg.; 26% emerged, 54% 1992, 50% avg. Sorghum looking good. Soybeans 1% emerged, 6% 1992, 3% avg. Some early bean planting was active. Spring plowing 87% plowed, 93% 1992, 88% avg. Sweet potatoes 11% planted, 8% 1992, 11% avg. Wheat 5% very poor, 34% poor, 52% fair, 9% good; 91% headed, 99% 1992, 98% avg.; 37% turning color, 59% 1992, 60% avg.; 0% harvested, 4% 1992, 1% avg. Sugarcane 2% poor, 32% fair, 56% good, 10% excellent. Farmers were busy, fieldwork was peaking. Livestock 2% poor, 29% fair, 62% good, 7% excellent. Pastures 3% very poor, 1% poor, 7% fair, 85% good, 4% excellent. Vegetables 6% poor, 55% fair, 39% good.

**MARYLAND & DELAWARE:** **MARYLAND:** Precipitation 0.76 in. Temperature 66.1°, normal 61.0°. Extremes 36°; 85°.

Days suitable for fieldwork 5.6. Topsoil moisture, 4% short, 83% adequate, 13% surplus. Subsoil moisture 73% adequate, 27% surplus. Small grains fair to mostly good, barley headed 63%, 85% 1992, 79% avg.; rye 45% headed, 75% 1992, 79% avg.; wheat headed 20%, 16% 1992, oats just beginning to head. Light pest problems, powdery mildew, cereal leaf beetle. Field corn 38% planted, 59% 1992, 46% avg. Sweet corn 48% planted, 32% 1992, 34% avg. Soybeans planted 4%, 2% 1992, 2% normal. Pasture mostly excellent condition, small amount of hay cut. Potatoes, green peas planting virtually complete. Vegetable, melon planting active. Apple bloom 76%, 77% 1992, 90% avg.; strawberries 56% blooming, 64% 1992, 78% avg.

**DELAWARE:** Precipitation 0.24 in. Temperature 63.9°, normal 61.3°. Extremes 44°; 82°.

Days suitable for fieldwork 5.3. Topsoil moisture adequate; subsoil moisture 17% adequate, 83% surplus. Small grains fair to mostly good condition, light infestation of powdery mildew, leaf spot. Barley 42% headed, 48% 1992, 52% avg.; rye 28% headed, 36% 1992, 51% avg.; wheat just beginning. Corn for grain 25% seeded, 60% 1992, 37% avg. Sweet corn 34% planted, 38% 1992, 35% avg. Potatoes 4/5 planted, green peas 2/3 planted. Apples 46% blooming, 72% 1992, 83% avg.; strawberries 26% blooming, 47% 1992, 55% avg. Pastures, livestock excellent condition, hay-making just beginning.

**MICHIGAN:** Extremes 36°; 89°. Precipitation none to 2.32 in.

Days suitable for fieldwork 4. Soil moisture 20% adequate, 80% surplus. Oats 30% planted, 50% 1992, 75% avg. Barley 20% planted, 40% 1992, 65% avg. Potatoes 15% planted, 30% 1992, 35% avg. Sugarbeets 10% planted, 75% 1992, 80% avg. Pasture condition 80% of normal. Major activities: Hauling manure, spraying weeds, spreading fertilizer, tilling, planting.

**MINNESOTA:** Temperatures 5 to 14° above normal. Extremes 26°; 85°. Precipitation 0.08 to 0.32 in. below normal northern third; above normal elsewhere. Greatest weekly precipitation was 5.36 in.

Days suitable for fieldwork 3.0. Topsoil 1% very short, 3% short, 45% adequate, 51% surplus. Spring wheat 80% planted 62% 1992, 82% avg.; 24% emerged, 31% 1992, 51% avg. Oats 59% seeded, 87% 1992, 87% avg.; 22% emerged, 44% 1992, 57% avg. Barley 75% seeded, 58% 1992, 75% avg.; 27% emerged, 26% 1992, 32% avg. Sunflowers 16% planted, 7% 1992, 12% avg. Sugarbeets 82% planted, 72% 1992, 75% avg. Potatoes 33% planted, 34% 1992, 31% avg. Flax 13% planted, 4% 1992, 12% avg. Dry beans 5% planted, 7% 1992, 8% avg. Sweet corn 4% planted, 33% 1992, 25% avg. Green peas 19% planted, 74% 1992, 64% avg. Corn land prepared 35%, 66% 1992, 74% avg.; 18% planted, 75% 1992, 54% avg. Soybeans 12% land prepared, 50% 1992, 36% avg.; 3% planted, 24% 1992, 14% avg.

**MISSISSIPPI:** Temperature 70°, 1.7 above normal. Extremes 45°; 91°. Northeast, northwest areas received above average rainfall; rest of the State received little or no rainfall. Rainfall 0.58 in., 0.64 in. below normal. Soil temperature 72°.

Days suitable for fieldwork 3.3, 6.6 1992, 4.2 avg. Soil moisture 58% adequate, 29% surplus, 13% excessive. Corn 69% planted,

96% 1992, 84% avg.; 50% emerged, 89% 1992, 74% avg.; 22% poor, 63% fair, 15% good. Cotton 22% planted, 82% 1992, 61% avg.; 8% emerged, 54% 1992, 42% avg. Peanuts 10% planted, 40% 1992, 36% avg. Rice 24% planted, 89% 1992, 68% avg.; 10% emerged, 61% 1992, 44% avg.; 36% poor, 64% fair. Sorghum 37% planted, 74% 1992, 60% avg.; 28% emerged, 62% 1992, 45% avg.; 28% poor, 52% fair, 20% good. Soybeans 4% planted, 17% 1992, 10% avg.; 1% emerged, 10% 1992, 5% avg. Sweet potatoes 3% planted, 30% 1992, 28% avg. Watermelons 69% planted, 82% 1992, 81% avg.; 56% fair, 44% good. Wheat 99% jointing, 100% 1992, 100% avg.; 77% heading, 98% 1992, 98% avg.; 2% mature, 9% 1992, 14% avg.; 9% poor, 81% fair, 10% good. Hay 5% harvested, 0% 1992, 8% avg. Peaches 3% very poor, 17% poor, 23% fair, 57% good. Livestock 1% fair, 85% good, 15% excellent. Pasture 93% of normal.

**MISSOURI:** Temperatures 3 to 8° above normal. Rainfall averaged 1.79 in., varying from 1.00 in. east central, south central, southeast, to 3.00 in. northwestern district. Many rivers at flood stage.

Days suitable for fieldwork 1.3. Topsoil 22% adequate, 78% surplus. Ground worked once for spring crops 42%, 88% 1992, 86% avg. Corn planting ranges 4% or less north central, northeastern, west central, east central districts to 50% southeast. Sorghum planting not begun except southern counties. Wheat heading 11 days behind normal, wet weather causing yellowing in low areas, disease showing up in a few fields. Alfalfa first cutting 1%, 7% 1992, 6% avg. Pastures 2% poor, 23% fair, 59% good, 16% excellent.

**MONTANA:** Temperatures slightly below normal west, northwest. Slightly above normal elsewhere, except 7° above normal extreme east. Precipitation most areas. Several locations more than 1.00 in.

Days suitable for fieldwork 4.0. Topsoil moisture 18% short, 58% adequate, 24% surplus. Subsoil moisture 28% short, 60% adequate, 12% surplus. Barley planted 66%, 88% 1992, 78% avg.; emerged 15%, 52% 1992, 40% avg. Oats planted 52%, 82% 1992, 71% avg.; emerged 9%, 39% 1992, 30% avg. Sugarbeets planted 84%, 94% 1992, 91% avg.; emerged 31%, 31% 1992, N.A. avg. Corn planted 42%, 70% 1992, 47% avg.; emerged 0%, 27% 1992, N.A. avg. Dry beans planted 21%, 20% 1992, 19% avg. Potatoes planted 10%, 56% 1992, 24% avg.; emerged 1%, 18% 1992, N.A. avg. Pasture, range feed condition is rated at 86% of normal. Calving 94% complete, lambing 90% complete.

**NEBRASKA:** Temperatures 3° above normal. Precipitation last half of week varied from 0.30 in. west to 2.20 in. central.

Days suitable for fieldwork 4.0. Topsoil moisture 3% short, 52% adequate, 45% surplus. Subsoil moisture 77% adequate, 23% surplus. Winter wheat 19% fair, 66% good, 15% excellent; 46% jointed, 87% 1992, 70% avg. Corn 27% planted, 73% 1992, 62% avg. Oats 92% sown, 100% 1992, 99% avg. Sugarbeet planting near complete. Alfalfa 7% fair, 70% good, 23% excellent. Pasture, range condition 99% of normal.

**NEVADA:** Gusty winds in excess of 80 mph in the west midweek. Rainfall totals light; temperatures nearly normal. Extremes 18°; 93°.

Spring wheat 85% planted, 85% 1992, 70% avg.; oats 60% planted, 85% 1992, 65% avg.; barley 65% planted, 90% 1992, 70% avg.; potatoes 35% planted, 90% 1992, 50% avg. Irrigation water supplies 70% adequate, 30% surplus. Small grains, alfalfa hay mostly good. Pasture, range condition mostly good. Calving, lambing, shearing about complete.

**NEW ENGLAND:** Precipitation 0.01 to 0.48 in. north; none to 0.40 in. south. Temperatures 54 to 60° north; 57 to 64° south. Maxima 73 to 86° for region. Minima 24 to 42° north; 36 to 48° south.

Days suitable for fieldwork 6.6. Soil moisture 12% short, 55% adequate, 33% surplus. Available grazing 0% very short, 35% short, 55% adequate, 10% surplus. Fieldwork progress 5 days behind schedule. Maine potatoes less than 5% planted, 2% 1992, 3% avg. Connecticut River Valley potatoes 30% planted, 33% 1992, 41% avg.; good. Rhode Island potatoes 5% planted, 30% 1992, 40% avg. Maine oats 5% planted, 4% 1992, 14% avg. Field corn 10% planted, 7% 1992, 13% avg.; good. Sweet corn 20% planted, 10% 1992, 15% avg.;

fair. Hay in good condition. Apple, pears, peaches bud to early bloom. Blueberries, strawberries bud stage. Major farm activities: Plowing, fertilizing, spreading manure on fields. Seeding potatoes, field corn, sweet corn has begun. Oil sprays applied to fruit trees.

**NEW JERSEY:** Temperatures above normal. Extremes 40°; 86°. Rainfall 0.19 in. north, 0.33 in. central, 0.14 in. south. Heaviest 24 hour total 0.49 in. on 5th, 6th. Estimated soil moisture, in percent field capacity, averaged 83% north, 79% central, 68% south. Four inch soil temperatures averaged 60° north, 59° central, 60° south.

Field preparation, planting continued very active. Ground preparation 7 to 10 days behind due to excessive topsoil moisture, rains. Soil moisture content good. Harvest of asparagus, spring spinach. Planting of spring cabbage, escarole, endive, snap beans, potatoes, sweet corn very active. Peaches shuck split. Apples, blueberries in full bloom. Strawberries also in bloom. Fruit set good, no apparent frost damage reported. Limited fresh market tomatoes being transplanted.

**NEW MEXICO:** Temperatures a few degrees below normal northwest, a few degrees above normal southeast, near normal elsewhere. Most of the precipitation fell over the north with heaviest totals over 1.00 in. northeast. South reported no measurable rain.

Days suitable for fieldwork 6.6. Soil moisture 77% short, 23% adequate. Reports of light to moderate wind damage to emerging crops. Light frost damage on fruit in higher elevations. Crop conditions: Alfalfa 11% poor, 30% fair 59% good; first cutting continues. Cotton 8% poor, 33% fair, 59% good. Irrigated wheat 24% fair, 76% good. Dryland wheat 6% very poor, 25% poor, 57% fair, 12% good. Wheat crop 87% headed. Chile 42% fair, 50% good, 8% excellent. Onions 25% fair, 75% good. Lettuce good to excellent; harvest continues. Cattle, sheep fair to good. Range, pasture 74% of normal.

**NEW YORK:** Dry with warm days, cool nights. A bout of rain at midweek left above 1.00 in. across the north, 0.50 in. in west, less than 0.25 in. southeast. Widely scattered frost on 7th, some locations had temperatures in 30s. Extremes 31°; 84°.

Days suitable for fieldwork 4.3. Soil moisture adequate to surplus. Pasture condition 85% of normal. Hay fair to good condition. Alfalfa growth excellent. Wheat fair to good condition. Corn, oat planting picking up momentum as fields dry. Corn 10% planted, 9% 1992, 12% avg. Overwintered corn being harvested where possible. Oats 25% planted, 45% 1992, 53% avg. Potato planting active. Hudson Valley apples 90 % in full bloom. One-half of peaches progressed to petal fall, 30% of pears in petal fall stage. Very heavy bloom on sweet cherries, 10% in petal fall. Good bloom on tart cherries, 5% in petal fall. Grapes in Finger Lakes area show winter injury caused by sub-zero temperatures in February, March. Oswego County onions 20% planted. Lettuce, sweet corn planting active. Orange County onion planting, lettuce planting well underway. Wetness in western areas continued to delay vegetable planting.

**NORTH CAROLINA:** Temperatures 3 to 6° above normal. Precipitation 5.74 in. at Tryon to a trace at Cape Hatteras and Cherry Point Marine Corps Air Station.

Days suitable for fieldwork 4.9. Soil moisture 2% very short, 4% short, 83% adequate, 11% surplus. Crop condition: Pasture 2% poor, 20% fair, 74% good, 4% excellent. Winter wheat 30% fair, 68% good, 2% excellent. Oats 28% fair, 70% good, 2% excellent. Barley 24% fair, 76% good. Rye 23% fair, 75% good, 2% excellent. Tobacco plant beds 40% fair, 60% good. Irish potatoes 11% poor, 22% fair, 67% good. Peaches 5% poor, 22% fair, 67% good, 6% excellent. Truck crops 5% poor, 48% fair, 47% good. Hay, roughage supplies 16% short, 82% adequate, 2% surplus. Tobacco plant bed supply 5% very short, 31% short, 64% adequate. Corn planted 76%, 89% 1992, 83% avg. Flue-cured tobacco transplanted 50%, 75% 1992, 62% avg. Cotton planted 40%, 36% 1992, 43% avg. Peanuts planted 22%, 28% 1992, 23% avg. Sorghum planted 15%, 27% 1992, 26% avg. Soybeans Planted 8%, 7% 1992, 7% avg. Sweet potatoes transplanted 8%, 19% 1992, 15% avg. Activities: Transplanting tobacco plants; planting corn, cotton, planting

peanuts, soybeans, sorghum; transplanting sweet potatoes; land preparation; tending livestock; general farm maintenance.

**NORTH DAKOTA:** Warm, dry conditions early in week gave way to a moist pattern. Temperatures 4° above normal southwest to 9° above normal northeast. Extremes 23° southeast; 85° northeast. Precipitation 0.46 in. northeast to 1.08 in. central.

Days suitable for fieldwork 4.3. Topsoil moisture shifted from adequate to surplus in some areas. Topsoil 2% very short, 2% short, 89% adequate, 7% surplus. Subsoil 9% very short, 36% short, 53% adequate, 2% surplus. Small grains emerging, at rate slower than average. Hard red spring wheat 65% planted, 23% emerged and beyond; 69%, 34% 1992; 68%, 30% avg.; durum wheat 37% planted, 9% emerged and beyond; 41%, 10% 1992; 46%, 12% avg.; barley 70% planted, 21% emerged and beyond; 64%, 31% 1992, 68%, 30% avg.; oats 63% planted, 18% emerged and beyond; 71%, 37% 1992, 64%, 28% avg. Winter wheat 2% jointing and beyond; condition none very poor or poor, 21% fair, 77% good, 2% excellent. Sugarbeets 95% planted, 77% 1992, 82% avg.; corn 16%, 32% 1992, 21% avg; flax 12%, 12% 1992, 11% avg.; potatoes 24%, 10% 1992, 17% avg.; soybeans 3%, 11% 1992, 5% avg.; dry beans 2%; 2% 1992, 2% avg.; sunflower 1%, 1% 1992, 1% avg. Roughage requirements furnished by pastures 47%; pasture condition 81% of normal. Calving 95% complete, lambing 97%, shearing 98%. Stockwater supplies 1% very short, 5% short, 92% adequate, 2% surplus.

**OHIO:** Summertime weather arrived as high pressure set up over the eastern U.S. Temperatures 6 to 10° above normal. Highs middle to upper 70s. Low 40s northeast to 50s elsewhere. Highs middle to upper 80s on 9th. Precipitation fell during the first half of the week. Weekly totals 0.10 to 0.75 in. A few spotty thunderstorms developed over the southwest 9th in the warm, humid air.

Days suitable for fieldwork 4.6. Topsoil 58% adequate, 42% surplus. Oats planted 60%, 88% 1992, 90% avg.; emerged 20%, 32% 1992, 44% avg. Wheat jointed 35%, 44% 1992, 45% avg. Pasture 2% very poor, 3% poor, 24% fair, 57% good, 14% excellent. Hay 4% poor, 26% fair, 58% good, 12% excellent. Apple trees are blooming across the State. Warmer, dry weather of the week allowed farmers to start planting in a more widespread manner.

**OKLAHOMA:** Temperatures 1° below normal north central to 4° above normal Panhandle, southeast. Precipitation 0.83 in. Panhandle to 6.11 in. central.

Days suitable for fieldwork 3.3. Topsoil moisture 4% short, 23% adequate, 73% surplus. Subsoil moisture 100% adequate. Wheat 16% fair, 84% good; 98% jointing, 100% 1992, 100% avg.; 46% heading, 96% 1992, 74% avg. Oats 45% jointing, 100% 1992, 100% avg.; 14% heading, 68% 1992, 60% avg. Barley 35% jointing, 100% 1992, 100% avg.; 6% heading, 66% 1992, 47% avg. Corn 96% seedbed prepared, 100% 1992, 98% avg.; 92% planted, 90% 1992, 89% avg.; 65% up-to-stand, 65% 1992, 56% avg. Sorghum 35% seedbed prepared, 59% 1992, 62% avg.; 5% planted, 11% 1992, 6% avg.; 1% up-to-stand, 4% 1992, 2% avg. Soybeans 46% seedbed prepared, 78% 1992, 69% avg.; 17% planted, 12% 1992, 15% avg.; 7% up-to-stand, 2% 1992, 2% avg. Peanuts 71% seedbed prepared, 83% 1992, 71% avg.; 11% planted, 24% 1992, 6% avg. Cotton 77% seedbed prepared, 78% 1992, 76% avg.; 6% planted, 15% 1992, 11% avg.; 2% up-to-stand, 3% 1992, 5% avg. Alfalfa 13% 1st cut, 37% 1992, 27% avg. Pastures 97% of normal. Livestock 18% fair, 81% good, 1% excellent. Prices for feeder steers, heifers mixed. Marketings average.

**OREGON:** Temperatures slightly below normal. Precipitation 3.10 in. high plateau, 2.50 in. coast, north Cascades; 1.00 to 1.30 in. western region; less than 1.00 in. Cascades and east. Astoria, Eugene broke daily precipitation records with 0.86 in. each. Six to 10 in. snow in Cascades. Severe thunderstorms, wind, hail, central, extreme east. Wind gusts to 74 mph at Burns. Flooding on Umatilla River, McKay Creek.

Soil moisture mostly adequate to surplus, statewide. Most areas of State still too wet for substantial field work. Rainy weather has caused some disease in winter wheat crop; continued to slow tree fruit development, inhibit pollination in fruit growing district. Pears in

petal bloom lower Hood River Valley, king bloom mid-valley; cherry bloom started, Union County; apples past full bloom, Hermiston; first cover sprays for pear scab, firebright, Jackson County; strawberry bloom advancing, degree-day accumulation for hazelnut worm and cherry fruit fly 3 to 5 days behind average., Willamette Valley. Cranberry development at hook stage Stevens beds, early shoot growth McFarlin beds, on southern coast. Vegetable crop plantings behind schedule, several missed, Lane County, Umatilla County, continuing rest of State. Most onion, potato plantings complete except Klamath County. First potato plantings nearing lay by, asparagus harvest in full swing, Hermiston area. Livestock good, some pastures water logged, grass slow; most stock on spring ranges; some counties still branding; AI programs winding down, feed lot conditions improved, Pendleton.

**PENNSYLVANIA:** Above normal temperatures, below normal precipitation. First good week of the season for fieldwork. Temperature extremes 35°; 85°. Precipitation 0.56 in., 0.26 in. below normal.

Days suitable for fieldwork 4. Soil moisture 47% adequate, 53% surplus. Plowing 45% complete, 71% 1992, 75% avg. Corn 16% planted, 18% 1992, 24% avg. Soybeans 2% planted, 3% 1992, 3% avg. Oats 59% planted, 75% 1992, 82% avg. Potatoes 17% planted, 35% 1992, 49% avg. Barley 22% boot, 32% 1992, 36% avg.; 9% heading or headed, 12% 1992, 15% avg. Wheat 11% boot, 15% 1992, 17% avg.; condition 3% very poor, 2% poor, 20% fair, 55% good, 20% excellent. Oats crop condition 4% very poor, 6% poor, 32% fair, 50% good, 8% excellent. Hay stands mostly fair to good. Feed from pastures good to excellent. Peaches 80% pink, 75% 1992, 80% avg.; 56% full bloom or past, 53% 1992, 66% avg. Cherries 86% pink, 74% 1992, 82% avg.; 60% full bloom or past, 57% 1992, 67% avg. Apples 69% pink, 54% 1992, 70% avg.; 34% full bloom or past, 25% 1992, 46% avg. Activities: Hauling manure; plowing, seedbed preparation; planting of oats, corn, potatoes; pruning, spraying fruit trees, caring for livestock.

**PUERTO RICO:** Island rainfall of 2.29 in. was 0.78 in. above normal. Highest rainfall 7.33 in. at Jayula and 6.59 in. at Mayaguez. Highest 24-hour total was 2.97 in. at Negro-Corozal on May 2. Temperatures averaged 79° on the coasts and 72 to 74° in the interior with mean station temperatures ranging from 64.1° at Pico del Este--Luquillo to 82.1°F at Roosevelt Roads. Extremes 56°, 92°.

**SOUTH CAROLINA:** Temperatures across the State 3 to 5° above normal. Average precipitation 0.80 in.

Days suitable for fieldwork 5.7. Soil moisture 4% very short, 61% short, 35% adequate. Tobacco fair to good; 93% planted, 97% 1992, 99% avg. Corn fair to good; 98% planted, 100% 1992, 97% avg. Cantaloupes fair to good; 80% planted, 82% 1992, 80% avg. Watermelons fair to good; 85% planted, 88% 1992, 87% avg. Cucumbers fair to good; 86% planted, 83% 1992, 83% avg. Snapbeans good; 67% planted, 68% 1992, 67% avg. Tomatoes fair to good. Oats fair to good; 85% headed, 90% 1992, 93% avg.; 16% turning color, 29% 1992, 29% avg. Rye fair to good; 18% turning color, 37% 1992, 33% avg. Wheat fair to good; 78% headed, 89% 1992, 95% avg. Grain Hay fair to good; 37% harvested, 37% 1992, 38% avg. Peaches fair to good. Pastures fair to good.

**SOUTH DAKOTA:** Temperatures near normal to 8° below normal. Extremes 21°; 84°. Precipitation was widespread with amounts ranging from 0.43 to 4.79 in. Maximum 4.79 in.

Days suitable for fieldwork 2.7. Topsoil moisture 2% short, 40% adequate, 58% surplus. Subsoil moisture 1% very short, 4% short, 64% adequate, 31% surplus. Rye 7% fair, 79% good, 14% excellent. Barley 66% planted, 99% 1992, 92% avg. Oats 59% planted, 100% 1992, 95% avg. Flax 7% planted, 55% 1992, 38% avg. Rain, late in the week, across most of the State, brought most fieldwork to a stand still last week. Small grains continue to do well but need warmer weather. Livestock 3% fair, 85% good, 12% excellent. Muddy feedlot conditions returned with the wet weather. Lambing was 88% complete, calving was 87% complete. Pasture conditions 88% of normal.

**TENNESSEE:** Temperatures 2° above normal east to as much as 10° above west. Highest temperature 90° at Memphis on the 8th, lowest was 49° at Crossville on the 5th. Rainfall 0.33 in. below normal in east to 0.75 to 1.00 in. below normal in west.

Days suitable for fieldwork 3.4. Soil moisture 72% adequate, 28% surplus. Corn 72% planted, 86% 1992, 64% avg. Cotton 22% planted, 67% 1992, 47% avg. Sorghum 10% planted, 48% 1992, 25% avg. Soybeans 0% planted, 7% 1992, 4% avg. Tobacco 98% plants up, 100% 1992, 100% avg.; 6% transplanted, 12% 1992, 8% avg. Wheat 98% jointed, 97% 1992, 98% avg.; 57% headed, 82% 1992, 79% avg.; 1% poor, 11% fair, 73% good, 15% excellent. Apples 99% blooming or beyond, 100% 1992, 100% avg. Alfalfa 1% poor, 18% fair, 75% good, 6% excellent. Pastures 1% poor, 6% fair, 78% good, 15% excellent. Cattle 1% poor, 7% fair, 86% good, 6% excellent. Most progress took place on the 8th to 9th. Tobacco transplanting expected to be very active this week now that most float plants are ready. First cutting of hay crop also started on the 8th to 9th.

**TEXAS:** A warm, very moist air mass blanketed State during first of week. Upper air disturbances triggered heavy rain over South Central, Southeastern counties midweek with some flooding problems reported. Over weekend, cold front brought thunderstorms to north and east with heavy rains occurring in various locations. Temperatures slightly above normal. Rainfall varied from zero Trans-Pecos, to over 2.00 in. above normal South Central district.

**Crops:** Corn planting remained active High Plains, where emerged fields looked good. Blacklands, crop under stress due excessive moisture, deficiencies of Nitrogen. Some Upper Coast corn broken to ground from high winds. Statewide corn condition 84% normal, 89% 1992. Sorghum planting continued High Plains. Low Plains producers needed warmer temperatures to promote growth. Statewide sorghum condition 73% normal, 84% 1992. Cotton planting continued to expand High Plains, more moisture needed for dryland planting. Warmer temperatures were needed across state to help prevent seedling disease. Blacklands, high numbers of weevils caught in scout traps, farmers preparing to spray. Dry weather needed to help crop. Trans-Pecos fields being irrigated. Rice planting experienced another week of interruptions because wet conditions, some planting continued Upper Coast. Soybean planting continued Blacklands and Upper Coast, progress hampered by weather conditions. Small grains continued mature. High Plains irrigated wheat looked good, dryland wheat in need of moisture. Leaf rust continued show up some fields Blacklands. Some fields Low Plains heavily damaged due scattered hail storms, a few were total loss. Statewide wheat condition 77% normal, 84% 1992. Peanut planting continued where conditions allowed, sunshine, warmer temperatures needed to warm up soil, promote growth.

**Commercial Vegetables:** Rio Grande Valley, watermelons doing well, some irrigated fields being harvested. San Antonio-Winter Garden, cantaloupes, cucumbers made excellent progress. Watermelon vines spreading, started blooming. East Texas, planting of vegetables continued. Strawberries good condition. Cool weather hampered watermelon growth. High Plains, thrip evident some onion fields, crop doing well. Onion irrigation main activity. Producers preparing to plant jalapeno peppers next two weeks. Potatoes made good progress. Trans Pecos, persistent winds depleted soil moisture. Blowing sand continued to stress pepper plants. Cabbage fields treated for Diamondback moths & loopers. Onions progressing well, some early varieties harvested. Peach harvesting continued South Texas. Leaf curl still a problem Cross Timbers. Limited spraying underway East Texas. Pecan crop above average Central Texas, where producers getting ready to spray for 1st round of casebearers. Yellow aphid population increasing Trans-Pecos.

**Range and Livestock:** Range, pastures continued to improve with recent rains, Trans-Pecos still needs moisture. Edwards Plateau, some ranchers lost newborn kid goats as result of heavy fire ant activity. Sheep ranchers were nearing completion of shearing. Livestock good condition across State.

**UTAH:** Temperatures 5° below normal. Precipitation was heavy in north central, northern mountains, Uintah Basin. Elsewhere, precipitation was moderate, except for Dixie where it was light.

Days suitable for fieldwork 4.2. Soil moisture 2% short, 67% adequate, 31% surplus. Winter wheat condition 19% good, 71% fair, 10% poor. Fall barley condition 35% good, 39% fair, 26% poor. Winter wheat jointed or better 16%. Spring wheat planted 90%; emerged 56%, 97% 1992, 89% avg. Barley planted 89%; emerged 56%, 95% 1992, 88% avg. Oats planted 71%, 88% 1992; emerged 32%, 70% 1992, 66% avg. Corn planted 28%, 76% 1992, 53% avg. Alfalfa hay height 8.6 inches, 15.0 inches 1992, 11.6 inches avg. Fruit full bloom or past: tart cherries 90%; peaches 85%; pears 98%; apples 80%. Pasture, range condition good to excellent.

**VIRGINIA:** Temperatures above normal. Extremes 37°; 85°. Precipitation near to slightly below normal 0.19 to 1.54 in.

Days suitable for fieldwork 5.0. Topsoil moisture 6% short, 77% adequate, 17% surplus. Pasture condition rated 2% poor, 20% fair, 64% good, 14% excellent. Alfalfa condition 19% fair, 73% good, 8% excellent. Other hay condition 2% poor, 24% fair, 59% good, 15% excellent. Wheat condition rated 4% poor, 34% fair, 62% good. Barley condition was 3% poor, 15% fair, 82% good. Peach 19% fair, 62% good, 19% excellent. Apple condition 6% fair, 69% good, 25% excellent. Potato condition 20% poor, 80% fair. Corn 53% planted, 60% 1992, 57% avg.; 13% poor, 69% fair, 18% good. Peanuts 36% planted, 40% 1992, 47% avg. Soybeans 5% planted, 3% 1992, 6% avg. Cotton 67% planted, 65% 1992, 73% avg. Flue tobacco 14% transplanted, 30% 1992, 28% avg. Burly tobacco 3% transplanted, 9% 1992, 16% avg. Liming, fertilizing land, applying pesticides, spreading manure, harvesting rye silage, spraying fruit trees, planting snapbeans, cucumbers, cutting hay, listing tobacco fields. Hay making equipment repairs underway.

**WASHINGTON:** Temperatures 5° below normal to 2° above normal west; 6° below normal to normal east. Precipitation 0.96 in. to 1.48 in. west; none to 1.99 in. east.

Days suitable for fieldwork 3.5. Soil moisture 6% short, 86% adequate, 8% surplus. Irrigation water supply 37% short, 63% adequate. Hay, other roughage 3% very short, 62% short, 35% adequate. Range, pasture 25% very poor, 72% poor, 3% fair. Winter wheat dryland 100% good; irrigated 100% good. Spring wheat dryland 20% fair, 80% good; irrigated 5% fair, 95% good. Barley dryland 25% fair, 75% good; irrigated 5% fair, 95% good. Wet weather continued. Some low-lying fields have standing water. Seeding of spring crops still well behind normal. Potato emergence is slow. Tree fruits blooming; weather caused some problems with pollination in west half of state. Asparagus harvest continued, although slow at times. Pasture growth slow due to cool weather. When warm weather arrives, prospects are good for grass growth due to adequate moisture. Hay demand less critical as more stock moves to spring ranges.

**WEST VIRGINIA:** Temperature 65°. Extremes 35°; 90°. Precipitation 0.24 in.

Days suitable for fieldwork 5.4. Soil moisture, 11% short, 84% adequate, 5% surplus. Soil prepared, 56%. Wheat, good. Barley, good. Oats, 87% planted, 66% emerged. Corn, 30% planted. Soybeans, 10% planted. Hay, 41% fair, 59% good. Apples, good. Peaches, good. Tobacco beds, 22% fair, 78% good; 98% emerged. Pastures, 31% fair, 67% good, 2% excellent; 87% of normal. Cattle, 11% fair, 89% good. Sheep, 34% fair, 66% good. Hay feed supplies, 30% short, 70% adequate. Other feed supplies, 17% short, 83% adequate. Gardens, 33% planted, 23% emerged. Farm activities: General maintenance, planting corn, oats, gardens, soybeans, preparing soil.

**WISCONSIN:** Temperature 63°; 11° above normal. Extremes 32°; 89°. Precipitation 0.40 to 1.20 in.

Days suitable for fieldwork 2.6. Soil moisture 22% adequate, 78% surplus. Intended spring tillage 25% complete, 57% 1992, 64% avg. Oats 21% planted, 65% 1992, 76% avg. Corn 8% planted, 31% 1992, 30% avg. Damage to Winter Wheat 14% report no damage, 63% light damage, 21% moderate damage, 2% severe damage. Damage to Alfalfa: 18% report no damage, 43% light damage, 20% moderate damage, 19% severe damage. Pasture condition 78% of normal, 75% 1992, 74% avg.

**WYOMING:** Wet week with cool weather in the west. Temperatures 5° below normal in the west, parts of the south. Rest of the State near normal to 4° above normal. Precipitation was above normal over much of the State, with the exception of the southeast corner. Some areas in the northeast, central 1.00 to 2.00 in. above normal for the week.

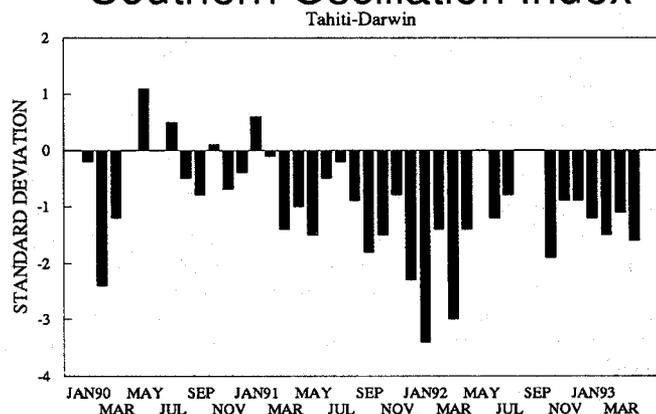
Days suitable for fieldwork 3.0 days. Topsoil moisture 3% short, 63% adequate, 34% surplus. Subsoil moisture 7% short, 85% adequate, 8% surplus. Spring wheat 46% planted, 93% 1992, 79% avg.; 20% emerged, 62% 1992, 44% avg. Oats 56% planted, 83% 1992, 72% avg.; 20% emerged, 51% 1992, 36% avg. Barley 74% planted, 93% 1992, 88% avg.; 54% emerged, 64% 1992, 62% avg. Sugarbeets 96% planted, 98% 1992, 95% avg.; 18% emerged, 33% 1992, 33% avg. Corn 30% planted, 56% 1992, 38% avg.; 1% emerged, 8% 1992, 3% avg. Potatoes 42% planted, 35% 1992, 32% avg. Irrigation supplies 91% adequate, 9% surplus. Spring calves born 95%, 93% 1992, 93% avg. Calf death losses 5% light, 69% normal, 26% heavy. Farm flock: ewes lambed 97%, 98% 1992, 96% avg.; shorn 95%, 98% 1992, 94% avg. Range flock: ewes lambed 57%, 59% 1992, 61% avg.; shorn 82%, 85% 1992, 80% avg. Lamb death losses 9% light, 80% normal, 11% heavy. Percent of cattle, calves moved to summer ranges 18%. Percent of sheep, lambs moved to summer ranges 15%. Stockwater supplies 5% short, 77% adequate, 18% surplus.

## April ENSO Update

The National Weather Service's Climate Analysis Center reports that all atmospheric and oceanic indices for April are consistent in indicating a continuation of the Pacific El Niño/Southern Oscillation (ENSO) warm episode (see "El Niño Update" in the February 23, 1993, issue of the *Weekly Weather and Crop Bulletin*). The Southern Oscillation Index (SOI) dropped to -1.6, as low-level equatorial easterlies remained weaker than normal. Sea-surface temperature (SST) anomalies increased in many sections of the eastern tropical Pacific, and also just north of the equator throughout most of the eastern Pacific, where the Intertropical Convergence Zone appears to be shifted south of its normal position.

During the last several months, SST anomalies have increased throughout the eastern equatorial Pacific. The pattern and magnitude of the SST anomalies in April 1993 are quite similar to those observed during April 1992 over all except the extreme eastern tropical Pacific. Experimental prediction models (both statistical and dynamical) indicate that warm episode conditions will continue through August 1993. This seems reasonable, given the present extensive area of anomalously warm water.

## Southern Oscillation Index



## International Weather and Crop Summary HIGHLIGHTS

May 2 - 8, 1993

**FSU-WESTERN:** Continued unseasonably warm, dry weather accelerated vegetative growth in winter grains and favored rapid spring grain planting.

**EUROPE:** Moisture was generally favorable for winter grains, except for long-term drought in Spain and diminishing topsoil moisture in the northeast.

**NORTHWESTERN AFRICA:** Late-season wet weather covered Morocco, Algeria, and Tunisia, benefiting immature crops.

**SOUTH AFRICA:** Rain helped emerging winter wheat in the southwest.

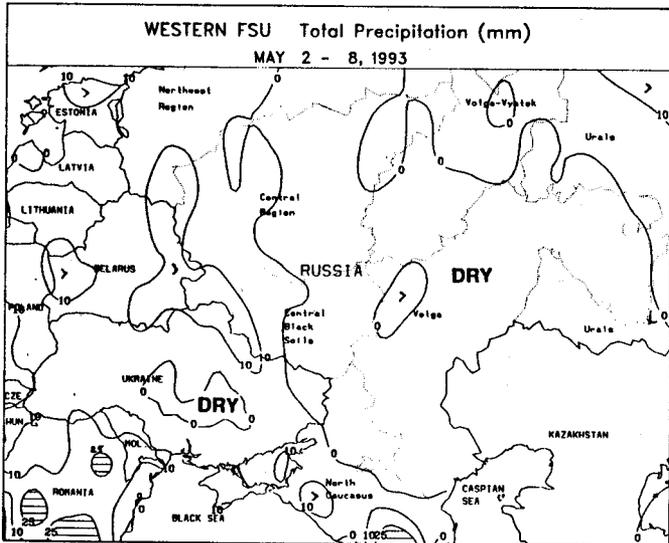
**SOUTH ASIA:** Hot, dry weather stressed livestock and immature cotton.

**SOUTHEAST ASIA:** Late-week rain brought some relief to Thailand's rainfed rice and corn.

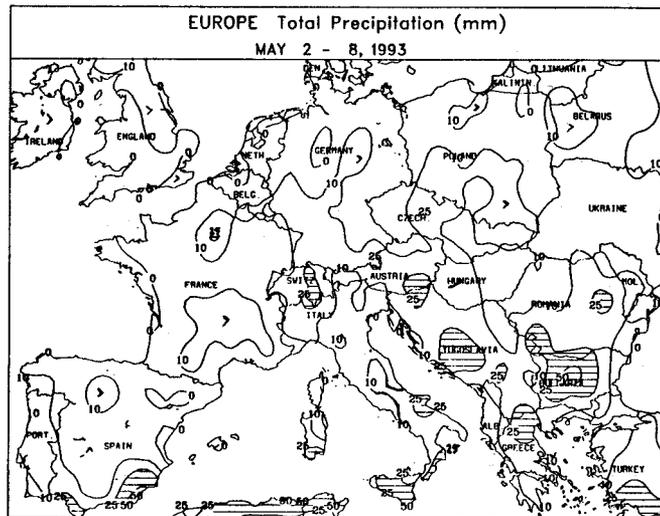
**EASTERN ASIA:** Drier, cooler weather favored winter wheat growth and summer crop planting across the North China Plain.

**AUSTRALIA:** Dryness limited topsoil moisture for wheat planting across Queensland.

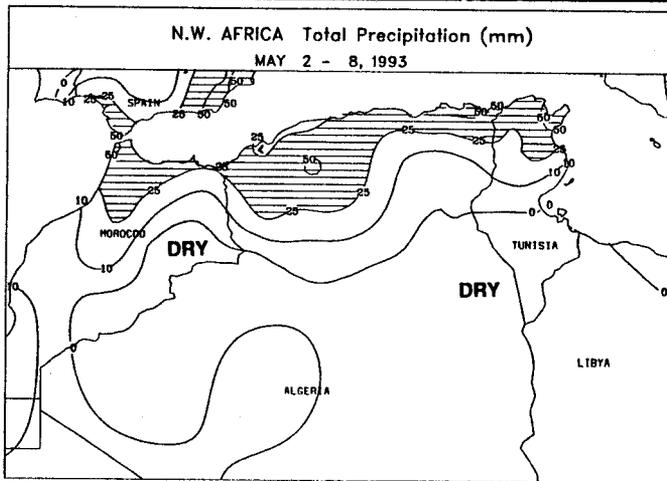
**SOUTH AMERICA:** Rains continued to delay summer crop harvesting in Argentina. Favorable harvest weather continued across most of southern Brazil, with some harvest delays in the extreme south.



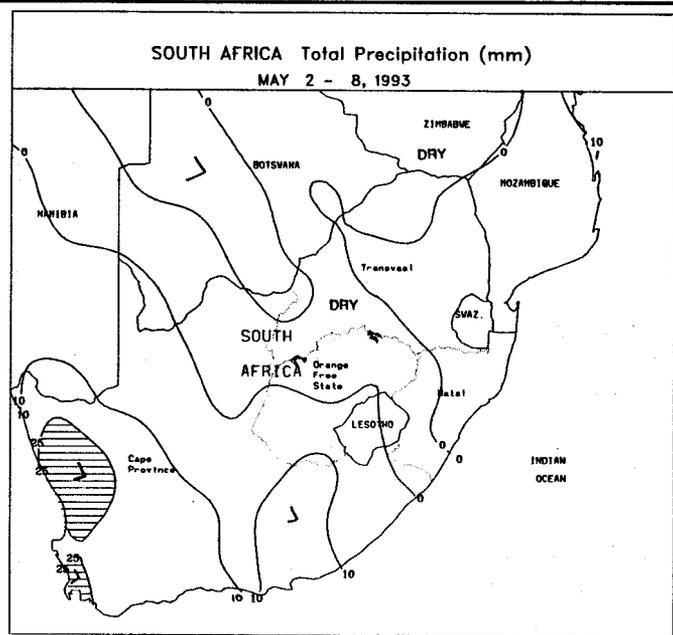
**FSU-WESTERN:** The second consecutive week of unseasonably warm, dry weather prevailed over most of the region. The warm, dry weather accelerated growth of winter grains and allowed fieldwork for spring grain planting to advance northward. Winter grains were jointing as far north as the Baltic States, Belarus, Black Soils Region, and middle Volga Valley. Although spring grain planting was occurring over most of the region, reports continued to indicate the planting pace lagged behind last year. Corn, sunflower, and sugar beet planting is usually just beginning in the extreme southern Ukraine. Little, if any, precipitation (generally less than 5 mm) fell over most areas, except for some local amounts (10-20 mm) which were scattered throughout the region. Weekly average temperatures ranged from 3 to 6 degrees Celsius (C) in the north and from 1 to 4 degrees C above normal in the south.



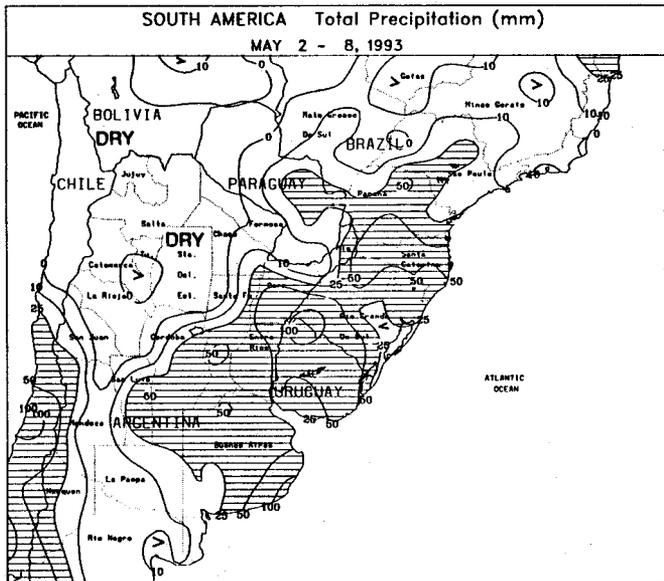
**EUROPE:** Light showers (less than 10 mm) covered much of the region, causing only minor fieldwork delays. Dry weather was confined mostly to southern England and along the North Sea coast. Heavier showers (10-35 mm) were scattered across southern France, southern Germany, the Czech Republic, and southern Poland. Spring rains are needed for crop development in Germany and Poland. Temperatures in northeastern Europe decreased from the previous week's unseasonable heat, reducing the loss of soil moisture and helping winter grains in vegetative growth. Temperatures still averaged 2-5 degrees C above normal, however, in Poland, Slovakia, and Hungary. More widespread rain (10-25 mm) conditioned soils for spring plantings and winter grain development in the Balkans. In western Europe, moisture is favorable for winter grains advancing into the reproductive phase in France and Italy, and nearing the heading stage further north. Winter grains in Spain are beyond the growth stages for significant recovery from drought. Irrigation reserves are also unfavorably low for summer crops in Spain.



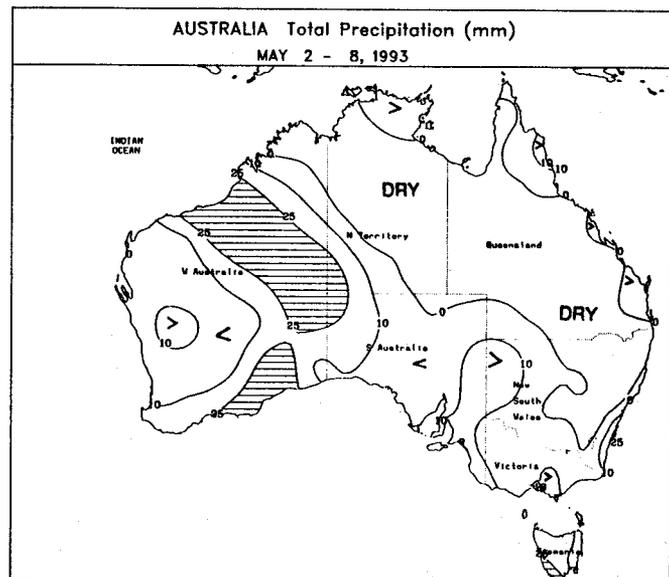
**NORTHWESTERN AFRICA:** Widespread rain covered Morocco, Algeria, and Tunisia. Precipitation amounts generally ranged from 10 to 25 mm in Morocco, from 20 to 50 mm in Algeria, and from 20 to 65 mm in Tunisia. While the rain in Morocco came too late for drought-stressed winter grains, it provided some relief to pastures and lowered irrigation requirements for citrus and vegetables. In Algeria and Tunisia, the rain benefited immature winter grains in the interior. Crops along the coast were likely maturing and benefited little from this past week's rain. Winter grain harvesting usually begins in May in Morocco, Algeria, and Tunisia, and extends through July. This past week's rain over the region was highly unusual since the dry season normally begins in May and lasts through September.



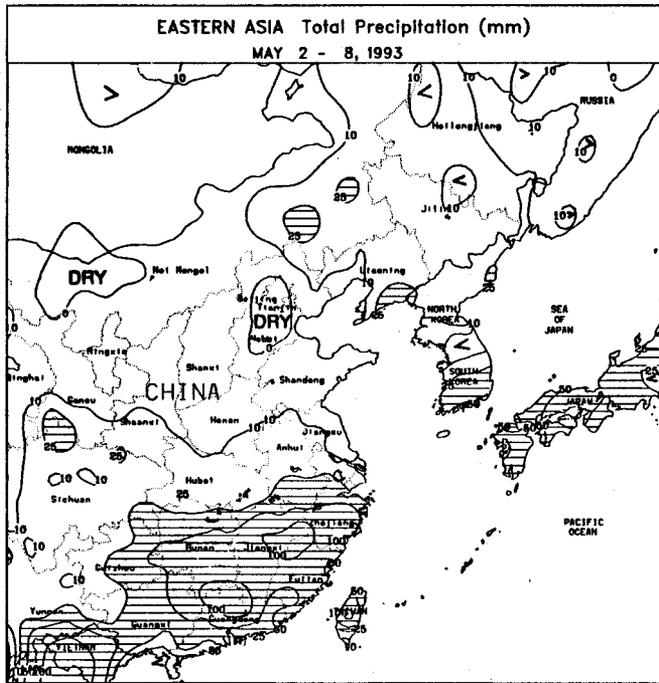
**SOUTH AFRICA:** Moderate rain (6-43 mm) and mild temperatures aided winter wheat emergence and establishment across southern Cape Province. Dry weather favored corn harvests across Orange Free State and southern Transvaal. Although temperatures averaged near to above normal in eastern crop areas, scattered frost slowed winter wheat development.



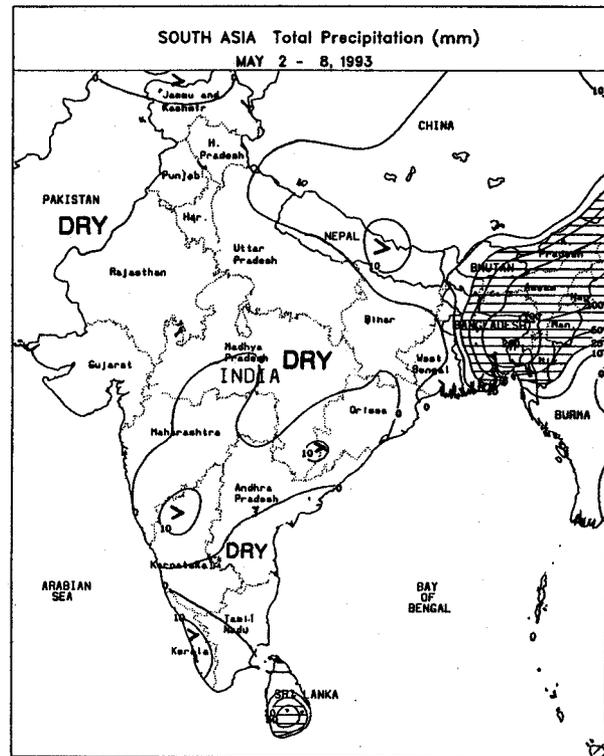
**SOUTH AMERICA:** In Argentina, additional moderate rains (18-75 mm) fell across southern Santa Fe, and northern Buenos Aires, delaying soybean and corn harvesting. However, these rains benefited soil moisture reserves for the upcoming winter wheat season from Santa Fe southward into southern Buenos Aires. In southern Brazil, moderate showers (15-75 mm) fell across Rio Grande do Sul and Parana, causing some soybean harvest delays. Elsewhere, scattered showers (5-40 mm) caused only minor harvesting delays. Central Chile received moderate to heavy rains (21-115 mm), favoring irrigation supplies, but causing local flooding. Since March, Chilean crop areas received near-normal rainfall. The coastal areas of Bahia received light to moderate showers (16-60 mm), while interior sections of Bahia received only scattered light rain (1-13 mm). Temperatures averaged near normal across central Argentina and 1-3 degrees C above normal across southern Brazil.



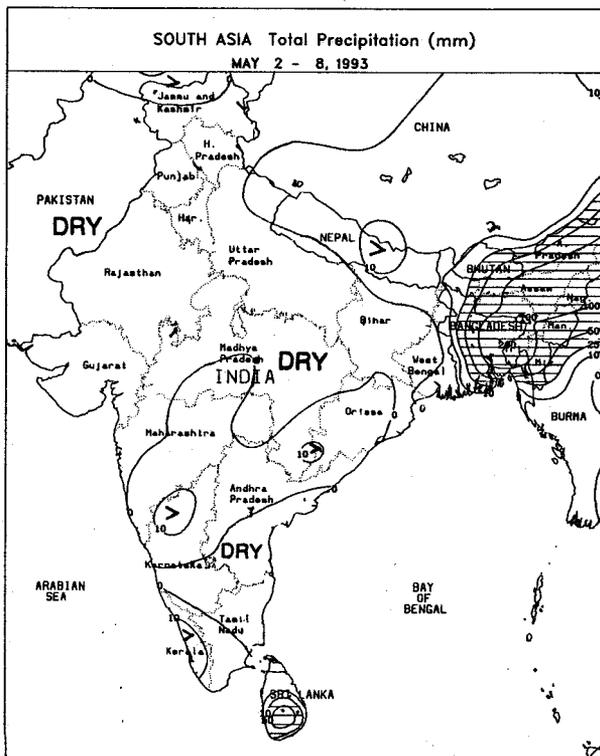
**AUSTRALIA:** Dryness continued across Queensland and northern New South Wales, limiting topsoil moisture for winter wheat planting. This region has experienced much-below-normal rainfall since January, slowing early wheat planting until significant rains arrive. Western Australia received light rains (5-20 mm), aiding subsoil moisture reserves. Favorable moisture conditions exist for wheat planting in the west and south.



**EASTERN ASIA:** Drier weather allowed summer crop planting to progress across the North China Plain. Previous rains accompanied by seasonal temperatures favored vegetative to reproductive winter wheat. Occasional rains (3-27 mm) benefited topsoils across Manchuria, where soybean and spring wheat planting progressed. Widespread showers (20-100 mm) continued across the Yangtze Basin and southern China, keeping rainfed crops well watered and increasing irrigation supplies. Heavier showers (105-135 mm) fell across portions of extreme southern China (Guangdong and Jiangxi), causing flooding. Temperatures averaged near normal across the North China Plain and 2-4 degrees below normal across central and southern China.



**SOUTH ASIA:** Hot, dry weather intensified over Pakistan and India, stressing livestock and increasing irrigation demands of newly planted cotton. Daily highs reached the low to mid 40's C throughout the region, except for eastern rice areas from West Bengal eastward, where inundating rains (100 mm or more) held temperatures to seasonable levels. While the showers caused flooding from Bangladesh to eastern Assam, the moisture further increased irrigation levels for main season rice planting. Dry season rice and wheat harvests should be nearly complete in the east.



**SOUTHEAST ASIA:** Late-week showers (10-13 mm) helped Thailand's rainfed rice and corn areas, boosting moisture for newly planted crops. However, high temperatures of 38-41 degrees C maintained high evapotranspiration rates. Mostly dry weather extended from Bangkok southward along the Thai peninsula, but moderate to heavy showers (25-140 mm) covered much of western Malaysia. Moderate to heavy showers (25-100 mm or more) continued over eastern Malaysia and Indonesia, although mostly dry weather covered eastern Java. Recent unseasonably heavy rains over Java have hampered main-season rice harvests, but improved moisture reserves for dry season rice. In the Philippines, scattered showers (10-60 mm) fell over the southern islands, but a dominant rainy pattern has yet to develop over the western half of the country.

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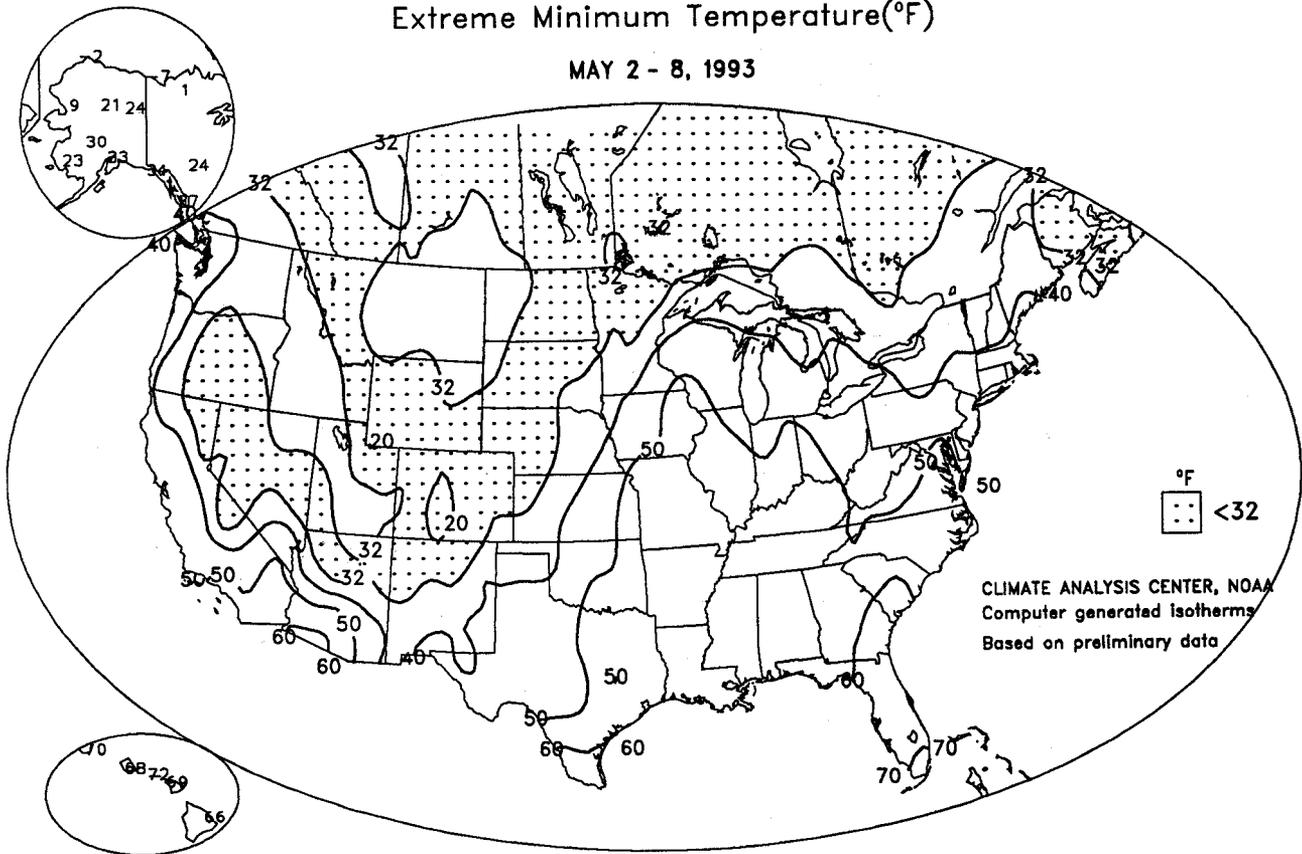
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### Extreme Minimum Temperature(°F)

MAY 2 - 8, 1993



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