

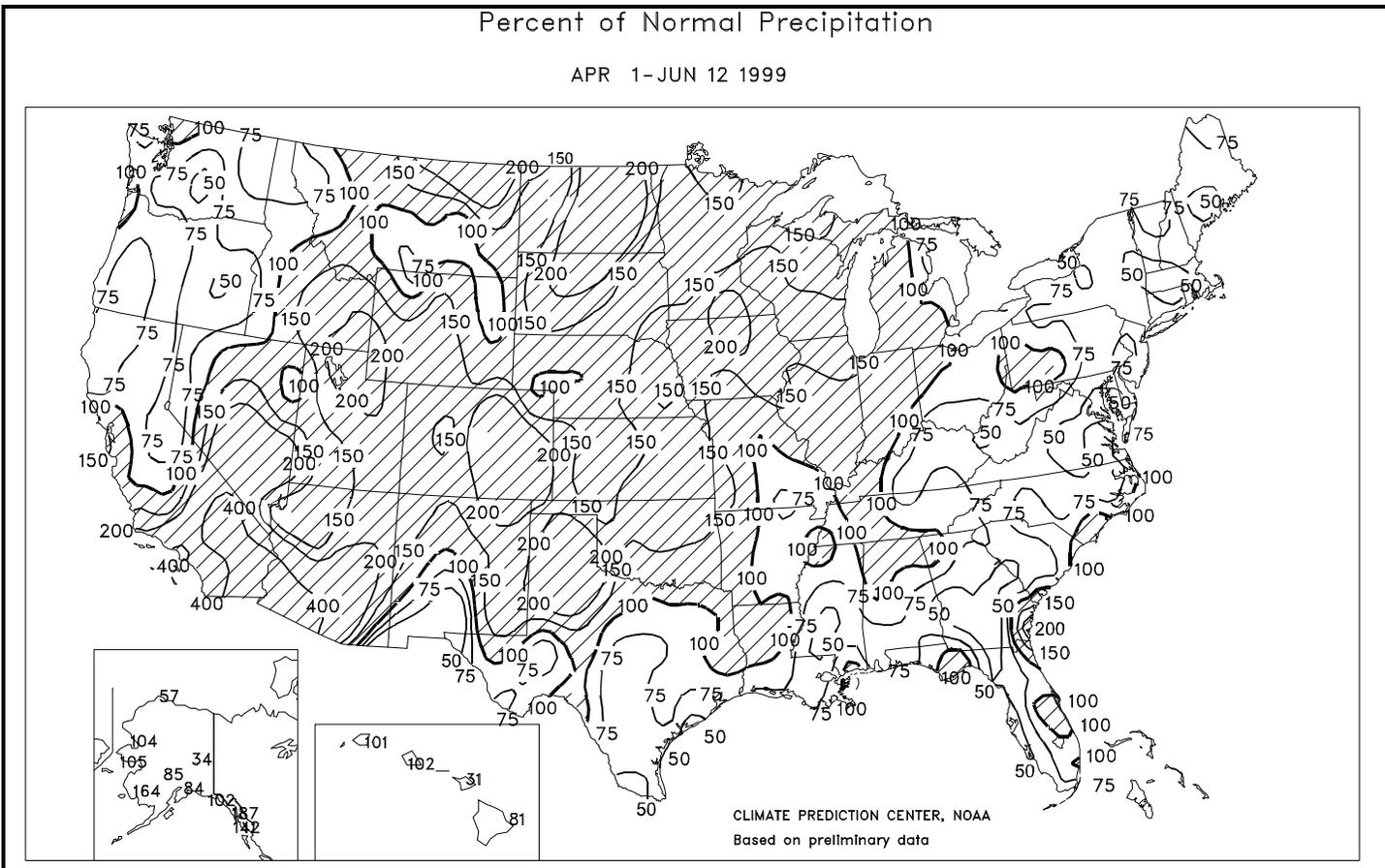
# WEEKLY WEATHER AND CROP BULLETIN

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

Percent of Normal Precipitation

APR 1-JUN 12 1999



## HIGHLIGHTS

June 6 - 12, 1999

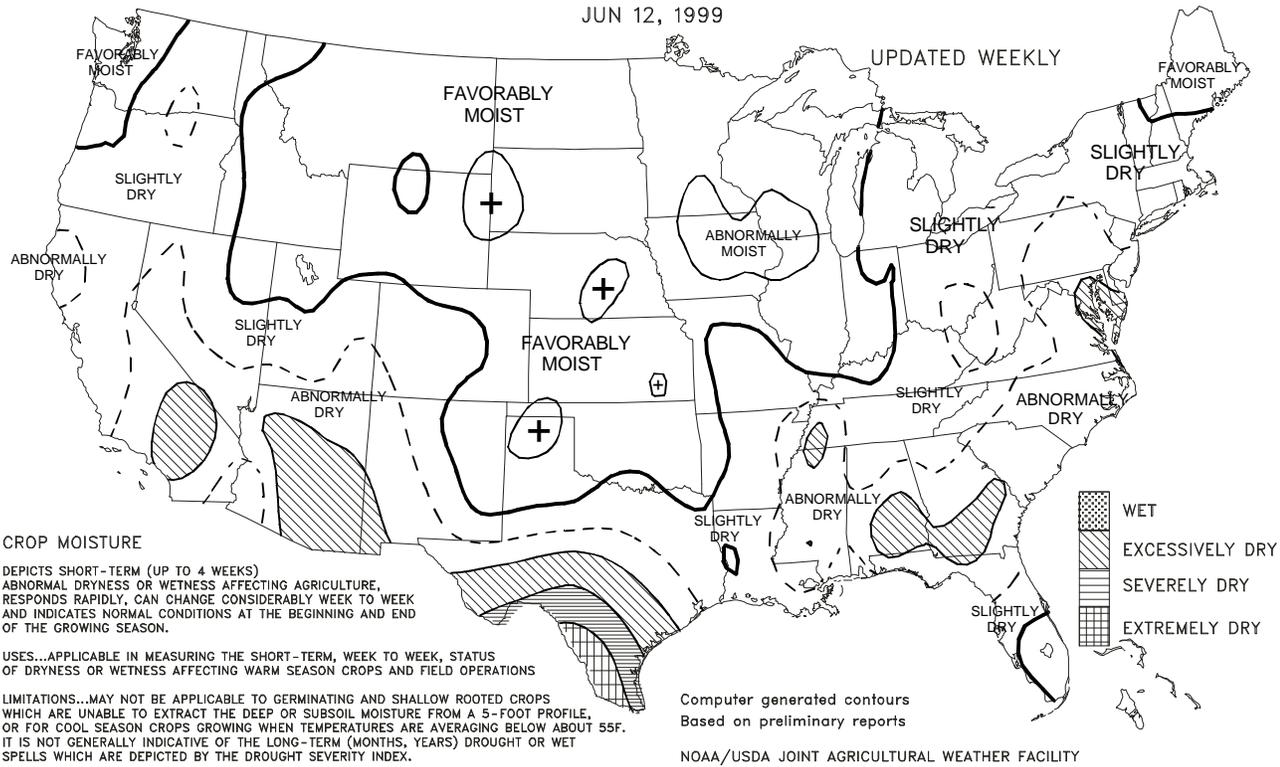
Continuing a 10-week trend, widespread rain again fell across the **Plains** and **western Corn Belt**, halting final spring planting and causing lowland flooding. In winter wheat areas of the **central and southern Plains**, wet, humid conditions increased disease pressure and disrupted harvesting operations. The heaviest amounts (2 to 4 inches, with locally higher totals) were observed in two areas, one centered on **western Kansas and northern Oklahoma**, the other on **Iowa and northern Illinois**. Meanwhile, much-needed moisture edged westward into the **Southeast**, producing scattered showers and easing drought stress on pastures and summer crops. Locally excessive rainfall was reported in parts of **eastern Florida**.

(Continued on page 7)

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Crop Moisture  
SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE  
JUN 12, 1999



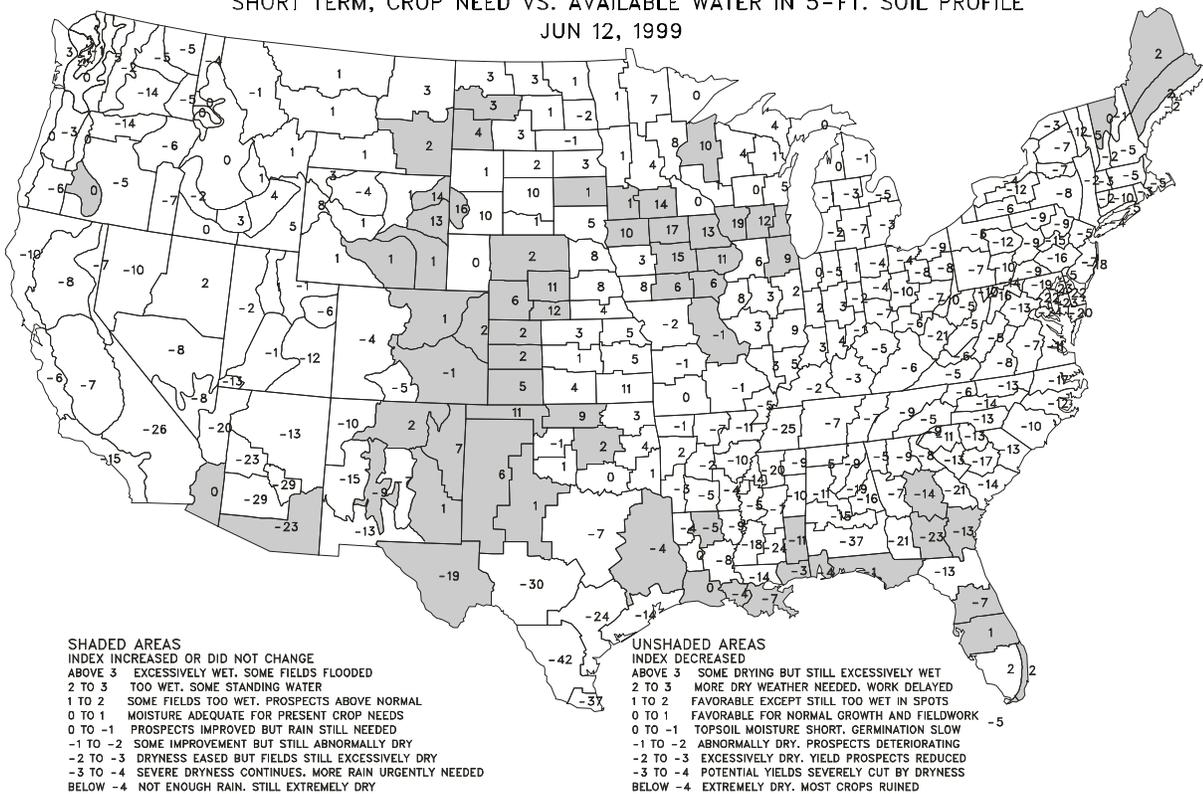
CROP MOISTURE

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

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

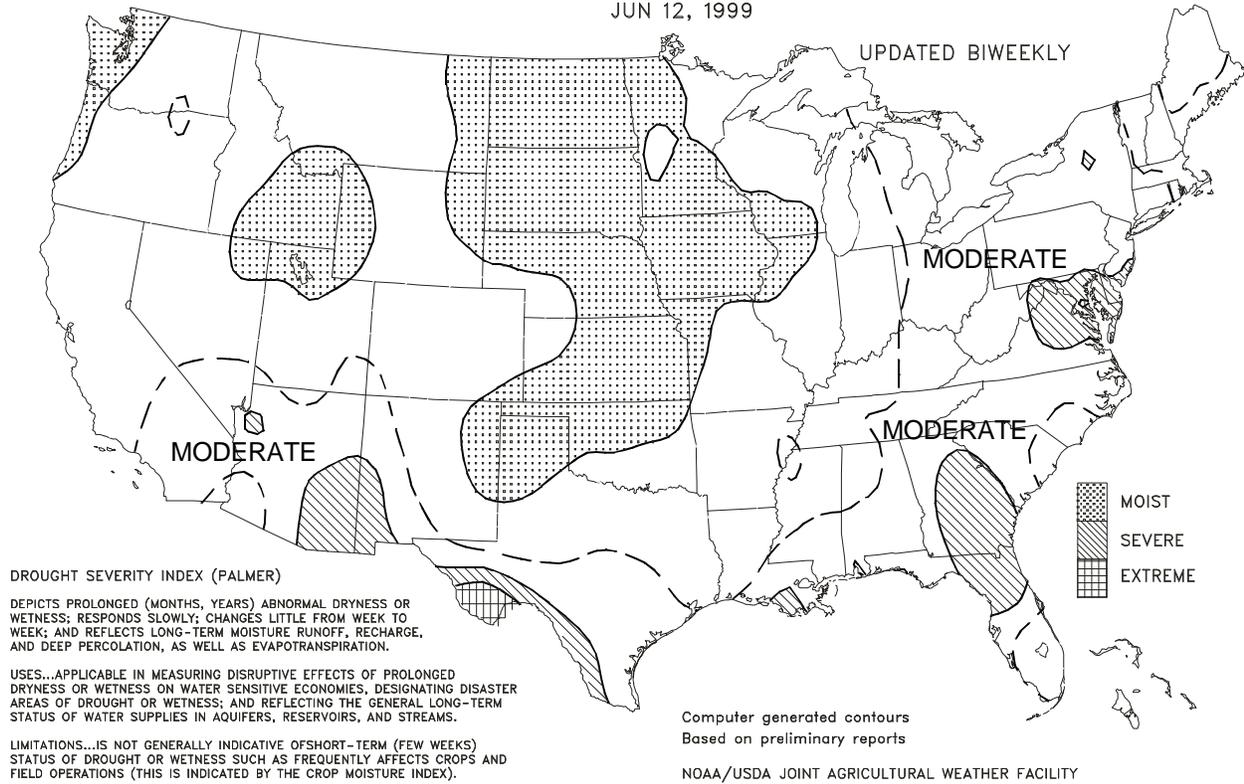
LIMITATIONS...MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 5-FOOT PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55F. IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.

Crop Moisture Index  
SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE  
JUN 12, 1999



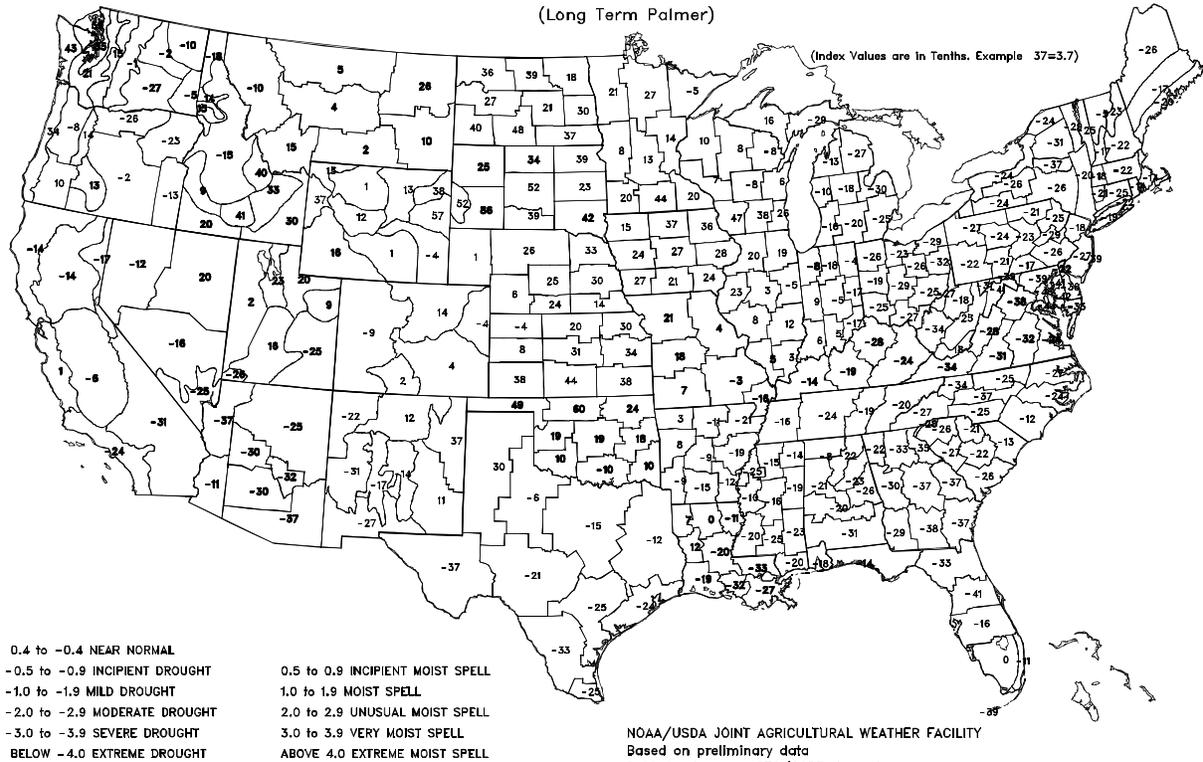
DROUGHT SEVERITY  
LONG TERM PALMER  
JUN 12, 1999

UPDATED BIWEEKLY



Drought Severity Index by Division  
JUN 12, 1999  
(Long Term Palmer)

(Index Values are In Tenths. Example 37=3.7)



**Weather Data for Selected Locations in the Delta**

**Weather Data for the Week Ending June 12, 1999**

Data provided by the Mississippi State Delta Research and Extension Center and compiled by USDA/OCE/WAOB's Stoneville Field Office

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							4-INCH SOIL TEMP, °F		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
MS INDIANOLA 1S	91	71	93	69	81	--	0.01	--	0.01	0.20	--	27.57	--	89	80	7	0	1	0
MS INVERNESS 5E	91	72	92	70	82	--	0.52	--	0.52	0.68	--	--	--	81	77	5	0	1	1
MS LYON	93	72	96	70	83	--	0.02	--	0.02	0.63	--	24.22	--	--	--	6	0	1	0
MS ONWARD	90	69	92	68	80	--	1.47	--	0.88	1.47	--	29.62	--	79	77	6	0	4	1
MS SIDON	91	71	93	71	81	--	0.58	--	0.53	0.82	--	26.03	--	91	82	6	0	2	1
MS STONEVILLE *	94	72	96	71	83	4	0.00	-0.84	0.00	0.27	18	31.37	118	95	82	7	0	0	0

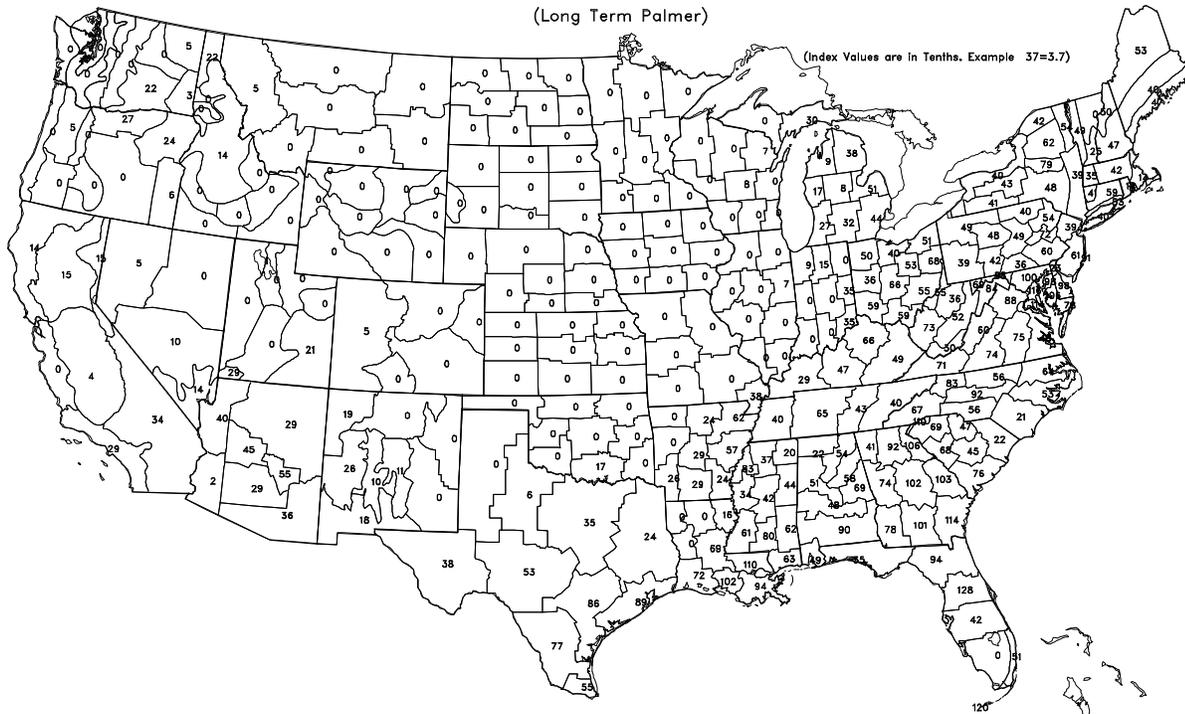
\* Based on 1964-93 normals.

**Delta Weather and Crop Summary:** A stagnant weather pattern produced warm, humid, unsettled conditions throughout the region, including widespread showers. The heaviest precipitation amounts were observed in the lower Mississippi Delta, where much-needed rainfall improved soil moisture. Despite the showers, conditions remained generally favorable for the continued harvesting of winter wheat.

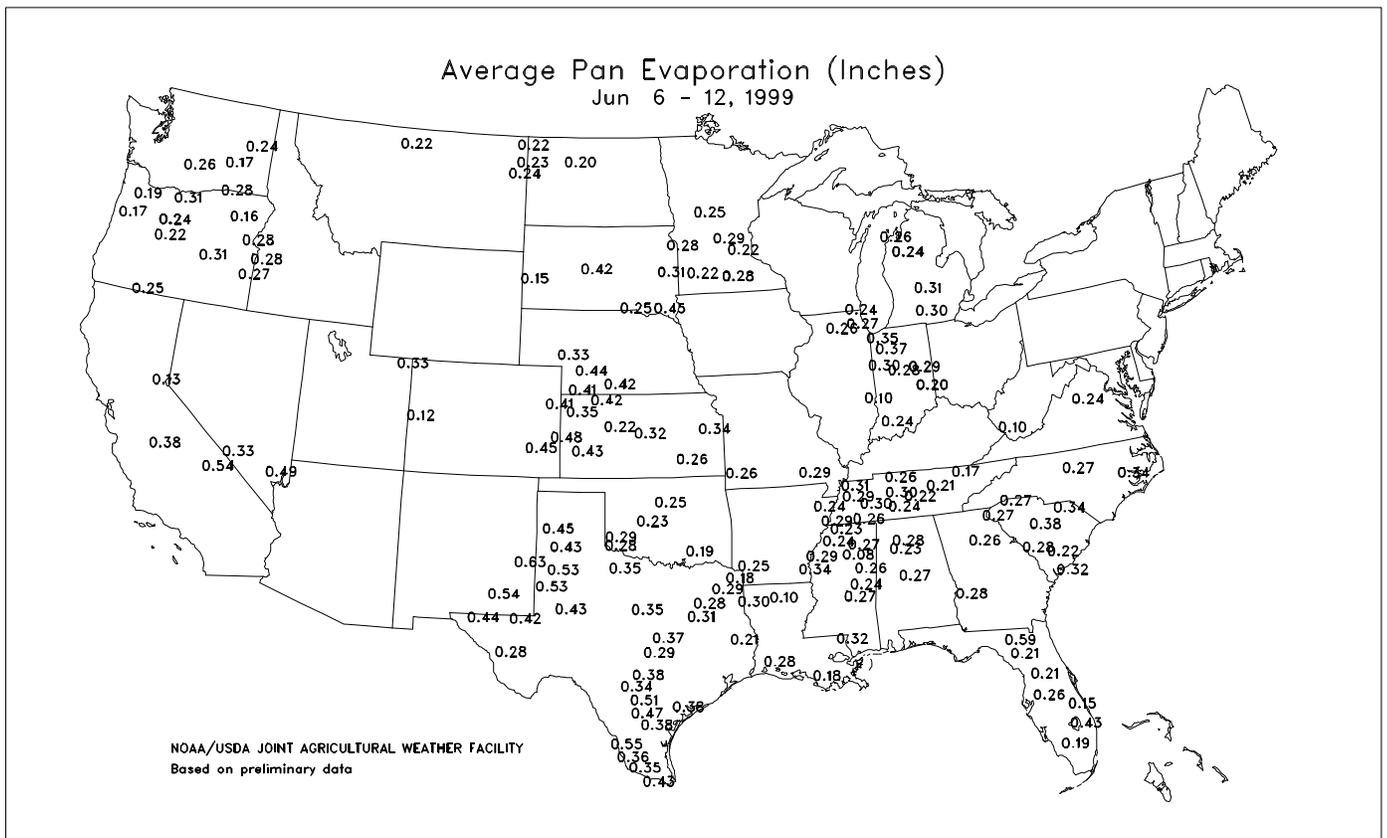
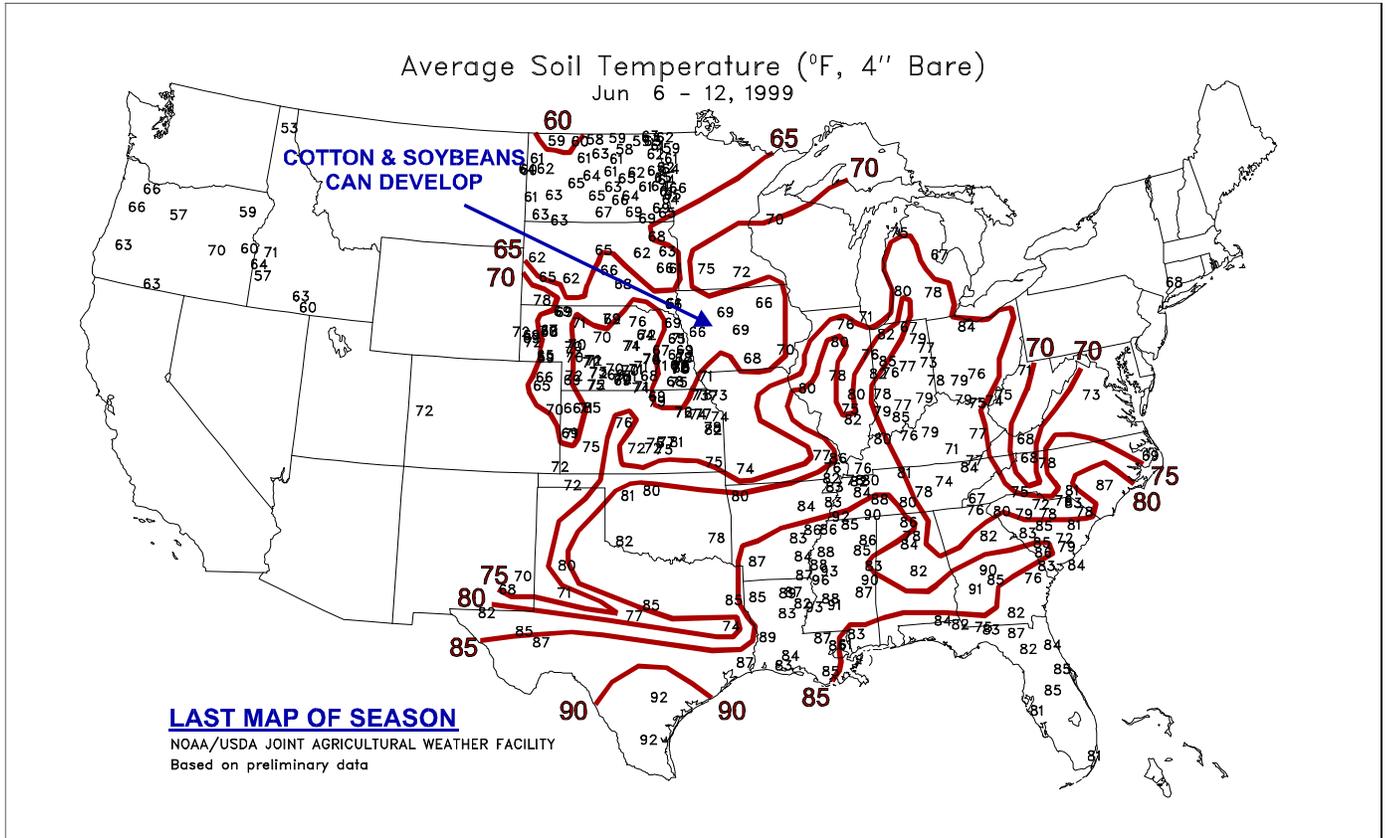
**Additional Precipitation Needed to Bring Index Near Zero**

JUN 12, 1999  
(Long Term Palmer)

(Index Values are in Tenths. Example 37=3.7)



NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY  
Based on preliminary data



## U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on June 11, 1999. Forecasts refer to June 1.

**Winter wheat** production is forecast at 1.61 billion bushels, down fractionally from last month and down 14 percent from 1998. The U.S. yield is forecast at 44.7 bushels per acre, up 0.3 bushel from the last forecast. Grain area totals 36.0 million acres, down 1 percent from May 1.

Hard Red winter wheat is down 1 percent from a month ago to 981 million bushels. White winter wheat is down 2 percent from last month to 211 million bushels. Soft Red winter wheat is up 2 percent from the last forecast and now totals 419 million bushels.

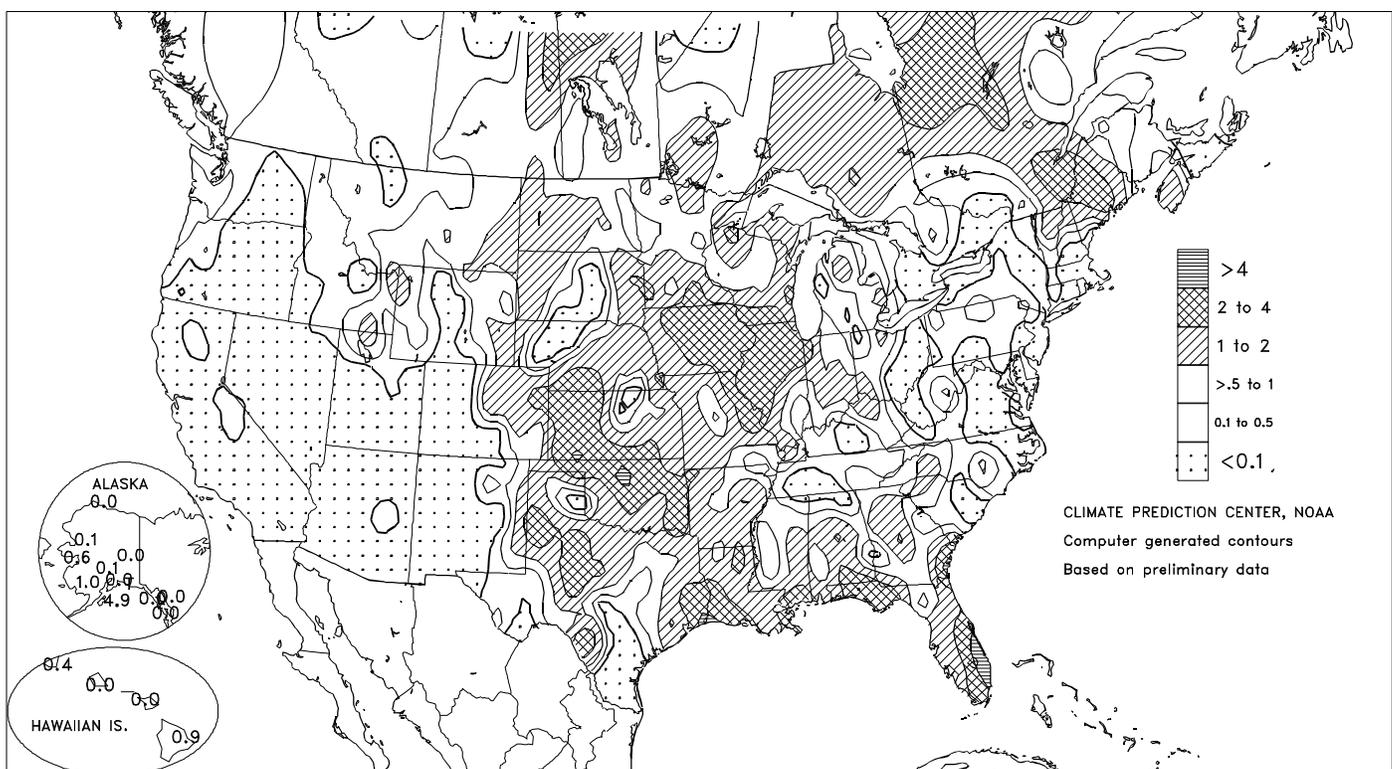
The **all orange** production forecast for 1998-99 is 9.82 million tons, down less than 1 percent from last month and down 28 percent from last year's record-large crop of 13.7 million tons. Florida's all orange forecast is 187.5 million boxes (8.44 million tons), a reduction of less than 1 percent from the May forecast and 23 percent below the record-large 244 million boxes (11.0 million

tons) utilized last season. Early and midseason varieties in Florida are forecast at 112 million boxes (5.04 million tons), unchanged from May and 20 percent below last season. Florida's Valencia forecast of 75.5 million boxes (3.40 million tons) is 1 percent less than the previous forecast and 27 percent lower than last season's utilization.

Production of all oranges in Texas is forecast at 1.42 million boxes (60,000 tons), down 3 percent from last month's forecast. The Texas early and midseason orange forecast was reduced to 1.25 million boxes (53,000 tons), but the Valencia forecast remained unchanged at 170,000 boxes (7,000 tons). California's all orange production forecast of 34.0 million boxes (1.28 million tons) is carried forward and is down 51 percent from the 1997-98 utilization of 69.0 million boxes (2.59 million tons). Arizona's all orange production forecast of 1.20 million boxes (45,000 tons) is also carried forward.

### Total Precipitation (Inches)

JUN 6 - 12, 1999



(Continued from front cover)

Hot, dry weather persisted through week's end, however, in the **Mid-Atlantic region** and across **southern Texas**. Weekly temperatures averaged more than 3°F above normal from the **Midwest** into the **Mid-Atlantic and Northeastern States**, with departures reaching +14°F in **Michigan**. In contrast, very cool weather persisted until late in the week across the **West**, holding temperatures as much as 9°F below normal. Scattered frost and near-freezing temperatures further slowed crop development in the **Northwest**, where dryland small grains continued to be stressed by dryness.

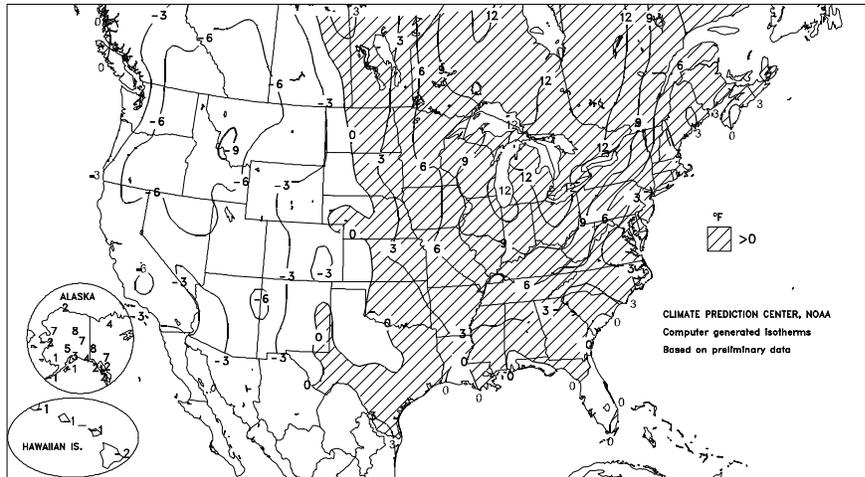
Unusually warm weather, mostly from the **Midwest** into the **East**, resulted in more than 70 daily-record highs during the week. On Monday, highs peaked at least 20°F above normal in locations such as **Boston, MA** (97°F) and **Hartford, CT** (98°F). In **Maine**, **Portland's** maximum of 95°F was their highest temperature since a 96-degree reading on July 14, 1995. Also on Monday, **Albany, NY** registered 95°F, their first 90-degree heat since August 16, 1997. A day later, **Raleigh-Durham, NC** withstood 100°F, their earliest triple-digit heat on record and first 100-degree reading since August 14, 1995. **South Bend, IN** logged four records in 6 days, including 94°F on June 6, 93°F on June 7, 94°F on June 10, and 95°F on June 11. Highs reached 98°F on 3 consecutive days (June 7-9) in **Washington, DC**.

Cooler air arrived along the **Atlantic Seaboard** toward week's end, but hot weather persisted **west of the Appalachians**. In **New York**, **Buffalo** closed the week with consecutive highs of 90°F, their first 90-degree heat since August 19, 1995. Highs reached or exceeded 90°F in **Charleston, WV** on 8 consecutive days from June 6-13—including a high of 98°F on Thursday—their longest such streak since June 13-21, 1994. Farther south, tropical moisture spread westward across the **southern Atlantic and Gulf Coast States**. Although rain soaked some areas, other locations remained very dry. In **Florida**, for example, 8.28 inches of rain drenched **Ft. Lauderdale** on June 8-9, an all-time-record 24-hour rainfall for that site. Meanwhile, June 1-12 rainfall stood at 0.20 inch (10 percent of normal) in **Tampa**, leaving their year-to-date total at 6.17 inches (43 percent). A similar pattern of hit-or-miss showers also unfolded elsewhere across the region. In **coastal Texas**, June 1-12 totals varied from 5.48 inches (239 percent of normal) in **Beaumont, TX** to a trace in **Corpus Christi, TX**. In the **Mid-Atlantic region**, rainfall deficits since July 1, 1998, grew to 16.70 inches in **Baltimore, MD** and 13.98 inches in **Washington, DC**. Rainfall during the 347-day period ending June 12 totaled only 22.65 inches (62 percent of normal) in **Washington** and 21.90 inches (57 percent) in **Baltimore**.

Cool conditions in the **West** produced at least four dozen daily-record lows. On June 9, **Yakima** notched a daily-record low of 32°F, 27 days later than their normal last spring freeze. **Yakima** also posted record lows on Sunday (32°F) and Tuesday (33°F). Similarly, **Pocatello, ID** recorded 31°F on June 9, 20 days later than their normal last freeze. In **Oregon**, **Eugene's** low of 34°F on Wednesday was their second-lowest June temperature on record, behind 32°F on June 13, 1976. **Klamath Falls, OR** registered three consecutive daily-record lows (27, 25, and 30°F)

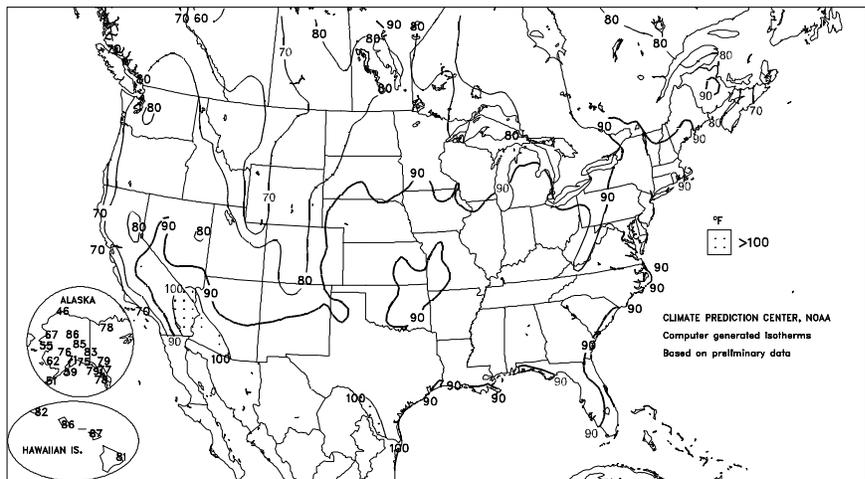
Departure of Average Temperature from Normal (°F)

JUN 6 - 12, 1999



Extreme Maximum Temperature (°F)

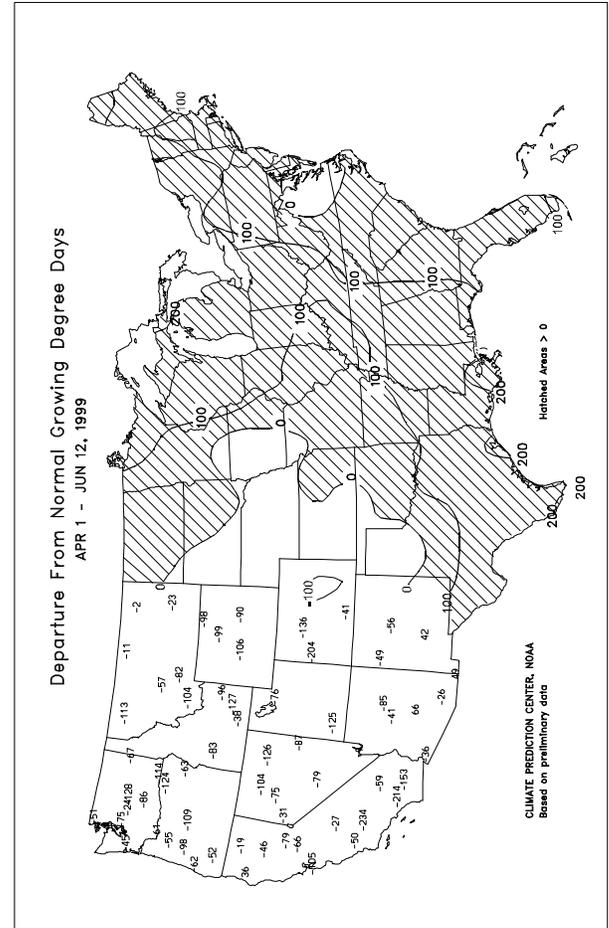
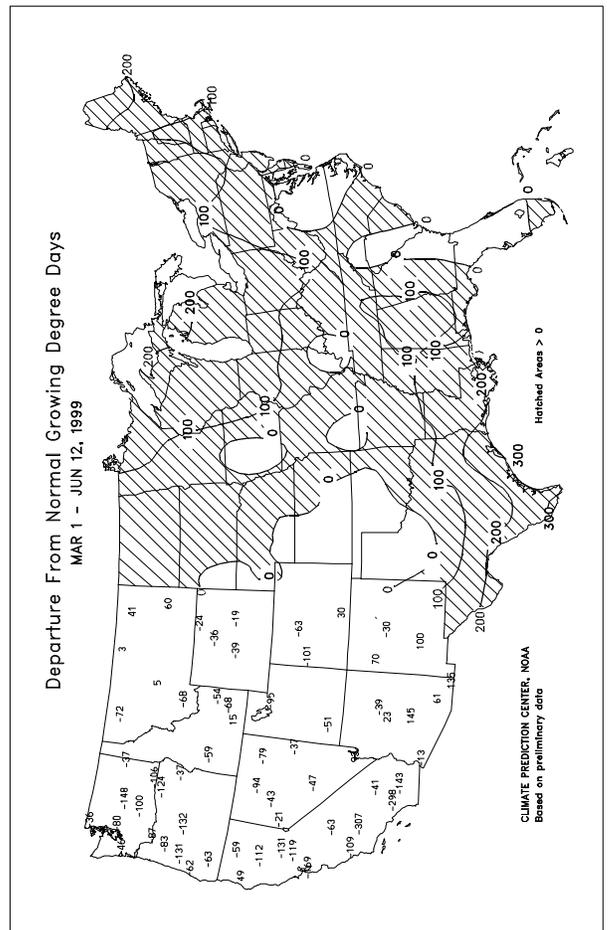
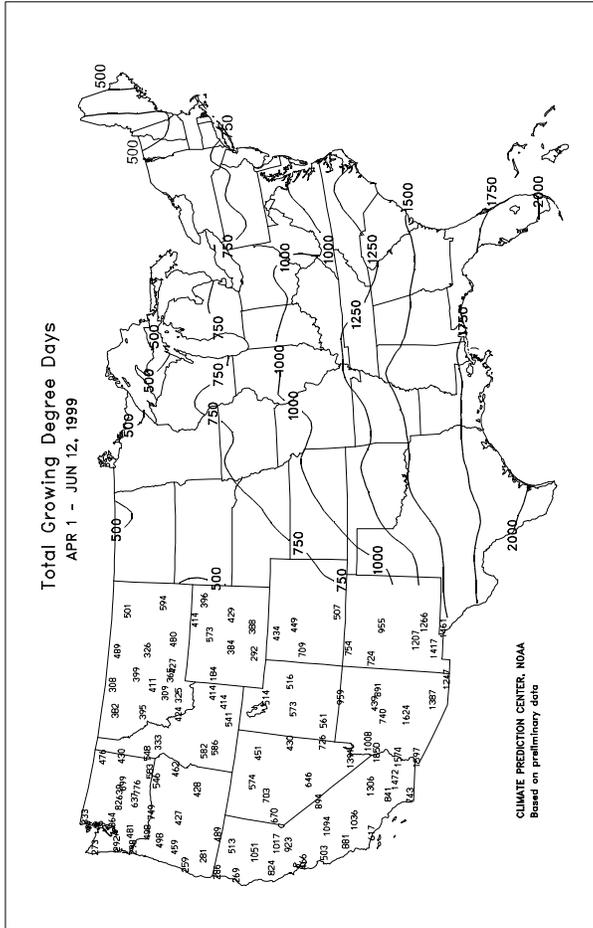
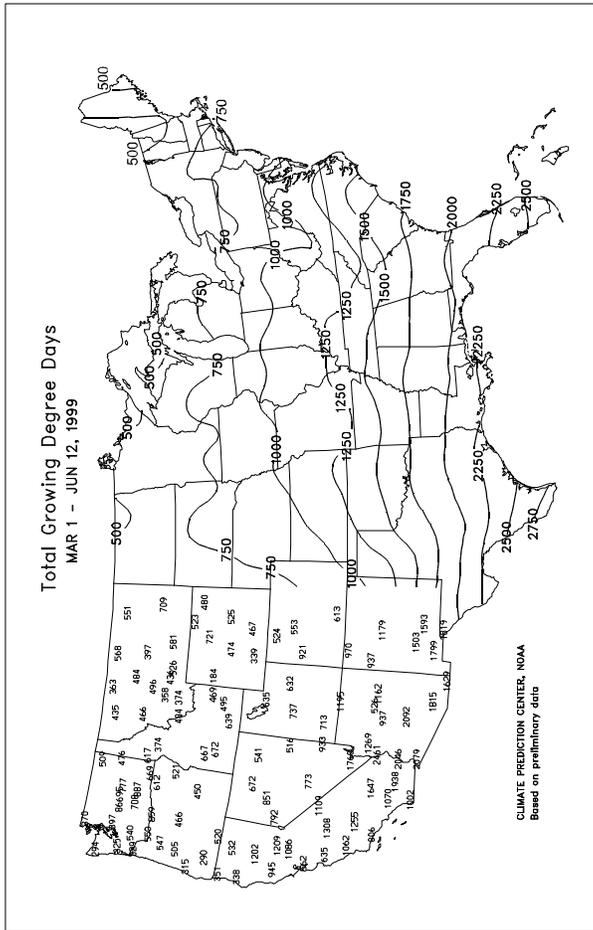
JUN 6 - 12, 1999



from June 7-9. Farther south, **Eureka, CA** noted a June record-tying low of 40°F on Tuesday.

Across the **Plains** and **western Corn Belt**, June 1-12 rainfall included 6.36 inches in **Cedar Rapids, IA**, 5.32 inches in **Davenport, IA**, 4.71 inches in **St. Louis, MO**, 4.43 inches in **Goodland, KS**, 3.99 inches in **San Angelo, TX**, and 3.43 inches in **Lubbock, TX**. Most of **San Angelo's** rain (a daily-record total of 2.82 inches) fell on June 6. Similarly, 3.22 inches of **Lubbock's** rain fell in 24 hours on June 11-12, boosting their year-to-date precipitation to 12.75 inches (196 percent of normal). Precipitation during all of 1998 totaled 13.06 inches in **Lubbock**.

Weekly temperatures averaged up to 8°F above normal across **interior Alaska**, as late-week temperatures soared above 80°F. **Bettles** posted a high of 86°F on June 11. A day later, **Fairbanks** recorded 85°F. On the **Arctic Coast** at **Barrow**, the temperature reached 40°F on June 11 for the first time since September 20, 1998. Farther south, **Yakutat** notched a daily-record high, 79°F, on Saturday. Meanwhile in **Hawaii**, weekly temperatures averaged 1 to 2°F below normal.



National Weather Data for Selected Cities

Weather Data for the Week Ending June 12, 1999  
Data Provided by Climate Prediction Center (301-763-8000 EXT. 7503)

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN. SINCE Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL IN. SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																		01 INCH OR MORE	50 INCH OR MORE	01 INCH OR MORE	50 INCH OR MORE
AL	BIRMINGHAM	87	69	91	67	78	3	0.69	-0.14	0.69	1.37	94	26.39	97	87	43	3	0	1	1	
	HUNTSVILLE	89	68	94	65	79	4	0.01	-0.94	0.01	1.89	114	29.04	103	94	48	4	0	1	0	
AK	ANCHORAGE	66	46	71	40	56	3	0.00	-0.24	0.00	0.35	87	2.87	70	84	37	0	0	0	0	
	BARROW	37	30	46	23	34	2	0.00	-0.04	0.00	0.12	200	0.59	76	95	83	0	4	0	0	
	FAIRBANKS	79	52	85	44	65	7	0.00	-0.29	0.00	0.00	0	1.19	44	77	22	0	0	0	0	
AZ	JUNEAU	65	44	77	40	55	2	0.00	-0.72	0.00	0.71	58	27.17	143	95	52	0	0	0	0	
	KODIAK	50	44	59	43	47	-1	4.93	3.74	1.90	5.03	243	27.67	95	93	72	0	0	5	3	
	NOME	49	35	55	31	42	-2	0.58	0.37	0.27	0.63	185	4.00	111	97	57	0	3	5	0	
CA	FLAGSTAFF	72	33	78	29	52	-6	0.00	-0.01	0.00	0.91	999	5.42	61	68	15	0	4	0	0	
	PHOENIX	97	70	101	64	83	-3	0.00	0.00	0.00	0.00	0	1.42	55	30	12	7	0	0	0	
	TUCSON	96	61	99	54	78	-4	0.00	0.00	0.00	0.00	0	1.34	49	28	7	7	0	0	0	
CO	YUMA	97	68	102	65	83	-3	0.00	0.00	0.00	0.00	0	1.77	182	44	15	7	0	0	0	
	FORT SMITH	90	70	92	67	80	4	0.49	-0.37	0.47	0.91	59	23.12	120	94	48	4	0	3	0	
	LITTLE ROCK	91	71	93	69	81	4	1.72	0.85	1.28	1.75	114	24.34	101	95	50	5	0	4	1	
DC	BAKERSFIELD	83	53	88	46	68	-8	0.00	-0.03	0.00	0.00	0	5.42	144	58	19	0	0	0	0	
	EUREKA	60	46	68	41	53	-2	0.00	-0.15	0.00	0.01	4	27.05	131	89	65	0	0	0	0	
	FRESNO	86	55	91	50	71	-4	0.00	-0.03	0.00	0.20	400	5.96	86	64	15	2	0	0	0	
FL	LOS ANGELES	69	59	70	57	64	-1	0.00	0.00	0.00	1.12	999	7.32	95	87	66	0	0	0	0	
	REDDING	85	52	92	45	68	-6	0.00	-0.16	0.00	0.41	137	16.93	91	68	13	3	0	0	0	
	SACRAMENTO	82	50	87	46	66	-5	0.00	-0.03	0.00	0.03	60	9.91	93	87	25	0	0	0	0	
GA	SAN DIEGO	66	59	69	57	62	-4	0.00	-0.03	0.00	0.04	80	5.08	83	83	65	0	0	0	0	
	SAN FRANCISCO	64	49	68	48	56	-5	0.00	-0.03	0.00	0.31	620	12.99	107	86	54	0	0	0	0	
	ALAMOSA	76	36	79	29	56	-2	0.00	-0.14	0.00	0.00	0	2.50	107	76	11	0	1	0	0	
HI	CO SPRINGS	75	46	84	41	61	-2	0.45	-0.05	0.24	0.45	53	12.10	208	72	26	0	0	3	0	
	DENVER	76	49	89	45	62	-3	1.94	1.51	0.96	1.94	255	10.95	152	78	32	0	0	4	2	
	GRAND JUNCTION	83	51	87	43	67	-3	0.00	-0.12	0.00	0.06	27	3.20	85	47	13	0	0	0	0	
IA	PUEBLO	85	49	95	45	67	-2	0.00	-0.26	0.00	0.00	0	7.82	197	73	21	2	0	0	0	
	BRIDGEPORT	78	60	93	55	69	3	0.02	-0.78	0.02	0.02	1	19.29	101	88	50	1	0	1	0	
	HARTFORD	85	56	98	48	70	3	0.11	-0.80	0.03	0.11	7	17.49	88	93	38	2	0	2	0	
IL	WASHINGTON	88	67	98	60	77	3	0.00	-0.79	0.00	0.00	0	15.20	93	80	37	3	0	0	0	
	WILMINGTON	84	61	94	53	72	2	0.00	-0.80	0.00	0.00	0	19.84	110	83	40	3	0	0	0	
	DAYTONA BEACH	86	73	87	70	80	1	1.46	0.09	1.35	1.62	72	12.22	73	93	64	0	0	4	1	
IN	JACKSONVILLE	86	68	87	64	77	-1	2.98	1.69	1.50	3.54	165	13.01	67	98	60	0	0	6	2	
	KEY WEST	87	76	89	73	82	-1	0.82	-0.39	0.79	1.65	81	10.67	83	92	69	0	0	2	1	
	MIAMI	88	75	91	73	81	1	1.08	-1.16	0.63	5.40	143	15.13	78	89	62	1	0	4	1	
KS	ORLANDO	87	71	92	70	79	-2	1.61	-0.01	1.30	2.92	109	14.56	88	96	56	2	0	4	1	
	PENSACOLA	87	72	90	71	79	0	0.97	-0.44	0.35	1.54	66	19.09	73	96	60	1	0	4	0	
	TALLAHASSEE	89	71	92	70	80	1	3.04	1.55	2.24	3.70	149	20.66	75	96	50	4	0	5	1	
LA	TAMPA	89	73	92	71	81	0	0.05	-1.14	0.05	0.20	10	6.17	43	93	54	5	0	1	0	
	WEST PALM BEACH	85	74	88	72	79	-1	4.13	2.21	1.57	6.06	186	17.75	83	93	67	0	0	7	3	
	ATHENS	91	66	96	61	78	3	0.69	-0.19	0.40	1.00	65	15.56	64	95	41	4	0	2	0	
MD	ATLANTA	86	68	94	66	77	2	0.98	0.18	0.75	1.46	106	17.66	70	85	43	1	0	2	1	
	AUGUSTA	92	62	97	60	77	1	0.04	-0.92	0.04	0.15	9	14.17	65	97	38	6	0	1	0	
	COLUMBUS	90	71	96	69	81	2	0.01	-0.88	0.01	0.07	5	12.66	50	83	40	5	0	1	0	
MI	MACON	92	67	98	62	79	2	2.21	1.41	2.05	2.25	164	15.17	67	96	41	5	0	4	1	
	SAVANNAH	87	67	92	62	77	-1	0.74	-0.53	0.40	0.82	39	14.36	72	100	54	2	0	3	0	
	HILO	80	66	81	64	73	-2	0.85	-0.54	0.51	3.22	130	70.60	114	92	61	0	0	6	1	
MN	HONOLULU	85	72	86	70	79	-1	0.00	-0.13	0.00	0.02	8	6.27	58	76	48	0	0	0	0	
	KAHULUI	84	68	87	64	76	-1	0.00	-0.07	0.00	0.00	0	6.46	52	84	49	0	0	0	0	
	LIHUE	81	71	82	69	76	-1	0.39	-0.02	0.13	0.53	71	14.65	70	85	63	0	0	5	0	
MO	BOISE	74	45	91	37	59	-5	0.01	-0.20	0.01	0.47	127	6.30	97	68	18	1	0	1	0	
	LEWISTON	70	45	87	38	57	-8	0.28	-0.03	0.25	0.51	93	5.44	87	78	27	0	0	2	0	
	POCATELLO	67	39	80	32	53	-7	0.35	0.09	0.33	0.75	163	7.94	128	88	33	0	1	2	0	
NE	CHICAGO/O'HARE	89	68	92	66	79	12	1.66	0.78	1.40	2.74	184	22.56	161	88	46	5	0	5	1	
	MOLINE	88	67	91	62	78	8	1.84	0.88	1.43	3.78	229	18.72	120	95	55	3	0	5	1	
	PEORIA	89	68	92	66	79	9	1.00	0.09	0.81	2.67	173	17.08	115	91	53	4	0	4	1	
ND	ROCKFORD	87	66	91	64	77	10	1.74	0.70	0.83	3.29	187	19.82	142	98	52	3	0	5	2	
	SPRINGFIELD	91	70	93	67	80	9	0.51	-0.29	0.47	1.36	99	13.94	92	89	47	6	0	2	0	
	EVANSVILLE	90	71	91	70	81	7	0.36	-0.46	0.35	2.42	167	24.04	116	92	52	4	0	2	0	
OH	FORT WAYNE	91	68	92	67	80	11	0.12	-0.71	0.08	0.48	34	17.29	116	91	43	6	0	2	0	
	INDIANAPOLIS	90	71	92	68	80	10	0.00	-0.80	0.00	1.31	96	20.78	118	89	51	3	0	0	0	
	SOUTH BEND	92	69	95	65	81	13	0.52	-0.42	0.35	0.64	40	15.64	99	87	40	6	0	2	0	
OK	BURLINGTON	93	71	98	70	82	12	3.53	2.59	1.53	4.38	275	19.66	139	84	48	6	0	4	3	
	CEDAR RAPIDS	85	65	90	61	75	7	2.02	0.96	1.57	2.37	132	17.08	131	95	59	1	0	5	1	
	DES MOINES	85	67	91	64	76	6	1.54	0.49	1.42	2.01	114	15.69	119	90	56	3	0	2	1	
SC	DUBUQUE	85	65	89	63	75	9	2.53	1.55	1.22	4.01	237									

Weather Data for the Week Ending June 12, 1999

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	5.0 INCH OR MORE
KY WICHITA	86	66	90	63	76	2	1.94	0.89	0.79	2.49	139	19.31	158	93	47	3	0	5	2
KY JACKSON	88	66	90	65	77	7	0.44	-0.52	0.26	0.73	44	19.44	86	92	52	1	0	2	0
KY LEXINGTON	90	68	93	65	79	8	0.38	-0.45	0.28	1.37	96	17.24	85	93	53	4	0	4	0
KY LOUISVILLE	90	72	93	70	81	9	0.00	-0.80	0.00	0.26	19	21.24	101	89	52	6	0	0	0
KY PADUCAH	91	70	93	68	80	6	2.41	1.45	2.24	3.07	184	24.84	105	95	50	6	0	2	1
LA BATON ROUGE	89	70	91	69	80	0	1.54	0.57	1.06	1.54	93	20.03	74	98	53	2	0	4	1
LA LAKE CHARLES	88	72	91	70	80	0	3.57	2.39	1.44	3.57	173	18.50	82	100	64	1	0	6	2
LA NEW ORLEANS	89	73	91	71	81	2	2.81	1.49	1.24	2.83	127	15.22	56	93	57	3	0	4	2
LA SHREVEPORT	89	70	91	69	80	1	0.59	-0.46	0.51	0.59	32	30.91	139	94	52	4	0	2	1
ME CARIBOU	75	50	88	42	62	3	0.63	-0.01	0.52	1.49	134	12.63	94	93	46	0	0	3	1
ME PORTLAND	75	53	95	47	64	3	0.12	-0.70	0.07	0.12	9	19.92	101	95	46	2	0	4	0
MD BALTIMORE	86	60	97	53	73	2	0.04	-0.81	0.04	0.04	3	14.84	83	91	36	3	0	1	0
MA BOSTON	78	59	97	51	69	3	0.00	-0.74	0.00	0.00	0	15.26	80	87	50	2	0	0	0
MA WORCESTER	78	56	92	47	67	4	0.00	-0.92	0.00	0.00	0	17.20	82	92	50	1	0	0	0
MI ALPENA	85	62	92	56	74	14	0.33	-0.39	0.31	0.57	47	8.01	71	90	48	3	0	3	0
MI GRAND RAPIDS	88	66	93	63	77	12	0.45	-0.41	0.45	0.97	66	16.11	116	89	44	3	0	1	0
MI HOUGHTON LAKE	85	60	89	54	73	12	2.09	1.37	1.19	2.63	216	10.28	96	97	51	0	0	2	2
MI LANSING	91	64	94	57	78	13	0.20	-0.68	0.20	0.48	32	12.17	101	93	46	5	0	1	0
MI MARQUETTE	77	60	85	51	68	11	1.03	0.20	0.63	1.60	113	18.67	136	89	55	0	0	3	1
MI MUSKEGON	84	64	89	58	74	11	0.06	-0.51	0.04	0.46	47	13.87	108	96	57	0	0	2	0
MN DULUTH	74	54	78	50	64	6	0.59	-0.29	0.35	1.29	87	10.33	97	100	54	0	0	3	0
MN INT'L FALLS	78	55	83	50	66	6	1.03	0.14	0.61	1.74	118	11.87	146	98	48	0	0	3	1
MN MINNEAPOLIS	80	63	90	57	72	5	1.38	0.43	1.02	2.47	152	17.41	155	90	53	1	0	3	1
MN ROCHESTER	80	62	86	57	71	6	0.50	-0.35	0.20	1.83	127	17.50	161	94	60	0	0	4	0
MS ST. CLOUD	82	60	88	51	71	8	0.82	-0.27	0.39	2.05	111	10.91	108	93	46	0	0	5	0
MS JACKSON	92	68	94	66	80	2	0.04	-0.70	0.02	0.04	3	19.96	72	94	42	6	0	3	0
MS MERIDIAN	89	66	92	64	78	1	1.00	0.20	0.57	1.40	101	20.54	72	99	47	4	0	3	1
MS TUPELO	91	70	93	67	81	5	0.12	-0.80	0.12	0.24	15	33.06	117	90	44	6	0	1	0
MO COLUMBIA	88	67	91	65	78	7	0.89	-0.16	0.51	1.51	83	16.63	97	95	52	3	0	4	1
MO KANSAS CITY	85	67	89	62	76	5	1.19	0.06	0.87	1.75	90	21.34	144	95	58	0	0	3	1
MO SAINT LOUIS	90	71	95	68	81	7	4.31	3.45	3.04	4.74	318	21.69	132	87	50	5	0	4	2
MO SPRINGFIELD	86	66	89	62	76	4	0.27	-0.97	0.13	0.47	22	23.10	125	97	56	0	0	3	0
MT BILLINGS	69	47	76	40	58	-4	0.77	0.25	0.54	1.21	132	6.37	80	85	35	0	0	4	1
MT BUTTE	60	34	74	28	47	-7	0.65	0.13	0.26	1.53	170	6.99	130	92	34	0	3	3	0
MT GLASGOW	68	48	72	40	58	-5	0.66	0.16	0.59	2.16	254	8.43	194	92	35	0	0	3	1
MT GREAT FALLS	64	39	71	32	51	-8	0.36	-0.25	0.36	1.11	105	6.02	80	85	32	0	1	1	0
MT KALISPELL	63	35	77	27	49	-8	0.41	-0.14	0.16	0.49	52	6.12	81	93	29	0	2	4	0
MT MILES CITY	72	50	78	40	61	-4	0.96	0.27	0.53	1.36	116	6.32	99	93	31	0	0	4	1
MT MISSOULA	63	37	78	30	50	-8	0.27	-0.18	0.20	1.86	238	5.33	81	91	31	0	1	4	0
NE GRAND ISLAND	81	59	93	53	70	0	0.58	-0.38	0.29	2.03	123	12.80	116	90	44	2	0	4	0
NE LINCOLN	84	62	92	56	73	3	0.08	-0.86	0.04	0.22	14	13.56	117	91	50	3	0	3	0
NE NORFOLK	81	61	91	53	71	2	1.07	0.00	0.53	3.04	167	14.16	129	89	48	2	0	3	1
NE NORTH PLATTE	80	54	94	43	67	1	1.56	0.76	0.96	1.85	135	7.84	89	90	39	2	0	3	2
NE OMAHA	85	66	91	60	75	5	0.42	-0.52	0.40	0.99	60	17.26	140	91	52	4	0	2	0
NE SCOTTSBLUFF	80	51	94	44	65	0	1.00	0.36	0.64	1.37	123	7.63	102	91	29	1	0	4	1
NE VALENTINE	78	53	95	46	65	-1	0.27	-0.41	0.25	0.80	68	7.78	101	93	40	1	0	3	0
NE ELY	69	37	78	29	53	-4	0.11	-0.11	0.08	1.50	385	3.93	81	83	26	0	1	2	0
NE LAS VEGAS	93	68	99	65	81	-2	0.00	-0.03	0.00	0.16	320	0.96	51	23	12	7	0	0	0
NE RENO	77	44	86	37	61	-3	0.00	-0.12	0.00	0.06	27	2.96	72	59	14	0	0	0	0
NE WINNEMUCCA	75	35	90	28	55	-7	0.00	-0.22	0.00	1.16	305	4.52	107	76	16	1	4	0	0
NH CONCORD	81	52	96	41	66	4	0.06	-0.68	0.05	0.09	7	14.76	98	89	37	2	0	2	0
NJ NEWARK	84	63	99	55	74	3	0.00	-0.72	0.00	0.00	0	19.71	101	80	44	2	0	0	0
NM ALBUQUERQUE	85	56	89	51	70	-2	0.00	-0.11	0.00	0.00	0	2.35	90	41	12	0	0	0	0
NY ALBANY	84	59	95	52	72	7	0.00	-0.85	0.00	0.02	1	13.91	90	83	39	1	0	0	0
NY BINGHAMTON	80	59	90	53	70	7	0.06	-0.77	0.06	0.08	6	13.02	84	86	46	1	0	1	0
NY BUFFALO	84	64	90	60	74	10	0.00	-0.85	0.00	0.70	49	15.04	99	86	50	2	0	0	0
NY ROCHESTER	86	64	90	59	75	11	0.00	-0.72	0.00	0.66	55	13.34	102	87	49	1	0	0	0
NY SYRACUSE	87	64	94	57	75	12	0.00	-0.87	0.00	0.02	1	13.13	86	76	39	3	0	0	0
NC ASHEVILLE	84	59	88	53	71	3	0.19	-0.80	0.18	0.30	18	17.77	84	99	47	0	0	2	0
NC CHARLOTTE	89	63	95	57	76	1	1.52	0.73	1.50	1.53	113	14.65	74	93	42	4	0	2	1
NC GREENSBORO	88	64	95	60	76	5	0.26	-0.62	0.26	0.26	17	14.48	78	85	37	4	0	1	0
NC HATTERAS	80	70	83	67	75	2	0.00	-0.94	0.00	0.00	0	21.23	93	91	73	0	0	0	0
NC RALEIGH	92	62	100	55	77	4	0.00	-0.85	0.00	0.00	0	15.53	82	91	35	4	0	0	0
NC WILMINGTON	90	68	96	60	79	4	0.00	-1.28	0.00	0.09	4	22.72	109	91	46	3	0	0	0
ND BISMARCK	74	53	82	44	64	1	1.48	0.85	1.08	1.73	160	12.08	183	93	49	0	0	5	1
ND DICKINSON	71	48	79	40	60	-2	0.76	-0.01	0.55	0.86	66	8.36	116	91	43	0	0	5	1
ND FARGO	81	59	87	53	70	6	0.27	-0.39	0.25	1.02	92	8.72	115	85	39	0	0	2	0
ND GRAND FORKS	77	55	84	48	66	3	0.20	-0.45	0.19	1.25	115	10.42	157	96	48	0	0	2	0
ND JAMESTOWN	76	55	83	48	66	2	1.33	0.66	0.60	1.33	119	11.03	170	95	49	0	0	3	1
ND WILLISTON	73	48	77	38	60	-3	0.97	0.45	0.59	1.55	172	7.85	135	90	35	0	0	4	1
OH AKRON-CANTON	89	67	92	62	78	12	0.00	-0.72	0.00	0.09	7	14.72	93	89	50	3	0	0	0
OH CINCINNATI	91	66	94	65	79	9	0.58	-0.31	0.52	0.90	58	16.07	84	93	47	5	0	3	1
OH CLEVELAND	90	69	92	62	80	13	0.00	-0.85	0.00	0.45	31	13.24	87	87	47	4	0	0	0
OH COLUMBUS	94	70	96	64	82	14	0.00	-0.94	0.00	0.14	9	14.10	86	87	38	7	0	0	0
OH DAYTON	90	70	93	67	80	11	0.68	-0.23	0.67	1.58	101	16.59	100	84	43	5	0	2	1
OH MANSFIELD	90	67	92	62	78	12	0.24	-0.69	0.24	0.73	45	16.65	98	87	44	3	0	1	0

Based on 1961-90 normals

Weather Data for the Week Ending June 12, 1999

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Jun 1	PCT. NORMAL SINCE Jun 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	5.0 INCH OR MORE
OK TOLEDO	91	68	93	64	80	13	0.10	-0.77	0.08	0.47	32	16.53	123	90	43	6	0	3	0
OK YOUNGSTOWN	88	64	91	57	76	11	0.20	-0.71	0.20	0.58	38	17.54	114	88	43	1	0	1	0
OK OKLAHOMA CITY	83	68	89	66	76	1	4.44	3.34	2.34	4.92	255	21.40	140	95	58	0	0	4	2
OK TULSA	86	68	90	64	77	1	0.81	-0.31	0.53	1.00	51	25.57	140	93	57	1	0	4	1
OR ASTORIA	63	49	77	43	56	0	0.95	0.34	0.36	2.00	187	51.85	155	96	62	0	0	5	0
OR BURNS	68	32	86	28	50	-6	0.00	-0.22	0.00	0.10	26	5.15	108	80	23	0	5	0	0
OR EUGENE	68	41	79	34	55	-6	0.28	-0.10	0.15	0.30	44	26.63	106	96	44	0	0	3	0
OR MEDFORD	75	45	86	38	60	-5	0.00	-0.16	0.00	0.00	0	9.88	111	73	22	0	0	0	0
OR PENDLETON	73	42	90	39	58	-7	0.00	-0.17	0.00	0.02	7	4.57	74	75	26	1	0	0	0
OR PORTLAND	69	50	87	46	60	-3	0.56	0.17	0.29	0.62	89	23.52	131	93	47	0	0	4	0
PA SALEM	69	45	83	40	57	-3	0.40	0.05	0.37	0.43	69	29.76	152	93	43	0	0	3	0
PA ALLENTOWN	84	57	94	47	71	3	0.00	-0.76	0.00	0.27	18	17.90	96	84	36	2	0	0	0
PA ERIE	86	68	90	59	77	12	0.22	-0.74	0.21	1.02	62	16.97	107	78	50	2	0	2	0
PA MIDDLETOWN	87	62	96	55	75	5	0.06	-0.86	0.06	0.73	46	14.70	81	87	40	3	0	1	0
PA PHILADELPHIA	85	63	95	56	74	3	0.01	-0.84	0.01	0.01	1	18.88	103	89	41	2	0	1	0
PA PITTSBURGH	89	64	93	60	76	10	0.00	-0.85	0.00	0.28	19	17.11	104	87	37	2	0	0	0
PA WILKES-BARRE	83	57	93	49	70	4	0.12	-0.81	0.12	0.19	12	13.97	93	90	42	2	0	1	0
PA WILLIAMSPORT	86	59	95	49	72	6	0.08	-0.93	0.08	0.39	23	15.34	89	91	41	3	0	1	0
RI PROVIDENCE	81	57	96	49	69	4	0.00	-0.80	0.00	0.04	3	21.36	103	86	42	2	0	0	0
SC BEAUFORT	85	67	90	63	76	-2	2.13	0.76	1.16	3.72	162	16.58	82	99	58	1	0	2	2
SC CHARLESTON	87	67	90	65	77	0	0.21	-1.22	0.21	0.21	9	13.60	68	98	48	2	0	1	0
SC COLUMBIA	92	67	97	62	80	4	0.01	-1.06	0.01	0.09	5	13.73	62	88	37	5	0	1	0
SC GREENVILLE	88	65	93	62	77	3	0.09	-1.01	0.09	1.70	90	16.03	67	90	43	3	0	1	0
SD ABERDEEN	78	57	87	52	67	3	0.69	-0.04	0.62	2.58	210	9.05	117	95	49	0	0	3	1
SD HURON	81	58	90	50	69	3	0.06	-0.74	0.05	1.27	94	8.27	91	92	45	1	0	2	0
SD RAPID CITY	70	51	82	47	61	-2	2.42	1.68	1.52	3.74	294	11.07	143	94	56	0	0	5	1
SD SIOUX FALLS	80	60	89	50	70	4	0.49	-0.32	0.32	0.87	63	13.17	135	89	41	0	0	3	0
TN BRISTOL	89	61	93	58	75	5	0.01	-0.79	0.01	0.56	41	15.72	83	95	37	3	0	1	0
TN CHATTANOOGA	90	66	95	63	78	4	0.16	-0.63	0.16	0.39	28	27.16	105	94	45	4	0	1	0
TN KNOXVILLE	90	64	94	62	77	5	0.00	-0.91	0.00	0.16	10	22.87	101	97	41	4	0	0	0
TN MEMPHIS	93	73	95	72	83	5	0.00	-0.85	0.00	0.02	1	28.57	112	80	41	6	0	0	0
TN NASHVILLE	90	69	93	66	79	5	0.10	-0.75	0.05	1.33	89	23.43	102	88	43	3	0	2	0
TX ABILENE	89	66	92	62	78	-1	1.73	1.03	1.38	1.73	142	9.85	102	94	41	4	0	3	1
TX AMARILLO	83	58	88	51	71	-2	0.76	-0.12	0.39	1.23	83	15.85	226	83	40	0	0	3	0
TX AUSTIN	93	70	95	68	81	1	0.00	-0.96	0.00	0.00	0	12.19	82	98	46	7	0	0	0
TX BEAUMONT	87	73	90	72	80	0	5.47	4.15	4.34	5.47	239	17.31	75	97	64	1	0	5	2
TX BROWNSVILLE	92	76	93	73	84	1	0.00	-0.68	0.00	0.01	1	8.52	96	94	54	7	0	0	0
TX CORPUS CHRISTI	92	73	93	70	83	1	0.00	-0.83	0.00	0.01	1	6.10	55	97	58	7	0	0	0
TX DEL RIO	95	74	98	71	85	3	1.54	1.04	1.50	1.54	181	6.93	98	86	39	7	0	2	1
TX EL PASO	94	63	99	52	78	-1	0.00	-0.12	0.00	0.00	0	0.16	9	39	18	7	0	0	0
TX FORT WORTH	91	73	93	71	82	2	0.01	-0.76	0.01	0.01	1	14.42	87	88	47	6	0	1	0
TX GALVESTON	87	78	89	77	83	2	0.34	-0.70	0.12	0.34	19	9.45	61	84	66	0	0	5	0
TX HOUSTON	90	71	93	70	80	1	1.07	-0.15	0.66	1.07	50	12.63	64	97	59	3	0	6	1
TX LUBBOCK	87	61	92	57	74	-2	3.28	2.62	2.26	3.44	307	12.76	201	87	37	2	0	3	2
TX MIDLAND	91	67	95	60	79	0	0.50	0.13	0.45	0.50	76	3.34	66	81	31	5	0	2	0
TX SAN ANGELO	89	67	94	64	78	0	4.00	3.39	2.82	4.00	367	10.34	121	87	41	4	0	3	2
TX SAN ANTONIO	93	74	95	72	83	2	0.11	-0.85	0.08	0.11	7	7.37	55	93	41	7	0	2	0
TX VICTORIA	90	72	92	69	81	0	0.39	-0.80	0.21	0.39	19	13.13	89	100	58	5	0	5	0
TX WACO	92	74	94	71	83	3	0.13	-0.60	0.13	0.13	8	10.84	70	96	47	7	0	1	0
TX WICHITA FALLS	88	68	91	65	78	0	3.11	2.20	2.63	3.12	196	20.61	154	93	51	4	0	2	1
UT SALT LAKE CITY	72	50	83	47	61	-6	0.46	0.22	0.44	0.83	189	9.49	110	82	31	0	0	2	1
VT BURLINGTON	83	61	94	57	72	8	0.57	-0.23	0.39	0.71	52	10.70	83	85	41	1	0	2	0
VA LYNCHBURG	86	59	94	49	72	2	0.00	-0.80	0.00	0.00	0	13.17	74	91	41	3	0	0	0
VA NORFOLK	84	67	95	63	76	3	0.10	-0.75	0.10	0.10	7	16.74	87	90	54	3	0	1	0
VA RICHMOND	87	62	98	55	75	2	0.09	-0.71	0.09	0.09	7	15.65	86	90	41	3	0	1	0
VA ROANOKE	88	62	96	55	75	5	0.00	-0.75	0.00	0.24	18	13.83	78	86	40	4	0	0	0
VA WASH/DULLES	87	58	96	49	73	3	0.00	-0.94	0.00	0.00	0	16.35	94	92	38	3	0	0	0
WA OLYMPIA	67	44	85	38	56	-2	0.41	-0.01	0.27	0.55	75	39.01	157	93	46	0	0	3	0
WA QUILLAYUTE	61	42	77	35	52	-3	0.65	-0.15	0.31	2.38	166	68.78	130	97	62	0	0	3	0
WA SEATTLE-TACOMA	67	48	85	43	57	-2	0.17	-0.21	0.09	0.31	47	21.26	121	89	43	0	0	2	0
WA SPOKANE	66	41	82	36	54	-7	0.07	-0.25	0.05	0.38	68	7.39	91	79	25	0	0	2	0
WA YAKIMA	71	38	86	32	55	-9	0.01	-0.13	0.01	0.01	4	3.27	85	80	26	0	2	1	0
WV BECKLEY	83	61	88	59	72	7	0.00	-0.86	0.00	0.19	13	16.54	91	87	40	0	0	0	0
WV CHARLESTON	92	65	98	61	79	8	0.00	-0.80	0.00	0.02	1	15.13	83	94	40	7	0	0	0
WV ELKINS	86	53	91	50	70	6	0.23	-0.80	0.22	0.52	30	19.55	100	100	42	1	0	2	0
WV HUNTINGTON	94	66	97	64	80	10	0.02	-0.78	0.01	0.03	2	14.43	78	94	35	7	0	2	0
WI EAU CLAIRE	83	61	90	57	72	8	1.66	0.67	1.25	2.21	131	16.72	142	96	53	1	0	4	1
WI GREEN BAY	84	63	87	59	73	10	1.19	0.39	0.60	2.24	166	10.76	100	96	60	0	0	4	2
WI LACROSSE	86	66	92	63	76	9	0.19	-0.71	0.12	0.73	48	15.50	135	90	52	2	0	2	0
WI MADISON	87	66	90	60	76	11	2.04	1.19	0.94	3.07	212	17.19	146	92	52	1	0	7	2
WI MILWAUKEE	86	66	91	64	76	13	1.71	0.97	0.83	3.04	243	19.63	147	92	53	1	0	6	1
WY CASPER	71	45	80	41	58	-2	0.76	0.39	0.35	1.11	171	5.90	92	92	26	0	0	4	0
WY CHEYENNE	71	44	82	37	57	-2	0.69	0.19	0.40	0.82	94	8.82	137	86	34	0	0	4	0
WY LANDER	70	44	74	40	57	-4	0.27	-0.12	0.16	0.67	97	9.53	130	86	25	0	0	5	0
WY SHERIDAN	67	47	74	42	57	-3	0.49	-0.08	0.41	0.99	98	7.84	105	94	50	0	0	4	0

NOTE: These data are preliminary and subject to change. In the past, precipitation totals from a number of stations have been incomplete.

### Spring Weather Review

**Highlights:** Several temperature anomalies that developed in early April persisted through the remainder of the spring, including cool weather in the West, warm weather from the Dakotas to New England, and heat across southern Texas. In addition, April and May both featured wet conditions across most of the Plains and western Corn Belt, and unusually dry weather in much of the East, in areas along and near the Gulf Coast, and across the interior Northwest.

Spring precipitation exceeded 200 percent (%) of normal on the central and southern High Plains, and topped 150% in the east-central Plains, western Corn Belt, and parts of the Dakotas. Totals were 75% of normal from Virginia southward to northern Florida, in the interior Northwest, and in scattered areas of the Northeast and along the Gulf Coast. Spring temperatures ranged from 4°F above normal in parts of Minnesota, Wisconsin, and Maine, to as much as 5°F below normal in California's San Joaquin Valley.

**March:** Widespread precipitation fell from the central and southern Plains into the East, benefiting winter wheat and improving pre-planting moisture. Farther north, mostly dry weather in the northern Plains and the Midwest promoted spring fieldwork. In the Pacific Northwest, slightly drier weather eased the spring flood threat following an exceptionally wet winter. Toward month's end, rain reached southern Texas, providing much-needed moisture for spring-sown crops. In contrast,

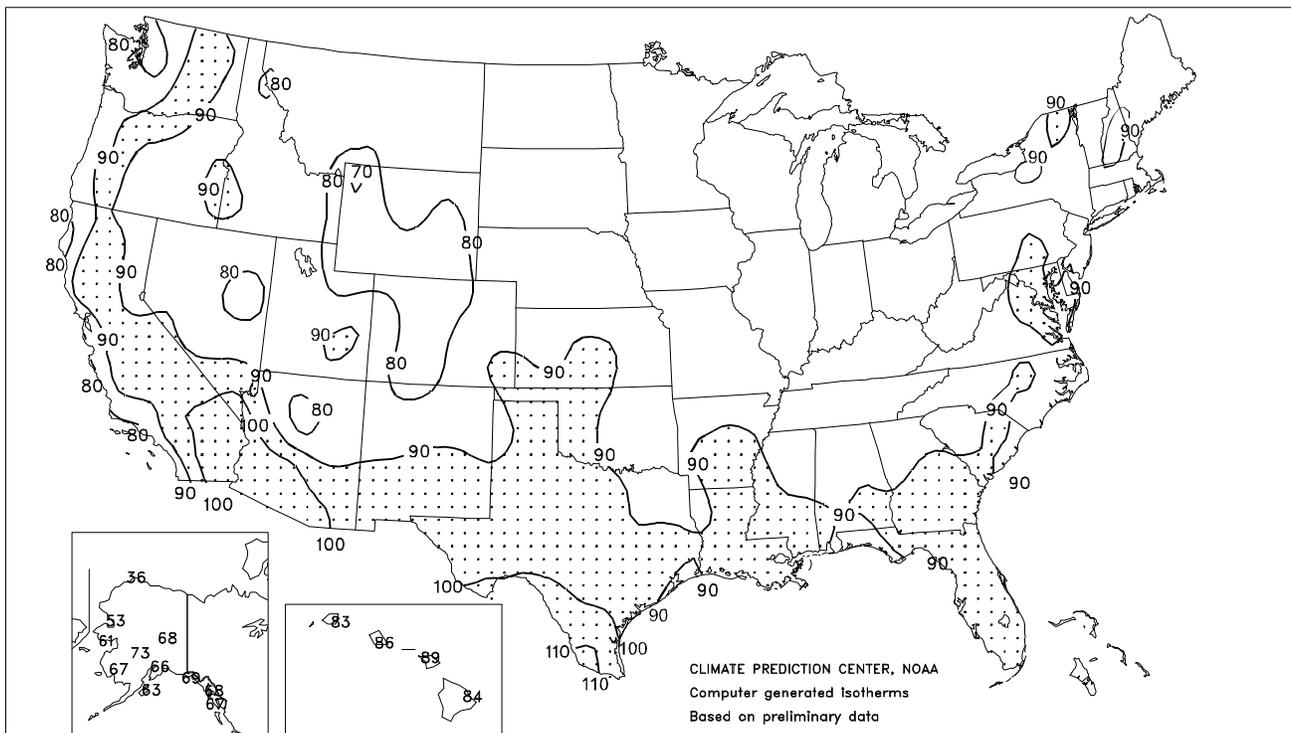
warm, mostly dry weather depleted soil moisture in the Southwest and Peninsular Florida. Below-normal temperatures prevailed in California, and from the southern Plains to the Ohio Valley and Southeast, slowing the development winter wheat and spring-sown crops.

**April:** A persistent, high-amplitude jet stream pattern promoted cool conditions in the West and warm weather in the East. Numerous storm systems took a similar path across the Intermountain West, central and southern Plains and Corn Belt, contributing to heavy precipitation and fieldwork delays. Heavy snow occasionally blanketed the northern Plains and Rocky Mountain States, and April-record rainfall soaked parts of the east-central Plains and upper Midwest. Late in the month, beneficial rain fell across the Southeast, including Florida, locally improving topsoil moisture and curbing the threat of wildfires. While the Southeast's rain aided winter grains and spring-sown crops, long-term moisture deficits persisted in some areas. Unfavorably dry weather stressed spring-sown crops in southern Texas. Drier-than-normal weather accompanied cool conditions in California and the Northwest, promoting spring planting but resulting in a slow start to the growing season. In the Southwest, early-month storms provided short-term relief from La Niña-driven winter dryness, but failed to significantly dent long-term moisture deficits.

**May:** A complete summary appeared in last week's *Bulletin*.

Spring Extreme Maximum Temperature (°F)

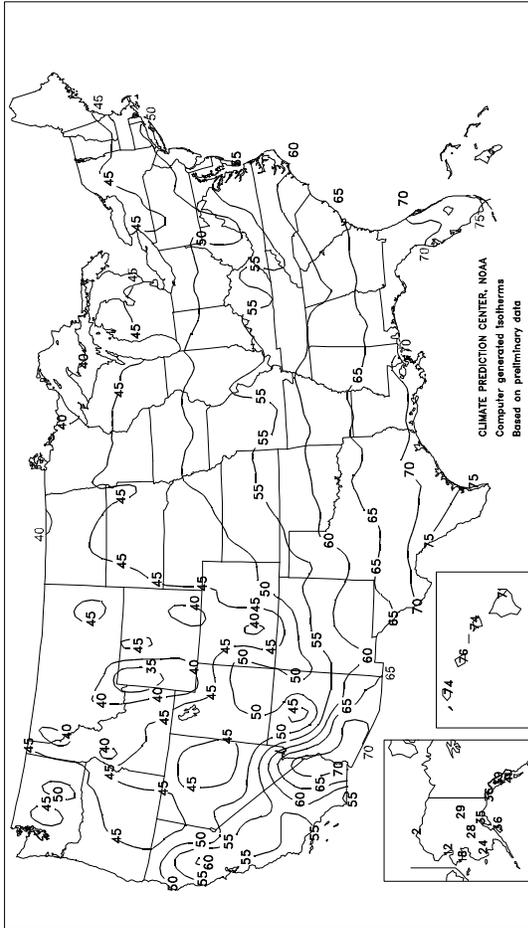
MAR - MAY 1999



With the exception of southern Texas, hot weather made only fleeting appearances—primarily across the South—during the spring of 1999. In the Midwest, spring temperatures first reached the 80-degree mark on May 10 in locations such as Des Moines, IA and Moline, IL. Dallas-Ft. Worth, TX experienced their first 90-degree heat on May 15. In contrast, Melbourne, FL posted an April record-tying high of 97°F on April 15, near the height of a severe spring wildfire season across the Southeast. In McAllen, TX, the temperature soared to 110°F on May 4, the start of a heat wave that continued into mid-June. A day later in Brownsville, TX, a maximum of 102°F was their highest temperature since a high of 102°F on June 8, 1989. As the meteorological spring closed, heat expanded across the East, as highs on May 31 rose to daily-record levels in Syracuse, NY (92°F) and Burlington, VT (90°F).

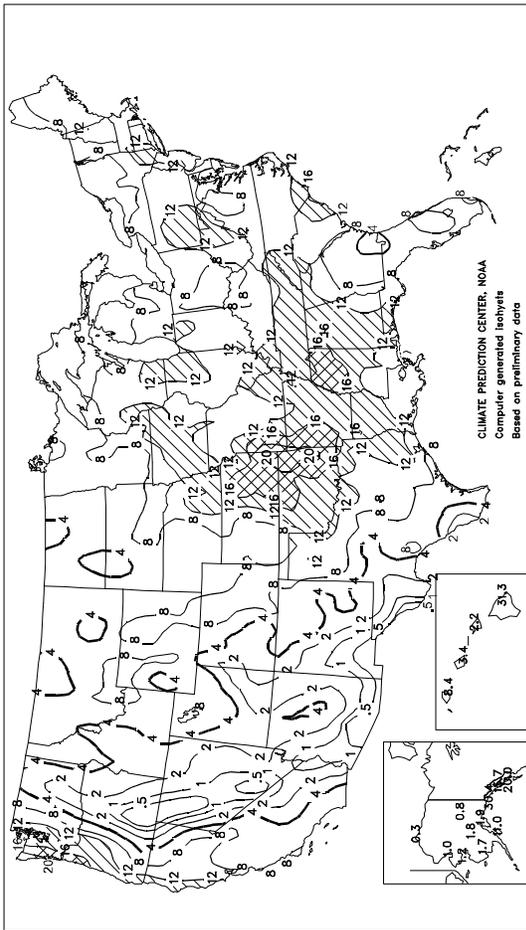
Spring Average Temperature (°F)

MAR - MAY 1999



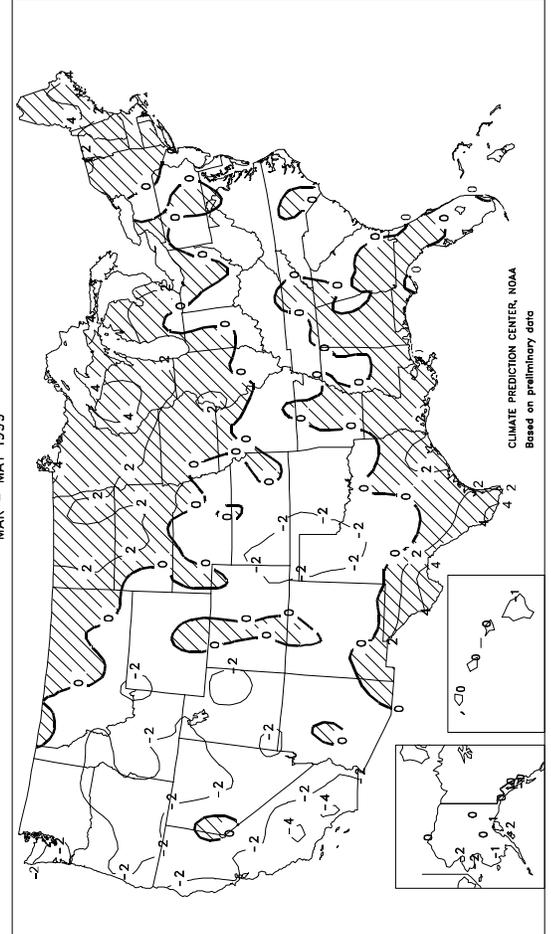
Spring Total Precipitation (Inches)

MAR - MAY 1999



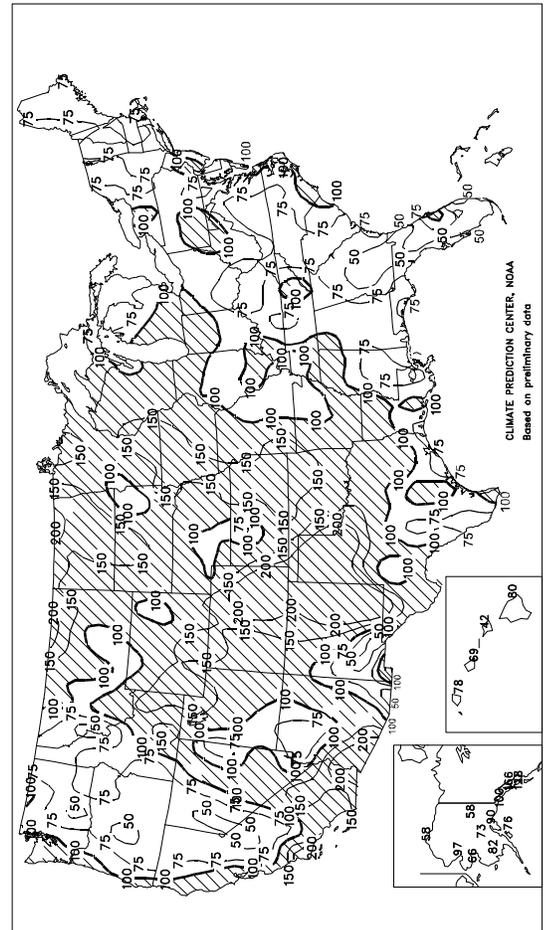
Spring Departure from Normal Average Temperature (°F)

MAR - MAY 1999



Spring Percent of Normal Precipitation

MAR - MAY 1999



## National Agricultural Summary

June 7 - 13, 1999

### HIGHLIGHTS

**Above-normal temperatures over the eastern half of the Nation promoted rapid crop emergence and growth in the Great Plains, lower Mississippi Valley, and Corn Belt, where moisture supplies were abundant. Intense thunderstorms in parts of the Corn Belt and Great Plains delivered strong winds, damaging hail, and heavy downpours that eroded soils and flooded river bottoms. In the Atlantic Coast States, crop development was stunted and conditions**

**deteriorated as drought conditions intensified. Seasonable temperatures and beneficial rains aided crops along the Gulf Coast and, to a lesser extent, inland areas of the Southeast and lower Mississippi Valley. Near-normal temperatures promoted steady crop development in the High Plains from Texas to eastern Montana, but below-normal temperatures hindered crop development in the Rocky Mountains and Pacific Coast States.**

**Corn:** Ninety-seven percent of the corn acreage was emerged, equal to last year's progress and ahead of normal in many areas of the Corn Belt. Above-normal temperatures aided development across the Corn Belt, especially in South Dakota, where emergence was less advanced. Conditions deteriorated in many areas of the western Corn Belt and Great Plains, as numerous thunderstorms developed and moved eastward during the week. Fields were damaged by a combination of high winds, hail, and heavy downpours that caused flooding and soil erosion. Plants in some fields were turning yellow due to excessive soil moisture. Most of the eastern Corn Belt was favorably dry, with only light, scattered showers that recharged soil moisture levels.

**Soybeans:** Ninety-one percent of the soybean crop was planted, slightly ahead of last year and 11 percentage points ahead of the 5-year average. Planting was nearly complete in most areas of the Corn Belt, but was less advanced in adjacent areas of the Great Plains, parts of the lower Mississippi Valley, and Southeast. Dry soils continued to delay progress in the Atlantic Coastal Plains. Emergence was also slightly ahead of last year, at 81 percent, and well ahead of normal in the eastern Corn Belt and Ohio Valley. Warm weather promoted rapid emergence in most areas of the Corn Belt. Nearly all of the acreage was emerged in the eastern Corn Belt, well ahead of last year and the normal in Ohio and Michigan.

**Winter Wheat:** The Nation's winter wheat crop was 93 percent headed, compared with 96 percent last year and 92 percent normally headed by this date. Nearly all of the acreage was advanced to the heading stage in the eastern Corn Belt, well ahead of normal due to continued warm weather. Near-normal temperatures aided development in the Great Plains. Fields were rapidly heading in South Dakota and quickly ripening in Kansas, Oklahoma, and Nebraska. Development was hindered by cold nighttime temperatures in the northern High Plains and Pacific Northwest. Harvest progress advanced to 10 percent, slightly behind the 5-year average and 7 percentage points behind last year. Scattered showers and

thunderstorms temporarily delayed harvest in parts of northern Texas and southern Oklahoma. In northern Oklahoma, heavier, more widespread rains prevented most harvest efforts, while strong winds caused lodging in some fields. Harvest accelerated in the lower Mississippi Valley and neared completion along the western Gulf Coast and in many areas of the Southeast.

**Cotton:** Planting neared completion, at 95 percent, 2 percentage points ahead of last year and the average. Planting rapidly advanced in Oklahoma, where scattered showers and thunderstorms caused only brief planting delays. Twenty-three percent of the crop was in the squaring stage, slightly behind last year and the average. Scattered showers boosted soil moisture and aided development in parts of the Southeast, but excessive dryness continued to stunt growth in the Atlantic Coastal Plains. Development steadily progressed in southern Texas, where fields continued to advance to the boll-setting stage. Below-normal temperatures hindered growth in the Southwest.

**Small grains:** Spring wheat and barley planting was nearly complete, at 97 and 95 percent, respectively, compared with the normal progress of 99 percent for both crops. Last year, all of the spring wheat and barley were planted by this date. Ninety-one percent of the spring wheat and 89 percent of the barley were emerged, slightly behind the normal of 93 and 94 percent, respectively. Two percent of the spring wheat and 7 percent of the barley were headed, equal to the normal for this date. Oats were 96 percent emerged, up 5 percentage points from last week, and 17 percent headed. Progress equaled or exceeded the average for both stages in most major oat-producing States, but lagged behind last year's development.

**Other crops:** The sorghum acreage was 77 percent planted, equal to the 5-year average, but behind last year's 83 percent pace. Planting rapidly advanced in the Corn Belt and central and northern Great Plains, despite periodic rain delays. Six percent of the peanut crop was pegging, compared with 11 percent last year.

## Crop Progress and Condition

Week Ending June 13, 1999

Soybeans Percent Planted				
	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
AL	64	60	77	72
AR	72	60	77	71
GA	71	59	73	72
IL	96	90	88	78
IN	98	96	87	78
IA	97	93	98	91
KS	75	48	92	73
KY	74	72	52	46
LA	93	93	93	88
MI	97	87	93	89
MN	97	92	99	96
MS	95	90	88	89
MO	78	65	90	65
NE	96	88	98	90
NC	60	53	64	57
OH	100	100	95	80
SC	64	54	62	56
SD	92	76	96	80
TN	77	65	55	49
19 Sts	91	84	90	80
These 19 States planted 93% of last year's soybean acreage.				

Winter Wheat Percent Headed				
	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
AR	100	100	100	100
CA	99	99	99	99
CO	98	84	96	91
GA	100	100	100	100
ID	26	7	45	44
IL	99	99	100	96
IN	100	100	100	96
KS	100	100	100	100
MI	98	93	100	59
MO	100	100	100	99
MT	16	11	64	30
NE	97	89	96	90
NC	100	100	100	100
OH	100	100	100	89
OK	100	100	100	100
OR	79	60	88	92
SD	82	31	83	53
TX	100	99	100	100
WA	80	55	98	83
19 Sts	93	88	96	92
These 19 States planted 91% of last year's winter wheat acreage.				

Corn Percent Emerged				
	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
CO	99	89	100	90
GA	100	100	100	NA
IL	98	94	95	NA
IN	100	99	91	NA
IA	99	93	100	96
KS	96	92	100	NA
KY	98	94	89	88
MI	97	89	94	88
MN	98	95	99	97
MO	93	84	99	NA
NE	100	93	100	94
NC	98	96	95	NA
OH	100	99	96	85
PA	93	86	87	NA
SD	89	73	97	NA
TX	99	97	100	NA
WI	91	88	100	NA
17 Sts	97	92	97	NA
These 17 States planted 90% of last year's corn acreage.				

Soybeans Percent Emerged				
	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
AL	53	45	61	12
AR	57	46	65	58
GA	56	42	56	NA
IL	88	71	73	NA
IN	93	84	78	NA
IA	90	63	94	81
KS	53	32	86	NA
KY	65	62	19	28
LA	80	75	86	79
MI	90	70	80	67
MN	86	62	97	84
MS	89	83	81	82
MO	69	42	75	NA
NE	78	49	92	74
NC	50	38	54	NA
OH	99	93	80	64
SC	51	35	46	25
SD	66	40	84	NA
TN	64	45	40	NA
19 Sts	81	62	80	NA
These 19 States planted 93% of last year's soybean acreage.				

Winter Wheat Percent Harvested				
	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
AR	46	10	61	33
CA	20	15	14	23
CO	0	0	0	0
GA	90	77	86	82
ID	0	0	0	0
IL	0	0	1	1
IN	1	0	2	0
KS	0	0	2	2
MI	0	0	0	0
MO	7	1	9	4
MT	0	0	0	0
NE	0	0	0	0
NC	38	20	36	28
OH	1	0	0	0
OK	25	8	55	31
OR	0	0	0	0
SD	0	0	0	0
TX	35	20	52	35
WA	0	0	0	0
19 Sts	10	5	17	11
These 19 States planted 91% of last year's winter wheat acreage.				

Cotton Percent Planted				
	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
AL	97	95	100	100
AZ	100	99	100	100
AR	100	100	100	100
CA	100	100	99	100
GA	96	92	96	98
LA	100	100	100	100
MS	100	100	100	100
MO	100	100	100	100
NM	100	100	100	100
NC	98	96	100	100
OK	95	76	95	86
SC	100	98	98	99
TN	100	100	100	100
TX	91	86	85	85
14 Sts	95	92	93	93
These 14 States planted 98% of last year's cotton acreage.				

# Crop Progress and Condition

Week Ending June 13, 1999

## Cotton Percent Squaring

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
AL	17	6	19	22
AZ	34	19	30	61
AR	27	4	28	26
CA	30	25	4	17
GA	29	13	40	39
LA	50	12	51	41
MS	41	11	40	44
MO	28	0	20	12
NM	12	0	8	5
NC	30	10	14	8
OK	1	0	0	2
SC	14	8	13	14
TN	27	5	13	12
TX	14	12	21	19
14 Sts	23	11	24	24

These 14 States planted 98% of last year's cotton acreage.

## Sorghum Percent Planted

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
AR	99	97	99	99
CO	85	71	65	61
IL	97	72	54	56
KS	83	50	88	70
LA	100	98	99	98
MS	100	100	98	98
MO	85	62	90	76
NE	87	60	99	87
NM	63	34	32	54
OK	40	34	57	55
SD	71	30	79	64
TX	71	66	82	85
12 Sts	77	58	83	77

These 12 States planted 99% of last year's sorghum acreage.

## Peanuts Percent Pegging

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
AL	7	NA	9	7
FL	28	NA	27	NA
GA	8	NA	17	14
NC	0	NA	24	5
OK	0	NA	0	2
SC	5	NA	0	0
TX	0	NA	1	1
VA	0	NA	0	0
8 Sts	6	NA	11	NA

These 8 States planted 99% of last year's peanut acreage.

## Oats Percent Emerged

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
IA	100	100	100	100
MI	100	100	100	98
MN	97	93	99	97
NE	100	100	100	NA
ND	87	72	100	89
OH	100	100	100	99
PA	97	97	95	NA
SD	99	98	100	97
WI	100	100	100	NA
9 Sts	96	91	100	NA

These 9 States planted 57% of last year's oat acreage.

## Oats Percent Headed

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
IA	32	NA	13	23
MI	35	NA	18	8
MN	3	NA	16	6
NE	47	NA	29	23
ND	0	NA	0	0
OH	73	NA	60	29
PA	42	NA	21	20
SD	11	NA	22	10
WI	9	NA	29	10
9 Sts	17	NA	18	10

These 9 States planted 57% of last year's oat acreage.

## Spring Wheat Percent Planted

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
ID	100	99	100	100
MN	98	92	99	98
MT	98	94	100	100
ND	94	88	100	98
SD	100	100	100	100
5 Sts	97	92	100	99

These 5 States planted 96% of last year's spring wheat acreage.

## Spring Wheat Percent Emerged

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
ID	100	96	100	99
MN	92	82	99	92
MT	91	82	99	96
ND	87	73	100	90
SD	100	97	100	98
5 Sts	91	80	100	93

These 5 States planted 96% of last year's spring wheat acreage.

## Spring Wheat Percent Headed

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
ID	10	NA	6	11
MN	2	NA	4	2
MT	0	NA	3	1
ND	0	NA	3	1
SD	10	NA	23	9
5 Sts	2	NA	6	3

These 5 States planted 96% of last year's spring wheat acreage.

## Barley Percent Planted

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
ID	99	98	100	100
MN	98	85	99	99
MT	99	97	100	99
ND	88	82	100	98
SD	100	100	100	100
WA	100	100	100	100
6 Sts	95	91	100	99

These 6 States planted 83% of last year's barley acreage.

## Barley Percent Emerged

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
ID	95	85	99	97
MN	89	70	99	92
MT	94	82	99	94
ND	80	65	99	91
SD	99	97	100	97
WA	100	100	100	100
6 Sts	89	77	99	94

These 6 States planted 83% of last year's barley acreage.

## Barley Percent Headed

	Jun 13 1999	Prev Week	Prev Year	5-Yr Avg
ID	10	NA	10	11
MN	2	NA	4	2
MT	1	NA	4	1
ND	0	NA	2	1
SD	17	NA	17	8
WA	43	NA	50	43
6 Sts	7	NA	9	7

These 6 States planted 83% of last year's barley acreage.

# Crop Progress and Condition

Week Ending June 13, 1999

Winter Wheat Crop Condition by Percent					
	VP	P	F	G	EX
AR	1	1	15	57	26
CA	0	0	15	70	15
CO	2	3	10	52	33
GA	14	20	27	33	6
ID	0	1	14	65	20
IL	0	4	17	64	15
IN	0	2	17	60	21
KS	2	6	19	54	19
MI	1	3	14	68	14
MO	0	8	32	49	11
MT	4	8	31	43	14
NE	0	3	33	51	13
NC	0	2	17	74	7
OH	0	1	17	55	27
OK	0	3	19	71	7
OR	17	22	31	29	1
SD	0	1	15	56	28
TX	4	9	34	42	11
WA	13	26	34	25	2
19 Sts	2	6	22	55	15
Prev Wk	2	7	24	53	14
Prev Yr	2	8	27	51	12

Soybeans Crop Condition by Percent					
	VP	P	F	G	EX
AL	0	1	31	61	7
AR	0	1	39	53	7
GA	18	26	38	18	0
IL	0	2	21	62	15
IN	0	1	22	61	16
IA	2	5	22	50	21
KS	0	3	27	62	8
KY	1	5	19	54	21
LA	0	5	45	47	3
MI	1	3	21	60	15
MN	2	7	27	56	8
MS	2	7	26	55	10
MO	0	6	33	56	5
NE	0	2	26	61	11
NC	4	10	42	40	4
OH	1	6	28	50	15
SC	3	24	57	16	0
SD	0	1	14	62	23
TN	1	4	29	59	7
19 Sts	1	4	26	56	13
Prev Wk	1	3	26	57	13
Prev Yr	1	6	26	56	11

Corn Crop Condition by Percent					
	VP	P	F	G	EX
CO	0	1	10	40	49
GA	21	26	29	22	2
IL	1	2	17	59	21
IN	0	2	16	61	21
IA	2	6	21	48	23
KS	1	3	17	65	14
KY	0	5	17	57	21
MI	1	3	19	63	14
MN	1	6	28	54	11
MO	0	6	36	52	6
NE	0	2	18	60	20
NC	6	24	42	25	3
OH	1	6	27	51	15
PA	1	7	28	53	11
SD	0	2	15	58	25
TX	0	2	18	62	18
WI	1	2	12	56	29
17 Sts	1	4	20	56	19
Prev Wk	1	3	20	57	19
Prev Yr	2	5	23	55	15

Cotton Crop Condition by Percent					
	VP	P	F	G	EX
AL	0	3	25	63	9
AZ	1	12	31	41	15
AR	0	2	31	58	9
CA	0	5	35	60	0
GA	10	20	33	30	7
LA	0	5	31	56	8
MS	2	4	25	59	10
MO	0	0	30	61	9
NM	3	3	30	39	25
NC	1	7	51	38	3
OK	0	1	54	43	2
SC	3	22	56	19	0
TN	1	3	20	57	19
TX	6	13	31	41	9
14 Sts	4	10	32	46	8
Prev Wk	4	11	33	43	9
Prev Yr	9	14	31	37	9

Rice Crop Condition by Percent					
	VP	P	F	G	EX
AR	0	2	26	50	22
CA	0	0	20	80	0
LA	0	2	20	61	17
MS	1	2	23	62	12
TX	0	1	14	39	46
5 Sts	0	2	23	56	19
Prev Wk	0	1	21	60	18
Prev Yr	0	5	29	52	14

Oats Crop Condition by Percent					
	VP	P	F	G	EX
IA	1	3	21	52	23
MI	1	3	24	64	8
MN	1	8	25	51	15
NE	0	2	15	54	29
ND	0	2	23	66	9
OH	1	4	27	53	15
PA	1	8	34	49	8
SD	0	0	14	62	24
WI	0	3	13	58	26
9 Sts	0	3	21	59	17
Prev Wk	0	3	20	60	17
Prev Yr	1	6	27	53	13

Peanuts Crop Condition by Percent					
	VP	P	F	G	EX
AL	0	5	21	68	6
FL	0	2	60	17	21
GA	5	14	36	39	6
NC	0	1	20	79	0
OK	0	11	34	43	12
SC	0	5	65	27	3
TX	0	5	20	57	18
VA	0	4	18	75	3
8 Sts	2	8	29	51	10
Prev Wk	1	9	35	46	9
Prev Yr	3	10	36	39	12

Barley Crop Condition by Percent					
	VP	P	F	G	EX
ID	0	0	23	55	22
MN	5	24	33	32	6
MT	0	6	31	53	10
ND	0	3	30	59	8
SD	0	1	11	56	32
WA	9	31	50	10	0
6 Sts	1	8	31	50	10
Prev Wk	1	6	29	53	11
Prev Yr	1	7	31	45	16

Spring Wheat Crop Condition by Percent					
	VP	P	F	G	EX
ID	0	0	13	60	27
MN	6	15	35	38	6
MT	1	3	20	65	11
ND	0	4	25	62	9
SD	0	1	14	58	27
5 Sts	1	5	23	59	12
Prev Wk	1	4	22	62	11
Prev Yr	2	9	34	43	12

VP - Very Poor;

P - Poor;

F - Fair;

G - Good;

EX - Excellent

## State Agricultural Summaries

*These summaries, issued weekly through the summer growing season, 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. The crop weather reports are also available on the Internet through the NASS Home Page on the World Wide Web at <http://www.usda.gov/nass/> or from JAWF at <http://www.usda.gov/occe/waob/jawf>.*

**ALABAMA:** Days suitable for fieldwork 6.0. Topsoil 4% very short, 21% short, 74% adequate, 1% surplus. Most areas received scattered showers that enhanced soil moisture levels. Some areas, however, continue to suffer under dry conditions. Corn 100% emerged, 100% 1998; 32% silked, 28% 1998, 31% average. Cotton 97% planted, 100% 1998, 100% average; 17% squaring, 19% 1998, 22% average. Soybeans 64% planted, 77% 1998, 72% average; 53% emerged, 61% 1998, 12% average. Peanuts 7% pegged, 9% 1998, 7% average. Wheat 51% harvested, 53% 1998, 47% average. Hay 89% harvested, 90% 1998, 74% average. Wheat condition 2% very poor, 2% poor, 20% fair, 61% good, 15% excellent. Corn condition 6% poor, 22% fair, 54% good, 18% excellent. Cotton condition 3% poor, 25% fair, 63% good, 9% excellent. Soybean condition 1% poor, 31% fair, 61% good, 7% excellent. Peanut condition 5% poor, 21% fair, 68% good, 6% excellent. Pasture condition 2% very poor, 6% poor, 24% fair, 58% good, 10% excellent. Livestock condition 3% poor, 18% fair, 63% good, 16% excellent.

**ALASKA:** Days suitable for fieldwork 6.8. Subsoil 50% short, 50% adequate. Sunny, hot conditions prevailed for the week, which dried soils and stressed crops. Daytime high temperatures were mostly in the 70's degrees F, with some upper 80's degrees F reported. Lows were mostly in the 40's degrees F. Oats 90% emerged, 100% 1998. Barley 100% emerged, 1998, 100%. Small grain height, 4.5', last year, 4.7'. Potatoes 10% emerged, 40% 1998. Crop growth 40% slow, 55% moderate, 5% rapid. Wind, rain damage to new plantings, 90% none, 10% light. Major activities: Included spraying fields for weeds, planting vegetables, maintaining CRP land, irrigating fields, and machinery repair.

**ARIZONA:** Cotton planting is complete. Small grains continue to progress. As of June 13, 98 percent of the durum wheat, 96 percent of the other wheat, 94 percent of the barley, and virtually all of the other small grains had matured. Small grain harvest continues to progress. As of June 13, 52 percent of the durum wheat, 47 percent of the other wheat, 57 percent of the barley, and 35 percent of the other small grains had been harvested. Alfalfa harvest activity was reported as 57 percent not being harvested, 3 percent light, 8 percent moderate, 32 percent active. Alfalfa condition was reported as 4 percent poor, 10 percent fair, 49 percent good, and 37 percent excellent. Range and pasture condition was reported as 7 percent very poor, 25 percent poor, 48 percent fair, 20 percent good. Central producers shipped broccoli, cabbage, cantaloupes, carrots, dry onions, honeydew, mixed greens, parsley, potatoes, watermelons. Eastern producers shipped lettuce, greenhouse tomatoes. Western producers harvested bell peppers, chile peppers. Western grape shipments included beauty seedless, perlettas, flame seedless. Melon shipments included canary, cantaloupes, casaba, crenshaw, honeydew, orange flesh, persian, santa claus, specialty melons and watermelons. Central, western citrus producers shipped grapefruit last week.

**ARKANSAS:** Days suitable for fieldwork 6. Topsoil 4% very short, 34% short, 58% adequate, 4% surplus. Temperatures were again above normal for most of the State, most areas having below normal rainfall with scattered showers, storms over the weekend. Cotton 100% planted 100% emerged 27% squaring, rice 99% emerged, soybeans 72% planted 57% emerged 2% bloomed, corn 100% emerged, sorghum 99% planted 97% emerged, wheat 46% harvested, oats 57% harvested. Livestock are reported in good condition. Main farm activities: Planting soybeans, sorghum, fertilizing cotton, corn, rice, bermuda, harvesting wheat, oats, hay. Other activities: irrigating corn, rice, cultivating cotton, spraying cotton for insects, harvesting tomatoes, spraying of rice, soybean fields for weeds, treating cattle for external parasites, vaccinating cattle, weaning calves, cleaning poultry houses.

**CALIFORNIA:** Field activities progressed normally under favorable conditions in most areas. Small grains continued to ripen slowly due to the previous periods of cool weather. Wheat grain harvest gained momentum in Kern County, but had not yet moved northward due to the slow filling of the grain heads. Cotton growth was still hampered by the earlier cool temperatures in the central valleys. Cotton fields were cultivated, irrigated, thinned, weeded and treated for leafhoppers, mites. Old crop sugarbeets were harvested, while new crop fields were being planted. Bolting was still a problem in some older sugarbeet fields in Fresno County. Seed alfalfa was in full bloom; fields were sprayed for aphid, lygus, mites. Corn for grain or silage, blackeye, lima beans were planted following the grain hay harvest. Rice fields showed good growth; some fields were treated for weeds and water weevils. Alfalfa hay fields experienced above-normal lygus pressure

in the central valleys. Safflower was blooming in the southern San Joaquin Valley. Alfalfa, small grains, and sudangrass were cut for hay or greenchopped. Grape growers were applying sulfur, insecticides to control powdery mildew and insects. Picking of Coachella Valley grapes for fresh consumption continued. Perlette, flame seedless were the primary varieties picked. Other cultural activities in vineyards, orchards included irrigation and extensive weed control. Fruit thinning was still active in the late variety stone fruit orchards. Harvest of apricots, cherries, nectarines, freestone peaches, plums continued. Cool weather this spring has delayed maturity by nearly 3 weeks. Good quality, but small fruit has been typical. Almond growers were applying fungicides, miticides. Tree limbs in almond orchards remained propped to bear the heavy nut set. Walnut trees were treated for blight. Valencia oranges, lemons were picked in southern California. Strawberry picking in the Central Valley continued. Harvest of vegetable crops continued to be delayed by cool weather. Crops affected included cantaloupe, watermelon, honeydew melon, various squash varieties, cucumbers. Only a few remaining tomato fields were still being planted in the Sacramento Valley. Potato, carrot fields were planted in the southern San Joaquin Valley. Processing pea harvest was completed, while garlic harvest was just beginning in some parts of the San Joaquin Valley. Pest, disease pressure was relatively low. Other crops harvested this week were artichokes, broccoli, cabbage, cilantro, leeks, turnips, onions, potatoes, various greens and herbs. Foothill pastures were dry in most areas with a few remaining cattle moving to summer pastures or to market. Some areas, especially in north, north-central reported ample dry grass for cattle to graze this fall. Cooler-than-normal weather at higher elevations continued to hamper summer grass growth. Nighttime lows reached 25 degrees F in the northern mountains, making it one of the coldest areas in the Nation. Warmer weather late in the period was very beneficial to summer pastures.

**COLORADO:** Days suitable for fieldwork 5.5. Top soil 1% very short 14% short, 79% adequate, 6% surplus. Subsoil 1% very short, 14% short, 81% adequate, 4% surplus. Typical weather this past week with highs getting into the 70's by noon, afternoon rain showers. The Eastern Plains and the Front Range received heavy thunderstorms with strong winds, isolated hail beginning on Thursday, continuing through the weekend. The Front Range area received the most hail damage. Winter wheat 22% turning color, 24% 1998, 21% avg. Spring wheat 28% headed, 24% 1998, 19% avg.; condition 8% poor, 12% fair, 58% good, 22% excellent. Spring barley 38% headed, 28% 1998, 34% avg.; condition 1% poor, 12% fair, 56% good, 31% excellent. Sorghum 43% emerged, 40% 1998, 27% avg. Oats 44% headed, 25% 1998, 22% avg; condition 1% poor, 17% fair, 69% good, 13% excellent. Dry onions condition 2% very poor, 6% poor, 13% fair, 56% good, 23% excellent. Sugar beets 98% up to stand and in mostly good to excellent condition. Dry beans 80% planted, 69% 1998, 57% avg.; 44% emerged, 27% 1998, 25% avg. Summer potatoes 97% emerged, 100% 1998, 95% avg. Fall potatoes 55% emerged, 50% 1998, 44% avg. Alfalfa 46% 1<sup>st</sup> cutting, 53% 1998, 33% avg. Pasture, range feed in mostly good condition.

**DELAWARE:** Days suitable for fieldwork 6.3. Topsoil 9% very short, 78% short, 13% adequate. Subsoil 8% very short, 63% short, 29% adequate. Winter wheat 1% very poor, 3% poor, 32% fair, 52% good, 12% excellent.; 80% turned, 80% 1998, 42% avg. Barley 1% poor, 29% fair, 60% good, 10% excellent.; 45% harvested, 59% 1998, 20% avg. Field corn 3% very poor, 8% poor, 42% fair, 44% good, 3% excellent. Soybeans 4% poor, 66% fair, 26% good, 4% excellent.; 42% planted, 46% 1998, 45% avg; 41% emerged, 31% 1998. Sorghum 59% planted, 54% 1998, 50% avg. Sweet corn 80% planted, 77% 1998, 87% avg. Snap beans 65% planted, 40% 1998, 54% avg. Tomatoes 86% planted, 72% 1998, 82% avg. Cantaloupes 77% planted, 71% 1998, 78% avg. Cucumbers 38% planted, 41% 1998, 51% avg. Watermelons 78% planted, 77% 1998, 83% avg. Lima beans 45% planted, 23% 1998, 22% avg. Clover, other hay 1<sup>st</sup> cutting 86% harvested, 90% 1998, 91% avg; 10% 2<sup>nd</sup> cutting, 15% 1998, 10% avg. Alfalfa hay 1<sup>st</sup> cutting 90% harvested, 89% 1998, 90% avg; 22% 2<sup>nd</sup> cutting harvested, 9% 1998, 5% avg. Strawberries 74% harvested, 94% 1998, 77% avg. Green peas 47% harvested, 56% 1998, 34% avg. Hay supplies 20% short and 80% adequate. Pasture 30% poor, 42% fair, 27% good, 1% excellent. Apples 11% fair, 79% good, 10% excellent. Peaches 11% fair, 78% good, 11% excellent. Activities: Pea, cabbage, strawberry, and barley harvests continue, wheat fields being cut.

**FLORIDA:** Topsoil moisture in the Panhandle adequate with scattered areas short. Scattered storms dropped varying amounts rain, ranging from traces Bradenton, Ona, Tampa to over 4.00 in. at West Palm Beach. Ft. Pierce, Tavares, Umatilla, Tallahassee, Jacksonville recorded about 3.00 to

3.50 in. Temperatures from 1 degree above normal Daytona Beach, Miami, Tallahassee to 2 degrees below Orlando. Most daytime highs 80s, nighttime lows mostly 70s. Homestead recorded at least one high at 100 degrees. Northern Peninsula topsoil moisture short to adequate, scattered areas very short. Southern Peninsula topsoil moisture adequate, scattered areas short or surplus. Tobacco being irrigated. Blue mold on tobacco. Cotton planting virtually complete. Sugarcane good condition. Hay growth responding to rainfall. Haying, some areas. Peanut condition: 2% poor, 60% fair, 17% good, 21% excellent. Peanuts 82% pegged reported. Okra harvesting gaining momentum, Dade County. Major vegetables shipped: sweet corn, cucumbers, eggplant, okra, peppers, potatoes, squash, tomatoes, watermelons. Frequent rains all citrus areas. Lakes, ponds, streams refilling following dry winter, spring. Abundant new growth most trees. New crop fruit making good progress. Valencia harvest slow, supplies running out. Grapefruit harvest almost over. Caretakers cutting cover crops, spraying, herbiciding, fertilizing. Pasture feed.: poor 15%, fair 50%, good 35%. Condition of cattle; poor 5%, fair 65%, good 30%. Pastures recovered somewhat following return to normal summer rainfall. North; Ranchers fertilizing pastures following rains. Central; pastures better condition, pasture grass still short, water table still very low. Cattle condition central area still fair. Statewide cattle condition continued mostly fair.

**GEORGIA:** Days suitable for field work 6.0. Soil 32% very short, 38% short, 29% adequate, 1% surplus. Corn 73% silked, 66% 1998, 65% avg.; 34% dough, 29% 1998, 23% avg.; 2% dent, 0% 1998, 3% avg. Cotton 1% setting bolls, 0% 1998, 0% avg. Hay 16% very poor, 29% poor, 34% fair, 20% good, 1% excellent. Peanuts 99% planted, 99% 1998, 100% avg.; 35% blooming, 42% 1998, 46% avg. Sorghum 14% very poor, 31% poor, 43% fair, 12% good; 85% planted, 84% 1998, 82% avg. Tobacco 12% very poor, 28% poor, 43% fair, 16% good, 1% excellent; 1% harvested, 0% 1998, 1% avg. Watermelons 3% very poor, 10% poor, 39% fair, 41% good, 7% excellent. Apples 6% poor, 31% fair, 51% good, 12% excellent. Peaches 3% very poor, 2% poor, 27% fair, 40% good, 28% excellent; 20% harvested, 31% 1998, 47% avg. Pecans 5% very poor, 16% poor, 41% fair, 32% good, 6% excellent. Scattered rains slightly improved soil conditions in the southern part of the state but more rain is needed. Corn continued to silk last week, but condition continued to decline. Soybean planting continued slightly behind last year's pace. Soybean condition continued to decline. Sorghum planting was slightly ahead of last year and the five year average. Wheat harvest neared completion. Cotton, peanut, tobacco conditions changed slightly last week. Cotton squaring remained behind last year and the five year average pace. Some cotton was setting bolls. Peanut blooming continued behind the five year average pace. Tobacco harvest began on a limited number of fields. Pastures hay continued to show stress. Hay cutting occurred last week. Condition changed slightly. The rain improved pasture condition. Farmers continued to feed cattle. Other Activities: Included spraying fungicides on peanuts, pecans, insect control, irrigating crops.

**HAWAII:** Combination of light showers, warm temperatures, sunny to partly cloudy skies enabled most crops to make favorable progress. Banana, papaya orchards were in mostly good condition. The advent of summer weather is expected to provide a boost to production. Head cabbage fields in good to fair condition. Harvesting will be steady. Cucumber, tomato, sweet corn plantings in favorable condition.

**IDAHO:** Days suitable for fieldwork 6.0. Topsoil 2% very short, 15% short, 70% adequate, 13% surplus. South-central, Eastern areas get late frost minor damage to potatoes. Cereal leaf beetle infesting grain Southwestern areas. Irrigation supply 69% excellent, 25% good, 6% fair. Alfalfa hay 40% harvested, 33% 1998, 40% avg. Dry beans 73% planted, 76% 1998, 80% avg.; 37% emerged, 16% 1998, 45% avg. Oats 96% planted, 99% 1998, 98%; 87% emerged, 92% 1998, 93% avg. Corn 96%, emerged, 82% 1998, 91% avg. Potatoes 66% emerged, 82% 1998, 74% avg. Barley 95% emerged, 99% 1998, 97% avg.; 10% headed, 10% 1998, 11% avg.; 51% jointed, 28% booting. Spring wheat 10% headed, 6% 1998, avg. 11%; jointed 51%; booting 22%. Winter wheat headed 1999 26%, 1998 45%, avg. 44%; jointed 97%; booting 64%. Activities: Finishing seeding, cultivating, irrigating, spraying weeds, monitoring for disease.

**ILLINOIS:** Days suitable for fieldwork 4.4. Topsoil 5% short, 70% adequate, 25% surplus. Farmers finished planting corn, soybeans. Timely rains coupled with the hot weather has spurred advance growth in both the corn and soybean crops. The average height of corn stands about a week ahead of the last two years and the tallest since the crop of 1991. That year's crop was about a week ahead of this year. Winter wheat is maturing similar to last year, ahead of the five-year average. Other activities for last week included cutting and baling hay, spraying and cultivating. Corn avg. height (in.) 17, 12 1998, 10 avg. Winter wheat filled 98%, 96% 1998, 82% avg. Winter wheat turning yellow 80%, 80% 1998, 46% avg. Winter wheat ripe 12%, 20% 1998, 7% avg. Oats headed 67%, 42% 1998, 36% avg. Oats filled 22%, 13% 1998, 11% avg. Oats turning yellow 4%, 0% 1998, 1% avg. Oats condition 16% fair, 72% good, 12% excellent. Alfalfa first cut 87%, 82% 1998, 68% avg. Alfalfa second cut 5%, 2% 1998, 2% avg.

Alfalfa condition 11% fair, 74% good, 15% excellent. Red clover cut 68%, 60% 1998, 54% avg. Red clover condition 2% poor, 25% fair, 62% good, 11% excellent.

**INDIANA:** Days suitable for fieldwork 6.4. Topsoil 5% very short, 28% short, 63% adequate, 4% surplus. Subsoil 4% very short, 18% short, 74% adequate, 4% surplus. Several days above 90 degrees placed stress on crops, pastures, livestock. Dry soils, some areas. Storms isolated areas, wind, hail damage. Wheat condition 81% good to excellent. Wheat harvest underway, southern areas. Wheat fields rapidly turning color. Corn planting complete. Corn, soybean growth ahead of normal. Pastures declined, 72% good to excellent. Tobacco plants set 75%, 45% 1998, 54% avg. First cutting alfalfa hay 95% complete, 80% 1998, 62% avg. Activities: Planting soybeans, applying post-emergence chemicals, side-dressing corn, cultivating corn, mowing roads, baling hay, spraying, repairing equipment, monitoring fields for insects.

**IOWA:** Days suitable for field work 3.3. Rain has left its mark across the state. Water is everywhere, ponding in excessively wet fields and causing further soil erosion. Some fields will not get planted. Emerged crops need dry, warm weather to deepen shallow root systems. Topsoil moisture: short 1%, adequate 53%, surplus 46%. Subsoil moisture: short 1%, adequate 55%, surplus 44%. Corn: emerged 99%, 1998 100%, avg. 96%; cultivated 13%, 1998 24%, avg. 22%. Corn acreage that has been or will be replanted 7%. Corn stand compared to normal 93%. Corn height: tallest 16 inches; average 9 inches. Corn condition: very poor 2%, poor 6%, fair 21%, good 48%, excellent 23%. Soybeans: planted 97%, 1998 98%, avg. 91%; emerged 90%, 1998 94%, avg. 81%. Soybean condition: very poor 2%, poor 5%, fair 22%, good 50%, excellent 21%. Oats headed 32%, 1998 13%, avg. 23%. Oat condition: very poor 1%, poor 3%, fair 21%, good 52%, excellent 23%. Winter wheat headed 74%. Winter wheat condition: poor 2%, fair 16%, good 62%, excellent 20%. Range, pasture condition: poor 3%, fair 14%, good 54%, excellent 29%. First cutting of alfalfa 56%, 1998 51%, avg. 43%. First cutting of clover hay 22%, 1998 22%, avg. 24%. Hay condition: poor 2%, fair 16%, good 55%, excellent 27%

**KANSAS:** Days suitable for fieldwork 4.5. Topsoil 2% short, 82% adequate and 16% surplus. Subsoil 2% short, 83% adequate, and 15% surplus. Several days of rain, hail across the State put a halt to spring planting last week. Northwestern, central, southeastern districts reported isolated damaging hail. Wheat turning 90%, 89% 1998, 74% average. Wheat ripe 17%, 28% 1998, 17% average. Disease infestation 2% severe, 13% moderate, 25% light, and 60% with no infestation. Sorghum condition 1% poor, 18% fair, 74% good, 7% excellent. Sorghum emerged 53%, 67% 1998, NA average. Sunflowers planted 75%, 64% 1998, NA average. First cutting alfalfa 99%, 99% 1998, 86% average. Second cutting alfalfa 13%, 13% 1998, 9% average. Major field activities when the weather allowed included planting soybeans, milo, sunflowers, spraying weeds, putting up hay, and making preparations for wheat harvest. Pastures continue to look favorable even though some areas were hit by hail. Hay, forage supplies 1% short, 91% adequate and 8% surplus. Stock water supplies 2% short, 88% adequate, and 10% surplus.

**KENTUCKY:** Days suitable fieldwork 5.4. Topsoil 25% very short, 38% short, 35% adequate, 2% surplus. Subsoil 28% very short, 32% short, 38% adequate, 2% surplus. Above normal temperatures throughout the state. Rainfall scattered. Eastern & Bluegrass regions experiencing moderate drought. Crops in good to excellent condition where moisture is adequate. Corn planting virtually complete. Single crop soybean seeding mostly complete. Seeding of double crop beans beginning as small grain harvest gets underway. Emerged soybeans 4 inches average height. Burley tobacco set 93%, 69%, 1998, 69% average. Dark tobacco 86% set. Set tobacco 3% very poor, 12% poor, 28% fair, 46% good, 11% excellent. Winter wheat 3% poor, 18% fair, 58% good, 21% excellent. Pastures 4% very poor, 16% poor, 30% fair, 42% good, 8% excellent. Pasture growth & stock water a concern in Central, Eastern areas. Winter wheat harvest underway. Barley harvest nearing completion. Sorghum planting 82% complete.

**LOUISIANA:** Days suitable for fieldwork 4.7. Soil 5% very short, 24% short, 57% adequate, 14% surplus. Corn 1% very poor, 12% poor, 36% fair, 46% good, 5% excellent; 59% silked, 89% 1998, 74% avg.; 14% dough stage, 27% 1998, 23% avg. Higher temperatures helped to speed up corn development. Cotton 100% emerged, 100% 1998, 100% avg.; 0% setting bolls, 7% 1998, 2% avg. Cotton continued to be sprayed for thrips and aphids. Hay 78% first cutting, 89% 1998, 77% avg. Peaches 38% harvested, 32% 1998, 25% avg. Rice 100% emerged, 99% 1998, 99% avg.; 4% headed, 5% 1998, 5% avg. Rice producers continued fertilizing and flooding fields. Sorghum 2% poor, 34% fair, 62% good; 2% excellent; 97% emerged, 98% 1998, 95% avg.; 0% headed, 2% 1998, 2% avg. Soybeans 4% blooming, 10% 1998, 2% avg. Sugarcane 1% very poor, 3% poor, 18% fair, 48% good 30% excellent. Sugarcane farmers were working fallow land. Sweet potatoes 74% planted, 65% 1998, 58% avg. Sweet potato growers were spraying for salt marsh caterpillars. Wheat 100% harvested, 99%

1998, 92% avg. Livestock 1% very poor, 3% poor, 32% fair, 56% good, 8% excellent. Vegetables 1% very poor, 11% poor, 36% fair, 43% good, 9% excellent. Pastures continued to improve from recent showers.

**MARYLAND:** Days suitable for fieldwork 6.6. Subsoil 36% very short, 57% short, 7% adequate. Topsoil 48% very short, 48% short, 4% adequate. Winter wheat 1% very poor, 13% poor, 41% fair, 44% good, 1% excellent; 78% turned, 76% 1998, 52% avg. Barley 1% very poor, 4% poor, 17% fair, 74% good, 4% excellent; 37% harvested, 55% 1998, 18% avg. Rye 1% very poor, 6% poor, 22% fair, 68% good, 3% excellent; 84% turned, 87% 1998, 63% avg; 45% harvested, 48% 1998, 17% avg. Corn 8% very poor, 27% poor, 36% fair, 28% good, 1% excellent. Soybeans 6% very poor, 34% poor, 36% fair, 23% good, 1% excellent; 59% planted, 48% 1998, 53% avg; 45% emerged, 42% 1998. Sorghum 64% planted, 70% 1998, 62% avg. Snap beans 80% planted, 76% 1998, 79% avg. Lima beans 70% planted, 67% 1998, 56% avg. Cucumbers 67% planted, 78% 1998, 83% avg; 9% harvested, 5% 1998, 3% avg. Strawberries 75% harvested, 83% 1998, 69% avg. Green peas 31% harvested, 62% 1998, 38% avg. Tobacco 65% transplanted, 67% 1998, 79% avg. Clover and other hays 1<sup>st</sup> cutting 95% harvested, 80% 1998, 71% avg; 22% 2<sup>nd</sup> cutting harvested, 13% 1998, 4% avg. Alfalfa 23% 2<sup>nd</sup> cutting harvested, 19% 1998, 10% avg. Pasture condition 9% very poor, 25% poor, 47% fair, 19% good. Hay supplies 2% very short, 30% short, 64% adequate, 4% surplus. Activities: Crop conditions continue to worsen as small amount of precipitation did little to help. Corn showed signs of drought stress.

**MICHIGAN:** Days suitable for fieldwork 6.0. Topsoil 8% very short, 42% short, 46% adequate, 4% surplus. Subsoil 12% very short, 41% short, 45% adequate, 2% surplus. Hay 1% very poor, 3% poor, 16% fair, 60% good, 20% excellent; first cutting 62%, 73% 1998, 40% avg. Asparagus harvested 91%, 99% 1998, 84% avg. Corn height, inches: 9, 10 1998, 6 avg. Dry beans planted 67%, 53% 1998, 54% avg. Potatoes emerged 92%, 92% 1998, 78% avg. Some storms brought high winds, hail, and locally heavy rain exceeding four inches, especially Southeast. Temperatures 8 to 11 degrees above normal raised accumulated growing degree days above last year's unusually high level. Crop conditions varied widely depending on rainfall. Hot weather stressed nonirrigated crops but aided post emergence herbicides on corn, soybeans. First hay harvest continued with heavy infestation of alfalfa weevils reported, especially north. Growers watched out for threshold populations in new growth. Wheat matured rapidly in hot weather. Some fields flattened by locally strong storms. Dry bean planting continued as early planted fields began to emerge. Potato planting finished as fungicide application began on some older fields. Asparagus quality and yields good in spite of heat. Labor in short supply, as many growers approached final harvest. Cabbage harvest began Southeast. Celery showed excellent growth. Cucumber planting continued. Onions at three to five leaf stage. Snap bean planting underway. Pumpkin and fall squash planting continued. Radish harvest continued. Early market tomatoes beginning to set fruit Southeast. Fruit sizing leaped on irrigated orchards during the hot week. Apple fruit 25 mm diameter south and 20 mm north. Thinning ended and set appeared good most areas. Disease control has been very good. Peaches had 19-22 mm fruit. Insect pest numbers fairly low. Vinifera grapes began to bloom; Niagara and Concord bloom ended. Powdery mildew is a serious concern. Strawberry harvest accelerated. Protection against rot diseases like anthracnose was needed. Sweet cherries had straw coloring. Tart cherries were from 14 mm fruit to pit hardening. Cherry leaf spot symptoms have appeared in blocks with lower levels of control. Blueberries at late green fruit stage and fungicides applied. Cranberries in full bloom.

**MINNESOTA:** Days suitable for fieldwork 2.5. Topsoil 0% very short, 1% short, 61% adequate, 38% surplus. Corn 23% cultivated, 67% 1998, 36% avg.; 10 in. height, 18 in. 1998, 10 in. avg. Soybeans 6% cultivated, 28% 1998, 14% avg. Spring Wheat 31% jointed, 62% 1998, 35% avg. Oats 53% jointed, 81% 1998, 52% avg. Barley 28% jointed, 61% 1998, 33% avg. Potatoes 92% planted, 99% 1998, 93% avg. Sunflowers 87% planted, 97% 1998, 93% avg. Sweet corn 89% planted, 94% 1998, 87% avg. Flax 99% planted, 96% 1998, 90% avg. Dry beans 85% planted, 98% 1998, 89% avg. Alfalfa 70% 1<sup>st</sup> cutting, 87% 1998, 53% avg. Pasture feed 1% very poor, 4% poor, 15% fair, 64% good, 16% excellent. Crops developed steadily in most parts of the state during the week, but locally heavy rains created some severe problems. In the Northwest District the current extreme wetness plus the lateness in the season means that many fields will be idled for 1999.

**MISSISSIPPI:** Days suitable for fieldwork 6.0. Soil 10% very short, 47% short, 40% adequate, 3% surplus. Corn 35% silked, 31% 1998, 28% avg; 3% very poor, 7% poor, 28% fair, 51% good, 11% excellent. Cotton 100% emerged, 90% 1998, 98% avg.; 41% squaring, 40% 1998, 44% avg.; 2% very poor, 4% poor, 25% fair, 59% good, 10% excellent. Rice 1% very poor, 2% poor, 23% fair, 62% good, 12% excellent. Sorghum 98% emerged, 88% 1998, 94% avg; 1% very poor, 1% poor, 18% fair, 68% good, 12% excellent. Soybeans 95% planted, 88% 1998, 89% avg; 89% emerged, 81% 1998, 82% avg.; 17% blooming, 8% 1998, 5% avg.; 2% very poor, 7% poor, 26% fair, 55% good, 10% excellent. Sweet potatoes 65% planted, 53% 1998, 44%

avg. Hay (warm-season) 33% harvested, 21% 1998, 29% avg.; 2% very poor, 13% poor, 33% fair, 46% good, 6% excellent. Watermelons 92% planted, 89% 1998, 96% avg; 1% poor, 26% fair, 58% good, 15% excellent. Wheat 99% mature, 88% 1998, 88% avg; 88% harvested, 71% 1998, 52% avg. Blueberries, 13% poor, 20% fair, 52% good, 15% excellent. Cattle, 2% very poor, 7% poor, 27% fair, 57% good, 7% excellent. Pasture 9% very poor, 15% poor, 35% fair, 37% good, 4% excellent. A good rain would be beneficial in many areas of the state. Soybean development is slightly ahead of last year and the 5-year average.

**MISSOURI:** Days suitable for fieldwork 5.4. Topsoil 3% very short, 21% short, 67% adequate, 9% surplus. Corn planting virtually complete all districts, 93% emerged. All soybean planting 78% complete, single-crop 88%, double-crop 5%. Soybeans 69% emerged. Soybean condition 6% poor, 33% fair, 56% good, 5% excellent. Sorghum planting 85% complete. Winter wheat 90% turning color. Winter wheat condition 8% poor, 32% fair, 49% good, 11% excellent. Pasture condition 3% poor, 22% fair, 65% good, 10% excellent. Precipitation for week ending June 13, 1999 avg. 1.22 in.

**MONTANA:** Days suitable for fieldwork 4.5. Topsoil 1% very short, 7% short, 87% adequate, 5% surplus. Subsoil Winter wheat in boot 66%, 96% 1998, 73% avg. Sugar beets condition 0% very poor, 3% poor, 11% fair, 74% good, 12% excellent. Oats seeded 97%, 100% 1998, 99% avg. Oats emerged 92%, 96% 1998, 92% avg. Oats in boot 5%, 25% 1998, 13% avg. Oats condition 1% very poor, 2% poor, 15% fair, 63% good, 19% excellent. Corn planted 96%, 100% 1998, 99% avg. Corn emerged 82%, 98% 1998, 93% avg. Corn condition 0% very poor, 0% poor, 25% fair, 65% good, 10% excellent. Potatoes planted 96%, 96% 1998, 97% avg. Potatoes emerged 32%, 35% 1998, 44% avg. Dry beans planted 97%, 100% 1998, 99% avg. Dry beans emerged 94%, 100% 1998, 90% avg. Dry beans condition 0% very poor, 0% poor, 14% fair, 83% good, 3% excellent. Alfalfa first cutting 3%, 7% 1998, 4% avg. Other hay harvested 2%, 2% 1998, 2% avg. Grasshoppers are starting to hatch and dense populations have been reported in some areas of the state. The only other fieldwork being done is spraying of summer fallow. Cattle and calves being moved to summer ranges 91%, 94% 1998, 93% avg. Sheep and lambs being moved to summer ranges 84%, 92% 1998, 91% avg.

**NEBRASKA:** Days suitable for fieldwork 4.5. Statewide, temperatures in the central, western portions averaged near normals while the eastern portion averaged 1 to 5 degrees above normals. Topsoil 6% short, 72% adequate, 22% surplus. Subsoil 5% short, 81% adequate, 14 surplus. Corn condition rated 2% poor, 18% fair, 60% good, and 20% excellent. Wire worms were noted in some fields and corn borer flight underway. Soybeans 96% planted, 98% 1998, 90% avg. Bean leaf beetles were still causing problems on seedling soybeans. Sorghum 87% planted, 99% 1998, equal to average. Dry bean planted 83% complete, above 68% last year; emerged 53%, above 23% 1998, 31% average. Wheat conditions rated 3% poor, 33% fair, 51% good, 13% excellent; headed 97%, 96% 1998, 90% avg. Wheat turning color was 18%, compared to 14% last year and average. Foliar diseases have been showing up in wheat. Oats 2% poor, 15% fair, 54% good, 29% excellent; headed was 47% complete, above 14% last 1998, 23% average. First cutting of alfalfa 76% complete compared to 56% last year and 53% average. Alfalfa condition rated 3% poor, 18% fair, 60% good and 19% excellent. Weevils, leaf hoppers were still a problem in alfalfa fields. Pasture, range improved 10% fair, 67% good, 23% excellent. Wild hay condition rated 1% poor, 14% fair, 61% good, and 24% excellent. Feedlots were muddy, temperatures at midweek stressed livestock. Producer activities; Planting, cultivating row crops, harvesting alfalfa hay, moving grain, applying fertilizer, herbicide.

**NEVADA:** The majority of the State experienced below normal temperatures in the early half of the week and above normal, summer-like conditions during the later half of the week. Ely was the only station that reported any precipitation, which was only .03 inches. However, Ely was also the only station to report below normal temperatures every day of the week except one. The warm weather has been very good for all of the crops. The alfalfa that was rained on was raked so that it could dry and be baled. First cutting of alfalfa is half completed in most of the State. The warm weather has also been good for the row crops. The cantaloupe crops were reported to be in good condition, potatoes were doing well. Though there was minimal precipitation, irrigation water supply is still adequate, the range conditions have continued to be in the good range. Livestock are still being moved to the summer ranges and, branding, vaccinating of calves are nearly completed. Main farm, ranch activities: haying, irrigating, working, moving livestock.

**NEW ENGLAND:** Days suitable for fieldwork 6.6. Topsoil 12% very short, 50% short, 38% adequate. Subsoil 12% very short, 51% short, 33% adequate, 4% surplus. Pasture feed 7% poor, 38% fair, 44% good, 11% excellent. Maine potatoes 100% planted, 99% 1998, 95% avg; 90% emerged, condition excellent to good. Massachusetts potatoes 100% planted, 100% 1998, 100% avg; 100% emerged, condition good. Rhode Island potatoes

100% planted, 99% 1998, 100% avg; 95% emerged, condition good. Oats in Maine 100% planted, 100% 1998, 95% avg; 95% emerged, condition good to excellent. Barley in Maine 100% planted, 100% 1998; 95% emerged, condition good to excellent. Field corn 99% planted, 95% 1998, 90% avg; 95% emerged, condition good to excellent. Sweet corn 85% planted, 85% 1998, 85% avg; 75% emerged, condition good. Shade Tobacco 100% planted, 100% 1998, 99% avg; condition good to excellent. Broadleaf Tobacco 80% planted, 80% 1998, 65% avg; condition good. First cut hay 55% harvested, 50% 1998, 35% avg; condition good. Apples set average, size average, condition good. Peaches set average, size average, condition good. Pears set average, size average to below average, condition good. Strawberries 20% harvested, 15% 1998, 5% avg, set average, size average, condition good. Cranberries early bloom, condition good to excellent. Highbush blueberries set average, size average, condition good. Wild Blueberries set above average to average, size average, condition good. Major farm activities included: finishing field corn planting; applying fertilizers, planting late summer and fall crops; scouting for pest and applying pesticides when necessary; irrigating; cultivating potatoes; harvesting first cutting of hay and haylage; harvesting strawberries.

**NEW JERSEY:** Temperatures averaged much above normal. Extremes were 98 degrees at several locations on the 8<sup>th</sup> and 42 degrees at Charlotteburg on the 11<sup>th</sup>. Weekly rainfall averaged 0.12 inches North, 0.17 inches Central, and 0.14 inches South. The heaviest 24 hour total was 0.60 inches at Trenton on the 13<sup>th</sup> to the 14<sup>th</sup>. Estimated soil moisture, in percent of field capacity, this past week averaged 58 percent North, 43 percent Central and 26 percent South. Four inch soil temperatures averaged 69 degrees North, 71 degrees Central and 72 degrees South. Days suitable for field work averaged seven days. Planting of field corn is virtually complete in South and Central Jersey and its condition has been rated between fair and good. Planting is still underway in North Jersey. Planting of single crop soybeans is also finished in the southern counties and it is still in full swing in the rest of the state. Harvest of barley has started in the producing areas of South and Central Jersey. Rye is being cut for long straw. The first cutting of hay continued heavily as the hot and dry conditions persisted for most of the week. Harvesting of alfalfa hay is still ahead of schedule. Irrigation of vegetable fields continued across the state. Planting of spring snap beans and tomatoes continued normally in Central and North Jersey. Some problems with transplanting of tomatoes due to the lack of moisture have been reported. Volume of harvested spring cabbage increased during the week. Moderate volume of asparagus, lettuce, spinach were reported. Sweet corn, leeks, green onions, cucumbers, endives, escarole, parsley and herbs are also being harvested. Thinning for peaches and apples continued but is winding down. Spraying for diseases and insects occurred in the southern counties. Both crops are in good condition. Harvest of strawberries is finished in the southern counties and harvest started in North Jersey. No harvest of blueberries has been reported yet.

**NEW YORK:** Days suitable: 6.6. Soil moisture 33% very dry, 49% short, 18% adequate. Pasture condition 1% very poor, 31% poor, 42% fair, 26% good. Hay harvest in full swing. Regrowth slow due to dryness. Wheat condition 81% good, 19% excellent. Oat condition 30% fair, 70% good. Dry bean planting continued. Emerged crops need rain. Strawberry harvest gained momentum. Hot weather promoted growth in all vegetable crops. Grapes in bloom. Apples in good to excellent condition. Vineyards and orchards required irrigation. Insect pressure high due to dryness.

**NEW MEXICO:** Despite the rain, farmers and ranchers had a statewide average of 6.6 days available for fieldwork. Last week's weather was characterized by below-normal temperatures and scattered rainfall. The greatest accumulations of precipitation were received in the east. Farmers continued cutting hay, planting sorghum and harvesting wheat and onions. The first cutting of alfalfa neared completion at 90%, while 35% of the second cutting was finished. Recent rainfall in the eastern plains should help the dryland sorghum crop that was going in last week. Wheat harvest continued to get underway last week, with only a few wheat farmers cutting their fields. Onion harvest inched forward, to 25% complete. Ranchers continued with branding, and supplemental feeding in a few areas. Cattle were rated in mostly good condition, while sheep were in fair condition.

**NORTH CAROLINA:** Statewide, 6.5 days were suitable for fieldwork compared to 6.6 last week. There was no relief from the dry weather this past week as many areas of the State experienced record high temperatures with no precipitation. A few areas reported isolated thunderstorms but even those areas did not receive significant moisture amounts. Only the USGA officials are encouraged by the dry weather as the U.S. Open golf tournament kicks off in Pinehurst this week. Many areas have delayed or ceased planting soybeans because of the dry weather. Most crop conditions continue to decline along with the moisture levels. Soil moisture is rated 46% very short, 42% short, 12% adequate, and 0% surplus. Limited progress was made in soybean, sweetpotato and sorghum planting. A majority of the fieldwork involved harvesting small grains and some Irish potatoes. Other activities included making hay, cultivating, applying pesticides, irrigating and tending livestock.

**NORTH DAKOTA:** Seeding progressed but many acres may not be planted this year. Planting progress is behind the five year average for all crops, with the exception of potatoes. Topsoil 0% very short, 2% short, 79% adequate, 19% surplus. Subsoil 0% very short, 1% short, 77% adequate, 22% surplus. An average of 5 days were suitable for fieldwork. In the north central area, large acreages are not being planted due to consistent and heavy rainfall during much of the planting season. Producers have switched to early soybeans or sunflowers and are also planting forage crops. Durum wheat 85% planted, 100% 1998, 98% avg; 71% emerged, 98% 1998, 87% avg; 9% jointed, 19% 1998, 11% avg. Canola 83% planted, 100% 1998; 76% emerged, 98% 1998; 27% rosette, 45% 1998. Corn 97% planted, 100% 1998, 98% avg; 92% emerged, 97% 1998, 90% avg. Dry edible beans 91% planted, 99% 1998, 96% avg; 64% emerged, 90% 1998, 76% avg. Flaxseed 85% planted, 100% 1998, 92% avg; 74% emerged, 97% 1998, 73% avg. Potatoes 99% planted, 100% 1998, 99% avg; 65% emerged, 93% 1998, 70% avg. Soybeans 91% planted, 99% 1998, 95% avg; 68% emerged, 93% 1998, 80% avg. Sunflower 83% planted, 99% 1998, 92% avg; 45% emerged, 84% 1998, 68% avg. Emerged crop condition: durum 0% very poor, 4% poor, 32% fair, 59% good, 5% excellent; canola 1% very poor, 4% poor, 31% fair, 54% good, 10% excellent; corn 2% very poor, 4% poor, 26% fair, 62% good, 6% excellent; dry edible beans 0% very poor, 6% poor, 28% fair, 64% good, 2% excellent; flaxseed 1% very poor, 4% poor, 33% fair, 54% good, 8% excellent; potatoes 0% very poor, 4% poor, 27% fair, 66% good, 3% excellent; soybeans 0% very poor, 6% poor, 22% fair, 66% good, 6% excellent; sugarbeets 0% very poor, 5% poor, 24% fair, 65% good, 6% excellent; sunflower 0% very poor, 1% poor, 30% fair, 64% good, 5% excellent. Pasture conditions were 1% very poor, 3% poor, 15% fair, 57% good, 24% excellent. Stock water supplies 0% very short, 0% short, 84% adequate, 16% surplus. Broadleaf and wild oat spraying 39% and 53% complete, respectively. Hay condition rated 5% above normal.

**OHIO:** Days suitable for fieldwork 6.7. Topsoil moisture 22% very short, 46% short, 31% adequate, 1% surplus. Soybeans emerged 99%, 80% 1998, 64% avg. Winter wheat turning 64%, 61% 1998, 21% avg. Winter wheat ripe 4%, 0% 1998, avg. Winter wheat harvested 1%, 0% 1998, 0% avg. Oats 73% headed, 60% 1998, 30% avg. Oats ripe 1%, 6% 1998, 1% avg. Tobacco beds transplanted, 90%, 56% 1998. Alfalfa 96% 1<sup>st</sup> cutting; other hay 83% 1<sup>st</sup> cutting. Alfalfa 2<sup>nd</sup> cutting, 7%, 0% 1998, 1% avg. Other hay 2<sup>nd</sup> cutting 3%, 0% 1998, 0% avg. Strawberries harvested 59%, 62% 1998, 29% avg. Pasture 3% very poor, 14% poor, 35% fair, 41% good, 7% excellent. Winter wheat 0% very poor, 1% poor, 17% fair, 55% good, 27% excellent. Corn 1% very poor, 6% poor, 27% fair, 51% good, 15% excellent. Soybeans 1% very poor, 6% poor, 28% fair, 50% good, 15% excellent. Activities for the week include replanting corn, soybeans; spraying weeds; applying fertilizer; cultivating; making hay; chopping silage; certifying crops; repairing equipment, buildings; preparing for wheat harvest; mowing farm lots, waterways; baling straw; hauling grain; spreading manure; spraying apples; thinning fruit; trimming Christmas trees; harvesting cabbage; setting peppers. Reported weed pressures include Canadian thistle, broadleaf, hemp dogbane, foxtail, chickweed, morning glory, johnsongrass. Reported insects were black cutworms, corn fleas, European corn borer, white earworm in corn; alfalfa weevil, leafhopper, spittlebugs, aphids in alfalfa. Other insects were cucumber beetles on pumpkin gourds, gypsy moths, cicadas. Diseases reported were apple scab, wheat rust, smut, blight on tomatoes. In Sandusky county, sweet corn is in full tassel, grapes are just finishing bloom in Lorain county. Overall, reporters rate the fruit crop in good shape although some crops in the south are being irrigated. Pastures, grasses have deteriorated, much has gone dormant from hot, dry weather. Livestock are suffering from heat with reporters commenting on lowered feed intake, decreased milk production, heat stress. There was one report of pinkeye in Guernsey county.

**OKLAHOMA:** Days suitable for fieldwork 4.0. Subsoil moisture 86% adequate, 14% surplus. Topsoil moisture 1% short, 76% adequate, 23% surplus. Wheat harvest advances west; heavy rains delay harvest, hay cutting remainder of State. Wheat 87% soft dough, 95% 1998, 92% avg; Oats 92% soft dough, 92% 1998, 85% avg; 7% harvested, 50% 1998, 21% avg; Corn 4% fair, 95% good, 1% excellent; 2% tasseled, 6% 1998, 6% avg; Sorghum 15% up-to-stand, 33% 1998, 36% avg; Soybeans 53% planted, 68% 1998, 69% avg; 35% up-to-stand, 36% 1998, 49% avg; Peanuts 97% planted, 95% 1998, 84% avg; 86% up-to-stand, 85% 1998, 69% avg; Cotton 73% up-to-stand, 82% 1998, 69% avg; Watermelons 66% vines running, 77% 1998, 73% avg; 15% fruit set, 12% 1998, 5% avg; Alfalfa Hay 2% poor, 13% fair, 72% good, 13% excellent; 99% 1<sup>st</sup> cutting, 99% 1998, 97% avg; 34% 2<sup>nd</sup> cutting, 48% 1998, 31% avg; Other Hay 53% 1<sup>st</sup> cutting, 55% 1998, 55% avg; Livestock 1% poor, 8% fair, 75% good, 16% excellent. Feeder cattle prices steady to 50 cents per cwt. higher than last week.

**OREGON:** Days suitable for fieldwork - 6.5. Topsoil 14% very short, 29% short, 55% adequate, 2% surplus. Subsoil 12% very short, 19% short, 62% adequate, 7% surplus. Winter wheat 17% very poor, 22% poor, 31% fair, 29% good, 1% excellent. Winter Wheat headed 79%, 88% 1998, 92% average. Range & pasture 7% poor, 26% fair, 63% good, 4% excellent.

Activities: Western field crops in good condition; spraying, fertilizing & summer fallow work being done. Fungicide applications for rust control continued. Crimson clover & meadowfoam fields in full bloom, red clover being green chopped. Alfalfa & grass hay baled. Grass quality lower due to weather. In East cooler temps delayed damage to stressed grain crops. Alfalfa cutting underway, yields low. Central Oregon reported light frost damage. Sugarbeets replanted in south central. Irrigation & field planting at nurseries continues. Digging & movement of balled & burlapped trees continue. Greenhouses starting cleanup. Late frost in Southern Oregon caused late season sales of bedding plants brisk last week. Cold wet weather will bring bugs in Christmas Trees, they require a second spraying. In the west, processing vegetables helped by warm weather. Salad vegetables harvested & new plants going in; sweet peas blooming; onions, cucumbers being cultivated. Eastern Oregon onions & potatoes look good; late potatoes, some vegetables suffering wind damage. Warm weather in the Willamette Valley accelerated fruit crops. Strawberries beginning to ripen, Raspberries beginning to size, Marionberries, blueberries starting to set fruit. Apples & pears starting to size. Rouge River Valley tree fruits being irrigated in preparation for application of second cover spray. Berries blooming & strawberries beginning to ripen. On south coast, Stevens variety cranberry blooming & beekeepers completed hive placement for pollination of cranberry crop. In Hood River Valley, a significant amount of pear fruit drop has occurred, the upper valley thinning is underway for Bartlett pears. Livestock good to excellent in west, mostly good in the east. Some feeder cattle shipped. Cattle still fed in high country of northeast. Willamette Valley pasture growth improved with warmer conditions. Range and pasture mostly fair to good east of the Cascades. Rangeland in the Columbia Basin dry. Northeast mountain grass a month behind normal.

**PENNSYLVANIA:** Days suitable for field work 6.1. Soil moisture 29% very short, 52% short, 19% adequate. Corn emerged 93% complete, 87% 1998, average not available. Average corn height 9 in., 8 in. 1998, 7 in. avg. Corn crop condition 1% very poor, 7% poor, 28% fair, 53% good, 11% excellent. Tobacco transplanted 95% complete, 84% 1998, 62% avg. Soybeans planted 87% complete, 78% 1998, 81% avg. Soybeans emerged 79% complete, 61% 1998, average not available. Soybean crop condition 1% very poor, 5% poor, 40% fair, 48% good, 6% excellent. Barley 80% turning yellow, 91% 1998, 65% avg; 30% ripe, 56% 1998, 15% avg; 5% harvested 28% 1998, 6% avg. Wheat 13% turning yellow, 37% 1998, 20% avg. Wheat crop condition 2% poor, 16% fair, 69% good, 13% excellent. Oats heading or headed 42% complete, 21% 1998, 20% avg. Oat crop condition 1% very poor, 8% poor, 34% fair, 49% good, 8% excellent. Alfalfa 1<sup>st</sup> cutting 80% complete, 79% 1998, 63% avg. Timothy clover 1<sup>st</sup> cutting 55% complete, 45% 1998, 33% avg. Quality of hay made 2% poor, 13% fair, 53% good, 32% excellent. Peach condition 5% fair, 52% good, 43% excellent. Apple condition 5% fair, 56% good, 39% excellent. Activities included planting potatoes, soybeans, tobacco and some alfalfa; machinery maintenance; hauling manure; spreading fertilizers; caring for livestock; building and repairing fences; cutting hay and clipping pastures; making haylage; applying pesticides; spraying fruit; and irrigating crops.

**SOUTH CAROLINA:** Days suitable for fieldwork 6.4. Soil moisture 42% very short, 49% short, and 9% adequate. Barley 100% turned color, 100% 1998, 97% avg; 97% ripe, 95% 1998, 89% avg; 20% fair, 60% good, 20% excellent. Cantelopes 8% harvested, 9% 1998, 12% avg; 1% very poor, 24% poor, 43% fair, 32% good. Corn 35% silked, 40% 1998, 38% avg; 13% very poor, 25% poor, 43% fair, 18% good, 1% excellent. Cucumbers 49% harvested, 37% 1998, 41% avg; 20% poor, 61% fair, 19% good. Hay 99% harvested, 100% 1998, 96% avg; 10% very poor, 19% poor, 51% fair, 16% good, 4% excellent. Oats 99% turned color, 100% 1998, 99% avg; 96% ripe, 96% 1998, 93% avg; 82% harvested, 77% 1998, 68% avg; 3% poor, 30% fair, 67% good. Peaches 19% harvested, 19% 1998, 16% avg; 5% very poor, 14% poor, 15% fair, 48% good, 18% excellent. Rye 100% turned color, 99% 1998, 99% avg; 93% ripe, 95% 1998, 90% avg; 78% harvested, 71% 1998, 59% avg.; 1% very poor, 3% poor, 31% fair, 63% good, 2% excellent. Snapbeans 34% harvested, 37% 1998, 26% avg; 40% fair, 60% good. Sorghum 81% planted, 66% 1998, 59% avg; 6% very poor, 8% poor, 6% fair, 80% good. Sw Potatoes 77% planted, 95% 1998, 78% avg; 4% poor, 46% fair, 50% good. Tonatoes 5% harvested, 5% 1998, 15% avg; 15% fair, 85% good. Watermelons 100% planted, 100% 1998, 100% avg; 2% very poor, 19% good, 44% fair, 35% good. Winter Wheat 100% turning color, 100% 1998, 100% avg; 99% ripe, 96% 1998, 90% avg; 79% harvested, 64% 1998, 51% avg; 3% poor, 36% fair, 58% good, 3% excellent.

**SOUTH DAKOTA:** Warm weather and little precipitation allowed many producers to make progress in row crop planting. Producers were busy cultivating and spraying, as weed control is a priority in many areas. Topsoil moisture 1% short, 69% adequate and 30% surplus. Subsoil moisture 1% short, 66% adequate and 33% surplus. Corn planted 98%, 100% 1998, 92% avg. Corn height 6 in., 10 in. 1998, 6 in. avg. Corn first cultivation 18%, 35% 1998, 17% avg. Sorghum condition 15% excellent, 69% good, 15% fair and 1% poor. Winter rye condition 26% excellent, 56% good, 17% fair, and 1% poor. Alfalfa condition 30% excellent, 54% good, 14% fair, and 2% poor. Winter wheat turning color 0%, 12% 1998, 3% avg. Spring wheat 55% in boot stage, 68% 1998, 32% avg. Oats 37% in boot stage, 64% 1998, 34%

avg. Oats turning color 2%, 0% 1998, 20% avg. Barley 40% in boot stage, 62% 1998, 30% avg. Winter wheat 98% in boot stage, 97% 1998, 80% avg. Winter rye 95% in boot, 98% 1998, 88% avg. Winter rye headed 64%, 81% 1998, 66% avg. Winter rye turning color 0%, 10% 1998, 2% avg. Flaxseed 88% seeded, 100% 1998, 87% avg. Flaxseed 72% emerged, 95% 1998, 68% avg. Sunflower 66% seeded, 83% 1998, 69% avg. Alfalfa first cutting 36%, 49% 1998, 27% avg. Cattle condition 29% excellent, 63% good, and 8% fair. Sheep condition 34% excellent, 57% good, and 9% fair. Cattle moved to pasture 98%. Feed supplies 1% short, 81% adequate, and 18% surplus. Stock water supplies 1% short, 73% adequate, and 26% surplus.

**TENNESSEE:** Days suitable for fieldwork 6.0. Topsoil moisture 17% very short, 46% short, 35% adequate, 2% surplus. Subsoil moisture 12% very short, 41% short 46% adequate, 1% surplus. Corn 2% tasseled, 4% 1998, 4% avg; 8% poor, 33% fair, 46% good, 13% excellent. Tobacco 92% transplanted, 69% 1998, 77% avg; 2% very poor, 9% poor, 37% fair, 42% good, 10% excellent. Wheat 90% ripe, 87% 1998, 66% avg; 33% harvested, 27% 1998, 17% avg; 3% poor, 15% fair, 60% good, 22% excellent. Pasture 3% very poor, 16% poor, 34% fair, 43% good, 4% excellent. Alfalfa 97% harvested, 100% 1998, 95% avg; 4% poor, 29% fair, 55% good, 12% excellent. Other hay 92% harvested, 87% 1998; 2% very poor, 10% poor, 37% fair, 46% good, 5% excellent. Wheat producers kicked harvest into high gear last week and most have been very pleased with their initial yields. Currently, a third of the crop has been harvested, nearly 3 days ahead of the five-year average. The recent dry conditions have been ideal for both wheat and hay harvest, but other crops are in need of moisture. Last week's rainfall amounts averaged more than one-half inch below normal across the State with only scattered afternoon showers and thunderstorms. Tobacco diseases, such as Tomato Spotted Wilt Virus and Black Shank, began showing up in some fields last week.

**TEXAS:** Most areas of state reported hot, humid conditions with some areas receiving additional beneficial rain. A few areas in Plains received scattered hail damage. Crop progress good all areas. Planting, harvesting operations moved ahead between rain showers. Haying operations increased most areas. Livestock conditions remained fair to good across state.

**Crops:** Small Grains: Harvest underway in High Plains between rain showers. Progress should increase as weather allows. Harvest advanced North Central, Low Plains. Late rains in Low Plains allowed producers to harvest fields that previously too poor to harvest. Corn: Fields continued show good progress in the High Plains. A few fields damaged by scattered hail. Fields continued enter dough stage in Blacklands. Fields in Coastal Bend, along Upper Coast were in dent stage, made good progress. 50% emerged, 48% 1998, 43% avg. 34% doughing, 23% 1998, 20% avg. 8% dented, 2% 1998, 1% avg. Cotton: Most replanting completed in Plains. Good progress reported most fields, however some fields struggling from hail, wind damage. Fields continued to square in Blacklands, making very good progress. Fields in Trans Pecos catching up, made good progress. Bolls continued to set in Coastal Bend, along Upper Coast. Progress good these areas. A few dryland fields cutting out. 14% squaring, 21% 1998, 19% avg. 6% open bolls, 12% 1998, 8% avg. Peanuts: Progress continued good in Plains, North Central. Moderate thrip population reported. Hail caused scattered damage. Rice: Additional fields headed out along Upper Coast. Progress most fields remained good. Sorghum: Planting moved ahead in Plains between rain showers. Soil moisture good at this point. Fields continued head out in Blacklands, North Central. Fields turning color Central, along Upper Coast. Harvest increased in Coastal Bend, Rio Grande Valley. Statewide sorghum condition rated 85% normal compared 58% last year. 36% heading, 39% 1998, 41% avg. 20% turning color, 17% 1998, 18% avg. 5% mature, 3% 1998, 3% avg. 2% harvested, 0% 1998, 0% avg. Soybeans: Growth good on planted fields in Plains, producers made some progress on planting. Fields continued show good growth, bean development along Upper Coast. Fields continued to bloom in Northern Blacklands. Other Crops: Sunflowers 66% planted, 65% 1998, 59% avg. Oats 64% harvested, 54% 1998, 49% avg.

**Commercial Vegetables, Fruit and Pecans:** Rio Grande Valley, most production ended for season. San Antonio-Winter Garden, onion harvest winding down many fields as was cucumber, cabbage harvest. Watermelon harvest continued some fields. East Texas, sweetpotatoes made good progress. Insects, too much rain some areas have caused disease problems with some vegetables. High Plains, onions, potatoes made good progress with minimal hail damage reported. Trans Pecos, onion harvest continued, cantaloups made good progress, harvest will begin soon. Peaches: Harvest continued in Hill Country, early varieties look good. Production continued low East. Pecans: Recent rainfall most areas should help reduce nut drop as crop enters a critical water need stage. Casebearer damage varied across the state. The second generation hatch should begin soon.

**Range and Livestock:** Range, pasture conditions continued to improve some areas with recent rains. Hay cutting activity remained steady most areas. Grasshoppers have become an increasing problem some areas. Livestock condition varies across state, however producers most areas reported livestock to be good. Flies remained problem untreated herds.

**UTAH:** Days suitable for field work 6. Top soil moisture 8% short, 89% adequate, 3% surplus. Subsoil moisture 8% short, 88% adequate, 4%

surplus. Pasture, range condition, 23% fair, 65% good, 12% excellent. Winter wheat headed 54%, 48% 1998, 68% avg. Corn emerged 92%, 85% 1998, 17% avg; height 7 inches, 6 inches 1998, 6 inches avg. Spring wheat headed 29%, 38% 1998, 38% avg. Barley headed 31%, 23% 1998, 33% avg. Dry Beans planted 100%, 76% 1998, 56% avg. Other hay cutting 11%, 9% 1998, 13% avg. Alfalfa hay: first cutting 46%, 37% 1998, 49% avg. Oats headed 17%, 6% 1998, 2% avg. Cattle moved to summer range 86%, 79% 1998, 81% avg. Sheep moved to summer range 80%, 70% 1998, 75% avg. Major activities included spraying fruit and cutting hay. Several counties reported problems with cricket and grasshopper infestation.

**VIRGINIA:** Days suitable for fieldwork 6.7. Topsoil moisture 60% very short, 35% short, 5% adequate. Subsoil moisture 46% very short, 44% short, 10% adequate. Pastures 28% very poor, 41% poor, 26% fair, 5% good. Livestock 1% very poor, 6% poor, 33% fair, 53% good, 7% excellent. Hay, Other 18% very poor, 40% poor, 28% fair, 12% good, 2% excellent. Hay, Alfalfa 4% very poor, 18% poor, 49% fair, 28% good, 1% excellent. Corn for Grain 100% planted, 96% 1998, 97% avg; 0% silked, 0% 1998, 0% avg; 12% very poor, 28% poor, 36% fair, 22% good, 2% excellent. Soybeans 48% planted, 51% 1998, 51% avg; 13% very poor, 26% poor, 45% fair, 16% good. Winter Wheat 9% harvested, 5% 1998, 4% avg. Barley 40% harvested, 32% 1998, 31% avg. Tobacco, Flue Cured 2% poor, 36% fair, 49% good, 13% excellent. Tobacco, Burley 93% planted, 86% 1998, 84% avg; 3% very poor, 15% poor, 23% fair, 46% good, 13% excellent. Tobacco, Dark Fire Cured 100% planted, 96% 1998, 96% avg; 2% very poor, 5% poor, 42% fair, 44% good, 7% excellent. Tobacco, Sun Cured 98% planted, 95% 1998, 98% avg; 33% poor, 20% fair, 47% good. Peanuts 0% pegged, 0% 1998, 0% avg; 4% poor, 18% fair, 75% good, 3% excellent. Cotton 1% squaring, 0% 1998, 2% avg; 14% poor, 38% fair, 46% good, 2% excellent. Apples, All 10% poor, 41% fair, 48% good, 1% excellent. Peaches 6% very poor, 8% poor, 42% fair, 42% good, 2% excellent. Weekend rains fell across Central and Western Virginia providing only minimal relief from the hot, dry conditions plaguing the Commonwealth. Weather has been nearly ideal for harvesting of hay and small grains but has brought planting of soybeans and vegetables nearly to a standstill. Early planted soybean acres are beginning to emerge as result of scattered rains. Barley harvest continues, slightly ahead of schedule, with wheat harvest just getting underway. In general crop conditions continued to decline over the course of last week. Many acres are beginning to show the effects of nearly a month without rain. Orchards are in need of rain in order for fruit to reach proper retail size. Farmers with irrigation are busy running water to their fields. Water supplies in some localities are being pushed to the limit. Significant precipitation will be necessary to replenish surface water sources. Livestock producers are also feeling the effects of the hot, dry conditions. Producers have begun to reduce their herd size in order to stretch hay and water supplies. Many producers are currently finding it necessary to haul water to their herds. Pasture re-growth has been minimal at best forcing producers to rotate pastures as needed.

**WASHINGTON:** Days suitable for fieldwork 6.2. Topsoil moisture was 22% very short, 39% short, 36% adequate, and 3% surplus; subsoil moisture 15% very short, 49% short, 35% adequate, and 1% surplus. In areas of eastern Washington, crop conditions were deteriorating due to the lack of substantial moisture and hot temperatures. Winter wheat, dryland 14% very poor, 28% poor, 38% fair, 18% good, 2% excellent; irrigated 100% good. Headed 80%, 98% 1998, 83% avg. Spring wheat, dryland 10% very poor, 38% poor, 47% fair, 5% good; irrigated 100% good. Emerged, 100%, 100% 1998, 100% avg. Headed, 39%, 59% 1998, 48% avg. Barley, dryland 10% very poor, 34% poor, 55% fair and 1% good; irrigated, 100% good. Emerged, 100%, 100% 1998, 100% avg. Headed 43%, 50% 1998, 43% avg. Hot weather quickened the development of the spring crops. There were reports however that they were showing drought stress. Substantial damage is projected if areas do not receive significant moisture. Hay and other roughage supplies were 12% short, 71% adequate and 17% surplus. Range and pasture, 7% very poor, 8% poor, 47% fair, 34% good, and 4% excellent. Most of the planting across the state was winding down and farmers were attending their crops. Pumpkins, beans, corn, peas, and cauliflower were all being planted. Cooler spring temperatures caused the strawberry harvest to be as much as two weeks late again this year. Cool season crops were being harvested as well as early cherries. Grapes were blooming and apple, pear and stone fruit crops were developing nicely. Dairy farmers were busy spreading manure, green chopping and pumping lagoons.

**WEST VIRGINIA:** Hot and dry weather conditions continue to deteriorate crops and pastures throughout the State. Most areas of the State are in need of a good soaking rain to improve crop conditions.

Days suitable for fieldwork 6.3. Topsoil moisture 45% very short, 46% short, 9% adequate. Wheat condition 2% very poor, 4% poor, 69% fair, 25% good; Wheat headed 95%, 90% 1998 and 88% 5-yr avg. Hay condition 15% very poor, 27% poor, 35% fair, 21% good, 2% excellent; Hay 1<sup>st</sup> cut 75%, 39% 1998 and 38% 5-yr avg. Corn condition 8% very poor, 38% poor, 39% fair, 15% good. Oats condition 9% very poor, 13% poor, 31% fair, 43% good, 4% excellent. Oats emerged 96%, 94% 1998 and 95% 5-yr avg; Oats headed 45% and 37% 1998. Soybean condition 4% very poor, 42% poor, 42% fair, 12% good; Soybeans planted 98%, 73% 1998 and 74% 5-yr avg. Tobacco transplanted 95%, 64% 1998 and 76% 5-yr avg. Apples condition 6% poor,

56% fair, 38% good. Peaches condition 54% fair and 46% good. Cattle 4% poor, 34% fair, 60% good, 2% excellent. Sheep 3% poor, 38% fair, 54% good, 5% excellent.

**WISCONSIN:** Days suitable for fieldwork: 3.9. Soil moisture: 0% very short, 3% short, 66% adequate, and 31% surplus. With drier weather forecasted for the coming days, many farmers are hoping to get back in the fields after yet another wet week. Many farmers reported a first crop of hay as good as they have ever seen, but with the wet weather, they were not able to harvest it. Last week, there were reports of silage being made between the showers, but with the high humidity and the heavy crop, very little dry hay was made. First crop hay harvested: 66% 1999, 79% 1998, 45% 5-year average. There were also reports that second crop hay was coming up extremely healthy on the fields that were harvested earlier in the season. Another side effect of the warm and wet weather was the rapid growth of corn, soybeans, and weeds. With the soft fields, it has been hard to spray for weeds or to cultivate any corn. Where it has been dry enough to spray and cultivate, the fields are reported as being in excellent condition. In some parts of the state, the growth of corn hasn't offset the concern about the ability to get corn and soybeans planted. Soybeans planted: 93% 1999, 99% 1998, 92% 5-year average. Soybeans emerged: 85% 1999, 92% 1998, 5-year average not available. Soybean condition: 1% very poor, 3% poor, 15% fair, 54% good, and 27% excellent. Winter wheat condition: 0% very poor, 0% poor, 5% fair, 55% good, 40% excellent. Vegetables and fruits seem to be doing very well, and the strawberry harvest is moving into full swing with a large and plentiful crop. Pasture feed conditions: 0% very poor, 1% poor, 5% fair, 55% good, 40% excellent.

**WYOMING:** Days suitable for fieldwork 6.1. Topsoil moisture 6% short, 89% adequate, 5% surplus. Winter wheat condition 10% fair, 59% good, 31% excellent. Winter wheat boot 84%, 100% 1998, 92% avg.; headed 59%, 79% 1998, 65% avg. Spring wheat condition 10% fair, 89% good, 1% excellent. Spring wheat emerged 81%, 97% 1998, 92% avg.; jointed 52%, 92% 1998, 61% avg.; boot 24%, 56% 1998, 30% avg.; headed 3%, 23% 1998, 12% avg. Barley condition 11% fair, 77% good, 12% excellent. Barley jointed 69%, 80% 1998, 78% avg.; boot 50%, 50% 1998, 47% avg.; headed 23%, 18% 1998, 14% avg. Oats condition 1% poor, 16% fair, 75% good, 8% excellent. Oats emerged 80%, 96% 1998, 92% avg.; jointed 46%, 70% 1998, 56% avg.; boot 15%, 42% 1998, 25% avg. Sugarbeets condition 1% poor, 7% fair, 82% good, 10% excellent. Corn condition 4% fair, 93% good, 3% excellent. Corn emerged 97%, 97% 1998, 93% avg.; average height 7", 7" 1998, 4" avg. Dry beans planted 98%, 94% 1998, 89% avg.; emerged 65%, 77% 1998, 66% avg. Alfalfa first cutting 7%, 7% 1998, 7% avg. Cattle moved to summer pastures 74%, 75% 1998, 73% avg. Sheep moved to summer pastures 40%, 53% 1998, 55% avg. Range flock ewes lambled 95%, 92% 1998, 93% avg. Range and pasture condition 9% fair, 58% good, 33% excellent. Below normal temperatures for most of the week. Crop progress is slightly behind the average.

# International Weather and Crop Summary

June 6 - 12, 1999

## HIGHLIGHTS

**EUROPE:** Widespread rain and cool weather continued to favor winter grains across northern Europe, while hot, dry weather in the Balkans increased stress on crops.

**FSU-WESTERN:** Hot, dry weather in Russia and Ukraine increased stress on winter grains and spring-sown crops.

**FSU-NEW LANDS:** Showers and cool weather improved conditions for spring grain germination and early plant establishment.

**EASTERN ASIA:** In the North China Plain, drier weather aided winter wheat maturation and harvesting, but rain is needed for summer crop germination.

**SOUTH ASIA:** Monsoon showers covered important grain, oilseed, and cotton areas.

**SOUTHEAST ASIA:** In Thailand, showers benefited rice, while drier weather eased wetness in southern Vietnam and the Philippines.

**AUSTRALIA:** Beneficial rain broke a prolonged dry spell in the eastern winter grain belts.

**CANADA:** Unfavorable wetness prevented late spring grain and oilseed planting.

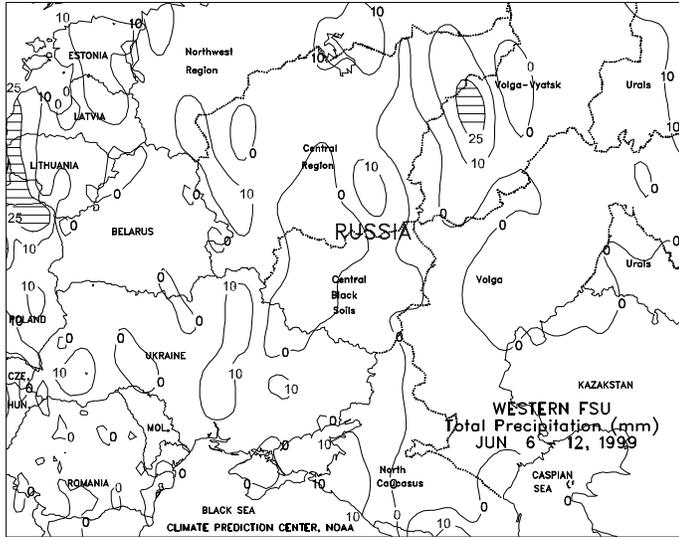
**MEXICO:** Widespread showers benefited germinating crops across the main corn belt.

**SOUTH AMERICA:** Dry weather continued to aid summer crop harvesting across Argentina, while showers favored winter wheat in southern Brazil.



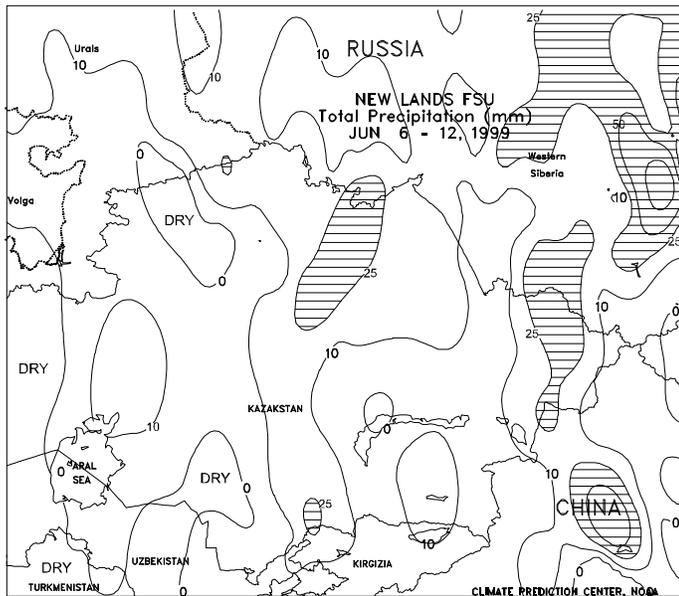
## EUROPE

Widespread light to moderate showers (7-65 mm) continued to fall from England and northern France, eastward across Germany and Scandinavia, into Poland, benefiting winter grains and spring-sown crops. Crop progress for winter grains likely ranged from the filling stage in western areas to just entering the heading stage in Scandinavia and Poland. Crop progress for spring grains likely ranged from in or nearing the heading stage in western areas to the jointing stage in Poland. Unseasonably cool weather slowed crop development in France, England, the Benelux countries, and Germany, where weekly temperatures ranged from 1 to 3 degrees C below normal. Elsewhere, hot, dry weather stretched eastward across the Mediterranean region into the Balkans. Extreme maximum temperatures in these areas ranged from 32 to 37 degrees C, accelerating winter grain maturation and increasing the crop-water requirements of summer crops. The hot weather in the Balkans accompanied a drying trend that has persisted for several weeks, likely causing a decline in conditions of winter grains and spring-sown crops. Moderate to locally heavy rain (25-50 mm, with local amounts in excess of 50 mm) fell in Italy's Po Valley, benefiting winter grains in the filling stage and summer crop development. Elsewhere, light to moderate rain (10-50 mm or more) and mild weather in the Czech Republic, Slovakia, Hungary, Croatia, and Slovenia, benefited winter grains in the reproductive to filling stages and spring-sown crops in the vegetative stage.



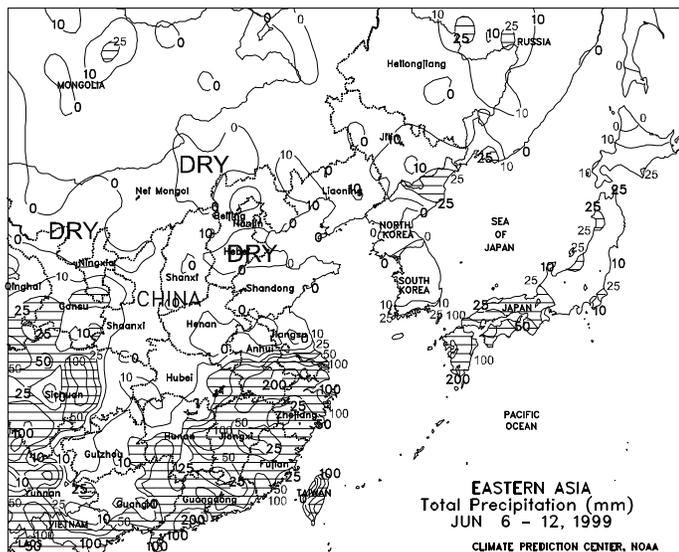
**FSU-WESTERN**

A large area of high pressure remained stationary over most of the region during the week, bringing unseasonably warm and generally dry weather. On several days during the week, temperatures rose into the lower 30's degrees C as far north as the Central Region in Russia and as far west as Belarus. Temperatures climbed into the middle 30's degrees C in eastern Ukraine and southern Russia (southern Black Soils Region, lower Volga Valley, and the North Caucasus). The hot, dry weather in these areas followed 2 consecutive weeks of dryness, increasing stress on winter grains in the reproductive to filling stages of development and spring grains in the vegetative stage. Soil moisture reserves continued to decline throughout Ukraine and Russia. Rain and cooler weather is needed soon to improve crop conditions and to prevent significant declines in crop prospects. Elsewhere, scattered showers accompanied unseasonably mild weather in the Baltics, with maximum temperatures rising into the upper 20's degrees C. Weekly temperatures averaged 4 to 7 degrees C above normal in Russia, Ukraine, Belarus, and Moldova, and 3 to 6 degrees C above normal in the Baltics.



**FSU-NEWLANDS**

Light showers accompanied cooler weather in spring grain areas of Russia and Kazakstan, improving conditions for crop germination and early plant establishment. In Russia, precipitation amounts ranged from 5 to 10 mm in the northern Urals and 8 to 34 mm or more in Western Siberia. Reports from Russia indicated spring grain planting, excluding corn, was about 95 percent completed by June 7. In Kazakstan, mostly dry weather prevailed over western areas, with generous amounts of rain (15-42 mm) observed in central and eastern crop areas. Weekly temperatures averaged 3 to 6 degrees C below normal in Russia and Kazakstan. Furthermore, although minimum temperatures fell to near or below freezing (0 to -3 degrees C) at scattered locations during the week, temperatures did not fall low enough to pose a significant threat to newly emerged spring grains. In cotton-producing areas of Central Asia, seasonably hot weather (daytime highs in the low to middle 30's degrees C) promoted cotton development.



**EASTERN ASIA**

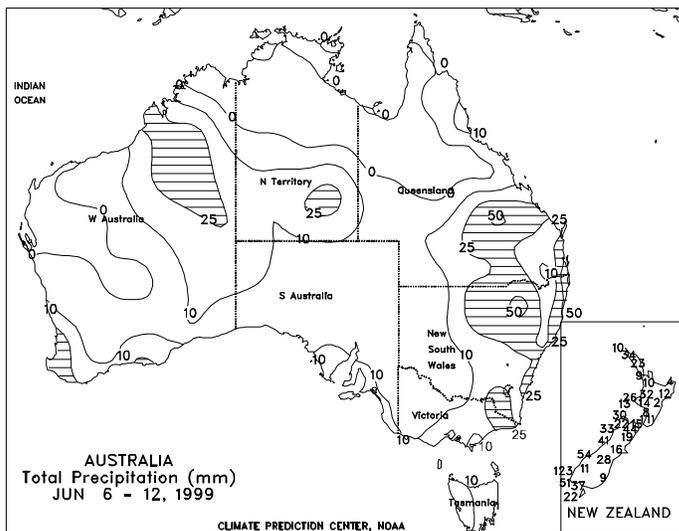
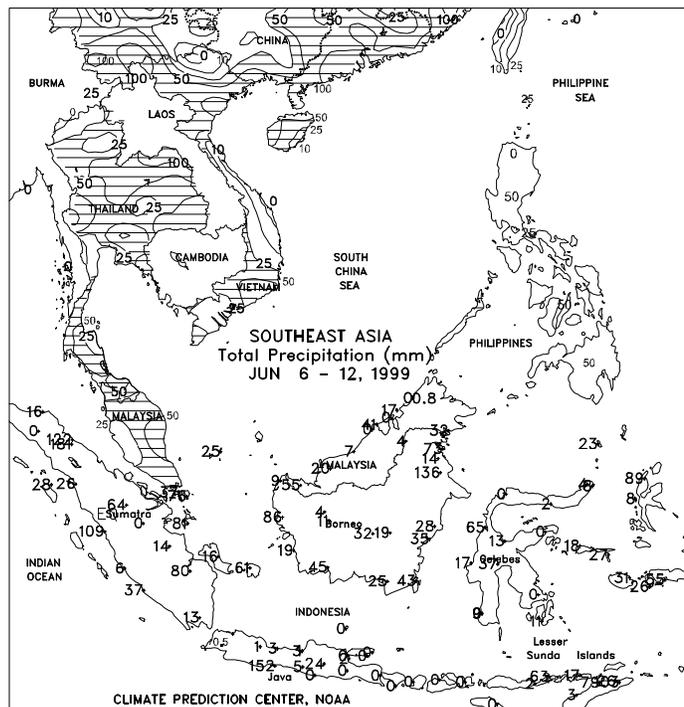
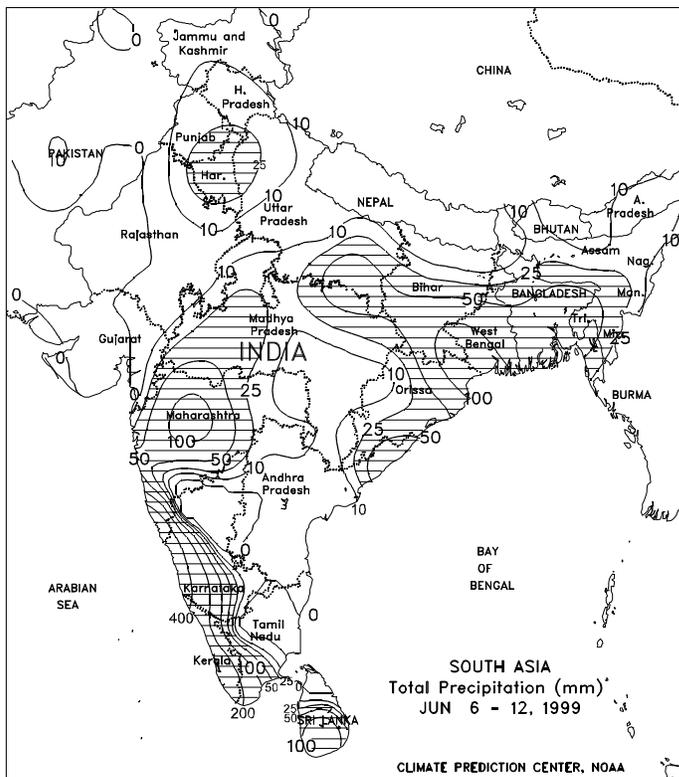
Mostly dry (rainfall under 10 mm), warm weather greatly aided winter wheat maturation and harvesting across the North China Plain. Rain is needed, however, for summer crop germination. Temperatures averaging 1 to 3 degrees C above normal increased crop water use. The rainy season typically begins by mid-June across the North China Plain. Light rain (less than 10 mm) prevailed across Manchuria, where topsoil moisture was adequate, except in Heilongjiang. Light to moderate rain (10-50 mm) covered the Yangtze Valley. Heavier showers (100-200 mm) caused local flooding in southern Anhui and Jiangsu. Tropical Cyclone Maggie hit Guangdong on June 7 with sustained winds less than 50 mph, but produced widespread showers (50-125 mm) that alleviated short-term dryness. Temperatures averaged 1 to 3 degrees C above normal across the Yangtze Valley and southern China. Widespread heavy rain (50-130 mm) slowed rice planting, but boosted moisture supplies across southern and central Japan. Drier weather (less than 10 mm) prevailed across the Korean Peninsula.

**SOUTH ASIA**

Monsoon activity expanded and strengthened over India, with showers reaching as far north as Punjab and Haryana. The rain benefited vegetative cotton and may spur early planting of rice and other summer crops. Elsewhere, beneficial planting rains (greater than 25 mm) covered important coarse grain, cotton, oilseed, and sugarcane areas of west-central India, including the soybean belt of western Madhya Pradesh. Moderate to heavy rain (25-50 mm or more, locally exceeding 100 mm) returned to primary rice areas of eastern India and Bangladesh, increasing moisture reserves for cultivation. Heavy rain (100-400 mm or more) also continued along rice areas of the southwest coast, a reflection of the strong monsoon circulation.

**SOUTHEAST ASIA**

In Thailand, showers (15-80 mm) continued to aid main-season rice and corn. In northern Vietnam, the remnants of Tropical Cyclone Maggie produced moderate to heavy showers (60-100 mm), causing local flooding, but maintaining adequate moisture supplies. Rainfall tapered off from last week's excessive totals across southern Vietnam and the western Philippines, with amounts generally ranging from 10 to 50 mm. Light to moderate showers (10-50 mm) prevailed across the oil palm areas of peninsular Malaysia. In Java, Indonesia, adequate irrigation supplies exist for second-season rice.

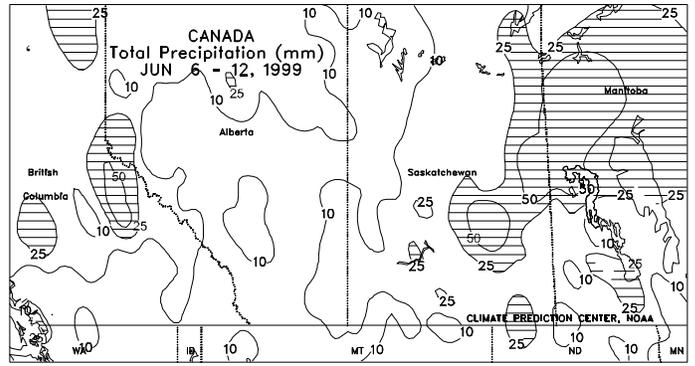


**AUSTRALIA**

Widespread, moderate to heavy rain (10-25 mm or more, locally exceeding 50 mm) improved winter grain prospects across Queensland and northern New South Wales. The rainfall in New South Wales ended a nearly 2-month long dry spell that had depleted topsoil moisture for winter crop germination and establishment. In addition, unseasonably mild weather (temperatures averaging 2-4 degrees C above normal) throughout the eastern winter grain belt favored early development. However, the shower activity extended eastward along the coast, keeping unharvested sugarcane unfavorably wet. Farther south, lighter rain (4-15 mm) overspread the southeast (South Australia to southern New South Wales), benefiting all but the most northern wheat and barley areas. Scattered showers (5-25 mm or more) in the southwestern agricultural districts of Western Australia hampered winter crop plantings. In New Zealand, beneficial rain (10-35 mm) covered the main pasture and grain areas.

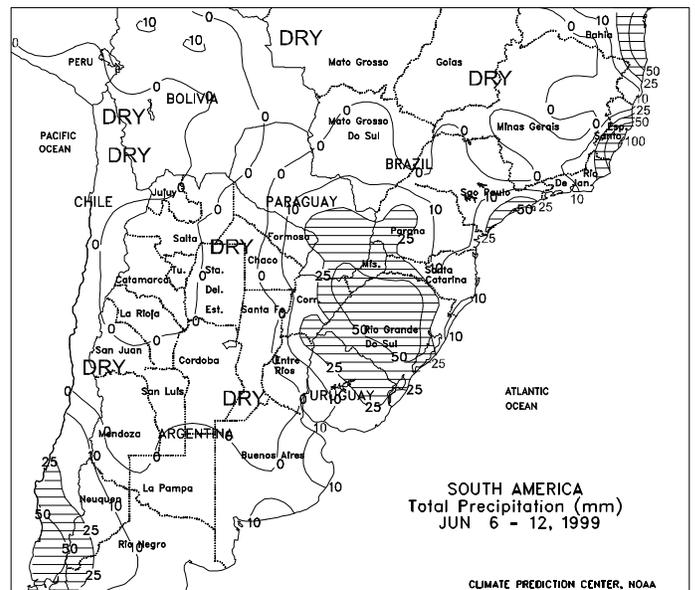
**CANADA**

Unfavorable wetness continued to plague the eastern Prairies, with showers (10-25 mm or more) persisting across the primary spring grain and oilseed areas of Saskatchewan and Manitoba. Provincial reports as of June 7 indicated that standing water was still a problem in sections of the southeast, and that farmers may currently be substituting shorter-season crops for wheat. Elsewhere in the Prairies, spring grain and oilseed plantings were virtually complete. In Alberta, drier weather (rainfall totaling under 10 mm) brought some relief from excessive wetness, following last week's heavy rain. However, cool weather (temperatures averaging 3-5 degrees C below normal) accompanied the dryness, resulting in patchy frost in some outlying areas that may necessitate additional replanting. In eastern Canada, warm, dry weather favored early development of corn and soybeans. Conditions also improved for reproductive winter wheat in Ontario that had been facing a higher risk of disease inoculation.



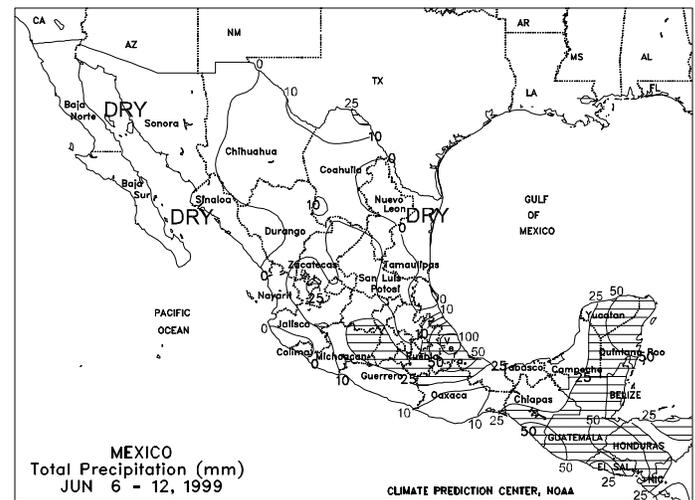
**SOUTH AMERICA**

In central Argentina, dry weather continued to favor summer crop maturation, while widespread freezing temperatures promoted crop maturation. Light to moderate rain (5-20 mm) did not significantly hamper cotton harvesting in northern Argentina. According to reports as of June 4, Argentine corn was 81 percent harvested, compared with 71 percent last year, soybeans were 92 percent harvested, compared with 95 percent last year, and cotton was 59 percent harvested, compared with 54 percent last year. In southern Brazil, moderate rain (25-85 mm) covered Rio Grande do Sul, Santa Catarina, and Parana, maintaining adequate soil moisture for winter wheat germination. Mostly dry weather in Sao Paulo and southwestern Minas Gerais favored coffee and citrus harvesting. Temperatures averaged 1 to 3 degrees C below normal across Argentina and extreme southern Brazil, and near normal elsewhere in southern Brazil.



**MEXICO**

Widespread showers (10-30 mm) signaled the possible beginning of the rainy season across the Southern Plateau corn belt. The moisture benefited germinating corn. Seasonably dry weather continued in northwestern Mexico, while mostly dry weather stressed pastures and rainfed crops in north-central and northeastern Mexico. Temperatures averaged 1 to 2 degrees C above normal across central Mexico and 1 to 2 degrees C below normal in the northwest.



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## La Niña Update: June 11, 1999

*The following is derived from the ENSO Advisory 99/6 issued by the Climate Prediction Center/National Centers for Environmental Prediction (NCEP) on June 11, 1999.*

Cold episode conditions continued to dominate the tropical Pacific oceanic and atmospheric circulation during May. SST anomalies continued to decrease in the central equatorial Pacific, but the overall pattern remained similar to that observed during recent months. The patterns of anomalous 850-hPa wind and outgoing longwave radiation have also been very persistent during recent months, with easterly wind anomalies and drier-than-normal conditions (positive OLR anomalies) over the central and western equatorial Pacific and wetter-than-normal conditions (negative OLR anomalies) over Indonesia/Malaysia and the Philippines.

Consistent with these features, the thermocline depth, as measured by the depth of the 20°C isotherm, has been greater than normal in the western equatorial Pacific and shallower than normal in the eastern equatorial Pacific. The persistence of this pattern indicates that the present cold episode is likely to continue for the next several months. In addition, the most recent NCEP coupled model forecast and other available coupled model and statistical predictions indicate that cold episode conditions will likely persist through the end of 1999 and into the early part of 2000.

The large-scale atmospheric circulation features, as represented by the 200-hPa geopotential height anomalies, have also been persistent since late 1998. Some of the more prominent features include 1) negative height anomalies in the east-central tropical Pacific that have strengthened and expanded eastward with time, 2) positive height anomalies throughout the lower mid-latitudes of both hemispheres, representing a poleward shift of the jet streams and their attendant storminess, 3) positive anomalies over northeastern North America, and 4) negative anomalies over Antarctica. The pattern of anomalies in the Tropics and lower mid-latitudes is similar to that

observed during past cold episodes. Basic features of this pattern should continue for the next several months, with a gradual increase (decrease) in the areal coverage of negative (positive) anomalies. In the past, this pattern has been associated with stronger-than-normal summer monsoons over Southeast Asia/ India and Central America/ Mexico. Therefore we can expect that the above areas will, in general, receive above-normal precipitation during June-September.

This large-scale anomalous circulation pattern has also been found to favor above-normal tropical storm and hurricane activity in the Atlantic sector during the climatological August-October peak in activity 1) by favoring low vertical wind shear across the western tropical Atlantic and Caribbean Sea, and 2) by favoring a structure and location of the African easterly jet, which is thought to be more efficient at providing energy to developing tropical systems as they propagate westward from the African coast.

As a result, a consensus reached by scientists at the National Oceanic and Atmospheric Administrations Climate Prediction Center, National Hurricane Center and Hurricane Research Division indicates that there is an increased likelihood of above-average tropical storm and hurricane activity over the North Atlantic during the 1999 hurricane season.

Weekly updates for SST, 850-hPa wind, and OLR are available on the Climate Prediction Center homepage at:

<http://www.ncep.noaa.gov>

Climate Prediction Center, W/NP52  
Attn: *Weekly Weather & Crop Bulletin*  
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