

WEEKLY WEATHER AND CROP BULLETIN

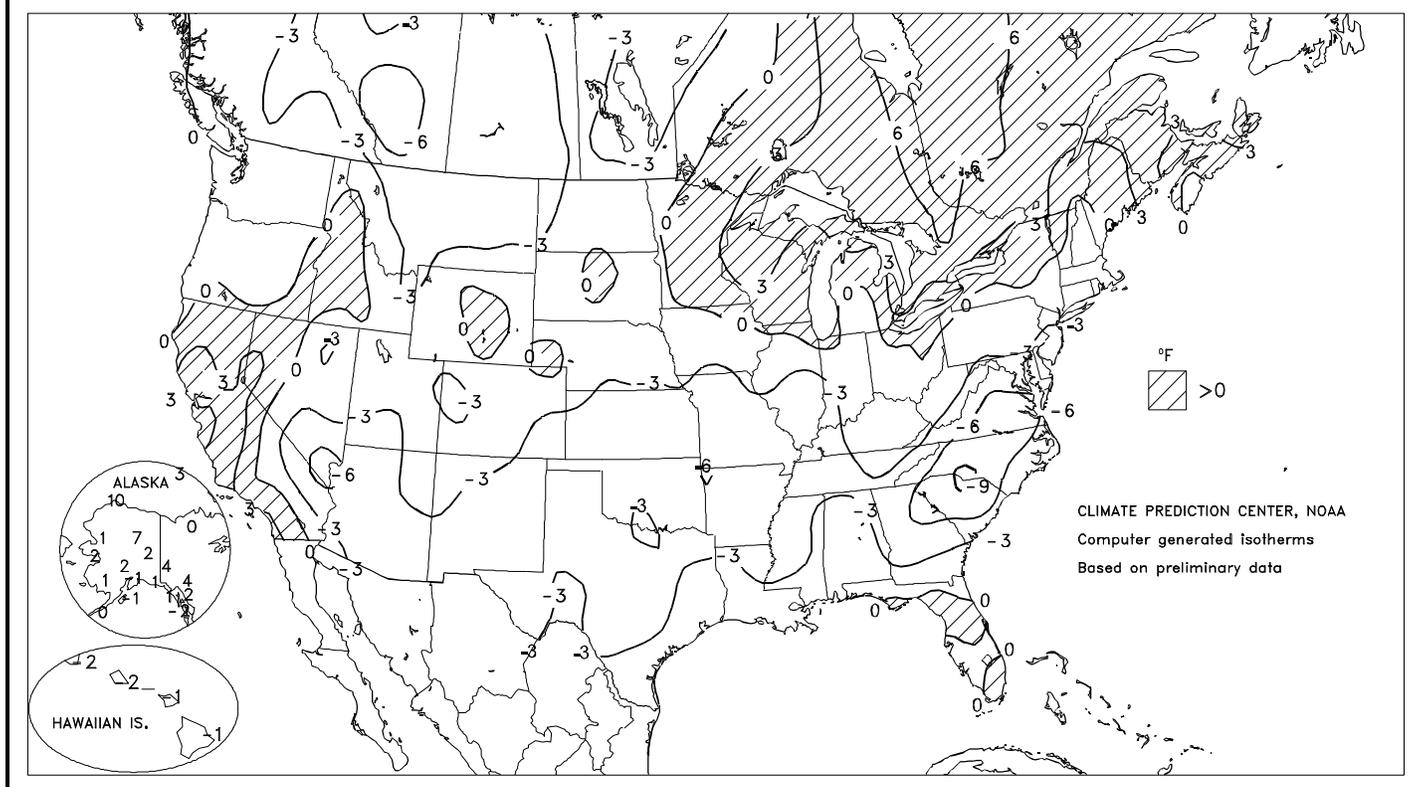
U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

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



Departure of Average Temperature from Normal (°F)

JUL 11 - 17, 1999



HIGHLIGHTS

July 11 - 17, 1999

Near- to below-normal temperatures prevailed nearly nationwide, benefiting summer crops in or approaching reproduction. Exceptions included **California** (up to 4°F above normal), where an early-week heat wave increased irrigation requirements, and the **northern Corn Belt** (up to 3°F above normal), where warmth spurred rapid crop development. Meanwhile, weekly readings averaged as much as 9°F below normal in the **Southeast**, where frequent showers continued to stabilize crop conditions and boost soil moisture. On the **central and southern Plains**, several days of dry weather before the arrival of late-week thunderstorms allowed winter wheat harvesting to near

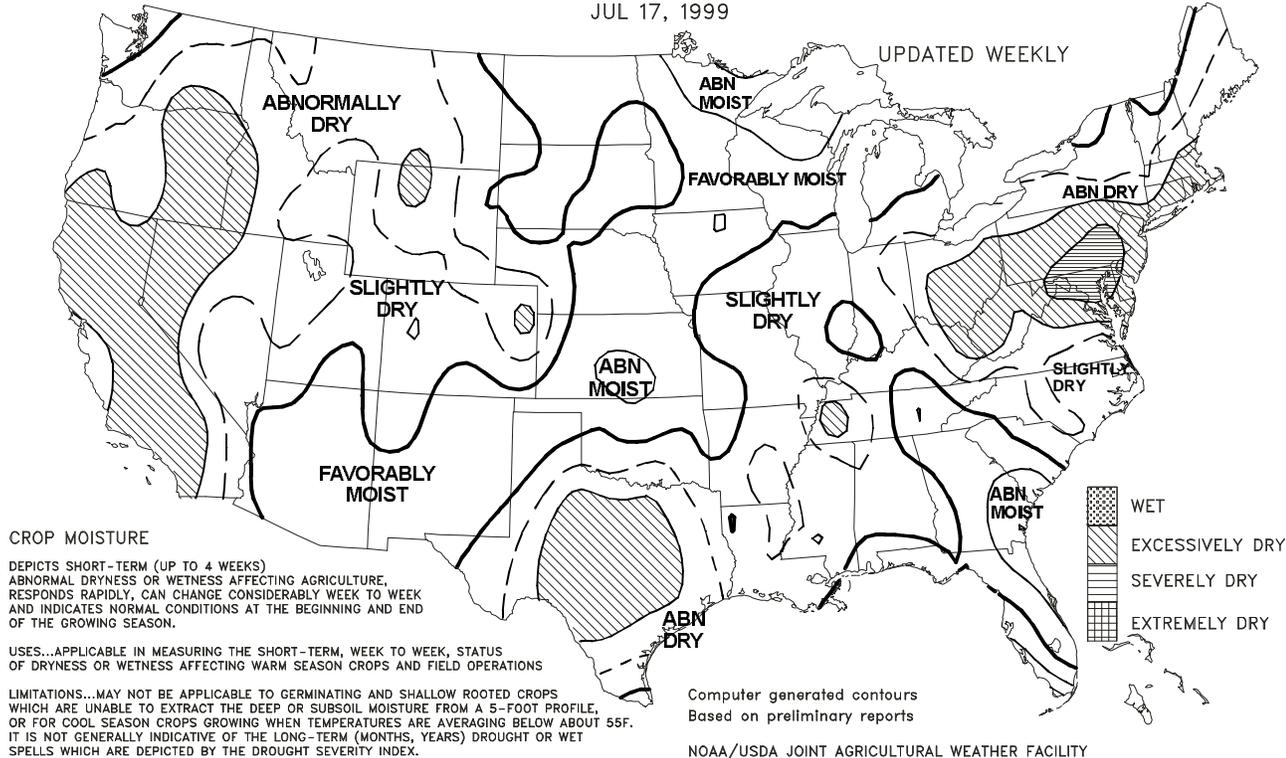
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Crop Moisture
SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE
JUL 17, 1999

UPDATED WEEKLY



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.

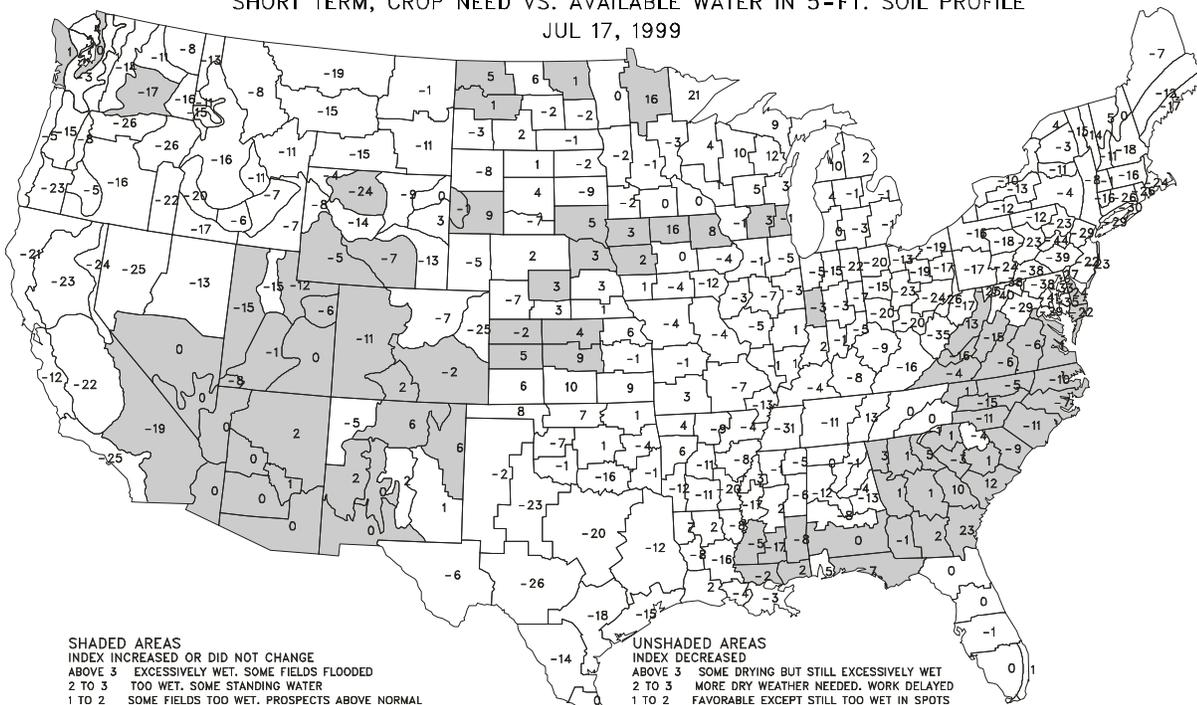
USES...APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS

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.

Computer generated contours
Based on preliminary reports

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Crop Moisture Index
SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE
JUL 17, 1999



SHADED AREAS
INDEX INCREASED OR DID NOT CHANGE
ABOVE 3 EXCESSIVELY WET. SOME FIELDS FLOODED
2 TO 3 TOO WET. SOME STANDING WATER
1 TO 2 SOME FIELDS TOO WET. PROSPECTS ABOVE NORMAL
0 TO 1 MOISTURE ADEQUATE FOR PRESENT CROP NEEDS
0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED
-1 TO -2 SOME IMPROVEMENT BUT STILL ABNORMALLY DRY
-2 TO -3 DRYNESS EASED BUT FIELDS STILL EXCESSIVELY DRY
-3 TO -4 SEVERE DRYNESS CONTINUES. MORE RAIN URGENTLY NEEDED
BELOW -4 NOT ENOUGH RAIN. STILL EXTREMELY DRY

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

Weather Data for Selected Locations in the Delta

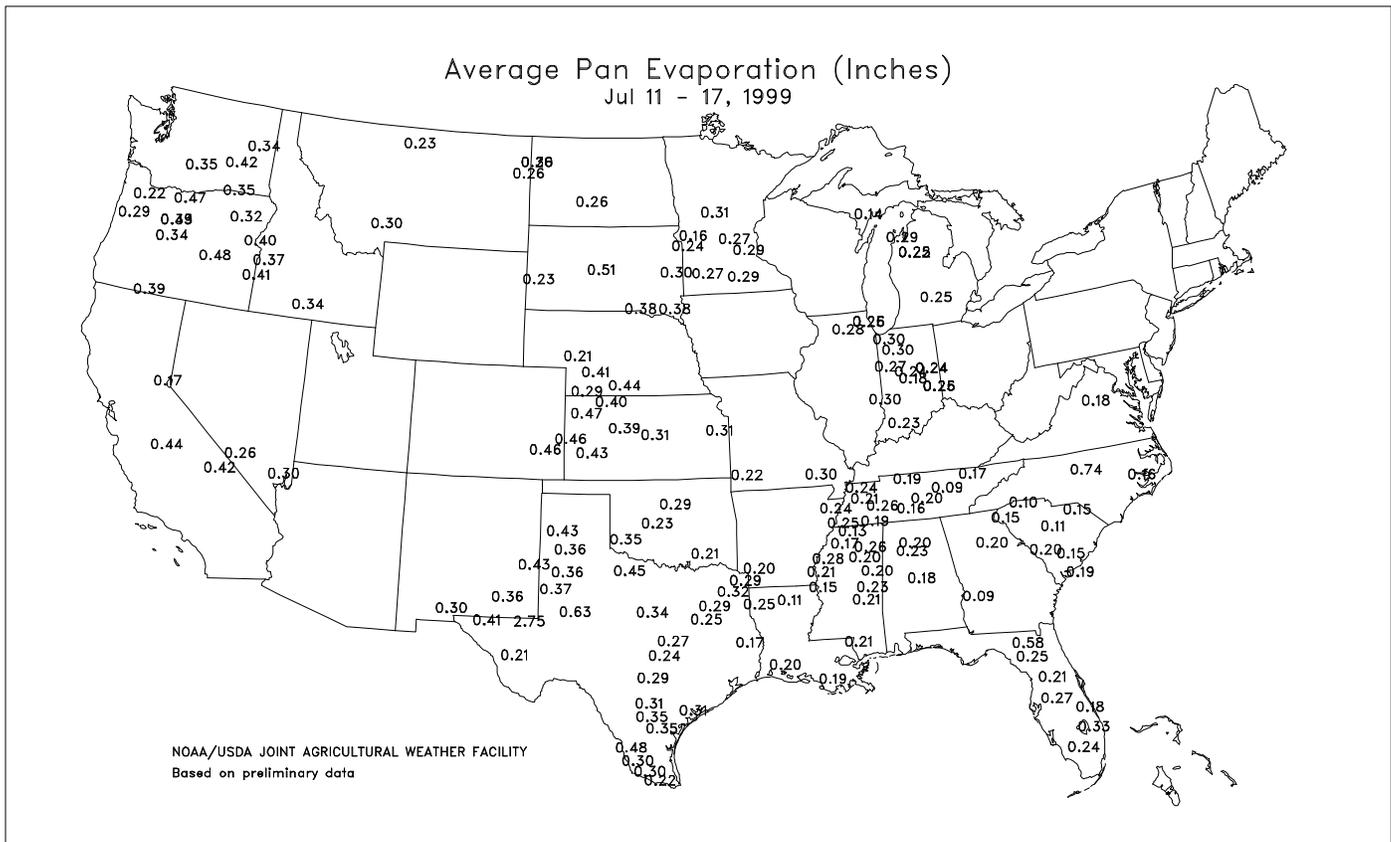
Weather Data for the Week Ending July 17, 1999

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	90 AND ABOVE	32 AND BELOW	PRECIP		
																		0.1 INCH OR MORE	5.0 INCH OR MORE	
MS BATESVILLE	86	66	90	60	76	--	1.66	0.80	1.66	--	--	--	--	--	--	1	0	1	1	
BELZONI	88	69	94	65	79	--	--	--	--	--	--	--	--	--	--	3	0	--	--	
CLARKSDALE	86	68	92	64	77	--	0.31	-0.54	0.31	--	--	--	--	--	--	3	0	1	0	
CLEVELAND	89	68	90	64	79	--	0.22	-0.68	0.12	--	--	--	--	--	--	3	0	3	0	
GREENVILLE	89	70	92	68	80	--	0.00	-0.77	0.00	--	--	--	--	--	--	4	0	0	0	
GREENWOOD	88	68	92	65	78	--	0.00	-0.84	0.00	--	--	--	--	--	--	2	0	0	0	
INDIANOLA 1S	87	67	91	65	77	--	0.90	--	0.64	3.69	--	31.06	--	81	77	3	0	3	1	
INVERNESS 5E	87	69	91	65	78	--	0.08	--	0.08	4.42	--	29.54	--	82	78	3	0	1	0	
LYON	86	68	92	64	77	--	0.31	--	0.31	6.48	--	--	--	--	--	3	0	1	0	
MOORHEAD	88	70	93	65	79	--	0.14	-0.90	0.14	--	--	--	--	--	--	3	0	1	0	
ONWARD	88	69	91	65	79	--	1.45	--	1.14	8.01	--	36.17	--	81	79	3	0	2	1	
ROLLING FORK	89	70	94	65	80	--	0.38	-0.53	0.38	--	--	--	--	--	--	3	0	1	0	
SIDON	88	68	93	65	78	--	0.12	--	0.09	2.47	--	27.68	--	90	82	2	0	3	0	
TUNICA	87	69	92	66	78	--	0.02	-0.77	0.02	--	--	--	--	--	--	3	0	1	0	
VICKSBURG	85	70	89	65	78	--	5.14	4.17	2.31	--	--	--	--	--	--	0	0	4	3	
YAZOO CITY	87	69	91	65	78	--	2.31	1.36	2.31	--	--	--	--	--	--	3	0	1	1	
STONEVILLE*	89	69	92	64	79	-3	0.10	-0.67	0.07	3.52	61	34.62	112	94	80	3	0	2	0	

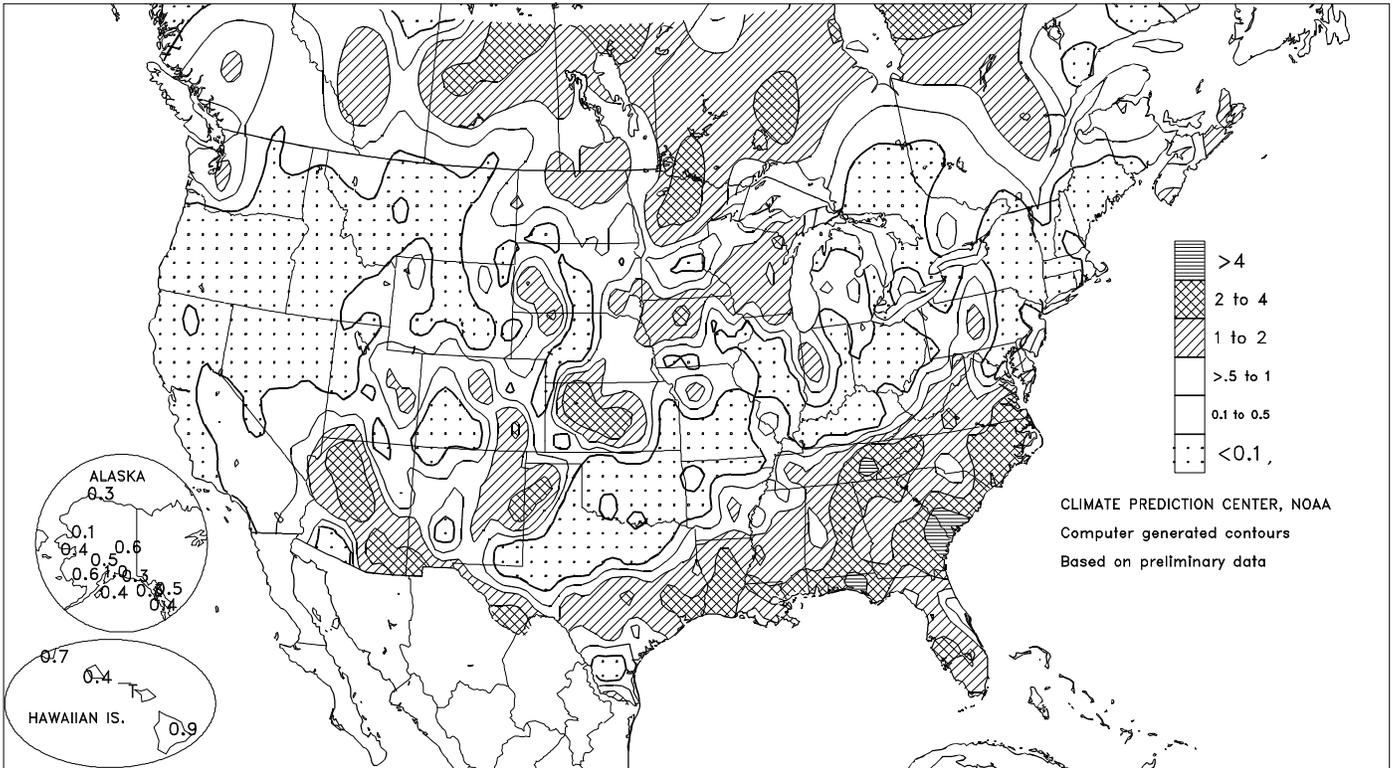
* Based on 1964-93 normals.

Delta Weather and Crop Summary: A cold front pushed through the region early in the week, followed by a few days of dry, unseasonably cool conditions. The front triggered widespread thunderstorms, some severe. As the week progressed, temperatures began to rise. By week's end, temperatures were again above 90°F, with high humidity. With the scattered nature of recent thunderstorms, many areas have very moist soils, while others continue to require irrigation.



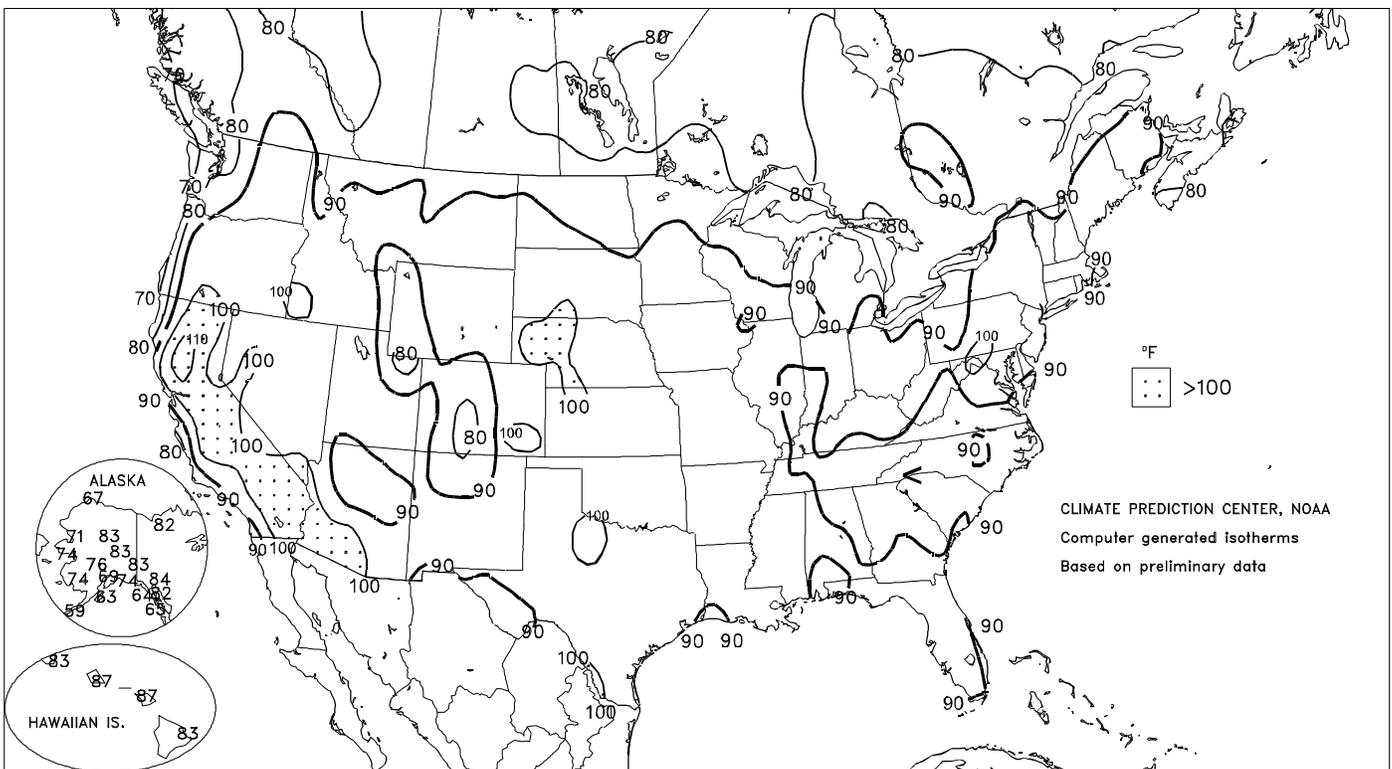
Total Precipitation (Inches)

JUL 11 - 17, 1999



Extreme Maximum Temperature (°F)

JUL 11 - 17, 1999



U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on July 12, 1999. Forecasts refer to July 1.

Winter wheat production is forecast at 1.67 billion bushels. This is up 4 percent (%) from last month, but down 11% from 1998. The yield is forecast at 47.0 bushels per acre, up 2.3 bushels from last month and a new record high.

Hard Red Winter, at 1.03 billion bushels, is up from a month ago by 5%. White Winter is down for the second consecutive month and now totals 199 million bushels. Soft Red Winter is up 6% from the last forecast, at 443 million bushels.

Durum wheat production is forecast at 132 million bushels, down 6% from 1998. The yield is forecast at 32.7 bushels per acre, 5.1 bushels less than last year.

Other Spring wheat production is forecast at 527 million bushels, down less than 1% from 1998. The yield is forecast at 35.3 bushels per acre, 0.4 bushel higher than last year. Of this total, 475 million bushels are Hard Red Spring wheat, down 2% from last season.

The **all orange** production forecast for 1998-99 is 9.74 million tons, down 1% from last month, and down 29% from last year's record-large crop of 13.67 million tons. Florida's all orange forecast is 186 million boxes (8.36 million tons), a reduction of 1% from the June forecast and 24% less than the record-large 244 million boxes (10.98 million tons) utilized last season. Early and midseason varieties in Florida remain at 112 million boxes (5.04 million tons), 20% less than last season. Florida's Valencia forecast is reduced to 73.7 million boxes (3.32 million tons), down 2% from last month, and down 29% from last season's utilization.

California's all orange production forecast of 34.0 million boxes (1.28 million tons) remains unchanged from the previous forecast and is down 51% from the 1997-98 utilization of 69.0 million boxes (2.59 million tons). Picking of the Valencia orange crop has slowed due to summer competition from stone fruits. Southern California growers, who were not adversely affected by the December freeze, have been picking a good-quality Valencia crop. Arizona's all orange production forecast of 1.2 million boxes (45,000 tons) remains unchanged from the previous forecast, but is 20% higher than last season.

(Continued from front cover)

completion. Across the **southern and eastern Corn Belt**, mostly dry weather, accompanied by increasing heat (highs from 90 to 95°F toward week's end), reduced soil moisture for reproductive corn and soybeans. Farther east, dry weather and late-week heat brought further drought intensification from the **Mid-Atlantic States into New England**. Drought also persisted across the **interior Northwest**, despite scattered late-week showers and a return to very cool weather. In **California's Central Valley**, extremely hot conditions eased markedly by midweek. Farther south, seasonal showers in the **Southwest** improved water supplies but caused localized flash flooding.

A shift from warmth to coolness in the **West**, and the opposite change **east of the Rockies**, resulted in large temperature swings and numerous daily-record temperatures. Along the **West Coast** and in the **Northwest**, more than a dozen daily-record highs from July 11-13 were offset by a similar number of record lows on July 16 and 17. **East of the Rockies**, more than three dozen record lows (July 11-14) were followed by more than a dozen record highs (July 16-17).

In **California's Sacramento Valley**, both **Redding** (114 and 115°F) and **Red Bluff** (113 and 115°F) opened the week with consecutive daily-record highs. Near the **California coast**, July 12 was the hottest day of the year in locations such as **San Jose** (101°F) and **Oakland** (90°F). Farther inland, **Reno, NV** (100°F on July 12) recorded triple-digit heat for the first time since July 20, 1998. **Klamath Falls, OR** posted a July-record high of 100°F on Monday, breaking their record of 99°F, set on July 21, 1994.

Meanwhile in **North Carolina**, **Raleigh-Durham** notched record-low maximum temperatures (74, 67, 68, and 71°F) on 4 consecutive days (July 11-14). In addition, Monday's high of 67°F tied their monthly record, established on July 29, 1984. Farther west, **Lubbock, TX** opened the week with consecutive daily-record lows (57°F on both days). In **Alabama**, highs remained below 90°F for the entire week in **Birmingham** and **Huntsville**. So far this year, highs reached or exceeded 90°F on just 9 days in **Huntsville** and 11 days in **Birmingham**, less than half the normal number through July 17.

By Thursday, a daily-record chill returned to the **Northwest**, where lows in **Oregon** included 42°F in **Eugene** and 32°F in **Burns**. A

day later in **Montana**, **Cut Bank** also posted a low of 32°F. **Great Falls, MT** ended the week with consecutive daily-record lows (36 and 37°F). In contrast, the week ended with consecutive daily-record highs in **Hartford, CT** (97 and 100°F) and at the **Blue Hill Observatory** in **Milton, MA** (94 and 95°F). Elsewhere on Saturday, daily records included 97°F in **Burlington, VT** and 100°F in **Harrisburg, PA**.

Mostly dry weather prevailed during the week in a broad swath from the **Red River Valley (Oklahoma-Texas border)** into **southern New England**. Just to the south, however, 1 to 4 inches of rain fell from **south-central Texas** to the **southern Atlantic Coast States**. Isolated weekly totals approached 6 inches in **eastern Tennessee**, the **Florida Panhandle**, and along the **Georgia-South Carolina border**. Locally heavy rainfall was also observed across the **Plains**, **upper Midwest**, and **Southwest**.

In **Amarillo, TX**, monthly rainfall reached 2.71 inches through July 17, propelling their year-to-date precipitation to 20.94 inches (196 percent of normal). **Amarillo's** normal annual total is 19.56 inches. In the **Southeast**, month-to-date rainfall topped 7 inches in locations such as **Pensacola, FL** and **Savannah, GA**. Farther north, however, **Harrisburg's** July 1-17 rainfall stood at 0.30 inch (15 percent of normal), leaving their 1999 total at 15.75 inches (70 percent). Another drought-stricken region, the **interior Northwest**, received scattered relief. In **Yakima, WA**, where the normal July rainfall is 0.16 inch, late-week showers totaled 0.57 inch. Meanwhile in **Spokane, WA**, where 0.67 inch normally occurs during July, only 0.13 inch fell.

Although monsoon showers in the **Southwest** generally improved soil moisture and eased long-term drought, locally excessive totals occurred. During the first 17 days of July, rainfall in **Arizona** totaled 2.30 inches in **Phoenix** and 3.01 inches in **Tucson**. **Phoenix's** normal July total is 0.83 inch, and normal annual sum is 7.66 inches. Despite **Tucson's** rainfall, their total since October 1, 1998, remained slightly below normal (5.87 inches, or 85 percent of normal). Especially impressive rains battered **southeastern Arizona's Santa Catalina Mountains** on July 14-15, when an automated gauge at an elevation of 8,600 feet recorded 6.57 inches in a 24-hour period. Most of the rain, 5.90 inches, fell in just 12 hours. On July 14, **Tucson's** 1.48-inch total was their greatest 1-day rainfall since 1.61 inches fell on October 26, 1996.

National Weather Data for Selected Cities

Weather Data for the Week Ending July 17, 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	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	86	71	89	69	78	-2	0.64	-0.58	0.42	10.43	158	35.45	109	95	64	0	0	3	0
AL HUNTSVILLE	85	68	88	66	77	-3	0.90	-0.23	0.59	6.64	97	33.79	101	99	63	0	0	2	1
AL MOBILE	87	71	89	67	79	-3	1.32	-0.23	0.83	10.41	121	30.93	87	99	66	0	0	3	1
AL MONTGOMERY	88	71	92	69	80	-2	1.03	-0.18	0.93	10.57	156	28.26	89	97	60	2	0	5	1
AK ANCHORAGE	63	52	69	48	58	-1	1.00	0.63	0.50	2.10	105	4.62	81	96	62	0	0	5	1
AK BARROW	56	42	67	35	49	-10	0.29	0.08	0.29	0.96	130	1.42	97	89	62	0	0	1	0
AK FAIRBANKS	73	57	83	47	65	2	0.60	0.18	0.24	2.17	92	3.37	74	88	43	0	0	3	0
AK JUNEAU	68	49	82	46	58	2	0.53	-0.39	0.40	3.75	71	30.21	131	97	61	0	0	2	0
AK KODIAK	58	49	63	45	54	-1	0.42	-0.38	0.17	11.83	174	34.46	102	96	70	0	0	4	0
AK NOME	59	48	74	44	54	2	0.41	-0.07	0.24	1.09	50	4.46	82	96	71	0	0	5	0
AZ FLAGSTAFF	73	53	79	46	63	-3	1.26	0.63	0.81	3.02	173	7.80	73	97	46	0	0	5	1
AZ PHOENIX	100	79	104	69	90	-4	1.97	1.78	1.24	2.31	444	3.73	120	71	33	7	0	3	2
AZ TUCSON	94	73	99	70	84	-3	1.90	1.36	1.48	3.18	226	4.52	109	79	32	6	0	5	1
AZ YUMA	104	83	106	78	94	0	2.44	2.38	2.44	999	4.21	393	85	30	7	0	1	1	
AR FORT SMITH	89	67	92	63	78	-4	0.02	-0.65	0.02	7.84	155	30.05	132	94	46	4	0	1	0
AR LITTLE ROCK	86	69	91	64	78	-4	2.00	1.17	1.98	4.92	88	27.50	98	95	57	3	0	2	1
CA BAKERSFIELD	99	75	103	61	87	3	0.00	0.00	0.00	0.00	0	5.42	142	51	21	7	0	0	0
CA EUREKA	62	51	63	49	56	-1	0.00	-0.03	0.00	0.15	26	27.19	130	89	66	0	0	0	0
CA FRESNO	101	73	107	61	87	5	0.00	0.00	0.00	0.20	286	5.96	86	61	21	7	0	0	0
CA LOS ANGELES	77	67	82	64	72	3	0.00	0.00	0.00	0.98	999	7.18	93	93	65	0	0	0	0
CA REDDING	101	68	115	62	85	3	0.00	-0.03	0.00	0.41	63	16.93	90	63	16	6	0	0	0
CA SACRAMENTO	91	63	107	53	77	1	0.00	0.00	0.00	0.03	20	9.91	92	74	32	3	0	0	0
CA SAN DIEGO	76	67	82	66	72	1	0.00	0.00	0.00	0.04	44	5.08	82	90	63	0	0	0	0
CA SAN FRANCISCO	76	55	87	54	66	3	0.00	0.00	0.00	0.70	583	13.39	109	87	47	0	0	0	0
CO ALAMOSA	79	49	83	44	64	-1	0.02	-0.26	0.02	0.38	29	2.88	85	91	30	0	0	1	0
CO CO SPRINGS	82	57	89	51	70	-1	1.55	0.90	0.91	3.30	88	14.94	171	81	32	0	0	4	2
CO DENVER	84	60	94	52	72	-1	0.13	-0.31	0.13	2.70	95	11.72	126	72	23	2	0	1	0
CO GRAND JUNCTION	88	61	94	57	75	-5	0.41	0.27	0.28	1.09	131	4.23	97	78	24	4	0	3	0
CO PUEBLO	92	61	100	54	76	-1	0.49	0.01	0.20	0.68	29	8.50	145	81	28	4	0	3	0
CT BRIDGEPORT	82	62	94	56	72	-1	0.07	-0.78	0.04	1.50	27	20.77	89	85	42	2	0	2	0
CT HARTFORD	86	58	97	50	72	-2	0.03	-0.69	0.03	2.06	37	19.44	82	93	36	2	0	1	0
DC WASHINGTON	85	67	95	63	76	-4	0.28	-0.57	0.28	2.78	51	17.98	88	84	43	2	0	1	0
DE WILMINGTON	86	62	96	56	74	-2	0.00	-0.96	0.00	1.91	33	21.75	97	88	34	3	0	0	0
FL DAYTONA BEACH	89	74	91	72	82	0	0.92	-0.29	0.92	11.19	125	21.80	93	95	57	4	0	1	1
FL JACKSONVILLE	90	72	93	70	81	-1	2.89	1.67	1.54	10.74	125	20.20	78	96	55	5	0	4	2
FL KEY WEST	88	80	90	79	84	0	0.36	-0.42	0.33	6.31	89	15.32	86	84	67	1	0	3	0
FL MIAMI	90	78	90	76	84	1	0.69	-0.55	0.30	14.07	112	23.80	85	81	57	5	0	6	0
FL ORLANDO	92	73	94	71	83	0	0.38	-1.27	0.20	14.70	129	26.35	104	96	47	6	0	3	0
FL PENSACOLA	87	72	88	70	80	-2	1.76	0.09	1.60	12.14	117	29.68	87	96	61	0	0	6	1
FL TALLAHASSEE	89	72	91	71	81	-1	3.28	1.26	1.25	12.83	109	29.79	81	98	62	5	0	5	3
FL TAMPA	91	75	93	73	83	1	1.24	-0.22	0.51	8.40	94	14.37	68	92	54	4	0	4	1
FL WEST PALM BEACH	89	76	90	74	83	1	0.04	-1.35	0.03	14.04	120	25.73	86	85	58	1	0	2	0
GA ATHENS	81	65	89	62	73	-7	2.32	1.19	2.20	10.07	152	24.63	84	100	71	0	0	3	1
GA ATLANTA	81	66	86	62	74	-5	1.74	0.58	1.13	8.21	130	24.41	81	96	68	0	0	5	1
GA AUGUSTA	84	68	90	64	76	-5	2.41	1.46	1.45	10.14	158	24.16	91	99	67	1	0	4	2
GA COLUMBUS	85	71	89	67	78	-4	1.14	-0.16	0.54	4.14	58	16.73	54	94	62	0	0	3	1
GA MACON	83	69	91	65	76	-5	2.07	1.08	1.37	10.03	169	22.95	85	99	70	1	0	6	1
GA SAVANNAH	87	72	90	71	80	-2	4.30	2.89	1.79	21.27	236	34.81	130	99	67	2	0	6	3
HI HILO	82	68	83	65	75	-1	0.84	-1.36	0.49	6.25	56	73.73	105	92	59	0	0	7	0
HI HONOLULU	85	72	87	70	79	-2	0.41	0.27	0.28	0.52	61	6.77	59	89	50	0	0	5	0
HI KAHULUI	86	70	87	67	78	-1	0.01	-0.07	0.01	0.60	130	7.06	55	85	49	0	0	1	0
HI LIHUE	82	72	83	70	77	-2	0.69	0.19	0.22	3.50	123	17.59	77	88	62	0	0	6	0
ID BOISE	92	60	101	50	76	2	0.00	-0.08	0.00	0.47	46	6.29	88	50	15	4	0	0	0
ID LEWISTON	87	59	98	55	73	-1	0.01	-0.14	0.01	1.51	92	6.44	88	58	20	3	0	1	0
ID POCATELLO	87	53	96	43	70	-1	0.40	0.26	0.24	1.23	88	8.42	118	69	15	3	0	2	0
IL CHICAGO/O'HARE	85	62	92	53	73	0	0.20	-0.61	0.20	6.44	113	26.25	144	87	41	1	0	1	0
IL MOLINE	87	62	94	53	75	-1	0.00	-1.13	0.00	6.19	89	21.13	101	88	42	2	0	0	0
IL PEORIA	85	61	93	52	73	-2	0.20	-0.77	0.20	3.89	61	18.30	93	91	42	1	0	1	0
IL ROCKFORD	85	61	93	53	73	-1	1.23	0.30	1.23	7.67	113	24.20	127	94	44	2	0	1	1
IL SPRINGFIELD	84	61	91	50	73	-4	0.04	-0.76	0.04	3.34	62	15.91	83	89	45	1	0	1	0
IN EVANSVILLE	85	63	89	59	74	-5	0.26	-0.68	0.25	7.77	136	29.39	118	93	51	0	0	2	0
IN FORT WAYNE	86	61	91	54	73	-1	0.00	-0.77	0.00	1.53	28	18.34	97	91	38	1	0	0	0
IN INDIANAPOLIS	86	64	90	58	75	-1	0.25	-0.77	0.25	4.06	68	23.53	106	87	44	1	0	1	0
IN SOUTH BEND	86	60	92	50	73	0	0.00	-0.86	0.00	4.68	75	19.68	96	90	41	2	0	0	0
IA BURLINGTON	89	64	95	55	77	1	0.01	-0.95	0.01	7.69	120	22.96	121	81	40	2	0	1	0
IA CEDAR RAPIDS	83	63	86	53	73	-2	0.01	-0.92	0.01	8.27	121	22.97	127	88	51	0	0	1	0
IA DES MOINES	85	64	95	57	75	-2	0.75	-0.09	0.74	4.28	65	17.95	100	88	45	2	0	2	1
IA DUBUQUE	83	61	89	54	72	-1	0.36	-0.53	0.36	6.43	102	21.53	109	89	49	0	0	1	0
IA SIOUX CITY	86	64	94	55	75	-1	0.25	-0.49	0.24	9.29	167	21.19	144	90	48	3	0	2	0
IA WATERLOO	85	62	94	51	74	0	0.15	-0.97	0.14	11.76	164	27.33	146	88	46	2	0	2	0
KS CONCORDIA	86	65	94	53	75	-4	0.53	-0.29	0.39	4.60	70	20.10	121	91	49	2	0	3	0
KS DODGE CITY	88	62	96	48	75	-5	0.14	-0.60	0.11	4.58	93	14.73	117	86	38	3	0	2	0
KS GOODLAND	87	61	97	49	74	-2	0.08	-0.59	0.08	6.25	129	13.56	117	84	38	3	0	1	0
KS TOPEKA	86	66	93	56	76	-2	0.06	-0.74	0.06	6.55	86	24.65	126	88	45	3	0	1	0

Based on 1961-90 normals

Weather Data for the Week Ending July 17, 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	87	67	94	59	77	-5	0.20	-0.50	0.20	10.77	175	27.59	167	87	46	3	0	1	0
KY JACKSON	83	64	91	59	74	-1	0.16	-1.03	0.16	3.13	44	21.83	78	96	49	2	0	1	0
KY LEXINGTON	86	64	93	59	75	-1	0.00	-1.15	0.00	5.86	92	21.74	86	88	44	2	0	0	0
KY LOUISVILLE	87	68	92	61	77	0	0.02	-1.02	0.02	8.37	141	29.35	115	83	43	2	0	1	0
KY PADUCAH	86	65	92	61	76	-3	0.00	-0.96	0.00	9.27	145	31.04	109	91	48	2	0	0	0
LA BATON ROUGE	88	71	90	70	80	-2	2.28	0.74	1.04	11.63	144	30.12	90	100	57	3	0	5	2
LA LAKE CHARLES	88	73	89	72	81	-2	1.59	0.42	0.95	12.86	165	27.79	99	99	67	0	0	4	1
LA NEW ORLEANS	88	73	91	72	81	-1	1.44	0.06	0.88	15.20	166	27.59	81	93	58	2	0	3	2
LA SHREVEPORT	90	71	92	68	80	-2	1.15	0.30	0.88	10.13	157	40.45	151	96	53	4	0	3	1
ME CARIBOU	81	56	92	48	68	3	0.28	-0.63	0.18	4.96	99	16.09	93	96	47	1	0	3	0
ME PORTLAND	82	54	97	50	68	-1	0.00	-0.70	0.00	1.68	32	21.48	92	92	44	2	0	0	0
MD BALTIMORE	85	61	96	57	73	-4	0.18	-0.65	0.18	2.50	44	17.30	78	91	38	2	0	1	0
MA BOSTON	82	63	98	55	72	-1	0.10	-0.53	0.10	1.55	33	16.81	75	82	44	2	0	1	0
MA WORCESTER	79	59	89	52	69	-1	0.00	-0.88	0.00	3.21	53	20.42	80	88	43	0	0	0	0
MI ALPENA	82	57	90	47	70	2	0.17	-0.48	0.16	4.96	107	12.40	85	91	47	1	0	2	0
MI GRAND RAPIDS	82	60	89	50	71	0	0.37	-0.35	0.35	5.69	104	20.83	117	94	53	0	0	2	0
MI HOUGHTON LAKE	80	58	87	43	69	1	0.40	-0.17	0.40	8.98	203	16.63	120	92	51	0	0	1	0
MI LANSING	83	58	89	45	70	-1	0.21	-0.35	0.21	6.99	136	18.69	119	95	56	0	0	1	0
MI MARQUETTE	79	58	86	48	69	3	0.04	-0.59	0.02	6.66	131	23.72	136	91	49	0	0	2	0
MI MUSKEGON	81	61	87	50	71	1	0.08	-0.37	0.08	4.96	145	18.37	120	93	52	0	0	1	0
MN DULUTH	78	58	85	53	68	2	0.14	-0.66	0.09	10.61	183	19.65	131	94	54	0	0	2	0
MN INT'L FALLS	80	54	89	50	67	0	2.61	1.79	1.14	8.33	139	18.47	146	98	49	0	0	4	2
MN MINNEAPOLIS	86	66	97	56	76	2	0.11	-0.69	0.08	4.91	81	19.83	127	79	42	2	0	2	0
MN ROCHESTER	82	61	90	54	72	0	0.98	0.02	0.96	5.90	98	21.57	140	92	52	1	0	2	1
MS ST. CLOUD	85	59	94	50	72	2	0.07	-0.61	0.05	5.62	89	14.48	99	93	45	2	0	2	0
MS JACKSON	87	68	92	63	77	-4	0.83	-0.21	0.69	6.02	108	25.94	81	98	58	3	0	5	1
MS MERIDIAN	90	67	92	62	79	-2	0.52	-0.68	0.51	4.44	69	23.57	70	99	51	4	0	2	1
MS TUPELO	87	70	91	68	79	-2	0.17	-0.82	0.16	9.06	145	41.87	127	94	52	2	0	2	0
MO COLUMBIA	84	63	90	57	74	-4	0.20	-0.63	0.20	5.17	81	20.28	93	92	50	2	0	1	0
MO KANSAS CITY	85	64	92	57	74	-4	0.34	-0.66	0.28	9.08	126	28.67	143	91	50	1	0	3	0
MO SAINT LOUIS	86	67	95	60	77	-3	0.00	-0.89	0.00	9.48	161	26.43	127	79	43	3	0	0	0
MO SPRINGFIELD	84	63	90	54	74	-4	0.00	-0.65	0.00	5.09	75	27.73	120	95	47	2	0	0	0
MT BILLINGS	85	54	97	43	70	-3	0.12	-0.09	0.05	2.38	93	7.53	78	65	20	3	0	3	0
MT BUTTE	82	40	91	34	61	-2	0.00	-0.28	0.00	2.10	72	7.56	102	76	19	2	0	0	0
MT GLASGOW	81	53	92	45	67	-4	0.00	-0.39	0.00	3.88	125	10.15	154	87	33	1	0	0	0
MT GREAT FALLS	79	46	91	37	63	-6	0.30	0.03	0.30	2.52	81	7.43	77	78	30	2	0	1	0
MT KALISPELL	80	46	92	44	63	-1	0.29	0.05	0.17	2.50	87	8.13	86	84	21	2	0	2	0
MT MILES CITY	89	55	99	44	72	-3	0.33	-0.03	0.33	4.36	116	9.31	103	77	21	4	0	1	0
MT MISSOULA	82	48	92	46	65	-2	0.04	-0.16	0.04	2.93	126	6.41	79	67	18	3	0	1	0
NE GRAND ISLAND	86	64	96	51	75	-2	0.80	0.16	0.45	7.67	138	18.44	123	89	47	3	0	3	0
NE LINCOLN	86	66	94	53	76	-3	0.46	-0.26	0.28	7.33	129	20.66	132	90	53	3	0	2	0
NE NORFOLK	85	63	92	51	74	-1	0.70	-0.04	0.35	6.37	100	17.49	113	89	49	3	0	3	0
NE NORTH PLATTE	86	59	100	44	73	-1	0.01	-0.71	0.01	5.59	108	11.58	92	89	40	3	0	1	0
NE OMAHA	86	66	95	57	76	-1	0.37	-0.43	0.37	5.00	86	21.27	128	93	52	2	0	1	0
NE SCOTTSBLUFF	91	59	102	52	75	1	0.35	-0.13	0.35	4.07	105	10.32	100	84	24	5	0	1	0
NE VALENTINE	89	58	103	51	74	-1	0.10	-0.61	0.09	5.41	118	12.40	111	84	34	4	0	2	0
NV ELY	85	51	91	44	68	0	0.23	0.06	0.12	2.05	160	4.47	77	78	21	2	0	3	0
NV LAS VEGAS	94	75	99	71	85	-7	0.90	0.82	0.49	2.37	846	3.18	150	69	29	5	0	4	0
NV RENO	93	59	100	51	76	4	0.00	-0.06	0.00	0.06	10	2.95	66	52	13	5	0	0	0
NV WINNEMUCCA	95	56	100	45	75	3	0.01	-0.05	0.01	1.22	117	4.57	94	43	17	5	0	1	0
NH CONCORD	84	53	97	46	68	-1	0.00	-0.72	0.00	3.33	68	18.00	96	94	38	2	0	0	0
NJ NEWARK	83	62	95	57	73	-5	0.02	-1.01	0.02	0.70	12	20.42	85	82	38	2	0	1	0
NM ALBUQUERQUE	86	64	90	61	75	-4	0.12	-0.18	0.12	1.28	102	3.63	98	70	24	1	0	1	0
NY ALBANY	84	59	94	50	71	-1	0.00	-0.72	0.00	4.15	77	18.04	93	92	44	2	0	0	0
NY BINGHAMTON	79	58	89	48	68	-1	0.01	-0.79	0.01	4.45	80	17.39	89	88	48	0	0	1	0
NY BUFFALO	83	62	88	54	73	1	0.00	-0.67	0.00	2.11	41	16.44	87	85	45	0	0	0	0
NY ROCHESTER	85	60	92	51	73	2	0.00	-0.61	0.00	3.41	76	16.09	99	86	36	2	0	0	0
NY SYRACUSE	85	61	94	51	73	2	0.05	-0.82	0.05	4.06	69	17.17	87	82	39	3	0	1	0
NC ASHEVILLE	75	61	84	58	68	-5	0.81	-0.21	0.49	7.30	109	24.76	94	99	70	0	0	2	0
NC CHARLOTTE	77	64	87	59	70	-9	0.33	-0.56	0.27	6.16	112	19.28	80	98	72	0	0	4	0
NC GREENSBORO	76	64	88	58	70	-7	0.74	-0.29	0.59	6.83	109	21.05	90	95	73	0	0	4	1
NC HATTERAS	81	72	84	71	76	-2	1.28	0.18	0.87	5.12	76	26.35	94	92	76	0	0	4	1
NC RALEIGH	78	64	92	60	71	-7	2.02	1.11	0.94	4.02	69	19.55	84	99	70	1	0	4	2
NC WILMINGTON	85	71	89	69	78	-2	2.96	1.10	1.61	7.38	71	30.01	103	94	69	0	0	5	2
ND BISMARCK	82	58	90	52	70	-1	0.30	-0.19	0.30	5.33	135	15.68	165	92	51	1	0	1	0
ND DICKINSON	82	53	93	46	68	-2	0.05	-0.43	0.05	2.97	66	10.47	101	89	38	2	0	1	0
ND FARGO	82	61	91	53	72	0	0.02	-0.59	0.02	3.41	80	11.10	104	90	49	1	0	1	0
ND GRAND FORKS	80	58	87	52	69	0	0.10	-0.52	0.04	4.64	106	13.81	139	94	47	0	0	5	0
ND JAMESTOWN	80	58	88	50	69	-2	0.49	-0.15	0.25	4.67	102	14.37	145	93	51	0	0	2	0
ND WILLISTON	82	50	94	45	66	-5	0.57	0.08	0.49	4.21	120	10.51	125	94	35	2	0	3	0
OH AKRON-CANTON	84	61	91	51	73	1	0.00	-0.94	0.00	3.40	63	18.03	90	87	48	2	0	0	0
OH CINCINNATI	86	61	91	56	73	-2	0.00	-0.96	0.00	4.04	65	19.21	81	89	43	1	0	0	0
OH CLEVELAND	84	60	91	50	72	0	0.00	-0.80	0.00	3.85	69	16.64	86	86	43	2	0	0	0
OH COLUMBUS	88	63	94	54	75	2	0.00	-0.99	0.00	2.10	33	16.06	75	88	39	3	0	0	0
OH DAYTON	84	62	90	54	73	-1	0.12	-0.68	0.12	5.43	94	20.45	98	85	45	1	0	1	0
OH MANSFIELD	82	57	89	48	70	-2	0.00	-0.91	0.00	3.40	55	19.31	90	92	42	0	0	0	0

Based on 1961-90 normals

Weather Data for the Week Ending July 17, 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	88	59	93	52	73	1	1.14	0.40	1.14	3.13	56	19.19	109	95	38	3	0	1	1
OK	83	56	92	48	70	-1	0.00	-0.94	0.00	3.93	63	20.89	104	89	38	2	0	0	0
OK	89	67	94	59	78	-4	0.00	-0.59	0.00	10.57	180	27.05	141	90	46	4	0	0	0
OK	89	68	95	58	79	-5	0.00	-0.70	0.00	5.35	86	29.92	133	88	41	4	0	0	0
OR	65	54	69	51	59	-1	0.00	-0.26	0.00	4.31	138	54.16	153	93	66	0	0	0	0
OR	86	44	95	32	65	-1	0.00	-0.08	0.00	0.23	22	5.28	97	62	10	3	1	0	0
OR	80	48	91	42	64	-3	0.00	-0.11	0.00	0.94	54	27.27	105	86	24	2	0	0	0
OR	91	56	100	48	74	1	0.00	-0.06	0.00	0.00	0	9.88	106	72	17	3	0	0	0
OR	86	55	97	48	71	-2	0.00	-0.08	0.00	0.51	61	5.06	75	61	23	3	0	0	0
OR	76	56	86	54	66	-2	0.02	-0.12	0.02	2.18	117	25.08	132	80	42	0	0	1	0
OR	80	51	91	48	66	-1	0.00	-0.12	0.00	1.63	96	30.95	150	88	35	1	0	0	0
PA	87	57	99	50	72	-3	0.00	-0.93	0.00	1.21	20	17.05	74	85	30	3	0	0	0
PA	82	64	89	54	73	2	0.00	-0.76	0.00	3.31	55	19.26	96	74	43	0	0	0	0
PA	88	63	101	57	76	0	0.00	-0.82	0.00	2.36	40	16.33	73	87	35	3	0	0	0
PA	87	64	103	59	75	-1	0.00	-0.97	0.00	1.53	25	20.40	89	81	40	2	0	0	0
PA	83	59	90	51	71	-1	0.00	-0.85	0.00	3.44	60	20.26	97	87	40	1	0	0	0
PA	83	57	96	49	70	-2	0.00	-0.87	0.00	3.24	53	17.02	87	90	37	2	0	0	0
PA	83	56	95	50	70	-3	0.01	-0.90	0.01	3.48	53	18.44	83	90	41	2	0	1	0
RI	83	59	97	53	71	-2	0.25	-0.47	0.13	0.59	12	21.92	90	87	42	2	0	2	0
SC	86	71	91	70	79	-3	2.41	1.00	0.93	17.55	185	30.41	111	99	70	1	0	5	2
SC	86	71	90	68	79	-3	1.60	0.07	0.80	5.01	49	18.40	66	99	68	1	0	5	1
SC	81	67	89	63	74	-7	1.49	0.26	1.11	6.89	89	20.53	73	99	69	0	0	4	1
SC	78	64	87	60	71	-8	0.50	-0.56	0.30	6.64	90	20.96	71	97	68	0	0	2	0
SD	81	61	89	54	71	-1	0.29	-0.34	0.25	6.86	145	13.33	118	95	51	0	0	2	0
SD	89	62	97	53	75	1	0.01	-0.61	0.01	3.58	73	10.58	84	91	43	4	0	1	0
SD	84	57	93	51	71	-2	1.23	0.77	0.98	6.48	151	13.80	128	84	37	2	0	3	1
SD	86	62	93	50	74	-1	0.91	0.31	0.83	4.31	88	16.61	125	86	44	3	0	2	1
TN	81	63	88	60	72	-2	1.14	0.15	1.12	6.48	109	21.63	92	95	60	0	0	2	1
TN	84	69	90	67	77	-2	0.50	-0.63	0.31	8.12	131	34.89	114	95	62	1	0	2	0
TN	81	67	88	64	74	-3	2.84	1.75	2.33	15.93	241	38.64	139	96	65	0	0	2	2
TN	86	69	91	66	78	-5	0.38	-0.47	0.26	5.44	96	34.00	115	90	55	3	0	2	0
TN	84	69	89	67	76	-3	1.17	0.26	1.17	5.89	102	28.00	103	93	53	0	0	1	1
TX	92	69	97	64	80	-4	0.00	-0.46	0.00	4.66	116	12.77	103	82	33	5	0	0	0
TX	87	62	95	55	75	-4	2.18	1.60	1.34	6.34	123	20.96	196	92	36	3	0	2	2
TX	91	71	94	68	81	-3	2.12	1.66	1.73	8.24	166	20.43	113	99	50	5	0	2	1
TX	89	73	90	71	81	-2	0.58	-0.63	0.29	11.63	136	23.47	80	97	65	5	0	4	0
TX	93	75	94	72	84	-1	0.22	-0.20	0.21	4.00	105	12.51	109	96	53	7	0	2	0
TX	92	73	93	71	82	-2	0.63	0.11	0.60	7.93	168	14.02	97	99	58	6	0	2	1
TX	91	74	94	73	83	-2	0.82	0.39	0.70	7.09	222	12.49	132	92	48	5	0	2	1
TX	88	68	92	62	78	-4	1.08	0.73	0.99	2.82	193	2.98	97	82	41	3	0	3	1
TX	94	73	97	71	84	-2	0.00	-0.52	0.00	1.79	42	16.20	83	87	39	6	0	0	0
TX	87	78	88	74	83	-1	1.37	0.49	0.63	7.82	118	16.93	83	85	66	0	0	4	1
TX	92	72	94	69	82	-1	2.00	1.19	0.98	9.03	128	20.58	83	98	57	6	0	4	2
TX	89	65	95	57	77	-3	0.70	0.17	0.61	5.31	130	14.63	157	84	38	4	0	2	1
TX	92	69	96	63	80	-2	0.01	-0.38	0.01	2.89	116	5.73	83	75	33	5	0	1	0
TX	90	70	96	65	80	-3	0.34	0.12	0.13	5.35	182	11.69	112	87	40	4	0	3	0
TX	91	72	94	69	82	-3	0.50	0.02	0.21	5.04	99	12.30	73	93	45	6	0	3	0
TX	91	72	93	71	82	-2	0.04	-0.72	0.02	5.60	81	18.34	94	100	53	5	0	2	0
TX	91	73	96	72	85	-3	0.23	-0.23	0.18	3.38	75	14.09	77	98	49	5	0	3	0
TX	96	70	100	62	83	-2	0.00	-0.37	0.00	4.62	102	22.11	136	81	31	6	0	0	0
UT	89	65	97	62	77	-1	0.01	-0.18	0.01	0.85	61	9.51	99	63	18	4	0	1	0
VT	86	61	97	52	74	3	0.00	-0.81	0.00	3.51	65	13.50	80	83	36	2	0	0	0
VA	77	60	88	57	69	-7	1.36	0.41	1.16	3.90	68	17.07	77	95	57	0	0	4	1
VA	78	68	88	66	73	-5	3.59	2.44	1.78	8.54	131	25.19	104	96	68	0	0	4	3
VA	79	63	88	59	71	-7	1.48	0.33	0.53	8.95	142	24.51	106	96	61	0	0	3	2
VA	78	63	90	58	70	-5	1.98	1.11	1.30	3.30	63	16.89	78	94	49	1	0	5	2
VA	84	60	94	54	72	-3	0.16	-0.61	0.16	4.28	74	20.63	95	92	42	2	0	1	0
WA	72	49	85	43	60	-2	0.34	0.17	0.29	2.43	115	38.93	148	95	48	0	0	2	0
WA	62	51	69	42	57	-2	0.60	0.02	0.35	6.21	136	72.60	130	98	72	0	0	3	0
WA	69	54	82	50	61	-4	1.10	0.93	0.60	3.31	171	24.26	128	88	49	0	0	3	1
WA	80	53	92	45	66	-2	0.10	-0.05	0.10	1.49	89	8.50	92	70	25	2	0	1	0
WA	83	55	97	44	69	-1	0.58	0.55	0.55	0.75	119	4.01	95	65	22	3	0	2	1
WV	75	59	85	55	67	-3	1.76	0.66	1.26	3.40	53	19.75	85	95	56	0	0	4	1
WV	87	61	96	56	74	-1	0.00	-1.15	0.00	1.80	29	16.91	73	93	41	3	0	0	0
WV	81	53	89	46	67	-2	0.11	-0.91	0.06	2.51	36	21.53	87	99	45	0	0	3	0
WV	86	63	95	58	75	0	0.00	-1.07	0.00	1.79	30	16.18	70	85	38	4	0	0	0
WI	86	64	97	55	75	3	0.42	-0.46	0.38	6.10	96	20.61	126	87	43	2	0	2	0
WI	83	60	88	48	71	2	2.28	1.59	1.34	8.22	161	16.73	115	95	54	0	0	3	2
WI	87	66	96	56	76	3	0.66	-0.19	0.66	4.53	76	19.30	121	87	44	3	0	1	1
WI	85	61	92	53	73	2	1.86	1.12	1.61	8.17	150	22.28	141	90	46	2	0	4	1
WI	83	64	93	57	73	2	1.94	1.16	0.99	10.02	196	26.62	155	82	46	2	0	3	2
WY	89	54	97	50	71	0	0.07	-0.23	0.03	1.91	86	6.70	84	74	20	3	0	4	0
WY	84	55	94	47	69	1	0.09	-0.38	0.05	2.30	71	10.30	117	80	24	1	0	4	0
WY	85	54	95	48	69	-2	0.04	-0.15	0.04	1.13	57	9.99	116	65	17	2	0	1	0
WY	88	50	97	42	69	-1	0.00	-0.20	0.00	1.71	60	8.56	92	76	24	3	0	0	0

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

National Agricultural Summary

July 12 - 18, 1999

HIGHLIGHTS

Crop development benefited from warm daytime temperatures and mild overnight temperatures across most of the Nation, but conditions deteriorated in most areas of the Corn Belt and northern Atlantic Coast States due to increasingly dry soils. Crop conditions improved in the Atlantic Coastal Plains and Southeast, as additional rainfall improved soil moisture levels. Wet areas in the southern Great Plains benefited from dry weather that promoted crop development and aided fieldwork. A band of showers

aided row crops in Kansas, but delayed final winter wheat harvest. Scattered showers in the upper Mississippi Valley, northern Great Plains, and adjacent areas of the Corn Belt provided moisture for small grains and row crops. A small inland area of Washington received much-needed rain, but most of the Pacific Northwest remained unfavorably dry for crop development. Most of California experienced seasonally dry weather, while parts of Arizona were flooded by monsoonal rains.

Corn: The Nation's corn crop rapidly progressed, as acreage silking or beyond advanced 24 percentage points, to 40 percent, well behind last year's 51-percent pace, but ahead of the 32-percent average. Corn in the dough stage or beyond was at 6 percent, equal to last year's development and slightly ahead of the 5-year average. Corn development was most advanced in the southern Great Plains and Atlantic Coastal Plains, with over half of the acreage in the dough stage or beyond. In Texas and Georgia, fields rapidly matured and more than half of the acreage was dented. Warm daytime temperatures aided silking in most areas of the Corn Belt, but dry soils stressed many fields east of the Mississippi River. Crop conditions rapidly deteriorated in Indiana and Pennsylvania and significantly deteriorated in Illinois and Ohio. Scattered rain, adequate soil moisture, and moderate temperatures prevented serious crop damage in the western Corn Belt States. Soaking rains boosted soil moisture levels and improved crop conditions in the Atlantic Coastal Plains.

Soybeans: Fifty-five percent of the acreage was blooming, equal to last year's progress and 14 percentage points ahead of the average. Nearly one-fourth of the acreage entered the blooming stage in the Corn Belt. In Michigan and Indiana, the percentage blooming was more than double the normal rate and nearly twice the normal pace in Ohio. Twelve percent was setting pods, compared with 14 percent setting pods by this date last year and the normal progress of 8 percent. Development was most advanced in the lower Mississippi Valley, especially in Mississippi, where over 60 percent was setting pods. Increasing moisture shortages stressed fields in the eastern Corn Belt, especially in Indiana and Ohio, and to a lesser extent in Illinois. Eighty percent of the topsoil in Ohio, and 70 percent in Indiana was short or very short of moisture. Conditions improved along the Gulf Coast, most inland areas of the Southeast, and the Atlantic Coastal Plains due to additional precipitation that further alleviated topsoil moisture shortages.

Winter Wheat: The winter wheat harvest steadily advanced to 81 percent complete, just behind last year's 82 percent, but 5 percentage points ahead of the average for this date. The harvest pace diminished as progress neared completion in Kansas, but dry weather aided rapid progress elsewhere in the central Great Plains. Dry conditions also aided harvest efforts in the Corn Belt. In Nebraska, Colorado, South Dakota, and Michigan, one-third of the wheat acreage was harvested during the week. In the Pacific Northwest and northern Rocky Mountains, many fields approached maturity and harvesting began.

Cotton: Eighty-eight percent of the acreage was at the squaring

stage or beyond and 41 percent was setting bolls. Progress lagged behind last year, when 89 percent was squaring and 59 percent setting bolls. Progress also trailed the normal development of 89 percent squaring and 47 percent setting bolls. Cool, cloudy weather limited development in many areas of the Southeast and lower Mississippi Valley. Rain boosted conditions in most areas except Arkansas, where soils were dry, and Louisiana, where conditions deteriorated due to below-normal temperatures and lack of sunshine. Dry, sunny weather accelerated growth and improved conditions in Oklahoma, but development remained well behind normal.

Small grains: Spring wheat was 80 percent headed, 13 percentage points behind last year, and 3 percentage points behind the 5-year average. The barley crop rapidly advanced to 80 percent headed, but remained well behind last year's 91-percent pace and slightly behind the 85-percent average for this date. Seasonal temperatures and adequate moisture boosted wheat and barley conditions in the upper Mississippi Valley, but development continued to lag behind normal in North Dakota. Eighty-nine percent of the oat acreage was headed and 8 percent was harvested. Heading progress was behind last year and the average, while harvest progress was equal to a year ago and slightly ahead of the 5-year average. Dry weather accelerated ripening in the Corn Belt and harvest was well ahead of normal in Ohio, Iowa, and Nebraska.

Rice: Twenty-seven percent of the rice acreage was headed, equal to the 5-year average, but behind the 37-percent headed on this date a year ago. Development remained ahead of normal along the Gulf Coast, but continued to lag in inland areas of the lower Mississippi Valley.

Other crops: Sorghum was 24 percent headed, and 17 percent of the acreage was turning color. Heading progress lagged behind last year and the average of 34 and 33 percent, respectively. Acreage turning color trailed last year's development by 2 percentage points and the 5-year average by 4 percentage points. Seventy-four percent of the peanuts were pegging, slightly ahead of last year's pace and well ahead of normal in most peanut-producing States.

Crop Progress and Condition

Week Ending July 18, 1999

Soybeans Percent Blooming				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
AL	23	16	35	27
AR	35	23	39	27
GA	46	28	37	32
IL	62	39	43	37
IN	80	53	46	37
IA	65	41	73	56
KS	29	13	64	43
KY	40	25	22	23
LA	72	59	82	61
MI	54	39	42	23
MN	50	24	74	51
MS	90	84	84	59
MO	32	19	42	31
NE	44	24	61	43
NC	15	10	24	19
OH	77	55	58	43
SC	14	8	27	22
SD	39	26	54	39
TN	35	22	21	19
19 Sts	55	35	55	41

These 19 States planted 93% of last year's soybean acreage.

Winter Wheat Percent Harvested				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
AR	99	98	100	99
CA	95	85	84	94
CO	75	44	87	65
GA	100	100	100	100
ID	1	0	0	1
IL	99	92	98	94
IN	100	94	98	83
KS	99	92	100	97
MI	91	57	86	29
MO	99	92	99	97
MT	0	0	0	0
NE	72	36	68	58
NC	99	97	100	97
OH	99	87	98	70
OK	99	96	100	100
OR	7	0	1	5
SD	41	3	39	18
TX	97	93	100	98
WA	2	0	7	4
19 Sts	81	70	82	76

These 19 States planted 91% of last year's winter wheat acreage.

Corn Percent Silking				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
CO	3	0	22	13
GA	100	98	98	98
IL	65	28	51	36
IN	70	30	41	24
IA	20	2	44	23
KS	52	25	76	59
KY	88	71	59	55
MI	36	10	30	11
MN	29	5	76	33
MO	61	39	73	53
NE	22	3	61	35
NC	80	60	79	86
OH	46	10	24	15
PA	38	11	33	20
SD	3	0	14	8
TX	69	65	88	79
WI	20	2	41	14
17 Sts	40	16	51	32

These 17 States planted 90% of last year's corn acreage.

Corn Percent Dough				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
CO	0	NA	0	0
GA	89	NA	89	90
IL	8	NA	6	3
IN	6	NA	5	1
IA	0	NA	0	0
KS	4	NA	12	13
KY	15	NA	0	3
MI	0	NA	0	0
MN	0	NA	0	0
MO	21	NA	19	12
NE	0	NA	0	0
NC	50	NA	49	54
OH	2	NA	3	1
PA	6	NA	0	0
SD	0	NA	0	0
TX	59	NA	66	59
WI	0	NA	0	0
17 Sts	6	NA	6	5

These 17 States planted 90% of last year's corn acreage.

Soybeans Percent Setting Pods				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
AL	5	3	16	7
AR	9	5	10	9
GA	15	9	13	10
IL	11	3	7	6
IN	22	6	6	4
IA	12	3	21	12
KS	6	2	11	8
KY	10	5	9	6
LA	42	30	46	32
MI	5	0	12	3
MN	5	0	20	9
MS	61	55	55	28
MO	6	3	8	3
NE	4	1	5	5
NC	4	0	0	0
OH	15	6	12	6
SC	4	2	12	8
SD	5	3	24	7
TN	13	4	6	4
19 Sts	12	5	14	8

These 19 States planted 93% of last year's soybean acreage.

Peanuts Percent Pegging				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
AL	77	59	78	67
FL	91	73	65	NA
GA	82	70	84	87
NC	70	40	68	44
OK	68	26	88	72
SC	60	53	59	41
TX	60	45	55	32
VA	73	50	80	38
8 Sts	74	57	73	NA

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

Barley Percent Headed				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
ID	82	57	77	83
MN	94	75	98	92
MT	91	53	90	85
ND	62	46	93	79
SD	96	86	99	93
WA	98	96	100	99
6 Sts	80	58	91	85

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

Crop Progress and Condition

Week Ending July 18, 1999

Cotton Percent Squaring				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
AL	92	88	93	87
AZ	97	96	95	99
AR	100	100	100	100
CA	85	60	42	83
GA	94	90	94	95
LA	100	98	100	99
MS	100	97	100	98
MO	100	100	100	96
NM	85	70	91	88
NC	75	70	84	79
OK	41	32	77	73
SC	85	67	92	90
TN	100	100	98	98
TX	82	65	88	85
14 Sts	88	77	89	89

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

Cotton Percent Setting Bolls				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
AL	48	30	58	46
AZ	56	46	27	68
AR	70	32	84	65
CA	25	5	5	26
GA	59	38	75	69
LA	80	61	95	82
MS	77	61	93	73
MO	90	72	88	54
NM	30	17	39	46
NC	30	15	42	37
OK	6	2	17	15
SC	20	9	51	45
TN	64	40	52	45
TX	22	17	54	36
14 Sts	41	27	59	47

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

Spring Wheat Percent Headed				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
ID	80	50	78	87
MN	91	84	99	91
MT	89	55	94	88
ND	67	53	89	75
SD	98	92	100	94
5 Sts	80	63	93	83

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

Sorghum Percent Headed				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
AR	61	36	72	51
CO	2	0	2	2
IL	2	1	5	4
KS	3	1	18	11
LA	89	78	76	73
MS	74	65	83	72
MO	14	12	35	20
NE	5	3	1	3
NM	0	0	0	1
OK	6	4	10	17
SD	10	6	9	3
TX	51	48	61	66
12 Sts	24	21	34	33

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

Sorghum Percent Coloring				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
AR	2	NA	9	9
CO	0	NA	0	0
IL	0	NA	0	0
KS	0	NA	0	0
LA	18	NA	17	15
MS	11	NA	16	16
MO	0	NA	0	0
NE	0	NA	0	0
NM	0	NA	0	0
OK	0	NA	2	3
SD	5	NA	0	0
TX	44	NA	49	54
12 Sts	17	NA	19	21

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

Rice Percent Headed				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
AR	7	1	23	14
CA	0	0	0	0
LA	75	71	79	59
MS	22	10	37	30
TX	78	67	78	67
5 Sts	27	21	37	27

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

Oats Percent Headed				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
IA	100	100	100	100
MI	97	95	100	94
MN	97	89	99	97
NE	100	100	100	100
ND	61	50	94	74
OH	100	100	100	100
PA	99	96	98	95
SD	97	89	99	93
WI	100	99	100	96
9 Sts	89	83	98	91

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

Oats Percent Harvested				
	Jul 18 1999	Prev Week	Prev Year	5-Yr Avg
IA	27	NA	14	15
MI	0	NA	5	1
MN	0	NA	3	1
NE	34	NA	24	30
ND	0	NA	0	0
OH	28	NA	15	10
PA	15	NA	4	6
SD	6	NA	11	4
WI	2	NA	12	3
9 Sts	8	NA	8	5

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

Corn Crop Condition by Percent					
	VP	P	F	G	EX
CO	0	2	8	46	44
GA	11	13	27	41	8
IL	1	4	21	54	20
IN	2	8	32	43	15
IA	2	6	19	45	28
KS	1	3	17	62	17
KY	1	2	16	56	25
MI	1	3	12	60	24
MN	1	5	22	58	14
MO	2	8	31	49	10
NE	1	4	15	56	24
NC	1	6	26	59	8
OH	5	10	32	43	10
PA	16	29	36	16	3
SD	1	2	13	54	30
TX	1	3	17	56	23
WI	1	4	11	52	32
17 Sts	2	6	20	51	21
Prev Wk	1	4	17	54	24
Prev Yr	4	7	23	47	19

Crop Progress and Condition

Week Ending July 18, 1999

Soybeans Crop Condition by Percent					
	VP	P	F	G	EX
AL	0	1	19	65	15
AR	0	6	32	49	13
GA	3	6	31	54	6
IL	1	5	24	54	16
IN	2	6	33	45	14
IA	2	6	20	47	25
KS	0	3	22	63	12
KY	1	4	17	51	27
LA	0	2	17	72	9
MI	1	4	16	61	18
MN	4	7	34	46	9
MS	1	3	18	49	29
MO	1	10	36	46	7
NE	1	3	20	59	17
NC	1	5	25	63	6
OH	3	8	32	47	10
SC	2	4	30	61	3
SD	2	3	12	58	25
TN	0	4	22	59	15
19 Sts	2	6	25	51	16
Prev Wk	1	5	23	54	17
Prev Yr	3	9	27	47	14

Cotton Crop Condition by Percent					
	VP	P	F	G	EX
AL	0	2	18	63	17
AZ	1	12	34	37	16
AR	0	3	24	57	16
CA	0	0	10	90	0
GA	1	5	25	50	19
LA	0	2	24	58	16
MS	0	3	14	56	27
MO	0	10	23	52	15
NM	1	6	32	54	7
NC	1	8	24	62	5
OK	0	4	32	53	11
SC	1	4	32	56	7
TN	0	1	21	53	25
TX	8	18	32	34	8
14 Sts	4	10	26	48	12
Prev Wk	4	10	26	48	12
Prev Yr	13	19	34	29	5

Sorghum Crop Condition by Percent					
	VP	P	F	G	EX
AR	0	4	28	58	10
CO	0	4	20	52	24
IL	0	2	21	72	5
KS	1	2	15	68	14
LA	0	1	18	72	9
MS	0	2	13	59	26
MO	1	5	32	54	8
NE	0	1	19	70	10
NM	0	3	43	54	0
OK	0	1	13	83	3
SD	0	0	10	72	18
TX	1	3	20	50	26
12 Sts	1	2	19	61	17
Prev Wk	0	3	21	62	14
Prev Yr	8	13	29	44	6

Oats Crop Condition by Percent					
	VP	P	F	G	EX
IA	0	6	20	51	23
MI	0	2	13	66	19
MN	8	7	31	46	8
NE	0	2	11	67	20
ND	1	2	22	62	13
OH	1	5	37	52	5
PA	3	18	38	38	3
SD	0	0	9	62	29
WI	0	2	17	62	19
9 Sts	2	4	21	57	16
Prev Wk	1	4	19	59	17
Prev Yr	1	4	25	57	13

Peanuts Crop Condition by Percent					
	VP	P	F	G	EX
AL	0	1	13	57	29
FL	0	0	4	51	45
GA	0	3	18	58	21
NC	0	6	18	71	5
OK	0	10	35	41	14
SC	0	3	24	60	13
TX	0	2	17	54	27
VA	0	0	8	65	27
8 Sts	0	3	17	56	24
Prev Wk	0	4	20	56	20
Prev Yr	7	14	36	36	7

Barley Crop Condition by Percent					
	VP	P	F	G	EX
ID	0	2	12	68	18
MN	12	15	32	36	5
MT	3	13	36	43	5
ND	0	4	23	60	13
SD	0	0	7	62	31
WA	7	32	44	17	0
6 Sts	3	10	27	50	10
Prev Wk	2	8	32	46	12
Prev Yr	1	6	23	52	18

Rice Crop Condition by Percent					
	VP	P	F	G	EX
AR	0	2	21	54	23
CA	0	0	20	80	0
LA	0	0	18	62	20
MS	1	2	13	53	31
TX	0	0	11	43	46
5 Sts	0	1	19	58	22
Prev Wk	0	1	21	59	19
Prev Yr	1	5	31	52	11

Spring Wheat Crop Condition by Percent					
	VP	P	F	G	EX
ID	0	1	12	70	17
MN	11	11	33	35	10
MT	1	9	27	55	8
ND	0	5	22	58	15
SD	1	2	12	52	33
5 Sts	2	6	23	54	15
Prev Wk	1	5	26	53	15
Prev Yr	1	6	30	49	14

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

* - Revised

La Niña Update: July 12, 1999

The following is derived from the ENSO Advisory 99/7 issued by the Climate Prediction Center/National Centers for Environmental Prediction (NCEP) on July 12, 1999.

Although cold-episode conditions have substantially weakened since the beginning of the year, the overall patterns of oceanic temperatures and atmospheric circulation in June are similar to those observed during recent months (Fig. 1). During June, weak negative SST anomalies and weaker-than-normal convection prevailed throughout the equatorial Pacific east of 160°E, and low-level easterlies remained stronger than normal between 150°E and 160°W.

Consistent with these features, the thermocline has been deeper than normal in the western equatorial Pacific and shallower than normal in the eastern equatorial Pacific (Fig. 2). This has resulted in a dipole pattern of positive subsurface temperature anomalies in the western equatorial Pacific and

negative subsurface temperature anomalies in the eastern equatorial Pacific. The lack of any significant eastward shift in the positive subsurface temperature anomalies in the west-central equatorial Pacific indicates that the present cold episode is likely to continue for the next several months. This assessment of the situation is supported by the most recent NCEP coupled model forecasts and other available coupled model and statistical predictions that indicate cold episode conditions persisting through the end of 1999 and into the early part of 2000.

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

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

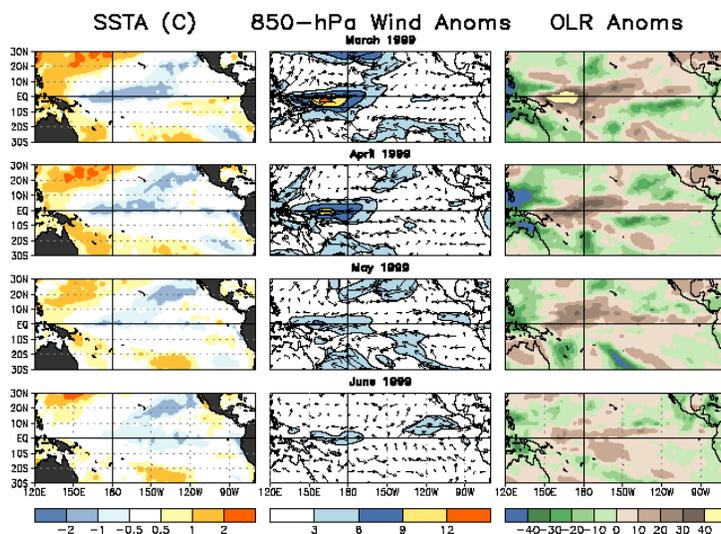


FIGURE 1. Anomalous sea surface temperatures (left hand panels), 850-hPa vector wind (center panels) and outgoing longwave radiation (right hand panels) for March through June 1999. SST departures from average SST are computed based on the 1950-1979 adjusted OI climatology (Reynolds and Smith 1995, *J. Climate*, 8, 1571-1583). OLR and 850-hPa vector wind departures are computed with respect to the 1979-1995 base period means. Contour interval is 0.5°C, 3 m s⁻¹, and 15 W m⁻², respectively.

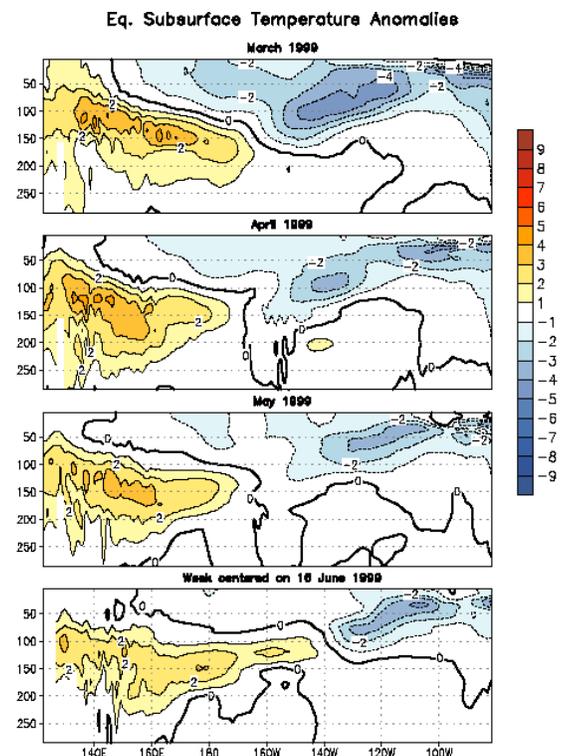


FIGURE 2. Equatorial depth-longitude section of ocean temperature anomalies for the months of March through May 1999, and for the week centered on 16 June 1999. Dashed contours indicate negative anomalies. Data are derived from an analysis system which assimilates oceanic observations into an oceanic GCM (Behringer et al. 1998, *Mon. Wea. Rev.*, 126, 1013-1021). Contour interval is 1°C.

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/oce/waob/jawf>.

ALABAMA: Days suitable for fieldwork 4.5. Topsoil 4% short, 68% adequate, 28% surplus. Temperatures a few degrees below normal. Rainfall continued in many areas hampering pest control, other fieldwork. Corn 95% silked, 98% 1998, 94% avg.; 58% doughed; 37% dented, 59% 1998, 48% avg.; 11% mature, 29% 1998. Hay 99% harvested, 100% 1998, 99% avg. Corn 1% poor, 13% fair, 60% good, 26% excellent. Pasture feed 2% poor, 12% fair, 63% good, 23% excellent. Livestock 1% poor, 15% fair, 60% good, 24% excellent. Vegetable harvest continued Statewide, as well as late season tomato, pumpkin planting.

ALASKA: Days suitable for fieldwork 2.8. Topsoil 20% short, 80% adequate. Subsoil 30% short, 70% adequate. Scattered showers brought welcomed moisture to the small grain crops, made the hay harvest difficult. Daytime high temperatures were mostly in the sixties and seventies. Lows were mostly in the forties and fifties. Oats 15% boot and earlier, 80% headed, 5% in dough. Barley, 60% headed, 40% in dough. Oat crop prospects, 20% below average, 70% average, 10% above average. Barley crop prospects, 40% below average, 60% average. Small grain 19.3 in. height, 18.6 in. 1998. Hay harvested, 65%, 65% 1998. Hay crop prospects, 30% below average, 65% average, 5% above average. Potato plants 10% bloomed; 16 in. plant height, 11 in. 1998. Potato crop prospects, 20% below average, 75% average, 5% above average. Vegetable crop prospects, 5% below average, 80% average, 15% above average. Crop growth, 35% slow, 35% moderate, 30% rapid. Wind damage to small grain fields, 95% none, 5% light. Major activities included: Cutting hay, harvesting hay, harvesting lettuce, greens, radishes, squash, broccoli, Chinese vegetables, weed control, irrigating crops, machinery repair.

ARIZONA: Widespread heavy rains throughout the State caused improved pasture conditions. Cotton squaring is still ahead of 1998, slightly behind the average. Alfalfa harvest activity 56% not being harvested, 6% light, 11% moderate, 27% active. Alfalfa 5% poor, 17% fair, 59% good, 19% excellent. Central producers shipped a variety of fruits, vegetables, melons last week. Grape shipments included currants, flame seedless, thompsons. Vegetable shipments consisted of parsley and sweet corn. Melon shipments included canary, cantaloup, casaba, crenshaw, golden honeydew, honeydew, orange flesh, Santa Claus, and watermelons. Eastern producers shipped greenhouse tomatoes and dry onions. Western producers harvested a variety of grapes, melons. Melon shipments included canary, cantaloupes, honeydew, watermelons while grape shipments included beauty seedless, flame seedless, perlettes, thompsons. Central, western areas citrus producers shipped grapefruit last week.

ARKANSAS: Days suitable for fieldwork 6. Topsoil 5% very short, 31% short, 61% adequate, 3% surplus. Temperatures below normal. Frontal passage brought heat relief early in the week, but didn't produce a widespread rainfall event. Rainfall much below normal. Most crops good condition. Livestock good condition. Main farm: Fertilizing cotton, corn, rice, warm season forages, harvesting wheat and hay. Other activities: Irrigating corn, soybeans, cotton, sorghum, rice, cultivating cotton, spraying cotton for boll weevils, bullworms, fields for insects, weeds, putting down lime, scouting for sheath blight in rice, spraying of rice, cotton, soybean fields for weeds, applying mid-season nitrogen applications to rice, fruit harvesting, treating cattle for external parasites for summer insect control by dusting, ear tagging cattle, vaccinating cattle, weaning calves. Cotton 100% squared, 77% setting bolls; 3% poor 24% fair 57% good 16% excellent. Soybeans 35% bloomed, 9% setting pods; 6% poor 32% fair 49% good 13% excellent. Sorghum 100% emerged, 61% headed, 2% turning color; 4% poor 28% fair 58%

good 10% excellent. Wheat 99% harvested. Oats 98% harvested. Alfalfa 20% fair 74% good 6% excellent. Other hay 4% poor 26% fair 57% good, 13% excellent. Range, pastures feed 5% poor 24% fair 57% good 14% excellent.

CALIFORNIA: Field activities progressed normally under favorable conditions in most areas. Grain harvests of wheat, barley, oats were nearing completion, except at higher elevations. Rice growth was improving in most fields, as weed problems were brought under control with herbicide treatments. Cotton bloom was ongoing in most fields in the San Joaquin and Sacramento valleys, early planted fields were setting bolls. Cotton fields were irrigated, thinned, weeded, sprayed for armyworms, leafhoppers, lygus; some fields received their final cultivation. Seed alfalfa was treated for aphids, lygus and weevils, most fields were in full bloom. Black eye beans, safflower were sprayed for lygus. Sunflowers were maturing rapidly in the Sacramento Valley, growers knocked down male plants as pollination progressed. Old crop sugar beet harvest continued in the central San Joaquin Valley. New crop sugar beets in the San Joaquin Valley were mowed off to halt bolting. Corn silage harvest continued in southern counties. A few second crop corn fields were planted following small grain harvest. Alfalfa and sudan grass were cut, baled for hay. Some alfalfa fields were treated for worms. Grape growers were applying sulfur and insecticides to control powdery mildew, insects. Harvest of grapes for fresh use continued in the San Joaquin Valley. Early pickings from Kern County included Perlette, Flame Seedless varieties. Picking of fresh use grapes in the Coachella Valley was winding down; Flame Seedless, Thompson Seedless were still being picked. Other cultural activities last week included irrigation, weed control in vineyards, orchards. Harvest of apricots, nectarines, plums, freestone peaches continued. Good quality was noted. Apple trees were treated for codling moths. Olive trees exhibited a good fruit set that was maturing well. Tree limbs in almond orchards remained supported to bear the heavy nut set. Pistachio trees were sprayed with fungicides. Walnut trees were treated for blight. Valencia oranges, lemons were picked in southern areas. Processing tomatoes were setting fruit throughout the San Joaquin, Sacramento valleys. Harvest is expected to begin the last week of July in the central San Joaquin Valley. Some tomato fields were treated for mildew, tomato fruit worm, stink bugs, cabbage loopers, thrips. Sweet corn harvest continued to accelerate; growers were treating for earworms. Cantaloupe fields were treated for mites, aphids, leafhoppers. Cantaloupe harvest in the San Joaquin Valley continued; honeydew melon harvest was just getting underway. Fall melon fields were being planted. Other crops harvested included: Beans, broccoli, carrots, celery, cilantro, cucumbers, garlic, leeks, squash, turnips, onions, peppers, potatoes, watermelon, various greens, herbs. California's range conditions continued to seasonally decline. Rangeland forage at upper elevations was in good to fair condition, but drying rapidly. Lower elevation vegetation was very dry, with high danger of range fires. Irrigated pastures were in generally good condition. Some foothill pastures received further damage from heavy grasshopper infestations. Livestock were in good to fair condition, with some heat stress reported. Milk production was down slightly, due to the higher temperatures. Bees were pollinating seed alfalfa, melons in the San Joaquin Valley.

COLORADO: Days suitable for fieldwork 5.9. Topsoil 3% very short, 38% short, 56% adequate, 3% surplus. Subsoil 3% very short, 28% short, 66% adequate, 3% surplus. Scattered, afternoon thunderstorms produced some heavy downpours that caused localized flooding in a few areas. Weather generally favored growth, development of all crops, allowed producers to make excellent progress in harvesting winter wheat. Winter wheat 95% ripe, 96% 1998, 86% avg. Spring wheat

84% headed, 93% 1998, 91% avg.; 33% turning color, 46% 1998, 32% avg.; 5% harvested, 0% 1998, 0% avg.; 4% poor, 16% fair, 51% good, 29% excellent. Spring barley 54% turning color, 56% 1998, 50% avg.; 5% harvested, 10% 1998, 8% avg.; 4% poor, 14% fair, 53% good, 29% excellent. Sorghum 2% headed, 2% 1998, 2% avg. Oats 97% headed, 98% 1998, 90% avg.; 47% turning color, 54% 1998, 50% avg.; 3% poor, 17% fair, 70% good, 10% excellent. Dry onions 1% very poor, 3% poor, 8% fair, 65% good, 23% excellent. Sugar beets 4% poor, 10% fair, 49% good, 37% excellent. Dry beans 21% flowered, 24% 1998, 20% avg.; 2% poor, 11% fair, 54% good, 33% excellent. Corn 3% silked, 22% 1998, 13% avg. Summer potatoes 3% fair, 63% good, 34% excellent. Fall potatoes 7% poor, 12% fair, 41% good, 40% excellent. Alfalfa 38% 2nd cutting, 34% 1998, 35% avg.; 1% very poor, 2% poor, 19% fair, 61% good, 17% excellent. Range, pasture feed in mostly good condition.

DELAWARE: Days suitable for fieldwork 6.3. Topsoil 3% very short, 72% short, 25% adequate. Subsoil 4% very short, 49% short, 47% adequate. Winter wheat 91% harvested, 98% 1998, 94% avg. Field corn 8% poor, 35% fair, 42% good, 15% excellent; 50% silked, 52% 1998, 39% avg.; 9% dough, 9% 1998, 4% avg. Soybeans 11% poor, 32% fair, 51% good, 6% excellent; 12% bloomed, 9% 1998, 14% avg; 5% setting pods, 0% 1998, 1% avg. Sorghum 1% poor, 30% fair, 65% good, 4% excellent; 7% headed, 5% 1998, 5% avg. Sweet corn 16% harvested, 20% 1998, 19% avg. Snap beans 20% harvested, 14% 1998, 25% avg. Cantaloupes 8% harvested, 8% 1998, 8% avg. Watermelons 8% harvested, 9% 1998, 5% avg. Cucumbers 20% harvested, 25% 1998, 29% avg. Lima beans 15% harvested, 14% 1998, 4% avg. Tomatoes 13% harvested, 8% 1998, 8% avg. Potatoes 30% harvested, 19% 1998, 18% avg. Clover and other hay 72% 2nd cutting, 92% 1998, 70% avg; 47% 3rd cutting, 54% 1998, 14% avg. Alfalfa hay 85% 2nd cutting harvested, 95% 1998, 87% avg.; 35% 3rd cutting harvested, 26% 1998, 12% avg. Hay supplies 22% short and 78% adequate. Pasture feed 3% very poor, 32% poor, 32% fair, 33% good. Apples 16% fair, 74% good, 10% excellent. Peaches 22% fair, 71% good, 7% excellent; 12% harvested, 19% 1998, 15% avg. Activities: Continued harvesting of veggies, fruits.

FLORIDA: Topsoil throughout State adequate to surplus with scattered areas short moisture in central Peninsula. Clash of sea breezes continued to cause scattered afternoon showers. Rainfall ranged from traces at West Palm Beach, Ft. Pierce to about 3.25 in., at Tallahassee. Temperatures within 1 to 2° of normal. Daytime highs 80s, 90s; nighttime lows 60s, 70s. Cotton blooming and in mostly good condition. Weeds, grass problems in some cotton, peanut fields. Daily rains, some areas delaying haying, land preparation. Sugarcane growth normal. Tobacco harvest active, haying active when weather permits. Peanut 4% fair, 51% good, 45% excellent; 91% pegged. Tomato planting getting underway, Quincy. Watermelon harvesting nearly finished, north. Producers picking okra, Dade County. Summer crop mustard greens, collards in good condition, Webster. Bell pepper planting starting, East Coast region. Land preparation for fall crop vegetable planting active, central, southern Peninsula. Scattered showers most citrus areas, some irrigation, abundant new growth, new crop fruit sizing well. Very little Valencia harvest, virtually no grapefruit movement. Caretakers cutting cover crops, spraying, fertilizing, herbiciding, pushing, burning dead trees. Pasture feed 20% fair, 60% good, 20 excellent. Statewide, cattle mostly good condition. Panhandle; cattle, calves excellent condition, however, rain almost every day made haying impossible. North; Bahia seed being harvested. Some dry locations north, west central counties, while most places received ample rain. Pastures steadily improving due to recent scattered rains. Hay harvesting increasing, weather permitting. Cattle, calves good condition. South, southwest pasture excellent condition. Cattle 15% fair, 60% good, 25% excellent.

GEORGIA: Days suitable for fieldwork 4.5. Soil moisture 1% very short, 7% short, 76% adequate, 16% surplus. Topsoil moisture conditions improved from last week with some counties reporting surplus levels. Corn 67% dent, 72% 1998, 66% avg.; 20% mature,

23% 1998, 21% avg. Hay 1% very poor, 4% poor, 25% fair, 56% good, 14% excellent. Peanuts 97% blooming, 95% 1998, 98% avg. Sorghum 2% very poor, 6% poor, 29% fair, 55% good, 8% excellent. Soybeans 99% emerged, 91% 1998, N/A avg. Tobacco 5% very poor, 15% poor, 40% fair, 37% good, 3% excellent; 30% harvested, 26% 1998, 37% avg. Watermelons 85% harvested, 89% 1998, 84% avg. Apples 33% fair, 40% good, 27% excellent; 0% harvested, 1% 1998, 1% avg. Peaches 68% harvested, 84% 1998, 87% avg. Pecans 1% very poor, 5% poor, 30% fair, 55% good, 9% excellent. Scattered showers provided relief during the week over most of State. Crop conditions improved for all crops except apples during the week. Corn progress is at or ahead of 1998 average for corn maturing, doughing stages. Soybean maturity is well ahead of 1998, average. Soybean planting was virtually complete. With the increased rains, weeds have become a problem in most row crops. Cotton condition was mostly good. Development of the crop was slightly behind normal. Tobacco harvest was ahead of last year, but behind the five year average. Condition of the tobacco crop was fair to good. Peanut condition improved slightly from last week. Fungicide and insecticide spraying was active in most peanut fields. Peanut development was near normal. Watermelon harvest continues ahead of the five year average, but is beginning to slow down. Peach harvesting was active during the week, remains behind 1998, average. Other activities include crop cultivation, spraying fungicides, insecticides, harvesting summer vegetables, routine care of livestock, poultry.

HAWAII: Crop made fair progress. Northern islands received beneficial mixture of sunshine, showers. Rainfall was lighter in the southern islands where many areas remained very dry. Mandatory water conservation was increased from 10 to 25% for users in the Upcountry area of Maui island. Agricultural water users were given a 60-day exemption from the 25% cutback to allow for adjustments to their operations. Upcountry Maui is one of the State's major vegetable, flower growing regions. Banana orchards were in fair to good condition. Warm, sunny conditions were conducive to growth. Regular spraying was minimizing disease. Papaya orchards ranged poor to good condition. Harvesting varied from light to heavy. Vegetable crops were in mostly good condition. Regular irrigation, spraying are offsetting some of the adverse effects of the warmer weather.

IDAHO: Days suitable for fieldwork 6.8. Topsoil 5% very short, 31% short, 63% adequate, 1% surplus. Windy conditions across much of the State creating lodging conditions in barley fields. Northern, eastern areas having problems with aphids. Apricot harvest just underway in Treasure Valley. Irrigation supply 1% poor, 2% fair, 33% good, 64% excellent. Alfalfa hay 98% 1st cutting, 96% 1998, 97% avg.; 33% 2nd cutting, 27% 1998, 23% avg. Oats 82% headed. Mint 4% harvested, 5% 1998, 6% avg. Cherries 84% harvested, 92% 1998, 94% avg. Peaches 1% harvested, 1% 1998, 6% avg. Potatoes 92% 12 in. high, 86% 1998, 88% avg.; 60% closing middles, 51% 1998, 62% avg. Barley 82% headed, 77% 1998, 83% avg.; 100% jointed; 95% booted, 20% turning color. Spring wheat 80% headed, 78% 1998, 87% avg.; 95% booted, 16% turning color. Winter wheat 100% headed, 98% 1998, 99% avg.; 45% turning color. Activities: Irrigating, spraying weeds, cultivating, harvesting, monitoring for disease.

ILLINOIS: Days suitable for fieldwork 6.7. Topsoil 10% very short, 43% short, 45% adequate, 2% surplus. More dry weather last week helped farmers finish wheat harvest, progress quickly with oat harvest, signs of heat stress on the corn, soybean crops is becoming more evident. Oat harvest was in full swing. Other activities for last week included hauling grain, baling hay, mowing weeds, scouting fields, FSA certification. Oats 99% filled, 96% 1998, 94% avg.; 97% turning yellow, 85% 1998, 78% avg.; 65% ripe, 46% 1998, 39% avg.; 42% harvested, 6% 1998, 12% avg. Alfalfa 84% 2nd cut, 73% 1998, 64% avg.; 10% 3rd cut, 5% 1998, 4% avg.; 1% very poor, 4% poor, 23% fair, 61% good, 11% excellent. Red clover 93% cut, 94% 1998, 96% avg.

INDIANA: Days suitable for fieldwork 6.8. Topsoil 25% very short, 46% short, 28% adequate, 1% surplus. Subsoil 14% very short, 47%

short, 37% adequate, 2% surplus. Warm, dry week. Major crops under stress. Corn, soybean condition declined. Dry conditions exist central, northern areas. Scattered showers during weekend helped, some areas. Wheat harvest virtually complete. Good yields Statewide. Pastures deteriorating rapidly, 38% good to excellent. Alfalfa hay 95% 2nd cutting, 70% 1998, 52% avg. Activities: Harvesting wheat, irrigating crops, applying post-emergence chemicals, selling grain, mowing roads and pastures, baling hay and straw, spraying weeds, harvesting vegetables, repairing equipment, monitoring fields for insects, attending fairs, caring for livestock.

IOWA: Days suitable for fieldwork 6.6. Topsoil 5% very short; 28% short, 62% adequate, 5% surplus. Subsoil 2% very short, 13% short, 76% adequate, 9% surplus. Warm weather helped crop development; producers indicate rain is needed. Some crops on lighter soils showing signs of stress. Leaf hoppers reported in northeast, west central, central districts. Corn 41% tasseled, 68% 1998, 38% avg.; 20% silked, 44% 1998, 23% avg. Corn 2% very poor, 6% poor, 19% fair, 45% good, 28% excellent. Soybeans 65% blooming, 73% 1998, 56% avg.; 12% setting pods, 21% 1998, 12% avg.; 2% very poor, 6% poor, 20% fair, 47% good, 25% excellent. Oats 98% turning, 92% 1998, 87% avg.; 27% harvested, 14% 1998, 15% avg.; 6% poor, 20% fair, 51% good, 23% excellent. Winter wheat 83% harvested, 68% 1998, 60% avg. Livestock generally in good condition; flies becoming a problem in some areas, pinkeye reported in southeastern Iowa. Range, pasture feed 1% very poor, 7% poor, 27% fair, 51% good, 14% excellent. Alfalfa 61% 2nd cutting, 44% 1998, 42% avg. Clover hay 97% 1st cutting, 92% 1998, 94% avg.; 24% 2nd cutting, 22% 1998, 17% avg.; 4% poor, 22% fair, 56% good, 18% excellent.

KANSAS: Days suitable for fieldwork 6.0. Topsoil 1% very short, 15% short, 78% adequate, 6% surplus. Subsoil 8% short, 85% adequate, 7% surplus. Most of the wheat has been cut, bringing harvest to a close. Mainly wet areas and hail damaged wheat is all that remains to be cut. Corn 4% doughing, 12% 1998, 13% avg. Soybeans 100% planted, 100% 1998, 100% avg.; 97% emerged, 100% 1998. Sorghum 99% emerged, 100% 1998. Sunflower 2% very poor, 3% poor, 22% fair, 61% good, 12% excellent; 100% planted, 98% 1998; 97% emerged, 97% 1998; 10% blooming, 20% 1998. Alfalfa 95% 2nd cutting, 93% 1998, 91% avg.; 12% 3rd cutting, 28% 1998, 19% avg. Major field activities: Harvesting wheat, cultivating, irrigating corn and milo, working stubble, controlling weeds, putting up hay, finishing row crop planting. Hay, forage 2% short, 89% adequate, 9% surplus. Livestock producers are starting to move cattle from short season pastures to feedlots. Pinkeye, flies remain a problem in some areas. Stock water 3% short, 88% adequate, 9% surplus.

KENTUCKY: Days suitable for fieldwork 5.8. Topsoil 26% very short, 39% short, 34% adequate, 1% surplus. Subsoil 27% very short, 32% short, 40% adequate, 1% surplus. Temperatures near normal, high temperatures in the 90's. Rainfall continued below normal, increasing drought concerns in Bluegrass, Eastern portions of State. Black shank remains leading problematic disease in burley tobacco, with reports of blue mold in several areas. Burley tobacco blooming or beyond 31%, topped 13%. Dark tobacco blooming or beyond 42%. Tobacco 4% very poor, 11% poor, 29% fair, 42% good, 14% excellent. Pasture feed 6% very poor, 19% poor, 33% fair, 35% good, 7% excellent. Hay crop 4% very poor, 15% poor, 34% fair, 36% good, 11% excellent.

LOUISIANA: Days suitable for fieldwork 5. Soil moisture 11% short, 73% adequate, 16% surplus. Corn 3% poor, 16% fair, 70% good, 11% excellent; 98% dough stage, 99% 1998, 93% avg.; 54% mature, 51% 1998, 35% avg.; 1% harvested, 3% 1998, 2% avg. Corn harvest underway, will be in full swing in about two weeks. Hay 99% 1st cutting, 97% 1998, 97% avg.; 18% final cutting, 23% 1998, 25% avg. Hay harvest has slowed to a halt due to evening showers. Peaches 98% harvested, 89% 1998, 79% avg. Rice 13% ripe, 20% 1998, 10% avg.; 4% harvested, 5% 1998, 3% avg. Sugarcane 11% fair, 50% good, 39% excellent. Sugarcane continued to look good from recent showers. Livestock 2% poor, 20% fair, 64% good, 14% excellent. Vegetables 1%

very poor, 10% poor, 31% fair, 50% good, 8% excellent. Melons, eggplants, tomatoes were being harvested.

MARYLAND: Days suitable for fieldwork 6.7. Subsoil 37% very short, 57% short, 6% adequate. Topsoil 37% very short, 47% short, 16% adequate. Winter wheat 97% harvested, 96% 1998, 91% avg. Rye 91% harvested, 88% 1998, 80% avg. Corn 6% very poor, 20% poor, 43% fair, 29% good, 2% excellent; 54% silked, 54% 1998, 39% avg.; 10% dough, 12% 1998, 4% avg. Soybeans 4% very poor, 16% poor, 42% fair, 36% good, 2% excellent; 18% bloomed, 23% 1998, 13% avg.; 8% setting pods, 15% 1998, 4% avg. Sorghum 17% poor, 69% fair, 14% good; 10% headed, 9% 1998, 4% avg. Tobacco 6% very poor, 14% poor, 52% fair, 28% good; 23% bloomed, 23% 1998, 17% avg. Snap beans 37% harvested, 33% 1998, 37% avg. Cucumbers 41% harvested, 35% 1998, 38% avg. Potatoes 45% harvested, 100% 1998, 42% avg. Sweet Corn 26% harvested, 24% 1998, 24% avg. Tomatoes 25% harvested, 11% 1998, 11% avg. Cantaloupes 24% harvested, 19% 1998, 22% avg. Lima beans 7% harvested, 13% 1998, 3% avg. Watermelons 11% harvested, 11% 1998, 10% avg. Peaches 32% fair, 54% good, 14% excellent; 20% harvested, 35% 1998, 15% avg. Apples 20% fair, 63% good, 17% excellent. Clover, other hays 75% 2nd cutting harvested, 67% 1998, 53% avg.; 31% 3rd cutting, 41% 1998, 39% avg. Alfalfa 20% 3rd cutting harvested, 21% 1998, 15% avg. Pasture feed 17% very poor, 40% poor, 35% fair, 8% good. Hay 6% very short, 45% short, 49% adequate. Activities: Small grain harvest almost complete, veggie harvest in full gear, dry weather persists.

MICHIGAN: Days suitable for fieldwork 6.0. Topsoil 7% very short, 34% short, 56% adequate, 3% surplus. Subsoil 9% very short, 32% short, 57% adequate, 2% surplus. All hay 3% poor, 16% fair, 56% good, 25% excellent. Winter wheat 1% very poor, 7% poor, 14% fair, 54% good, 24% excellent. All hay 41% 2nd cutting, 54% 1998, 34% avg. Corn height single 60%. Drybeans blooming 17%, 17% 1998, 10% avg. Oats 77% turning yellow, 79% 1998, 45% avg.

MINNESOTA: Days suitable for fieldwork 5.2. Topsoil 0% very short, 12% short, 71% adequate, 17% surplus. Corn 63 in. height, 73 in. 1998, 60 in. avg. Soybeans 17 in height, 22 in. 1998, 19 in. avg. Spring Wheat 28% turning ripe, 48% 1998, 29% avg. Oats 55% turning ripe, 75% 1998, 51% avg. Barley 32% turning ripe, 46% 1998, 28% avg. Rye 1% harvested, 8% 1998, 10% avg. Pasture feed 3% very poor, 4% poor, 24% fair, 60% good, 9% excellent. Sugar beet 1% very poor, 4% poor, 21% fair, 55% good, 19% excellent. Sunflowers 10% very poor, 19% poor, 43% fair, 22% good, 6% excellent. Dry beans 7% very poor, 12% poor, 33% fair, 41% good, 7% excellent. Warm, humid weather promoted steady development of crops. Little precipitation occurred in most of the southern half of the State, prompting some concern about dryness. Root systems are still shallow because of earlier wetness, so late season crops need frequent doses of rain.

MISSISSIPPI: Days suitable for fieldwork 4.7. Soil moisture 2% very short, 11% short, 75% adequate, 12% surplus. Corn 88% dough, 89% 1998, 77% avg.; 57% dent, 66% 1998, 38% avg.; 8% mature, 1% avg.; 6% silage harvested, 4% avg.; 2% poor, 19% fair, 55% good, 24% excellent. Cotton 100% squaring, 100% 1998, 98% avg.; 77% setting bolls, 93% 1998, 73% avg.; 3% poor, 14% fair, 56% good, 27% excellent. Rice 22% heading, 37% 1998, 30% avg.; 1% very poor, 2% poor, 13% fair, 53% good, 31% excellent. Sorghum 74% heading, 83% 1998, 72% avg.; 11% turning color, 16% 1998, 16% avg.; 2% poor, 13% fair, 59% good, 26% excellent. Soybeans 90% blooming, 84% 1998, 59% avg.; 61% setting pods, 55% 1998, 28% avg.; 1% very poor, 3% poor, 18% fair, 49% good, 29% excellent. Sweet potatoes 1% poor, 21% fair, 75% good, 3% excellent. Hay 67% harvested, 64% 1998, 66% avg. Watermelons 60% harvested, 46% 1998, 48% avg.; 9% fair, 66% good, 25% excellent. Cattle 2% poor, 19% fair, 64% good, 15% excellent. Pasture feed 7% poor, 20% fair, 57% good, 16% excellent. Rice crop development continues to progress behind the five-year average. Corn, soybean crop development is still progressing ahead of normal. Plant growth regulators have been applied to some cotton fields. Scattered rains hampered farming activities in some areas of the State.

MISSOURI: Days suitable for fieldwork 6.6. Topsoil 7% very short, 39% short, 51% adequate, 3% surplus. Precipitation 0.21 in. Row crop conditions are holding steady, primarily fair, good in most areas of State. Bootheel is in need of rain to maintain yield potential. Corn reporters are concerned that recent high temperatures could be detrimental to pollination of late planted corn, but most of the crop has been pollinating during favorable weather. Double-crop soybean 96% planting. Soybeans development most advanced Bootheel at 37% blooming, 14% setting pods, east central 37% blooming, 12% setting pods. Bootheel leads State sorghum 38% headed, 1% coloring, rest of State not yet begun. Winter wheat 99% harvested. Haying activities are slightly ahead of normal; 78% 2nd crop cut, 80% 1998, 74% avg. Other hay 86%, 84% 1998, 84% avg. Pasture feed 2% very poor, 11% poor, 37% fair, 45% good, 5% excellent.

MONTANA: Days suitable for fieldwork 6.2. Topsoil 13% very short, 51% short, 34% adequate, 2% surplus. Subsoil 14% very short, 38% short, 45% adequate, 3% surplus. Majority of the State did not receive precipitation, excluding some locations in the northeastern part of the State. Sugar beets 3% poor, 11% fair, 45% good, 41% excellent. Winter wheat 94% turning, 84% 1998, 70% avg.; 4% ripe, 15% 1998, 6% avg.; 1% very poor, 13% poor, 30% fair, 46% good, 10% excellent. Spring wheat 8% turning, 31% 1998, 15% avg. Barley 23% turning, 25% 1998, 18% avg. Oats 84% headed, 89% 1998, 83% avg.; 6% turning, 27% 1998, 15% avg.; 1% very poor, 4% poor, 24% fair, 59% good, 12% excellent. Corn 2% poor, 5% fair, 59% good, 34% excellent. Potatoes 1% poor, 19% fair, 51% good, 29% excellent. Dry beans 3% poor, 5% fair, 78% good, 14% excellent. Alfalfa 85% 1st cutting 85%, 75% 1998, 81% avg.; 2% 2nd cutting 2%, 2% 1998, 2% avg. Other hay 60% harvested, 46% 1998, 61% avg.

NEBRASKA: Days suitable for fieldwork 6.5. Statewide, temperatures averaged near normals. Topsoil 1% very short, 28% short, 70% adequate, 1% surplus. Subsoil 1% very short, 12% short, 85% adequate, 2% surplus. Precipitation traces north central to over 2.75 in. northwest. Corn 1% very poor, 4% poor, 15% fair, 56% good, 24% excellent. Irrigated corn 79%, dryland corn 82% in good or excellent; silking 22%, 61% 1998, 35% avg. Soybeans 44% blooming, 61% 1998, 43% avg.; 4% setting pods, 5% 1998, 5% avg.; 1% very poor, 3% poor, 20% fair, 59% good, 17% excellent. Sorghum 5% headed, just above 1998 and average; 1% poor, 19% fair, 70% good, and 10% excellent. Dry beans 2% poor, 20% fair, 72% good, 6% excellent; 24% blooming, 12% 1998, 24% avg. Wheat 93% ripe, 87% 1998, 81% avg.; 72% harvest, 68% 1998, 58% avg. Oats 34% harvest, 24% 1998, 30% avg.; 2% poor, 11% fair, 67% good, 20% excellent. Alfalfa 73% 2nd cutting, 60% 1998, 58% avg.; 1% very poor, 2% poor, 16% fair, 67% good, 14% excellent. Range, pasture feed 3% poor, 18% fair, 64% good, 15% excellent. Wild hay 2% poor, 12% fair, 71% good, 15% excellent. Pastures, as well as other dryland crops, were under some stress due to hot temperatures. Producer activities; irrigating, cultivating soybeans, sorghum, applying herbicide, insect scouting, harvesting wheat, alfalfa, oats, marketing of crops.

NEVADA: Weather in north started out with slightly above normal temperatures, but cooled later in the week. Elko was the only exception, with below normal temperatures every day except on the 13th. Southern areas had below normal temperatures for the week, a significant amount of precipitation. Las Vegas reported 0.85 in. of rainfall for the week. Elly had precipitation of 0.22 in. followed by Winnemucca with 0.01 in. Reno and Elko reported trace amounts of precipitation. Pasture, range conditions remained stable as some needed precipitation was received. First cutting of alfalfa was completed throughout the State. Second cutting continued as well as cutting of other hay. No rain damage to hay was reported for the week. Nearly all grain crops had headed, were beginning to turn color. A good majority of the grain crops remained in good condition. Potatoes had bloomed. Cantaloupe crop was doing well. Sweet corn was ripening, should be ready in a few weeks. Main farm and ranch activities: irrigating, harvesting 2nd cutting, baling alfalfa, cutting grain for hay, managing bees, checking livestock, topping garlic.

NEW ENGLAND: Days suitable for fieldwork 6.8. Topsoil 21% very short, 52% short, 27% adequate. Subsoil 18% very short, 51% short, 31% adequate. Pasture feed 6% very poor, 21% poor, 43% fair, 24% good, 6% excellent. Maine potatoes 100% emerged, condition excellent to good. Massachusetts potatoes 100% emerged, condition good. Rhode Island potatoes 5% harvested, condition fair. Oats in Maine 100% emerged, condition excellent to good. Barley in Maine 100% emerged, condition excellent to good. Field corn 100% emerged, condition good to excellent. Sweet corn 100% emerged; 15% harvested, 5% 1998, 5% avg.; condition good to fair. Shade Tobacco 10% harvested, 10% 1998, 10% avg.; condition good. Broadleaf Tobacco <5% harvested, <5% 1998, <5% avg.; condition good. First cut hay 95% harvested, 80% 1998, 85% avg.; condition good to fair. Second cut hay 30% harvested, 25% 1998, 25% avg.; condition good to fair. Apples set average, size average, condition good to fair. Peaches 5% harvested; set average, size average to below average, condition good to fair. Pears set below average to average, size below average, condition fair. Strawberries 99% harvested, 100% 1998, 95% avg.; set average, size average, condition good. Cranberries petal fall, condition good to excellent. Highbush blueberries 10% harvested, 10% 1998, 10% average, set average, size average, condition good to fair. Wild Blueberries <5% harvested; set average, size average, condition fair. Major farm activities included: Irrigating where available; harvesting blueberries, raspberries, shade tobacco and vegetables including sweet corn; monitoring for pest and applying pesticides where required; preparing equipment for potato, oats and barley harvest; side dressing crops, mowing weeds.

NEW JERSEY: Days suitable for fieldwork 7. Temperatures above normal north, central; below normal south. Extremes 47°; 102°. Rainfall 0.17 in. north, 0.20 in. central, 0.64 in. south. Heaviest 24 hour total 0.99 in. at Pomona on the 12th to the 13th. Estimated soil moisture, in percent of field capacity, this past week averaged 56% north, 45% central, 43% south. Four inch soil temperatures 71° north, 73° central, 72° south. Harvest of wheat, rye and barley is nearly finished in the southern counties, still in progress in State. Wheat, rye has been rated as fair while barley is still in good condition. Corn is between good, fair condition in the south, fair in central areas, between fair and poor in northern areas. Some fields in that area are starting to tassel before they reached 30 in. height. Soybeans conditions are similar to corn. Condition of the second crop of alfalfa is between fair, poor. Pastures are drying out rapidly across the State due to the lack of rain and excessive hot temperatures. Loss of cattle to heat stress has been reported. Supplemental feeding is increasing. Most irrigated vegetable fields are still in good condition while non-irrigated vegetables are in fair and poor condition, yields are expected to be severely affected. Harvest continues for snap beans, tomatoes, squash, sweet corn, peppers, potatoes and other vegetables. Some fields are being prepared for seeding of fall vegetables. Peach still in good and excellent condition in southern areas where most of the commercial orchards are being irrigated. Peaches in northern areas is between good and fair. Harvest of peaches in southern areas continues. Apple conditions are between fair, good. Blueberry harvest is past its peak in southern areas the quality of the fruit is between good, excellent. Cranberries are in the flower set stage, doing well.

NEW MEXICO: Days suitable for fieldwork 6. Clouds, precipitation kept temperatures down a bit, with a Statewide average between 2°, 3° below normal. No locations reached 100° during the week. All but three locations measured rainfall. Greatest totals were out in the plains, where Clovis picked up 2.89", and Des Moines measured 2.85". Farmers were busy with typical mid-summer activities; harvesting, cultivating, irrigating, weed and insect control, fertilizing. Southern counties had begun their 4th cutting of alfalfa while northern counties were just finishing their 1st. Damage to hay crops were reported as rains continued Statewide. Most ranch activities centered around maintenance of fences, equipment. Stock tank water was adequate in most areas, only one report of supplemental feeding was received. Cooler temperatures have slowed grass growth, also helped keep insects down. Grasshoppers range caterpillars were still reported, no

large scale spraying was being done at this time. Range, pasture feed 4% very poor, 8% poor, 33% fair, 42% good, 13% excellent. Cattle, sheep again showed little change with cattle in mostly good condition sheep mostly fair to good condition.

NEW YORK: Days suitable for fieldwork 6.5. Soil moisture 11% very short, 69% short, 20% adequate. Moisture needed. Pasture feed 14% very poor, 54% poor, 15% fair, 17% good. Alfalfa 62% 2nd cutting, 39% 1998, 30% avg. Hay crops 11% poor, 50% fair, 39% good. Corn 36% fair, 64% good. Crop tasseling. Wheat 58% harvested, 44% 1998, 21% avg. Sweet corn harvest 15% complete. Crop showed stress from dryness. Tomato harvest began. Vegetable crops irrigated where available. Apples continued in good condition. Tart cherry harvest 30% complete. Lake Erie grapes showing drought stress.

NORTH CAROLINA: Days suitable for fieldwork 3.4, 5.4 last week. Soil moisture levels recovered, 1% very short, 6% short, 71% adequate, 22% surplus. Cooler temperatures, widespread rainfall provided relief from the extreme heat. Mild weather, ground soaking precipitation was welcomed in all areas, crops have responded. Limited progress was made with the remaining soybean acres to be planted. Irish potato growers took advantage of breaks in the weather to make modest harvest gains. Other activities included weed control in all crops, sucker control, topping in tobacco, tending livestock. Overall, it was a quiet week in which farmers just enjoyed watching it rain. Recent rains came at an optimal time for corn as the silked, dough stages are at 80%, 50%, respectively. Likewise, the cotton crop will benefit as a significant portion of the crop has squared, now setting bolls.

NORTH DAKOTA: Days suitable for fieldwork 5. Warm, dry weather is needed to aid the development of row crops and allow producers to finish the hay harvest. Wheat midge activity started to spread throughout the State. Topsoil 0% very short, 7% short, 77% adequate, 16% surplus. Subsoil 0% very short, 4% short, 76% adequate, 20% surplus. Durum wheat 54% boot, 95% 1998, 83% avg; 30% heading, 84% 1998, 63% avg; 9% milk, 32% 1998, 19% avg. Canola 86% blooming, 98% 1998. Corn 19% tasseling, 44% 1998, 22% avg. Dry edible beans 38% blooming, 76% 1998, 48% avg. Flaxseed 54% blooming, 85% 1998, 50% avg. Potatoes 66% blooming, 86% 1998, 70% avg; 52% rows filled, 71% 1998, 44% avg. Soybeans 23% blooming, 55% 1998, 44% avg. Sunflowers 2% blooming, 3% 1998, 2% avg. Emerged crop condition: durum 0% very poor, 6% poor, 26% fair, 60% good, 8% excellent; canola 0% very poor, 3% poor, 20% fair, 61% good, 16% excellent; corn 2% very poor, 5% poor, 21% fair, 62% good, 10% excellent; dry edible beans 0% very poor, 7% poor, 22% fair, 56% good, 15% excellent; flaxseed 0% very poor, 4% poor, 22% fair, 61% good, 13% excellent; potatoes 0% very poor, 5% poor, 12% fair, 52% good, 31% excellent; soybeans 0% very poor, 8% poor, 26% fair, 55% good, 11% excellent; sugarbeets 0% very poor, 5% poor, 17% fair, 51% good, 27% excellent; sunflower 0% very poor, 4% poor, 22% fair, 64% good, 10% excellent. Stockwater supplies rated 0% very short, 1% short, 86% adequate, 13% surplus. End of the week rainshowers slowed haying progress. Hay condition rated 7% above normal.

OHIO: Days suitable for fieldwork 6.8. Topsoil 36% very short, 43% short, 21% adequate. Soybeans 77% blooming, 58% 1998, 43% avg.; 15% setting pods, 12% 1998, 6% avg. Winter wheat 99% harvested, 98% 1998, 70% avg. Oats 84% ripe, 59% 1998, 55% avg.; 28% harvested, 15% 1998, 10% avg. Alfalfa 88% 2nd cutting, 62% 1998, 51% avg. Alfalfa hay 8% 3rd cutting, 0% avg. Other hay 58% 2nd cutting, 42% 1998, 31% avg. Corn 46% silked, 24% 1998, 15% avg.; 2% in dough, 0% avg. Summer apples 45% harvested, peaches 15% harvested. Tobacco 3% topped, 0% 1998. Pasture feed 18% very poor, 27% poor, 35% fair, 18% good, 2% excellent. Corn 5% very poor, 10% poor, 32% fair, 43% good, 10% excellent. Soybeans 3% very poor, 8% poor, 32% fair, 47% good, 10% excellent. Activities: Harvesting wheat, oats, barley; baling straw, hay; hauling grain; planting double crop beans; mowing CRP ground; reporting acreage to FSA offices; spreading fertilizer, hauling manure; cultivating vegetables, tobacco; spraying fruits, vegetables; installing tile, sod waterways; attending

county fairs; emptying hog manure facilities; setting up irrigation systems. Reported weed pressures include Canadian thistle, morning glory, sourdock, velvetleaf, buttonweed, foxtail, ragweed, hemp dogbane, milkweed, quack grass, poison ivy, broadleaf, chickweed, lambsquarter, Johnsongrass. Reported insects were potato leafhopper, alfalfa weevil in alfalfa; cutworms, European corn borer, armyworms, western corn beetle, root worms, corn flea beetles in corn; spotted spidermite, beetles in soybeans. Reported diseases were black shank in tobacco, mildew on pumpkins, wilt on tomatoes. Fruit, vegetable conditions are mostly good in the north. In Portage county, the raspberry, blueberry crop is doing well. Reporters in the southern part of the State comment on drought stressed crops. Many producers have been irrigating vegetable crops. Pasture, grass conditions range from good to poor. Recovery of growth has been slow, grass is dormant in certain areas. There will be no 3rd cutting of alfalfa, other hay in much of the southern part of the State if it doesn't rain soon. Many livestock producers have been liquidating herds due to lack of pasture, water. Dairy production, feed intake has dropped in some areas with the onset of higher temperatures, humidity. Other reporters comment on good conditions.

OKLAHOMA: Days suitable for fieldwork 6.2. Subsoil 2% very short, 8% short, 88% adequate, 2% surplus. Topsoil 2% very short, 12% short, 83% adequate, 3% surplus. Hot, dry weather permits return to normal fieldwork. Short soil moisture supplies more numerous south. Wheat 61% plowed, 66% 1998, 77% avg. Oats 60% plowed, 66% 1998, 69% avg. Corn 5% fair, 91% good, 4% excellent; 28% tasseled, 73% 1998, 69% avg.; 10% milk-to-soft, 13% 1998, 22% avg. Sorghum 97% up-to-stand, 97% 1998, 95% avg. Soybeans 6% poor, 48% fair, 39% good, 7% excellent; 92% planted, 99% 1998, 97% avg.; 69% up-to-stand, 95% 1998, 93% avg.; 15% flowering, 42% 1998, 40% avg. Peanuts 19% setting pods, 28% 1998, 31% avg. Watermelons 85% fruit set, 100% 1998, 82% avg.; 10% harvested, 28% 1998, 13% avg. Alfalfa hay 1% poor, 18% fair, 69% good, 12% excellent; 92% 2nd cutting, 98% 1998, 96% avg.; 43% 3rd cutting, 42% 1998, 40% avg. Other hay 83% 1st cutting, 86% 1998, 89% avg.; 18% 2nd cutting, 2% 1998, 21% avg. Livestock 1% poor, 13% fair, 69% good, 17% excellent. Feeder steer prices up \$2.00 per cwt., feeder heifer prices unchanged from last week.

OREGON: Days suitable for fieldwork 6.9. Topsoil 19% very short, 49% short, 30% adequate, 2% surplus. Subsoil 18% very short, 43% short, 38% adequate, 1% surplus. Barley harvested 2%. Spring wheat harvested 1%. Winter wheat harvested 7%. Range & pasture 1% very poor, 7% poor, 29% fair, 59% good, 4% excellent. Activities: On east side, spring grain harvest underway, yield reports disappointing. Test weights light, kernels small many pinched. Spring barley recrop fields reported inadequate, may not justify harvest. Grass seed harvest starting in east, nearing completion in west. Alfalfa cutting continued, working wild meadow hay. Klamath Basin Sugarbeet rows 85% closed. Willamette Valley grass seed fields being cut, hay in second cutting. Mint growing well, harvest started. Greenhouses & nurseries are irrigating, doing weed control. Have limited digging & planting going on. Christmas tree shearing started. Some Easter lily growers sub-soiling to break up plow pan in planting preparation. Willamette Valley vegetables good, green beans being harvested. Irrigation required for sweet corn & green beans, onions late. Fresh market vegetables being harvested, more planted. Vegetables east of the Cascades looked good except those suffering from wind and hail damage. Potato fungicides being applied, early potatoes being dug. Willamette Valley strawberry harvest about finished, everbearing strawberries still available. Raspberries, Marion berries, blackberries, blueberries being harvested. Sweet cherry harvest winding down, hazelnuts continued to size. Rogue River Valley blackberries, raspberries, blueberries being picked. Pears sizing. South coast cranberry fertilization continued. Wasco County fresh cherry harvest winding down, light crop. Livestock condition mostly good. Some sheep sheared on south coast. Feed cattle shipped from Rouge River Valley. Rangeland continued to dry out, generally in better condition than normal for this time.

PENNSYLVANIA: Days suitable for fieldwork 6.4. Soil moisture 59% very short, 31% short, 10% adequate. Soybean, corn conditions continued to decline as a result of the recent hot, dry weather. Corn silked 38% complete, 33% 1998, 20% avg. Corn dough 6% complete, 0% 1998, 0% avg.; height 50 in., 49 in. 1998, 48 in. avg.; 16% very poor, 29% poor, 36% fair, 16% good, 3% excellent. Soybean 12% very poor, 16% poor, 38% fair, 31% good, 3% excellent. Barley 97% ripe, 100% 1998, 96% avg.; 95% harvested, 97% 1998, 86% avg. Wheat 89% ripe, 95% 1998, 86% avg.; 70% harvested, 82% 1998, 58% avg.; 1% poor, 12% fair, 76% good, 11% excellent. Oats 70% turning yellow, 71% 1998, 66% avg.; 35% ripe, 23% 1998, 24% avg.; 15% harvested, 4% 1998, 6% avg.; 3% very poor, 18% poor, 38% fair, 38% good, 3% excellent. Alfalfa 3rd cutting 16% complete, 4% 1998, 1% avg.; 2nd cutting 73% complete, 62% 1998, 55% avg. Timothy clover 1st cutting 96% complete, 89% 1998, 89% avg.; 2nd cutting 28% complete, 14% 1998, 14% avg. Quality of hay made 1% very poor, 8% poor, 21% fair, 48% good, 22% excellent. Peach harvest 6% complete, 13% 1998, 3% avg.; 1% very poor, 3% poor, 18% fair, 67% good, 11% excellent. Apple 6% poor, 12% fair, 71% good, 11% excellent. Activities: Harvesting barley, wheat, oats, fruits, vegetables; machinery maintenance; filling silos; hauling manure; spreading fertilizers; caring for livestock; building, repairing fences; cutting hay; making haylage; applying pesticides; irrigating crops.

SOUTH CAROLINA: Days suitable for fieldwork 5.4. Soil moisture 1% very short, 9% short, 80% adequate, 10% surplus. Cantalopes 88% harvested, 89% 1998, 85% avg.; 2% very poor, 16% poor, 64% fair, 18% good. Corn 57% doughed, 77% 1998, 77% avg.; 6% very poor, 14% poor, 34% fair, 40% good, 6% excellent. Cucumbers 100% harvested, 100% 1998, 89% avg. Hay 7% poor, 24% fair, 62% good, 7% excellent. Peaches 57% harvested, 59% 1998, 57% avg.; 3% poor, 24% fair, 34% good, 39% excellent. Snapbeans 79% harvested, 96% 1998, 77% avg. Sorghum 100% planted, 100% 1998, 95% avg.; 2% very poor, 8% poor, 10% fair, 66% good, 14% excellent. Sweet potatoes 3% poor, 18% fair, 78% good, 1% excellent. Tomatoes 100% harvested, 100% 1998, 100% avg. Watermelons 80% harvested, 89% 1998, 83% avg.

SOUTH DAKOTA: Topsoil 1% very short, 14% short, 73% adequate, 12% surplus. Subsoil 2% short, 86% adequate, 12% surplus. Weather across the State allowed crops to advance with development still ahead of the five-year average. Warm, dry weather enabled producers to make great progress in haying, cultivating, spraying. Corn 54 in. height., 62 in. 1998, 49 in. avg.; 98% 1st cultivation, 97% 1998, 98% avg.; 79% 2nd cultivation, 90% 1998, 79% avg. Corn 17% tasseled 17%, 37% 1998, 18% avg. Corn 3% silked 3%, 14% 1998, 8% avg. Winter rye 28% excellent, 54% good, 12% fair, 6% poor. Flaxseed 21% excellent, 61% good, 17% fair, 1% poor. Alfalfa 31% excellent, 55% good, 12% fair, 2% poor. Sunflower 22% excellent, 57% good, 18% fair, 3% poor. Winter wheat 35% excellent, 52% good, 13% fair. Winter wheat 99% turning color, 99% 1998, 94% avg. Winter wheat 79% ripe, 80% 1998, 52% avg. Winter rye 93% turning color, 96% 1998, 90% avg.; 32% ripe, 62% 1998, 45% avg.; 1% combined, 35% 1998, 10% avg. Spring wheat 64% turning color, 74% 1998, 47% avg. Spring wheat 9% ripe, 22% 1998, 7% avg. Oats 55% turning color, 75% 1998, 49% avg.; 19% ripe, 39% 1998, 22% avg. Barley 43% turning color, 75% 1998, 53% avg.; 11% ripe, 21% 1998, 10% avg. Flaxseed 58% blooming, 79% 1998, 60% avg.; 0% ripe, 34% 1998, 7% avg. Sunflower 3% blooming, 29% 1998, 8% avg. Alfalfa 97% 1st cutting, 97% 1998, 97% avg.; 36% 2nd cutting, 45% 1998, 30% avg. Other hay 62% harvested, 59% 1998, 57% avg. Cattle 30% excellent, 62% good, 8% fair. Sheep 36% excellent, 60% good, 4% fair. Stock water 15% surplus, 83% adequate, 2% short.

TENNESSEE: Days suitable for fieldwork 5.0. Topsoil 1% very short, 14% short, 76% adequate, 9% surplus. Subsoil 1% very short, 12% short, 76% adequate, 11% surplus. Corn 94% tasseled, 87% 1998, 87% avg; 26% dough stage, 21% 1998, 24% avg; 1% poor, 14% fair, 53% good, 32% excellent. Tobacco 20% topped, 12% 1998, 16% avg; 2% very poor, 5% poor, 23% fair, 55% good, 15% excellent. Pasture

feed 1% very poor, 7% poor, 27% fair, 56% good, 9% excellent. Alfalfa second cutting 76%, 83% 1998, 86% avg; 1% poor, 21% fair, 65% good, 13% excellent. Most crops throughout the State continued to benefit from the late June and early July rains, although some areas need additional rain to keep yield potential at their maximum. Tobacco growers, on the other hand, would like drier weather so water logged fields can dry out. Tobacco growers were busy spraying for pests as well as topping their early set fields. Isolated cases of blue mold have been reported. Alfalfa growers continued with their second cutting of the year, slightly behind the normal pace. Other field activities included: Applying herbicides, insecticides.

TEXAS: Scattered evening showers, thunderstorms kept field activity minimal most Central, South fields. Fieldwork in Plains however moved ahead without much delay. Temperatures more summerlike across State. Many dryland crops Plains, North Central need more rain. Irrigation activity remained steady these areas. Livestock conditions remained good across most areas. Ranges, pastures continued show good growth, greening. Grasshoppers remained a problem to both crops, pastures many areas.

Crops: Small Grains: Harvest moved ahead without much delay in High Plains, virtually completed by week's end. Yields remained very good. Corn: Irrigation operations remained steady in High Plains where crop continued to make good progress. Many fields in silking stage. Fields rapidly matured in Blacklands under warmer temperatures, however producers now need dryer, open conditions. Harvest began in few fields however scattered showers slowed progress. Harvest moved ahead in Coastal Bend, Rio Grande Valley most week. Dryer conditions needed along Upper Coast where many fields have matured, ready for harvest. 50% dented, 52% 1998, 45% avg. 29% mature, 39% 1998, 22% avg. 6% harvested, 14% 1998, 5% avg. Cotton: Progress in Plains improved with warmer, open conditions. Insects on rise many fields, spraying operations underway. Fields varied widely in stage from squaring to setting bolls. Growing conditions good over Blacklands, Central where bolls continued to set. Bolls continued to open along the Upper Coast, Coastal Bend, Rio Grande Valley. Peanuts: Progress very good in Plains, North Central during week, however some dryland fields have begun to need a rain. Irrigation remained steady. Some disease in fields South Central, however most fields look good. Rice: Scattered rain kept harvest activity minimum most fields along Upper Coast. Dryer, open conditions needed for further progress. Later fields continued head out. Sorghum: Fields growing well in Plains, North Central during week. Some early planted fields began head out. Fields rapidly matured in Blacklands, Central where producers need several weeks open weather as harvest will increase over the next few weeks. A few fields harvested dryer areas last week. Harvest continued in Coastal Bend, Rio Grande Valley without much delay. Wet fields kept harvest progress minimal along Upper Coast. 44% turning color, 49% 1998, 54% avg. 32% mature, 41% 1998, 38% avg. 32% harvested, 30% 1998, 23% avg. Soybeans: Stands good, irrigation steady in Plains during week. Fields had begun to bloom. Some early fields harvested in Northern Blacklands. Continued wet conditions along Upper Coast could lead to quality, disease problems. Many fields ready for harvest. Other Crops: Sunflowers 96% planted, 95% 1998, 96% avg.

Commercial Vegetables: Rio Grande Valley, minimal activity occurred for week. San Antonio-Winter Garden, cantaloup harvest continued, some cabbage planting occurred. East, grasshoppers caused damage many fields. High Plains, onion, potato harvest continued under mostly open conditions. Trans Pecos, onion, cantaloup harvest continued, winding down some fields. Harvest honeydew melons, watermelons got underway. Peaches: Harvest continued in Hill Country as weather permitted. Quality remained good. Pecans: Trees all areas still loaded with nuts as good rains, moderate temperatures lessened nut drop. Rainfall continued to alleviate irrigation needs many areas. Insect damage light most groves with some spraying occurring.

Range and Livestock: Conditions remained good most areas, continued rainfall increased growth, greening. Grasshoppers continued cause damage many areas. Haying activity continued Northern areas where less rain fell. Livestock conditions remained good. Flies still problem untreated herds. Spring calves, lambs in good condition.

UTAH: Days suitable for fieldwork 6. Topsoil 5% very short, 31% short, 62% adequate, 2% surplus. Subsoil 4% very short, 28% short, 68% adequate. Range, pasture feed 2% very poor, 7% poor, 31% fair, 59% good, 1% excellent. Corn height 44 in., 34 in. 1998, 40 in. avg. Winter wheat 18% harvested, 11% 1998, 15% avg. Spring wheat 96% headed, 88% 1998, 92% avg. Barley 97% headed, 79% 1998, 92% avg. Alfalfa hay: 37% 2nd cutting, 28% 1998, 33% avg. Other hay 64% 1st cutting, 51% 1998, 59% avg. Oats 80% headed, 70% 1998, 78% avg.; harvested 56% for hay or silage, 43% 1998, 49% avg. Sweet cherries 77% picked, 58% 1998, 61% avg. Tart cherries 4% picked, 37% 1998, 25% avg. Irrigation water supply 2% very short, 16% short, 81% adequate, 1% surplus. Stockwater supplies 1% very short, 14% short, 85% adequate. Major activities: Harvesting alfalfa hay, irrigating crops, spraying for weeds, insects. Rain in most of the State this past week improved the soil moisture but slowed the hay harvest.

VIRGINIA: Days suitable for fieldwork 5.0. Topsoil 30% very short, 22% short, 46% adequate, 2% surplus. Subsoil 44% very short, 25% short, 30% adequate, 1% surplus. Pastures feed 28% very poor, 26% poor, 25% fair, 20% good, 1% excellent. Livestock 4% very poor, 9% poor, 40% fair, 43% good, 4% excellent. Hay, other 50% very poor, 27% poor, 14% fair, 9% good. Hay, alfalfa 15% very poor, 31% poor, 39% fair, 13% good, 2% excellent. Corn for grain 48% silked, 57% 1998, 45% avg.; 10% dough, 13% 1998, 10% avg.; 19% very poor, 27% poor, 31% fair, 19% good, 4% excellent. Soybeans 90% planted, 97% 1998, 97% avg.; 75% emerged, 93% 1998; 4% blooming, 14% 1998, 7% avg.; 8% very poor, 12% poor, 42% fair, 32% good, 6% excellent. Winter wheat 95% harvested, 97% 1998, 93% avg. Barley 98% harvested, 99% 1998, 98% avg. Tobacco, flue cured 6% poor, 11% fair, 64% good, 19% excellent. Tobacco, burley 3% very poor, 6% poor, 16% fair, 42% good, 33% excellent. Tobacco, dark fire cured 35% fair, 51% good, 14% excellent. Tobacco, sun cured 25% poor, 25% fair, 50% good. Peanuts 73% pegged, 80% 1998; 8% fair, 65% good, 27% excellent. Cotton 89% squaring, 92% 1998; 2% setting bolls; 22% fair, 51% good, 27% excellent. Summer potatoes 47% harvested, 55% 1998, 49% avg.; 1% very poor, 1% poor, 15% fair, 63% good, 20% excellent. Apples 13% poor, 38% fair, 40% good, 9% excellent. Peaches 15% harvested, 18% 1998, 6% avg.; 15% very poor, 15% poor, 38% fair, 28% good, 4% excellent. Conditions for most of the State continued to be dry despite the variable rainfall across the Commonwealth this past week. As much as 4 inches of rainfall was received in some Southeastern localities greatly improving soil moisture conditions. Some isolated localities received as much as 2 inches of rainfall while other areas received as little as a trace. Pastureland has started to improve due to recent rainfall. However, livestock producers in most localities continue marketing cattle aggressively as pasture, water, hay supplies remain short. Despite the much needed rainfall, damage to early corn is irreversible as extreme hot, dry conditions limited growth to 3 to 4 feet in many fields. Early planted soybeans are also short on growth. Tobacco condition remain virtually unchanged from previous week. Black shank problems, spread of blue mold continue to concern some tobacco producers. Timely rains have greatly improved the condition of the peanut, cotton crops. Producers of potatoes, tomatoes, snap beans, sweet corn, cucumbers, squash, peppers, other vegetables are busy harvesting their crops. Dry, hot conditions continue to affect yield, fruit size in orchards. Producers are beginning to harvest peaches, are concerned with isolated brown rot problems.

WASHINGTON: Days suitable for fieldwork 6.6. Topsoil 16% very short, 38% short, 46% adequate. Subsoil 17% very short, 55% short, 28% adequate. Moderate temperatures benefitted grainfill in wheat, barley. Winter wheat harvest just underway, spring grain harvests projected a month away. Winter wheat 2% harvested, 7% 1998, 4% avg. Winter wheat, dryland 7% very poor, 21% poor, 49% fair, 20% good, 3% excellent; irrigated 100% good. Spring wheat, dryland 13% very poor, 35% poor, 42% fair, 10% good; irrigated 100% good; 99% headed, 100% 1998, 99% avg. Barley, dryland 8% very poor, 35% poor, 48% fair, 9% good; irrigated, 100% good, 98% headed, 100% 1998, 99% avg. Potatoes 5% harvested, 0% 1998, 4% avg.; 10% fair, 60% good, 30% excellent. Hay, other roughage 1% very short, 6% short, 75% adequate, 18% surplus. Range, pasture feed 5% very poor,

36% poor, 45% fair, 10% good, 4% excellent. Rangeland conditions remained dry with little regrowth, second cutting alfalfa hay production nearly completed, well ahead of the average. Cherry, strawberry harvests neared completion, apricot harvest continued. Raspberry harvest was peaking, blueberry harvest expected within a week. Vegetable harvests continued, sweet corn harvest in central areas was not yet underway.

WEST VIRGINIA: Days suitable for fieldwork 6.0. Topsoil 75% very short, 21% short, 4% adequate. Dry weather conditions continue to plague producers throughout the State. Hay, pastures are in danger of being depleted in most areas of the State. All crop, livestock conditions are suffering. Wheat 74% harvested, 59% 1998, 66% avg. Hay 33% very poor, 39% poor, 21% fair, 7% good; 24% 2nd cut, 21% 1998, 21% avg. Corn 27% very poor, 49% poor, 22% fair, 2% good; 17% silked, 37% 1998, 27% avg. Oats 32% very poor, 21% poor, 36% fair, 11% good; 95% headed, 98% 1998; 21% harvested, 16% 1998, 31% avg. Soybeans 6% very poor, 24% poor, 64% fair, 6% good; 26% bloomed, 16% 1998, 51% avg.; 1% setting pods, 8% 1998, 15% avg. Tobacco 32% very poor, 22% poor, 45% fair, 1% good. Apples 34% poor, 48% fair, 18% good. Peaches 66% poor, 17% fair, 17% good. Cattle 2% very poor, 16% poor, 42% fair, 36% good, 4% excellent. Sheep 12% poor, 30% fair, 47% good, 11% excellent.

WISCONSIN: Days suitable for fieldwork 5.6 Soil moisture 9% very short, 21% short, 59% adequate, 11% surplus. Busy in agriculture. Hay 66% harvest 2nd crop, 70% 1998, 35% avg. Most of State has enjoyed a 2nd crop that has had good quality, varying quantity. Northern half of the State, the harvest was moving much slower due to intermittent rains. In the southern half of the State, there was a great deal of hay made in the warm, dry weather that was ideal for baling hay. Small grain farmers also remained busy harvesting a bountiful crop. There were reports of winter wheat yielding 70-90 bushels per acre, and a Dane County reporter noted that one field yielded 100 bushels per acre. Winter wheat 35% harvest, 59% 1998 15% avg. Oat harvest also began, with only a few farmers getting in the fields before the weekend rains. Much of the early corn has tasseled, while the late-planted corn continues to grow and mature rapidly. Recent dry weather has caused some concern over pollination, and there were many reports of corn curling on the lighter soils. Weekend rains should have eliminated this problem. Warm weather has helped the soybean crop grow and mature. The crop has been reported to be well into the bloom period with good color, a nice canopy. Soybeans 28% bloomed, 38% 1998; 1% very poor, 3% poor, 11% fair, 55% good, 30% excellent. Sweet corn is being picked, sold. Grant County reporter noted that his tomatoes, cucumbers, peppers, eggplants, green beans were all in full bloom. Pasture feed 1% very poor, 8% poor, 30% fair, 46% good, 15% excellent.

WYOMING: Days suitable for fieldwork 6.9. Topsoil 1% very short, 58% short, 41% adequate. Subsoil 40% short, 60% adequate. Warm weather below normal precipitation. Winter wheat 86% mature, 69% 1998, 60% avg.; 23% harvested, 13% 1998, 13% avg. Spring wheat 77% headed, 89% 1998, 74% avg.; 34% turning color, 56% 1998, 44% avg.; 4% mature, 14% 1998, 9% avg. Barley 77% headed, 84% 1998, 89% avg., 42% turning color, 43% 1998, 53% avg.; 3% mature, 2% 1998, 8% avg. Oats 64% headed, 84% 1998, 80% avg.; 12% turning color, 31% 1998, 32% avg.; 2% mature, 5% 1998, 7% avg. Corn 15% tasseled, 2% 1998, 13% avg.; height 48 in., 33 in. 1998, 40 in. avg. Dry bean 29% bloom, 32% 1998, 38% avg. Alfalfa 86% 1st cutting, 80% 1998, 85% avg.; 4% 2nd cutting, 0% 1998, 5% avg. Other hay 39% cut, 51% 1998, 48% avg. Stockwater 100% adequate. Range, pasture feed 8% fair, 67% good, 25% excellent. All livestock 2% fair, 84% good, 14% excellent.

International Weather and Crop Summary

July 11 - 17, 1999

HIGHLIGHTS

FSU-WESTERN: Dry weather stressed spring-sown crops in southern Russia, while late-week rains benefited reproducing summer crops in western and eastern Ukraine.

FSU-NEW LANDS: Unseasonably cool weather slowed spring-sown crop development, but frequent rains provided abundant moisture.

CANADA: An unusual summer cold snap may have caused localized frost damage in the western Prairies.

EUROPE: More rain in eastern Europe further delayed winter grain harvesting, while sporadic showers in western and central Europe benefited developing crops, but did not hamper winter-grain harvesting.

EASTERN ASIA: Scattered showers favored summer crops across the North China Plain and Manchuria, but more widespread showers are needed to ensure adequate crop development.

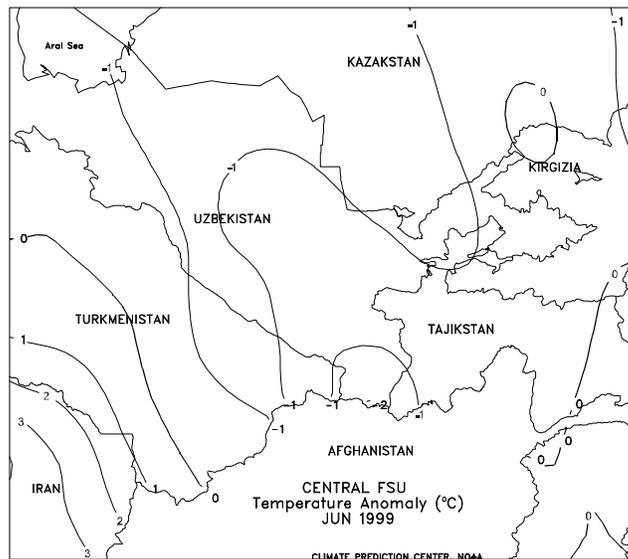
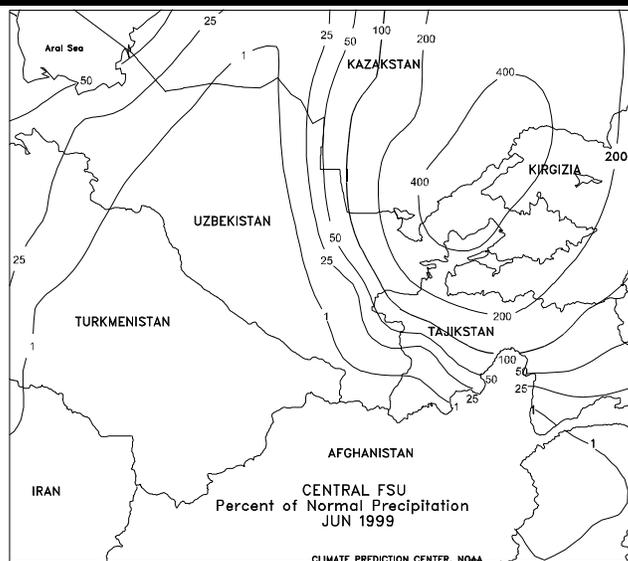
AUSTRALIA: Beneficial rain continued across Western Australia's winter grain belt.

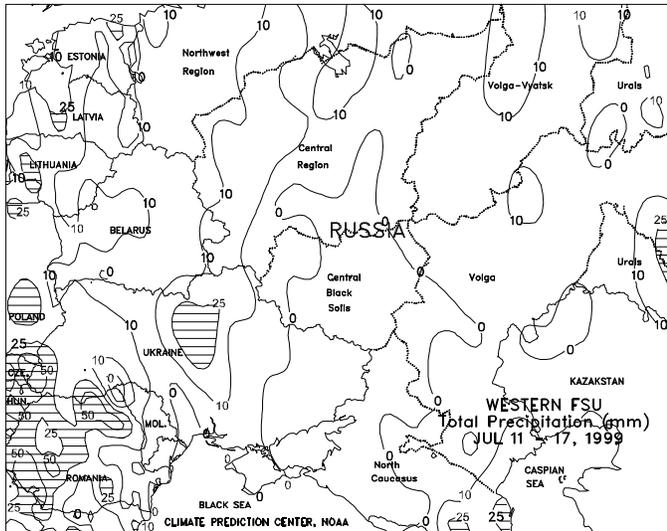
SOUTH ASIA: Monsoon showers returned to central India, but mostly dry weather persisted over primary groundnut areas in Gujarat.

SOUTHEAST ASIA: Unseasonably light showers reduced moisture supplies for rice across portions of Thailand and the south-central coast of Vietnam.

SOUTH AMERICA: In central Argentina, unseasonably heavy rain boosted topsoil moisture for germinating to vegetative winter wheat, but hampered late wheat planting.

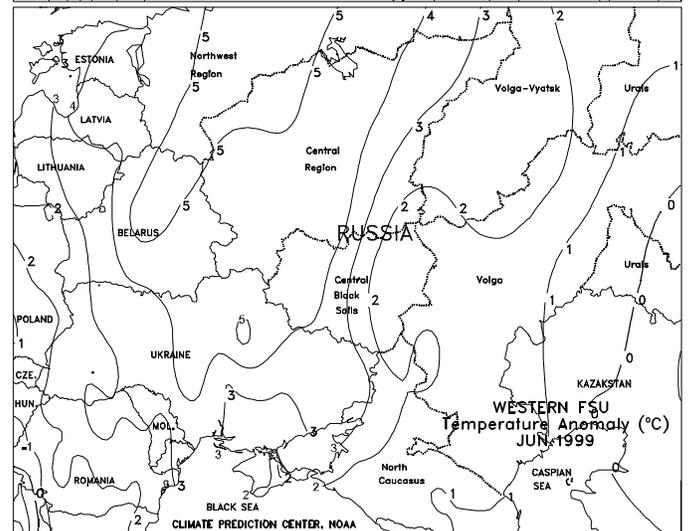
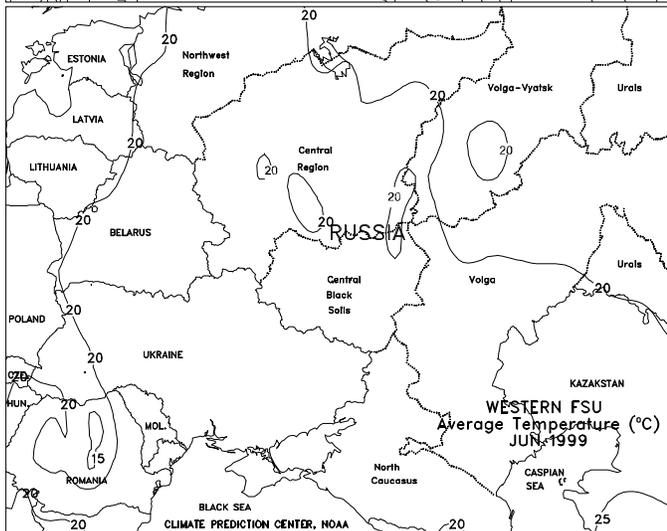
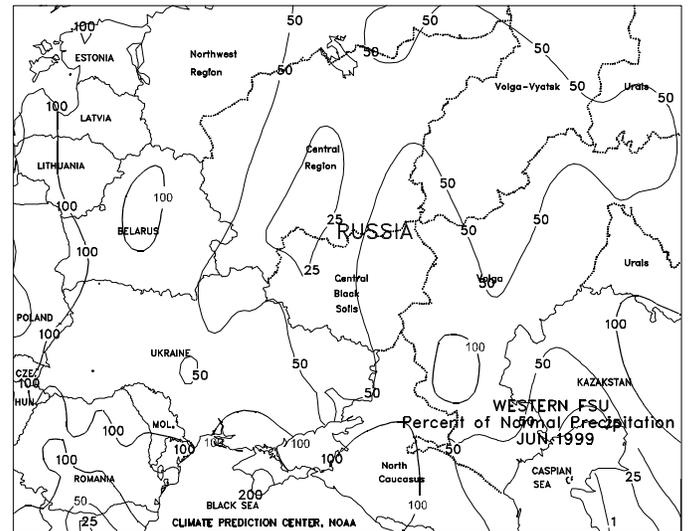
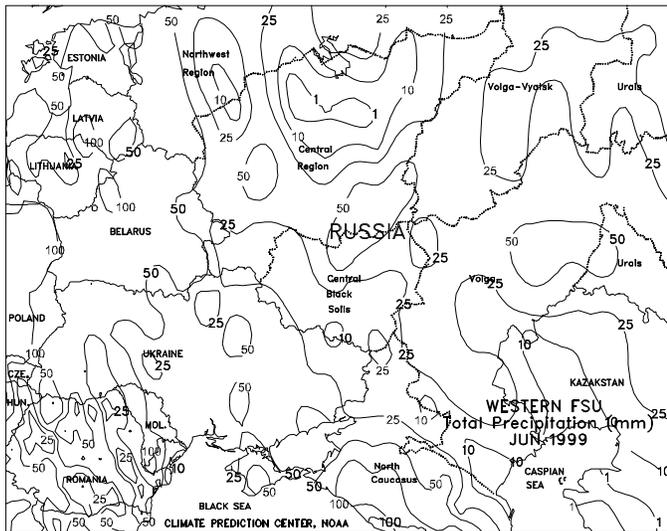
MEXICO: Seasonal showers diminished across the main corn belt, where corn had adequate soil moisture.

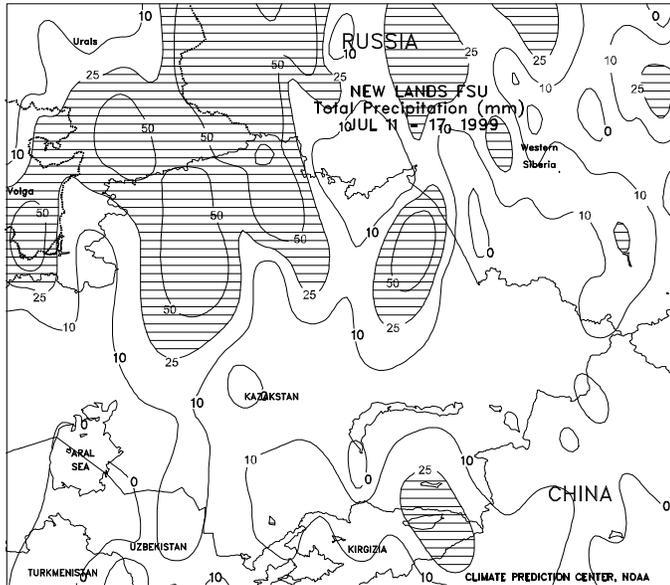




FSU-WESTERN

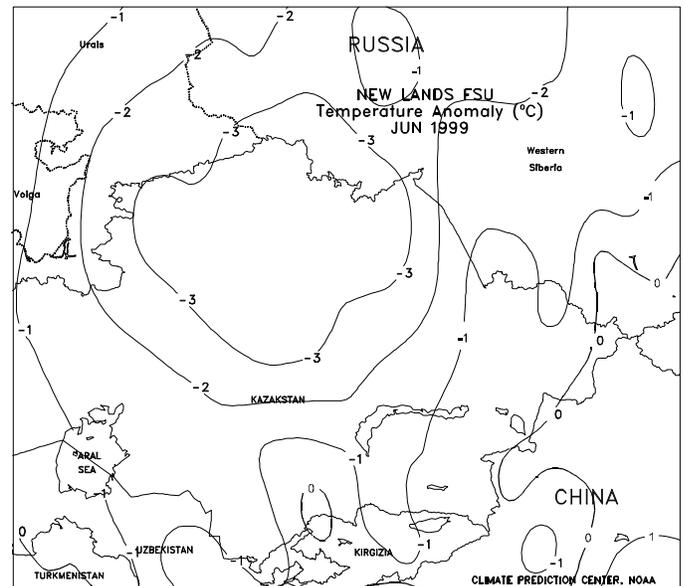
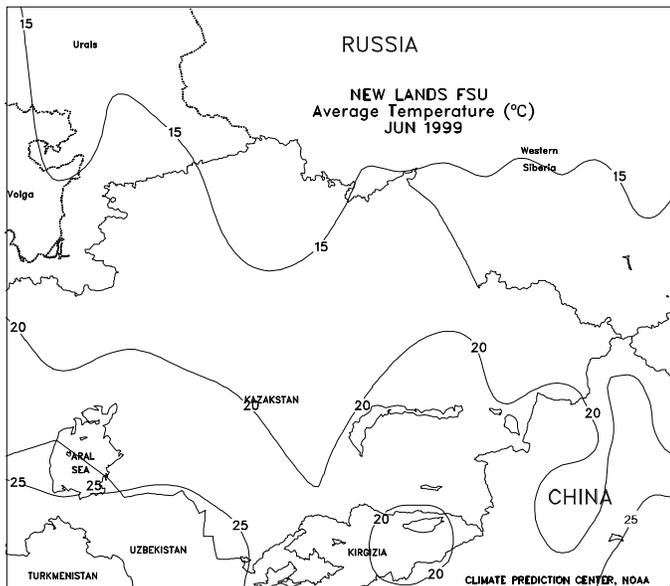
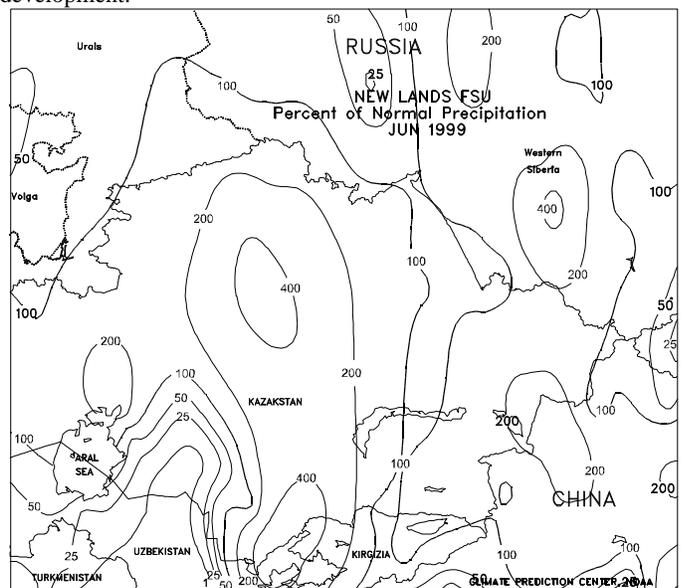
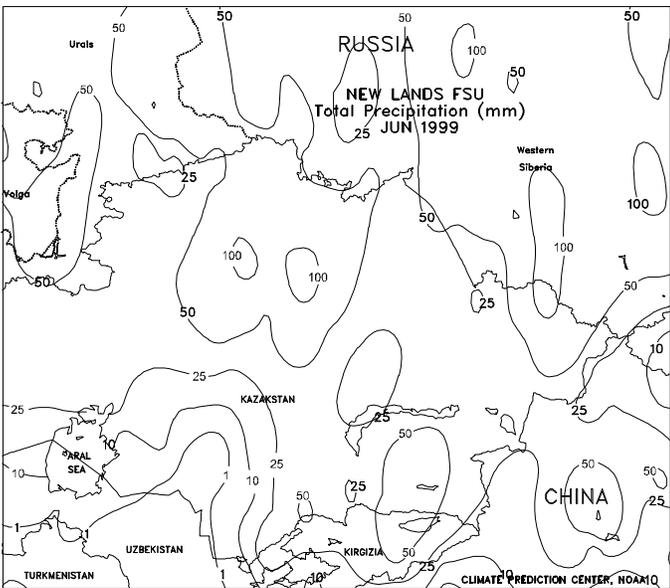
In Russia, mostly dry weather favored winter grain harvesting, but stressed spring-sown crops in the northern North Caucasus, Volga Valley, and Central Black Soils region. Farther west, dry weather dominated in eastern Ukraine. However, late-week showers (2-46 mm) brought welcomed moisture to summer crops advancing through reproduction in western and central Ukraine. Similar rainfall throughout Belarus and the Baltics benefited crops in these regions. Elsewhere, timely showers (2-23 mm) favored filling winter grains and reproducing spring grains from Northwest Region eastward through Volga-Vyatsk. Warm weather (2 to 5 degrees C above normal) blanketed much of western Russia westward. In contrast, temperatures averaging 1 to 3 degrees C below normal persisted from Volga-Vyatsk south through Volga Valley. In crop areas west of the Ural mountains, unfavorably dry weather and persistent heat prevailed over most of Ukraine and Russia in June. The hot, dry weather accelerated crop development and negatively affected winter and spring grains. Winter wheat advanced through the highly weather-sensitive reproductive phase of development in June, while spring grains entered reproduction. Crop areas in southern Russia (lower Volga Valley, North Caucasus, and the southern portion of the Central Black Soils Region) and the eastern half of Ukraine experienced 10 or more days when maximum temperatures reached or exceeded 30 degrees C. However, extreme heat and dryness were confined to the lower Volga Valley and the eastern portion of North Caucasus, where maximum temperatures reached or exceeded 35 degrees C. Below-normal precipitation was observed in most of Russia, Ukraine, Belarus, Moldova, and the Baltics in June. Areas of above-normal precipitation were confined to southern Ukraine and the southwestern portion of the North Caucasus region in Russia. On June 25, a cooling trend began over most areas and was accompanied by light to moderate showers. The precipitation helped to stabilize conditions for spring grains but arrived too late to improve prospects for maturing winter grains. Locally heavy rain fell in the southwestern portion of North Caucasus, likely interrupting early winter grain harvesting.

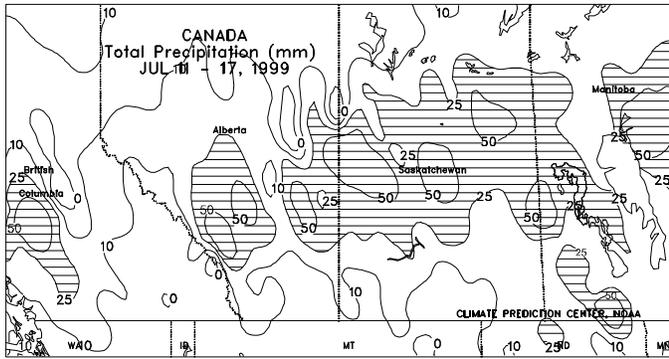




FSU-NEW LANDS

Relatively cool weather (temperatures as much as 4 to 7 degrees C below normal) settled into the Urals, extreme western Western Siberia, and much of western and central Kazakhstan, slowing spring-sown crop development. In the Urals, Western Siberia, and northern Kazakhstan, frequent rains (30-70 mm or more) accompanied these cooler temperatures, providing abundant moisture for spring grains, sunflowerseed, and sugarbeets. Farther south, widely scattered showers (2-28 mm) occurred over the remainder of central and western Kazakhstan. In eastern Kazakhstan and most of Western Siberia, unseasonably warm weather prevailed (temperatures as much as 4 to 7 degrees C above normal), accelerating spring-grain development and increasing crop moisture requirements. Scattered showers (2-51 mm) fell across this region as well, with the heaviest showers confined mainly to Western Siberia. In Central Asia, below-normal temperatures (3 to 4 degrees C) slowed cotton development in primary cotton-producing areas. However, scattered showers (2-20 mm) eased irrigation requirements across all areas except northern and southwestern Turkmenistan. In crop areas east of the Ural mountains, unseasonably cool weather and periodic showers favored spring grains in Russia and Kazakhstan. Near- to above-normal precipitation fell in most areas, with more than twice the normal amount of moisture observed in principal spring grain-producing areas in central Kazakhstan. Temperatures in June averaged 1 to 4 degrees C below normal in Russia and Kazakhstan, lowering crop-water requirements but slowing crop development.

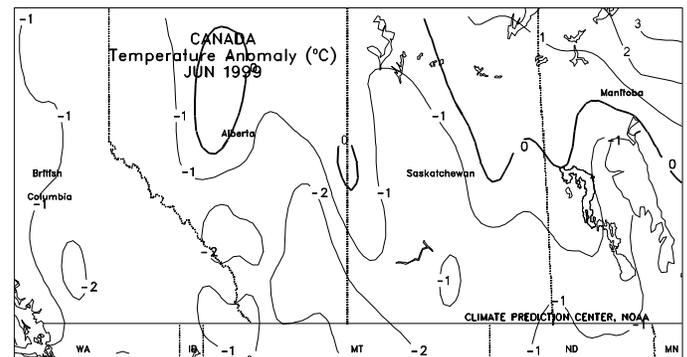
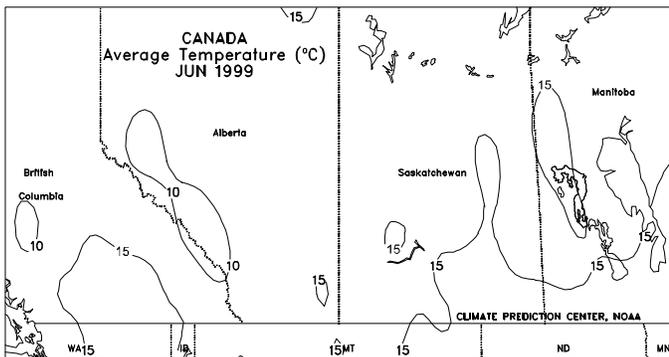
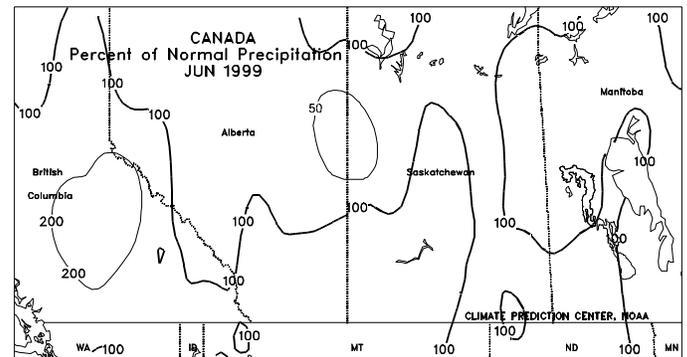
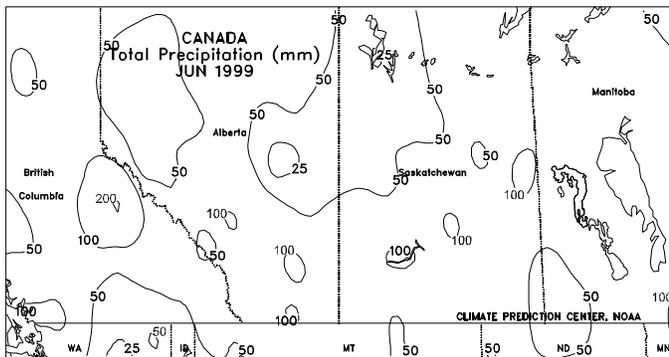




CANADA

An unusual outbreak of cold weather descended upon the western Prairies at midweek, causing isolated frost and possible crop damage. Temperatures dipped below 5 degrees C throughout Alberta and adjacent sections of southern Saskatchewan, falling below 2 degrees C at a few locations in the southwest. Ironically, highs in the low 30's degrees C in the days prior to the cold snap stressed reproductive crops in some drier districts. Temperatures averaged near to below normal in the eastern Prairies. Crop development reportedly ranges from 1 to 4 weeks behind schedule across the Prairies. Warmer weather is needed to ensure crop maturity ahead of the typical first autumn freeze, which normally occurs from late August to mid-September. Widespread, locally heavy rain (10-25 mm or more) covered most northern and eastern Prairie crop areas. In contrast,

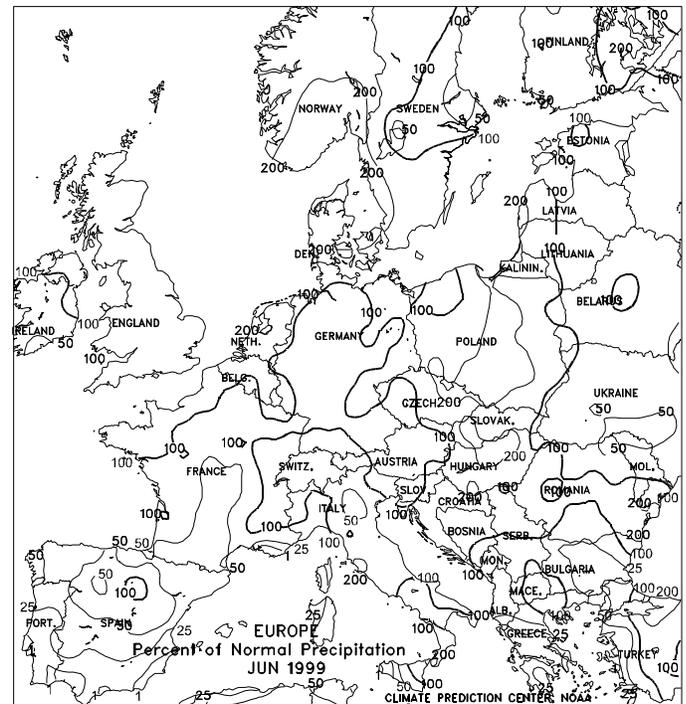
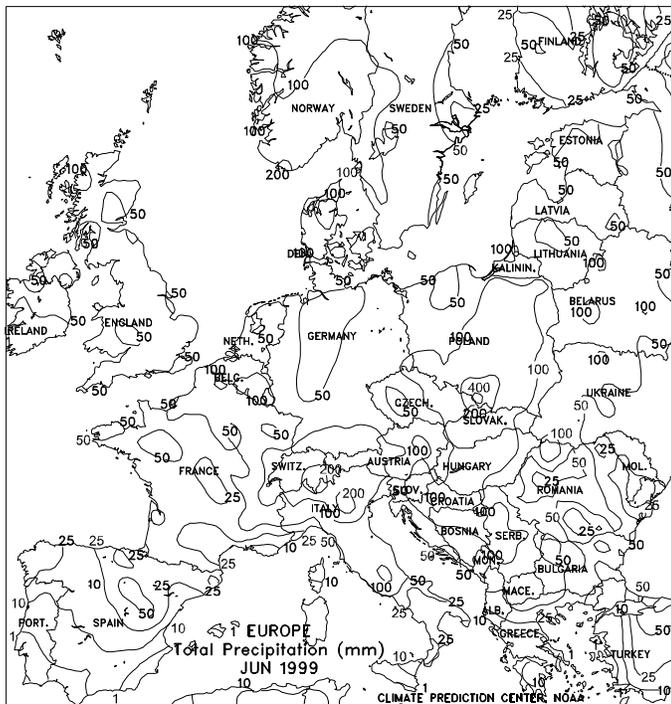
much of the southwest remained unfavorably dry. In eastern Canada, dry, warm weather aided corn and soybean growth while favoring winter wheat dry down. During June, the chronic wetness that began in May continued to dominate the Prairies. Locally heavy rain early in the month delayed late grain and oilseed planting in southeastern Saskatchewan and western Manitoba. Dry, warm weather June 13-19 brought some relief to vegetative Prairie crops, but cool, showery weather the remainder of the month disrupted field activities such as spraying for disease and pests. Temperatures averaging 1 to 2 degrees C below normal for the month kept crop development well behind the normal pace. In eastern Canada, frequent rain during June maintained generally favorable growing conditions for vegetative corn and soybeans. However, winter wheat was advancing through reproduction during some of the wettest periods, raising concern for disease inoculation. Summer warmth aided crop development, including wheat maturation, by month's end.

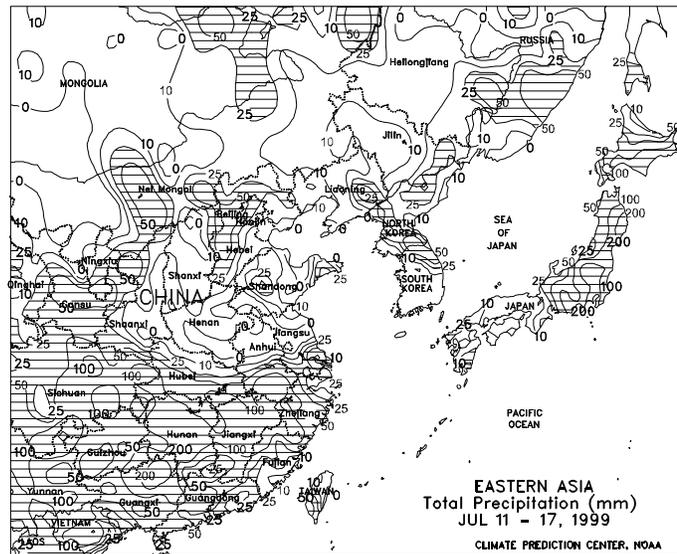
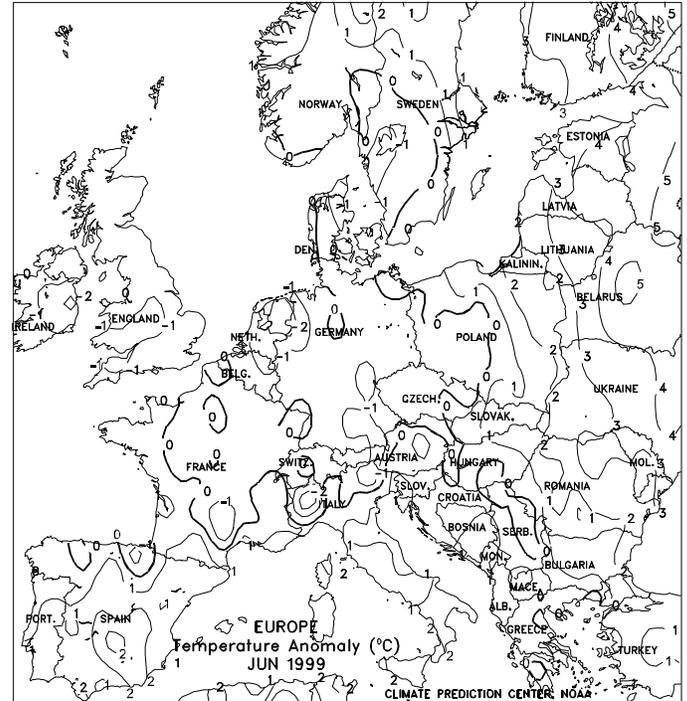




EUROPE

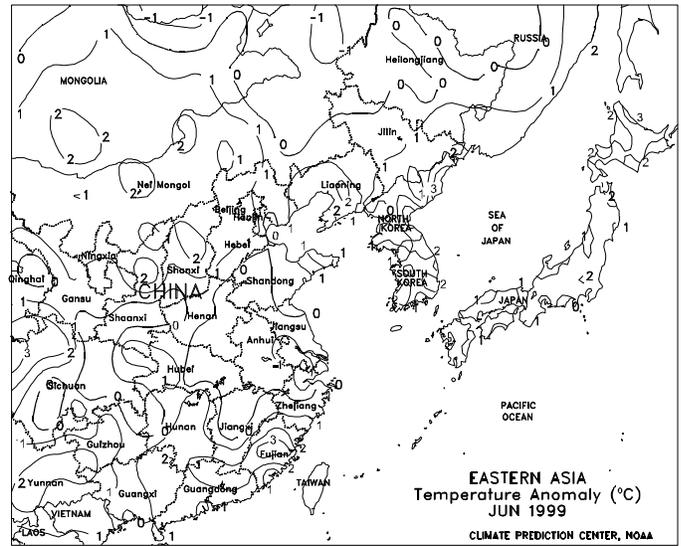
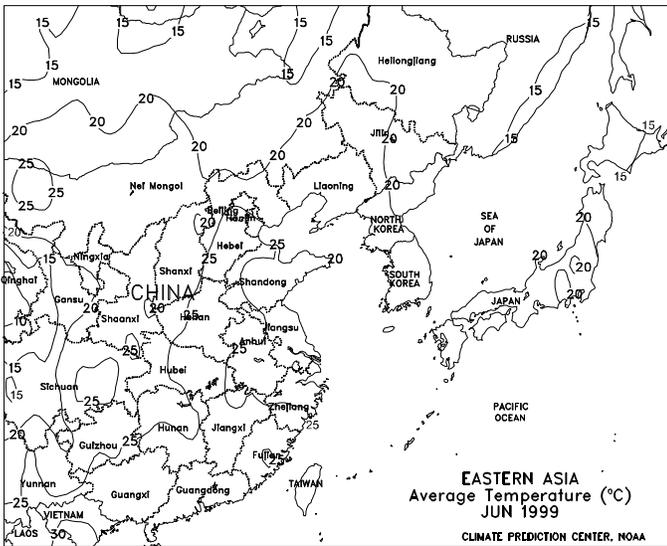
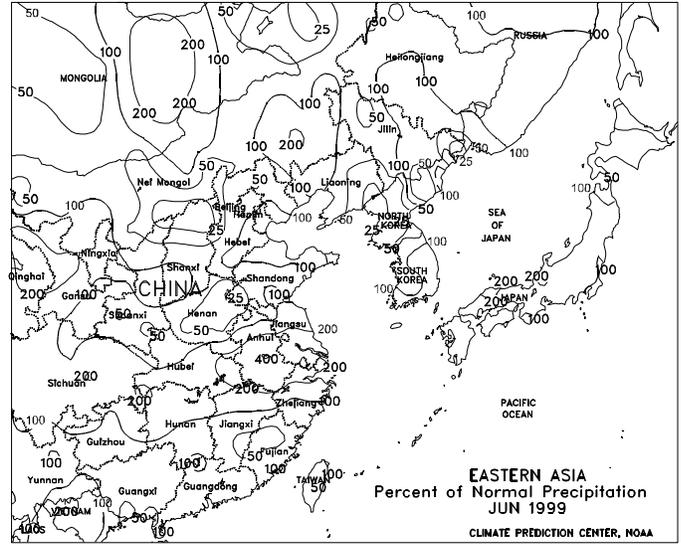
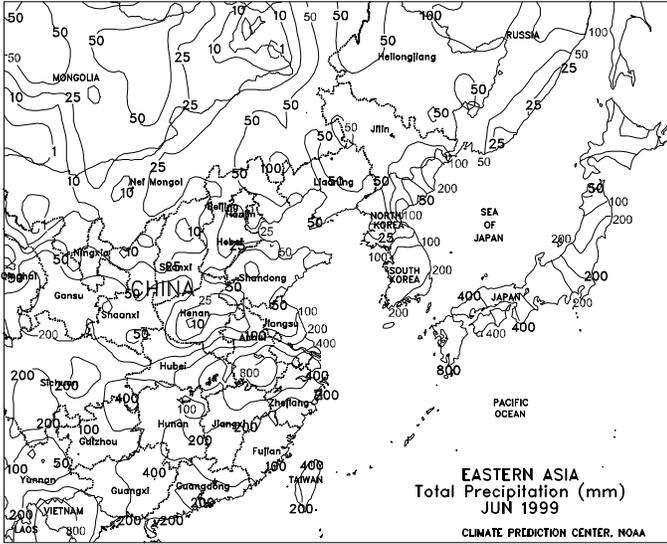
In England, northwestern France, and the Benelux countries, occasional light showers (1-17 mm) and warm weather (temperatures 1-3 degrees C above normal throughout Europe) continued to favor developing spring-sown crops and filling to maturing winter grains. Elsewhere across western and central Europe, generally 10 to 40 mm of rain fell from northern Spain northeastward through much of France, northern Italy, Germany, Denmark, and southern Scandinavia, maintaining adequate crop moisture. These showers were relatively sporadic, however, allowing barley harvesting to continue across much of northern France and Germany, and enabling the winter wheat harvest to commence in the southern French grain belt. Midweek showers also brought much-needed rainfall to portions of central Spain, temporarily easing irrigation requirements. Farther east, seasonably dry conditions prevailed throughout most of central and southern Italy and Greece. In contrast, heavier rain (15-50 mm, with locally higher amounts) fell in waterlogged eastern Europe, further delaying winter grain harvesting and increasing concerns regarding winter grain quality. In June, below-normal rainfall stressed developing spring-sown crops in southwestern and extreme southeastern Europe. In England and most of central Europe, near-normal precipitation and temperatures favored filling winter grains and emerging spring-sown crops. Farther east, frequent rains provided adequate to excessive moisture over eastern and south-central Europe, benefiting emerging corn and sugarbeets, but delaying winter wheat and barley harvesting.

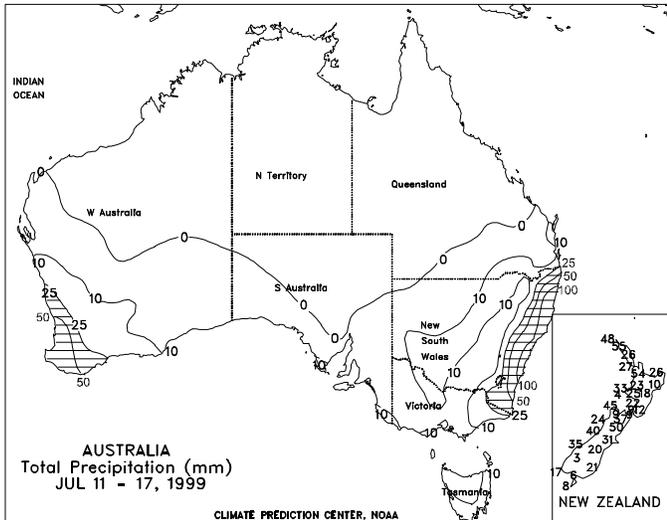




EASTERN ASIA

Widely scattered showers (5-80 mm) prevailed across the North China Plain, providing moisture for vegetative to reproductive summer crops. Widespread showers, however, are needed to ensure adequate summer crop development. Typically, mid-July is the wettest time of the year, with rainfall averaging 45 to 50 mm a week across the North China Plain. Light showers (5-25 mm) fell across Manchuria, where widespread heavier rain was needed. Temperatures averaged 1 to 3 degrees C below normal in the North China Plain and 2 to 4 degrees C above normal in Manchuria. Widespread heavy showers (50-175 mm, isolated amounts greater than 200 mm) covered the southern Yangtze Valley, causing additional flooding, but providing abundant moisture supplies. Torrential showers (100-350 mm) caused flooding and possible crop damage in northeastern Guangxi. Temperatures averaged 2 to 4 degrees C below normal across the Yangtze Valley and near normal along the southern coastal provinces. Rain (15-50 mm) brought some relief to North Korea, but moisture deficits still exist. In South Korea, mostly dry weather aided vegetative to reproductive rice, since moisture supplies are adequate. In Japan, heavy rain (50-150 mm, with isolated heavier amounts) caused local flooding in central and northern Honshu and Hokkaido. Temperatures averaged near normal across North Korea, 1 to 3 degrees C below normal across South Korea and southern Japan, and 1 to 3 degrees C above normal in northern Japan. During June, mostly below-normal rainfall favored winter wheat maturation and harvesting in the North China Plain. Variable June rainfall favored spring wheat in Manchuria, but some dry pockets persisted into early July, stressing summer crops. During late June and early July, very heavy showers caused flooding and possible rice damage in the eastern Yangtze Valley. Near- to above-normal rainfall favored rice in South Korea and Japan, but below-normal June rainfall stressed summer crops in North Korea.

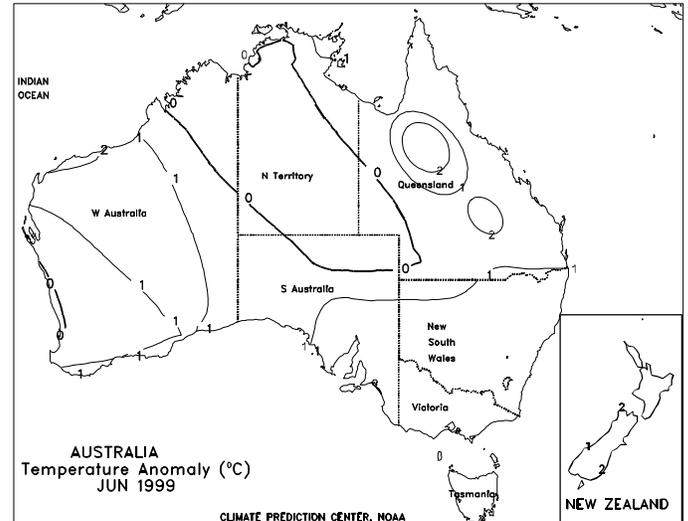
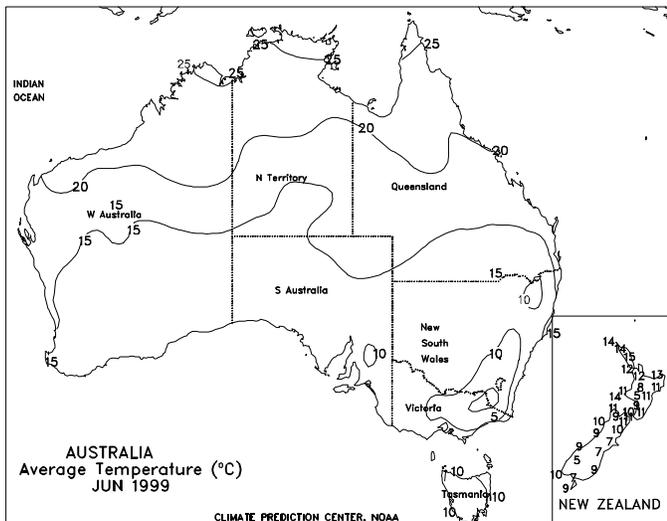
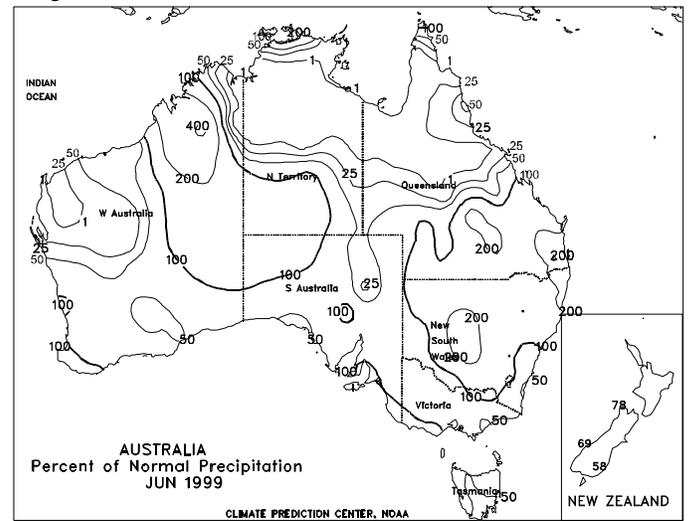
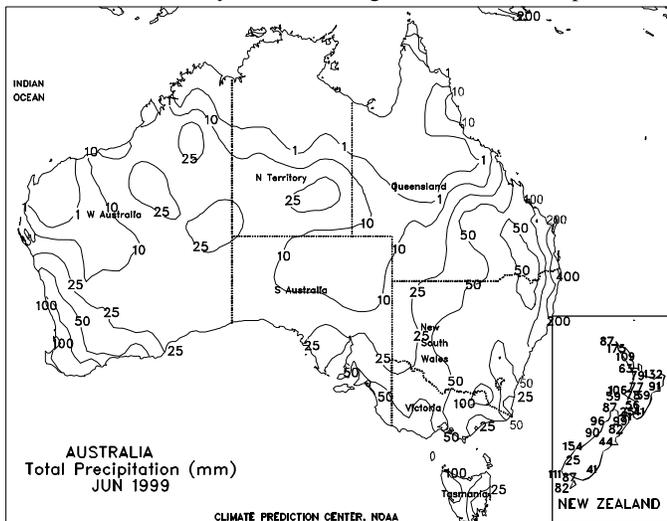




AUSTRALIA

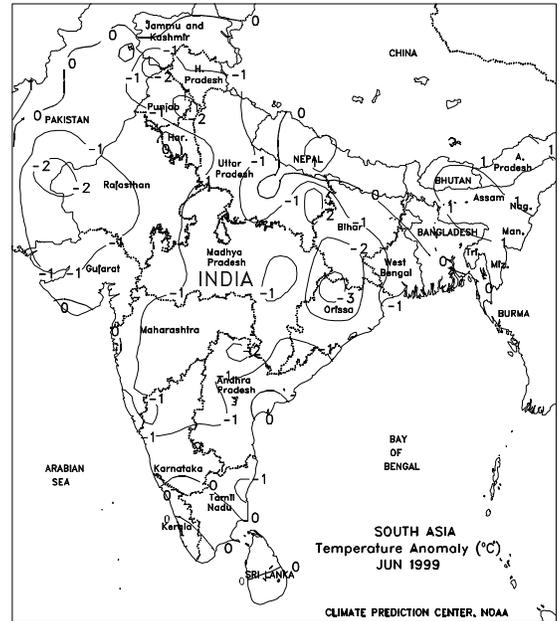
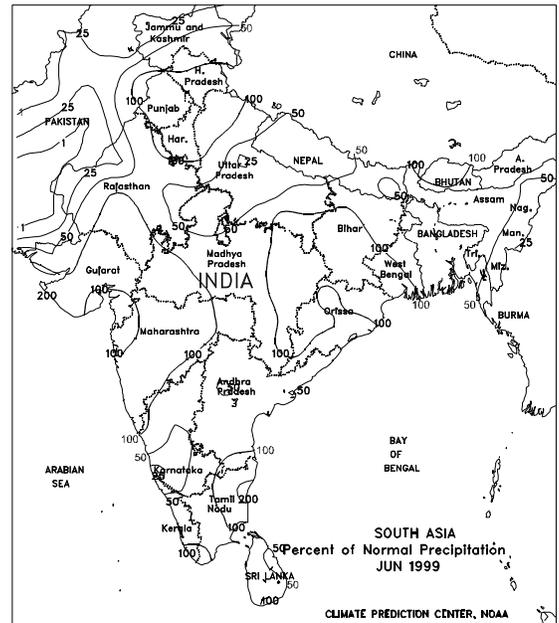
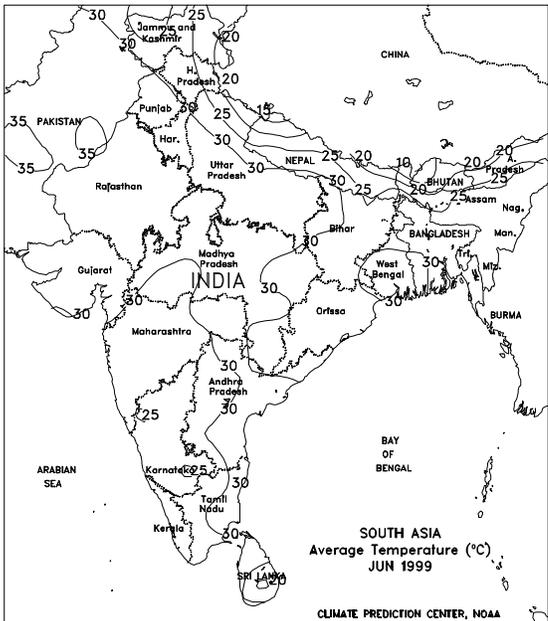
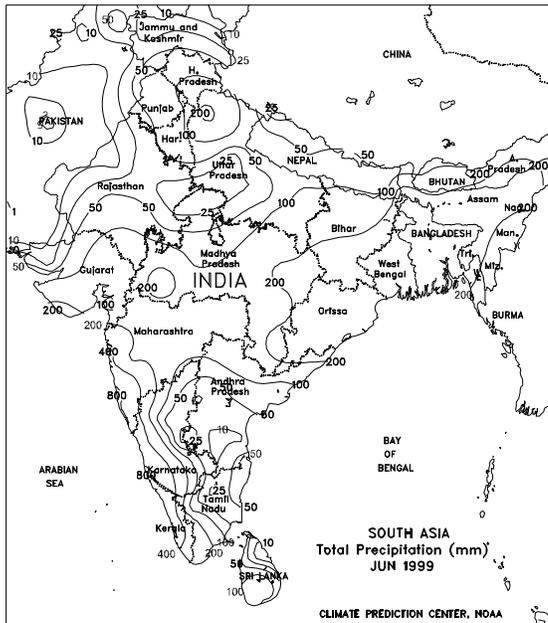
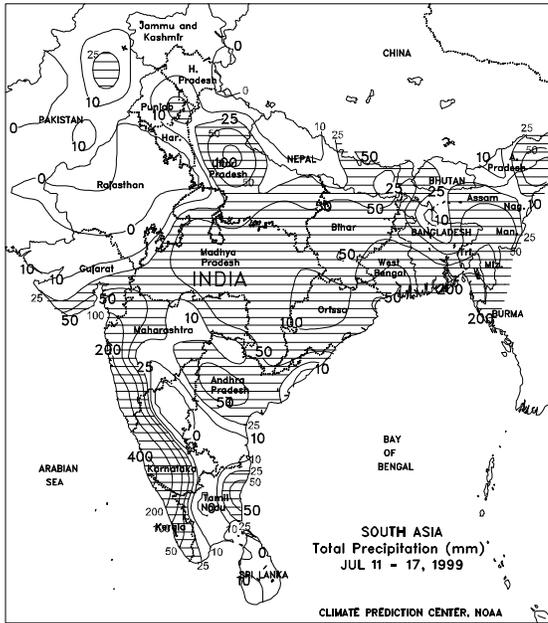
Beneficial rain (10-25 mm or more) swept across primary winter grain areas of Western Australia for a second week, improving conditions for wheat and barley establishment. Unseasonable warmth (temperatures averaging about 3 degrees C above normal) preceding the rain spurred vegetative growth while increasing crop water demands. Mostly dry weather dominated Victoria and South Australia, but scattered showers (5-25 mm or more) covered the main winter crop areas of New South Wales. Heavy rain (50-100 mm or more) caused some flooding along the New South Wales coast that extended northward into the sugarcane belt. Queensland's crop areas remained mostly dry. Sugarcane harvesting typically begins in July but may be delayed in southern areas due to the recent weeks of unwelcomed rainfall. In New Zealand, moderate to heavy rain (10-25 mm or more, locally exceeding 50 mm) covered most agricultural districts. During June, rainfall was near to above normal in the main winter crop areas of Queensland and New South Wales. This was due mainly to two separate periods of locally heavy rainfall about 3 weeks apart. Dryness at other times of the month allowed fieldwork, including wheat and barley planting, to take place. Heavy rain along

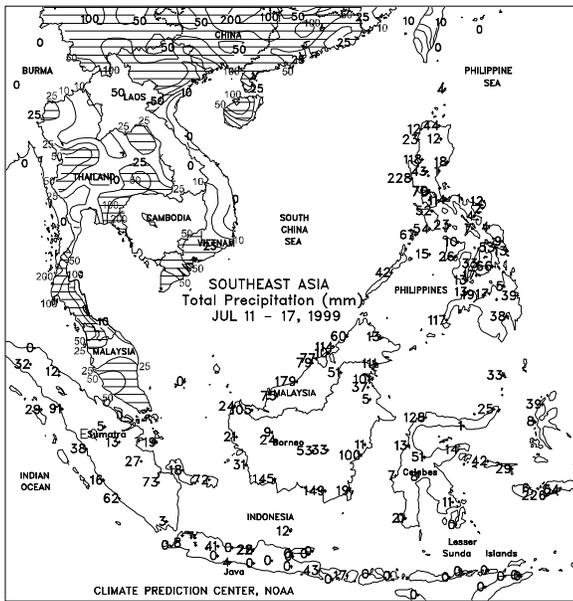
the coast kept unharvested sugarcane unfavorably wet and led to concerns about crop quality and sugar content. In the southeast, generally light, albeit frequent, showers resulted in near- to below-normal rainfall that stabilized emerging winter grains but failed to significantly improve long-term reserves. A similar pattern dominated Western Australia, with heaviest rainfall recorded in southern and western crop areas. Temperatures averaged near normal during June over most Australian winter grain areas, but some localized leaf burn was possible due to sporadic frost. In New Zealand, showery weather during the month favored pastures and small grains.



SOUTH ASIA

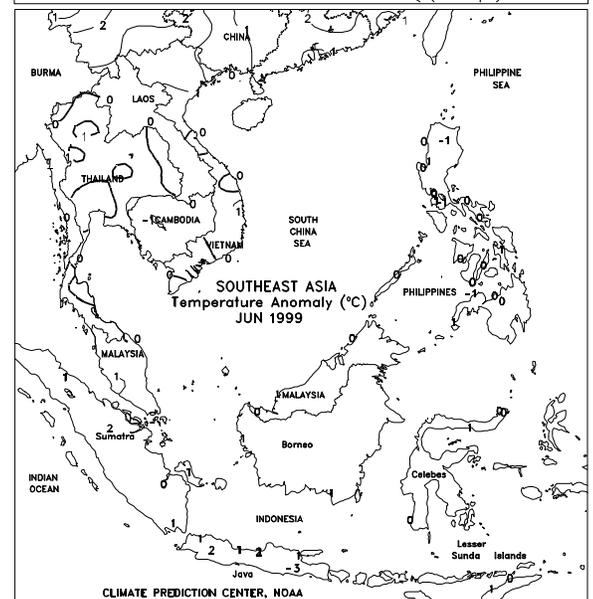
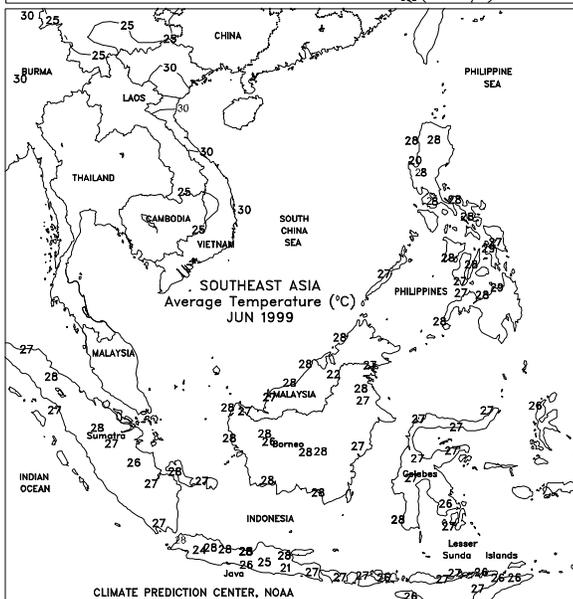
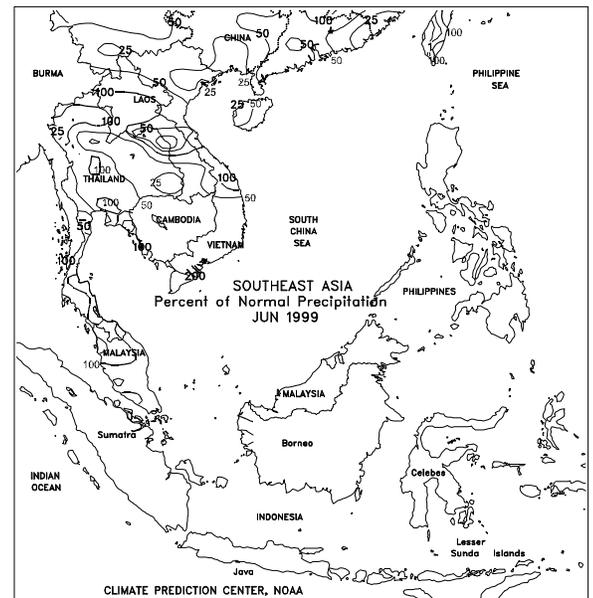
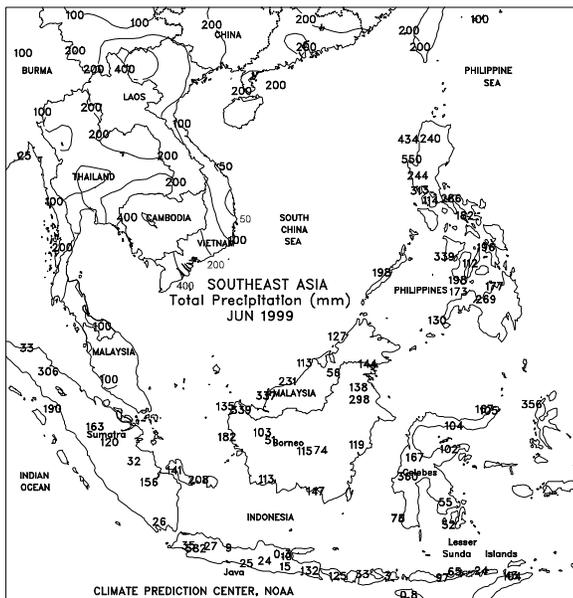
Monsoon rainfall intensified over central India, benefiting soybeans, cotton, and coarse grains. However, warm, drier-than-normal weather (rainfall totaling 25 mm or less) persisted in primary groundnut areas of Gujarat, worsening conditions for crop establishment. Dry pockets also developed over sections of the southern interior, reducing moisture reserves for summer crops, including sugarcane and cotton. Elsewhere, moderate to heavy rainfall (25-50 mm or more) continued throughout the eastern rice belt, and inundating rain (100-400 mm) fell along the western coast, keeping much of the region's rice well watered. Across the north, scattered showers (10-25 mm or more) swept across the main cotton and rice areas of Pakistan and north-central India, maintaining generally favorable irrigation levels and boosting topsoil moisture levels for germination of rainfed crops. During June, the southwest monsoon made normal progress for much of the month. Beneficial rains arrived on schedule in most of central, southern, and eastern India and Bangladesh. As a result, the planting of coarse grains, rice, oilseeds, cotton, and sugarcane made good early progress. In contrast, dry pockets lingered over important groundnut- and cotton-producing areas of the southern interior (Karnataka and Andhra Pradesh), impeding planting. Across the north, locally heavy pre-monsoon rainfall increased irrigation reserves for rice and cotton. June temperatures averaged 1 to 2 degrees C below normal over much of the region due to the widespread shower activity. However, a break in the monsoon brought warmer, drier weather to central India late in the month, marking the beginning of a brief stressful period.

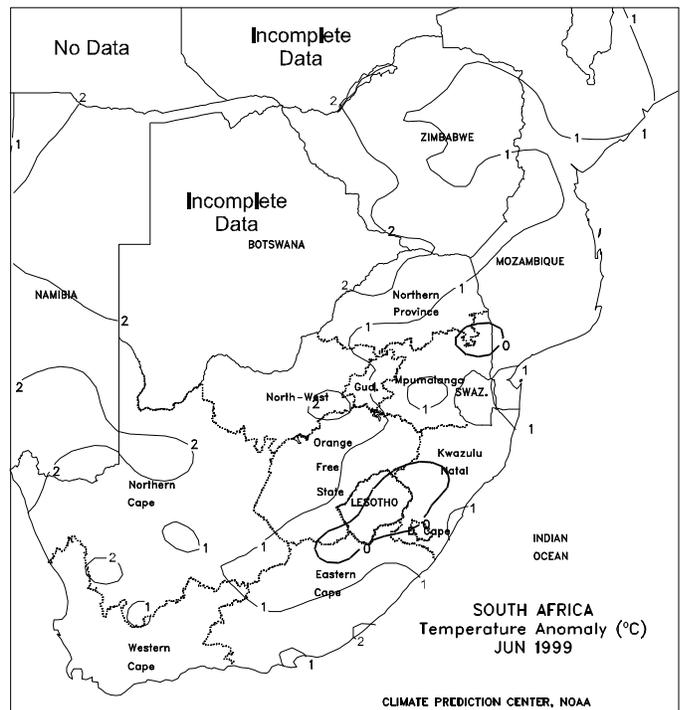
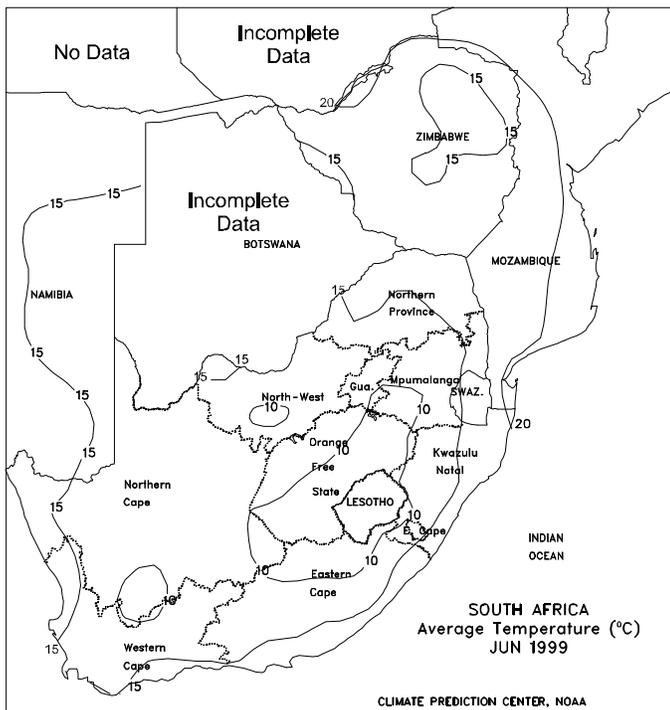
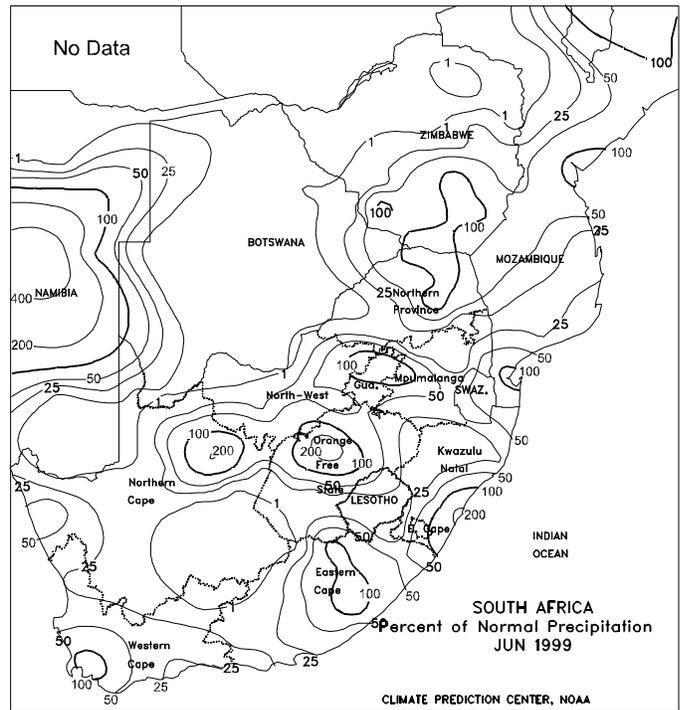
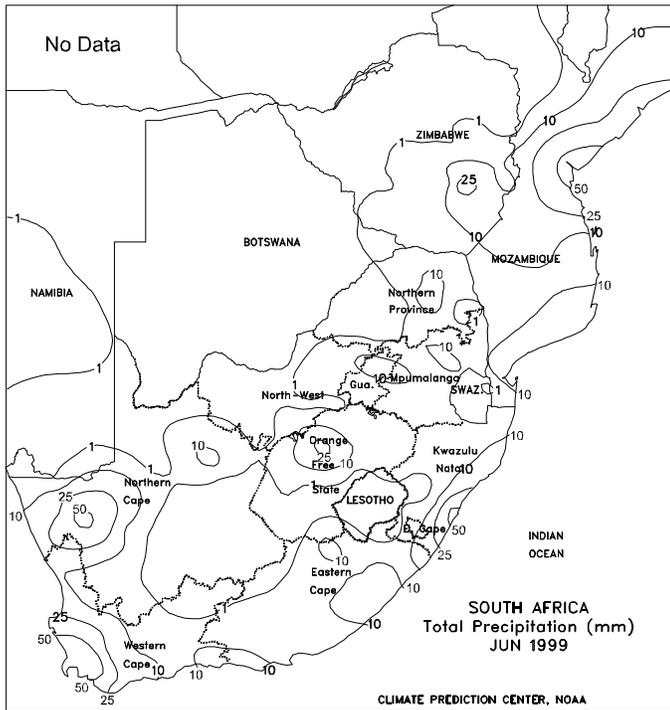


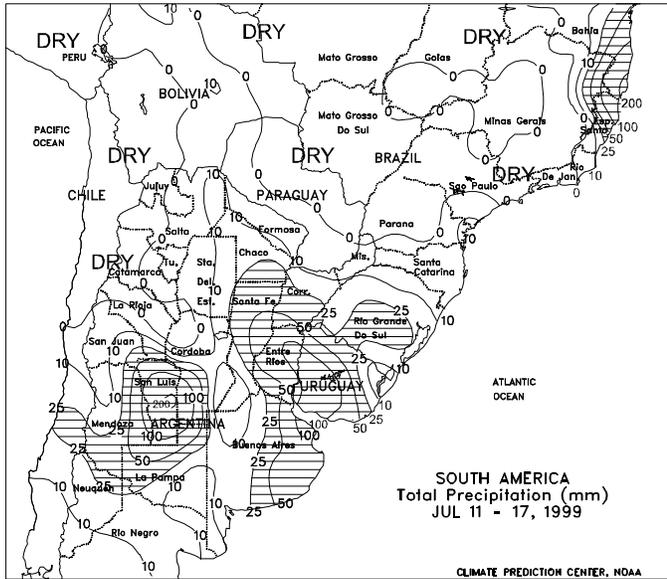


SOUTHEAST ASIA

Unseasonably light showers (10-25 mm) prevailed across most of Thailand, reducing moisture supplies for main-season rice. Seasonable showers (35-70 mm) favored corn in west-central Thailand and rice in the southeast (Khorat Plateau). Moderate to heavy showers (25-200 mm) fell across the Red River Valley of northern Vietnam, boosting moisture supplies for 10th-month rice. Moderate showers (20-50 mm) also increased moisture supplies in the Mekong River Delta of southern Vietnam. Drier weather (less than 10 mm) reduced moisture supplies across the south-central coast of Vietnam. Lighter showers (10-50 mm) reduced moisture supplies for main-season grains across the northern and central Philippines. Showers (50-200 mm) favored crops across Mindanao Island. Moderate showers (30-50 mm) favored oil palm across peninsular Malaysia. Scattered rain (5-20 mm) prevailed across Java, Indonesia, aiding second-season rice. Below-normal June rainfall in west-central Thailand reduced moisture for corn development. Near- to above-normal rainfall maintained moisture supplies for rice in eastern Thailand, northern and southern Vietnam, and the Philippines. Seasonal showers favored oil palm in peninsular Malaysia and second-crop rice in Java, Indonesia.

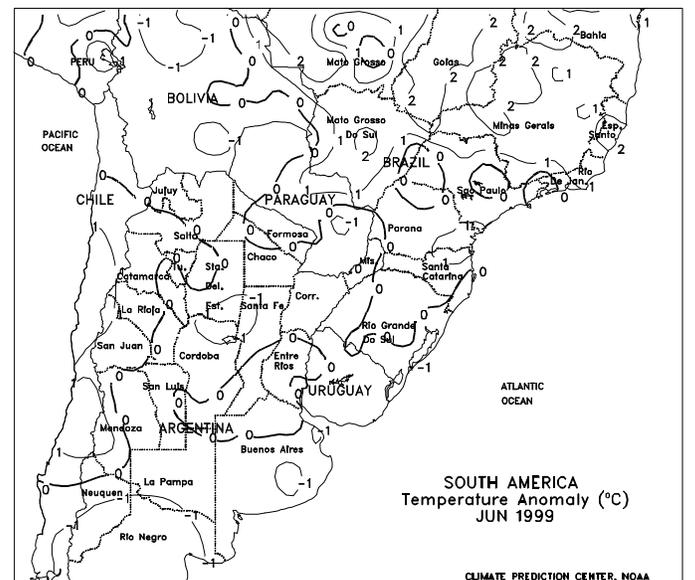
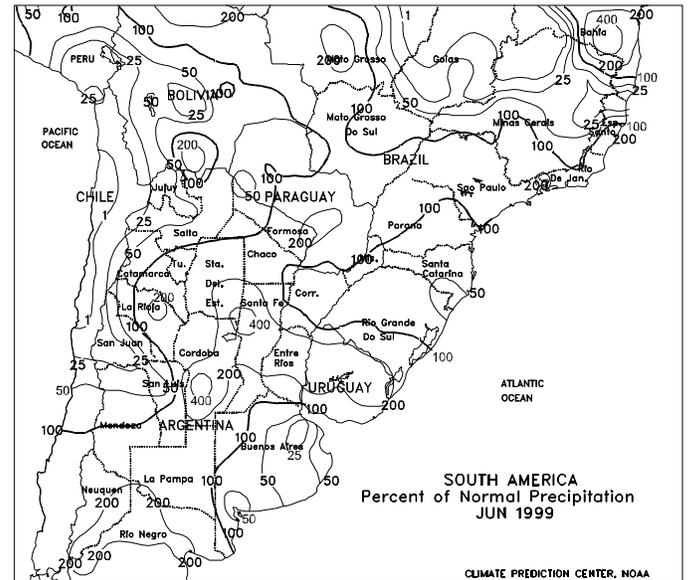
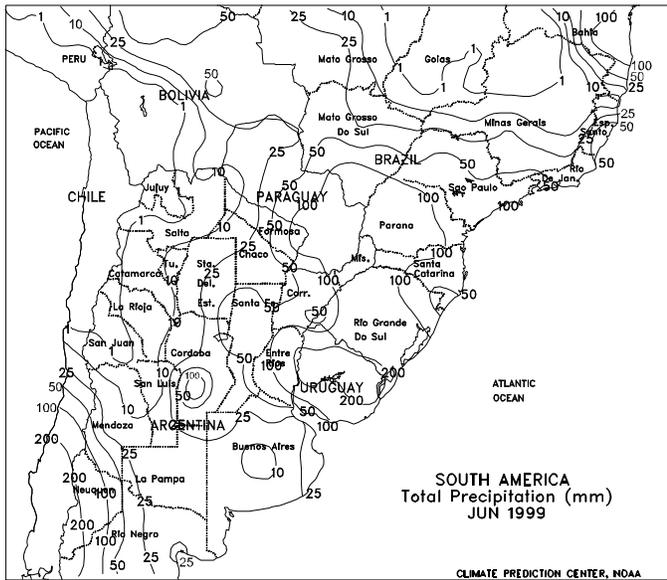


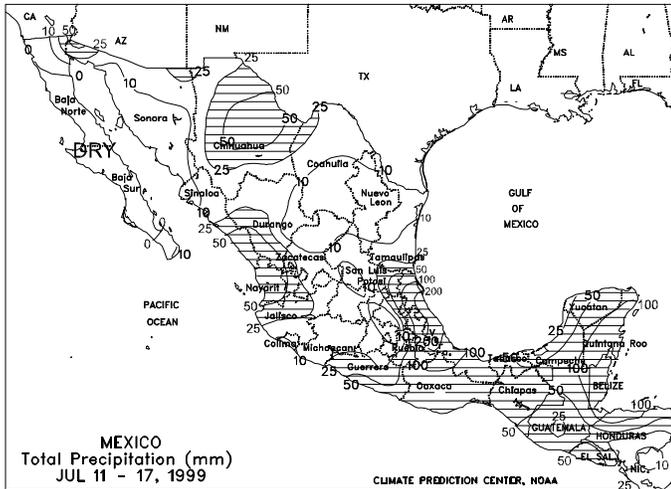




SOUTH AMERICA

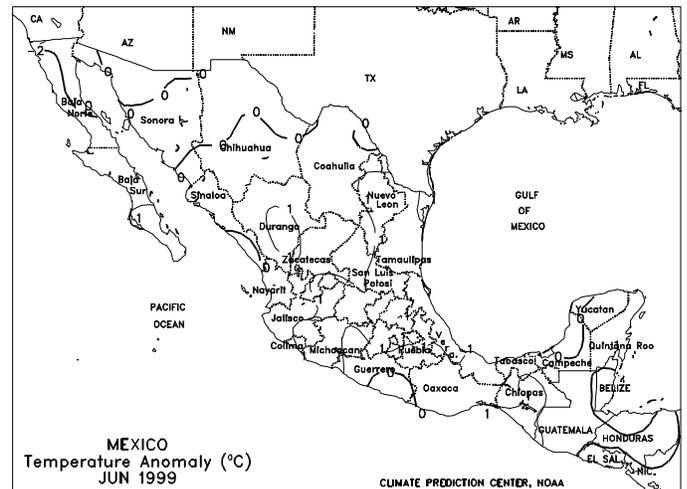
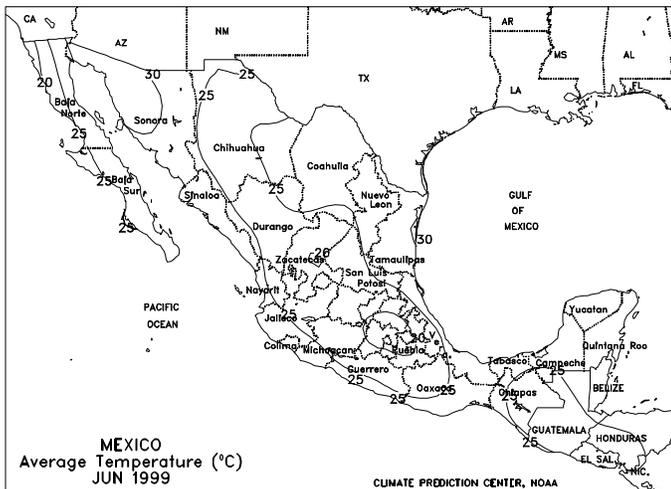
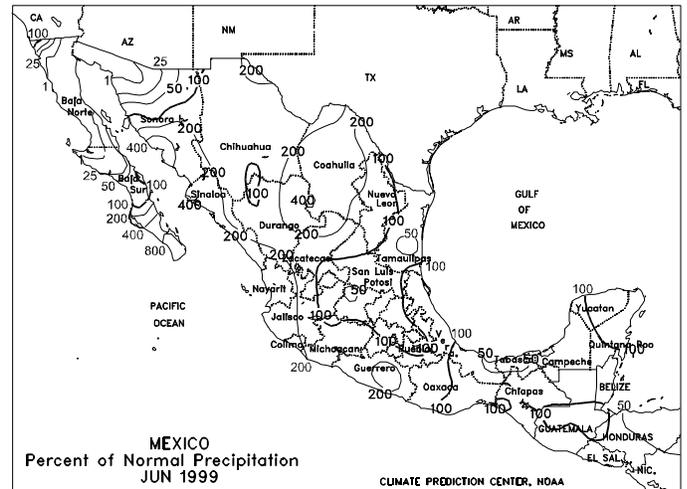
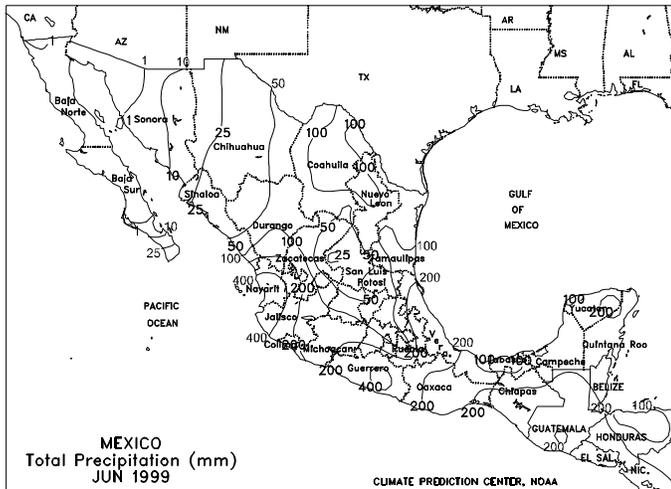
In central Argentina, unseasonably heavy rain (15-50 mm) boosted topsoil moisture for germinating to vegetative winter wheat, but hampered wheat planting. The heaviest rain (50-100 mm) fell in eastern Buenos Aires. According to reports as of July 9, Argentine winter wheat planting was 66 percent complete, the same as the 3-year average. In southern Brazil, light to moderate rain (10-80 mm) covered Rio Grande do Sul, maintaining adequate soil moisture for winter wheat. Warm, dry weather prevailed from Parana northward, aiding winter wheat development and coffee and citrus harvesting. Temperatures averaged near normal across Argentina and 2 to 4 degrees C above normal in southern Brazil. In Buenos Aires, Argentina, below-normal June rainfall aided late summer crop harvesting, but reduced topsoil moisture for winter wheat development. In southern Brazil, near- to above-normal rainfall favored winter wheat establishment, but slowed coffee and citrus harvesting in Sao Paulo and Minas Gerais.

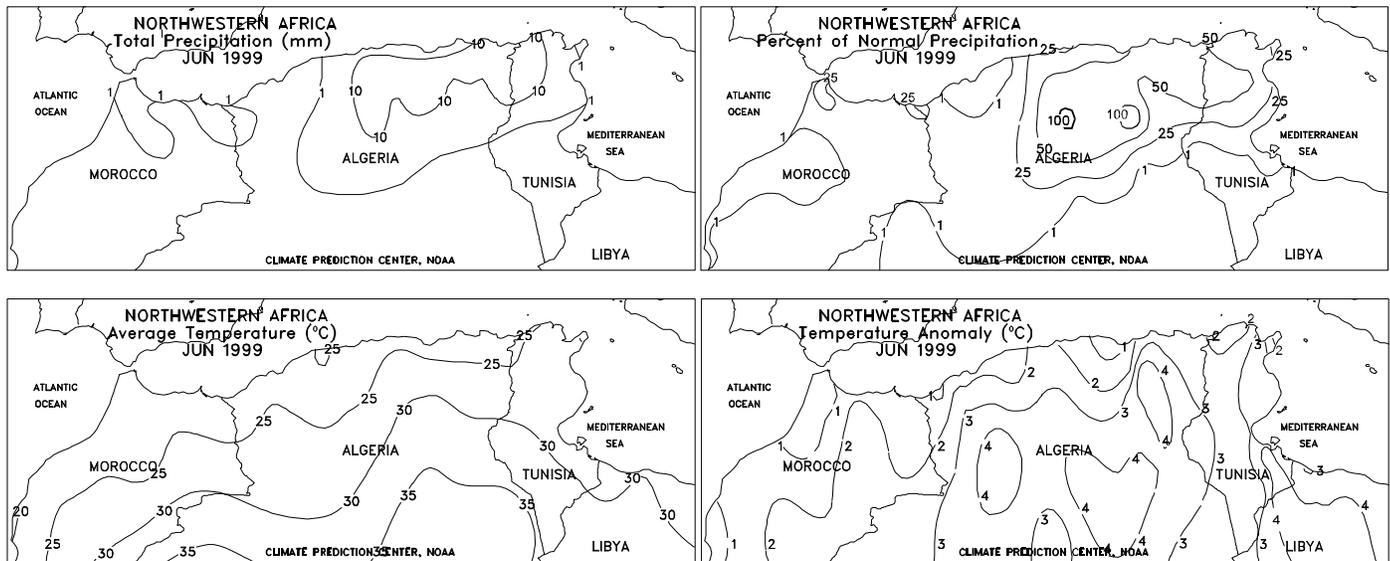




MEXICO

Seasonal showers (5-30 mm) diminished across the Southern Plateau corn belt, but adequate soil moisture exists for vegetative corn. Light showers (5-20 mm) fell across northeastern and north-central Mexico. Monsoonal showers (10-75 mm) boosted reservoir levels in northwestern Mexico (Sonora and Chihuahua). Widespread showers (40-125 mm) continued to improve moisture supplies in the Yucatan Peninsula. Temperatures averaged near normal in central Mexico and 1 to 3 degrees C below normal in the northwest. During June, the rainy season began on time, providing needed moisture for corn planting. Rainfall was near to above normal across the main corn belt, above normal in northern and north-central Mexico, and slightly below normal in the northeast.





Pasture and Range Crop Condition by Percent Week Ending July 18, 1999											
	VP	P	F	G	EX		VP	P	F	G	EX
AL	0	2	12	63	23	NH	0	20	47	33	0
AZ	6	45	34	15	0	NJ	30	60	10	0	0
AR	0	5	24	57	14	NM	4	8	33	42	13
CA	5	20	20	55	0	NY	14	54	15	17	0
CO	2	6	18	58	16	NC	0	5	23	65	7
CT	40	20	27	13	0	ND	0	4	13	65	18
DE	3	32	32	33	0	OH	18	27	35	18	2
FL	0	0	20	60	20	OK	0	5	20	56	19
GA	1	2	24	55	18	OR	1	7	29	59	4
ID	1	4	28	53	14	PA	43	39	13	5	0
IL	1	7	28	54	10	RI	3	25	50	22	0
IN	3	17	42	34	4	SC	1	9	33	53	4
IA	1	7	27	51	14	SD	1	0	5	60	34
KS	0	2	17	66	15	TN	1	7	27	56	9
KY	6	19	33	35	7	TX	1	7	33	46	13
LA	0	2	22	61	15	UT	2	7	31	59	1
ME	11	33	35	21	0	VT	0	9	50	28	13
MD	17	40	35	8	0	VA	28	26	25	20	1
MA	0	42	41	17	0	WA	5	36	45	10	4
MI	1	5	24	57	13	WV	56	28	15	1	0
MN	3	4	24	60	9	WI	1	8	30	46	15
MS	0	7	20	57	16	WY	0	0	8	67	25
MO	2	11	37	45	5	48 Sts	4	10	24	50	12
MT	5	10	22	51	12						
NE	0	3	18	64	15	Prev Wk	3	8	24	51	14
NV	1	11	17	68	3	Prev Yr	8	14	29	39	10

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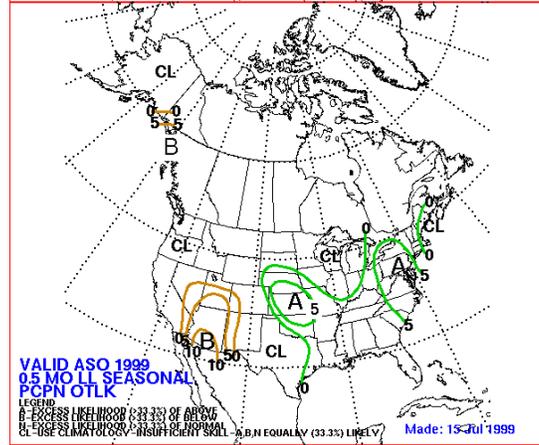
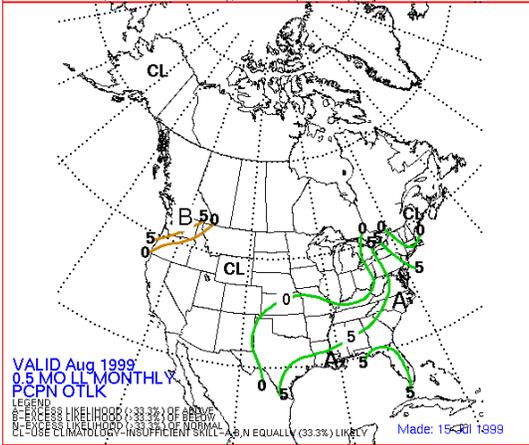
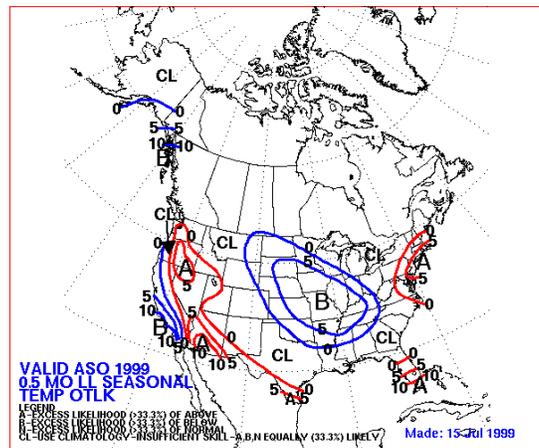
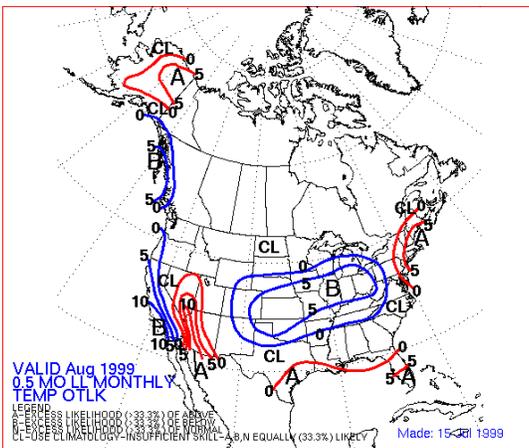
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U.S. DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration
 National Weather Service/Climate Prediction Center
 Managing Editor **David Miskus** (202) 720-7919
 Meteorologists **Clinton Wallace** and **David King**
 Special Requests (202) 720-7917
 Subscriptions . . . **John Kopman** (301) 763-8000 ext 7534
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 Temperature (Top) and Precipitation (Bottom) Outlook**

**August - October 1999
 Temperature (Top) and Precipitation (Bottom) Outlook**

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