

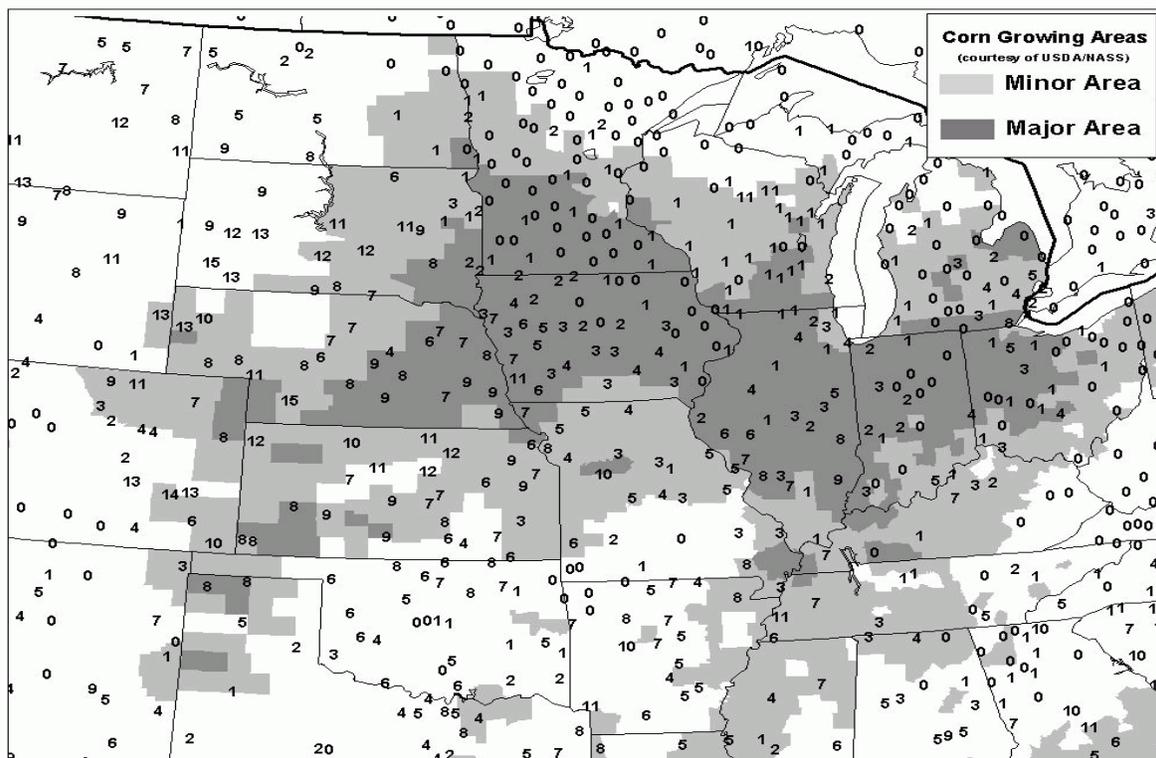
WEEKLY WEATHER AND CROP BULLETIN



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

Number of Days With a High Temperature of 95F or Greater
July 1 through 21, 2002 (21 Days)



NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

At least 18 out of 21 days reported required for inclusion

HIGHLIGHTS

July 14 - 20, 2002

Highlights provided by USDA/WAOB

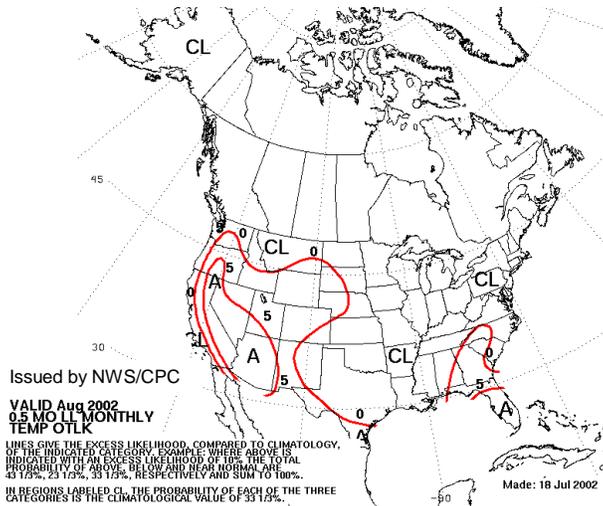
Across the **western Corn Belt**, a continuation of mostly dry weather and a return to above-normal temperatures significantly stressed reproductive to filling corn and soybeans. **Midwestern** temperatures ranged from near normal in the **Ohio Valley** to 10°F above normal in **eastern South Dakota**, peaking from 95 to 105°F toward week's end in the **westernmost Corn Belt**. Late-week maximum temperatures approached or reached 95°F in the **eastern Corn Belt**, where isolated showers provided only localized relief from a month-long dry spell that has depleted topsoil moisture and increased stress on summer crops. Meanwhile on the **Plains**, heat (up to 12°F above
(Continued on page 7)

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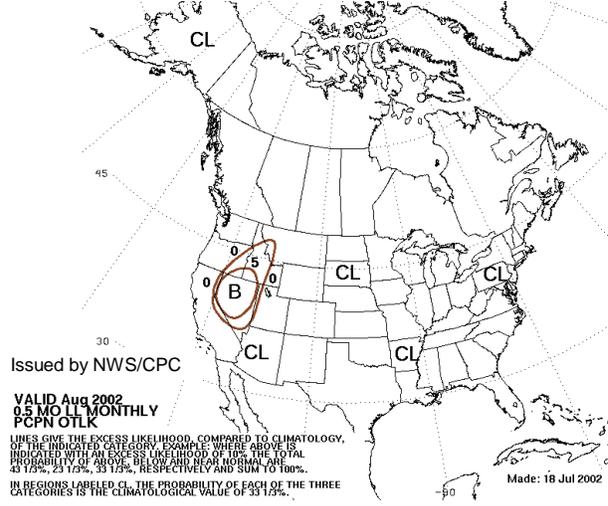
Monthly Temperature & Precipitation Outlook

Temperature Outlook: August 2002



Above-normal temperatures (A) are forecast for the Southeast, Pacific Northwest, Great Basin, Southwest, central Rockies, and central High Plains. For the rest of the United States, forecast indicators favor neither above- nor below-normal temperatures, so climatology (CL) is forecast.

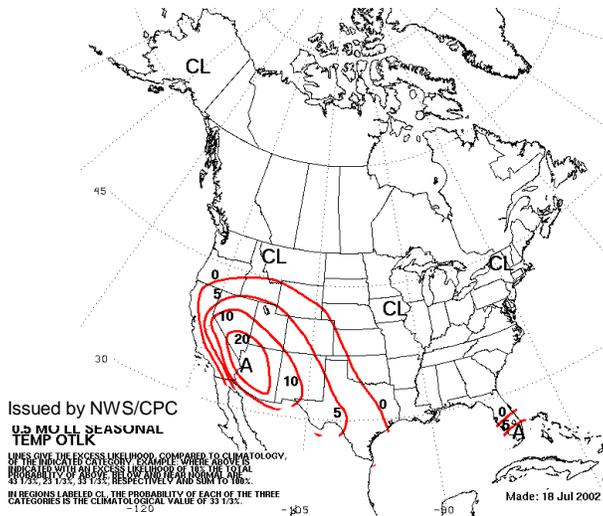
Precipitation Outlook: August 2002



Below-normal precipitation (B) is expected across the Great Basin and portions of the northern Rockies. Elsewhere, there are no strong forecast indicators for above- or below-normal precipitation, so climatology (CL) is forecast.

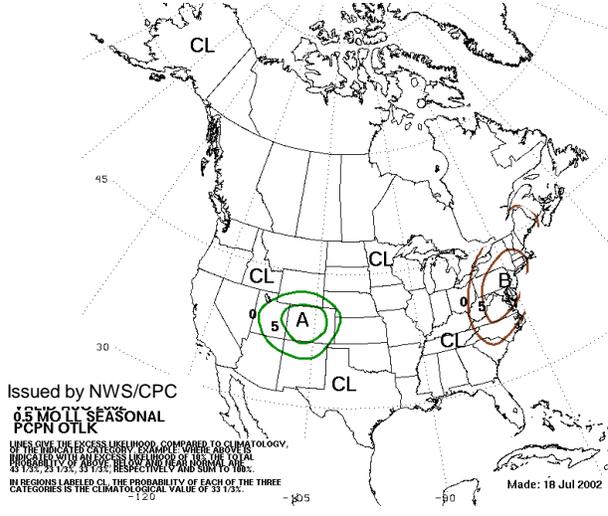
Seasonal Temperature & Precipitation Outlook

Temperature Outlook: August - October 2002



Above-normal (A) temperatures are forecast for the Southwest, Great Basin, central and southern Rockies, and the southern Plains. For the remainder of the United States, climatology (CL) is predicted since forecast indicators favor neither above- nor below-normal temperatures.

Precipitation Outlook: August - October 2002



Below-normal precipitation (B) is expected across the Mid Atlantic and Northeast. Meanwhile, above-normal precipitation (A) is forecast for the central Rockies. Elsewhere, there are no strong forecast indicators for above- or below-normal precipitation, so climatology (CL) is forecast.

Weather Data for Mississippi and the Missouri Bootheel

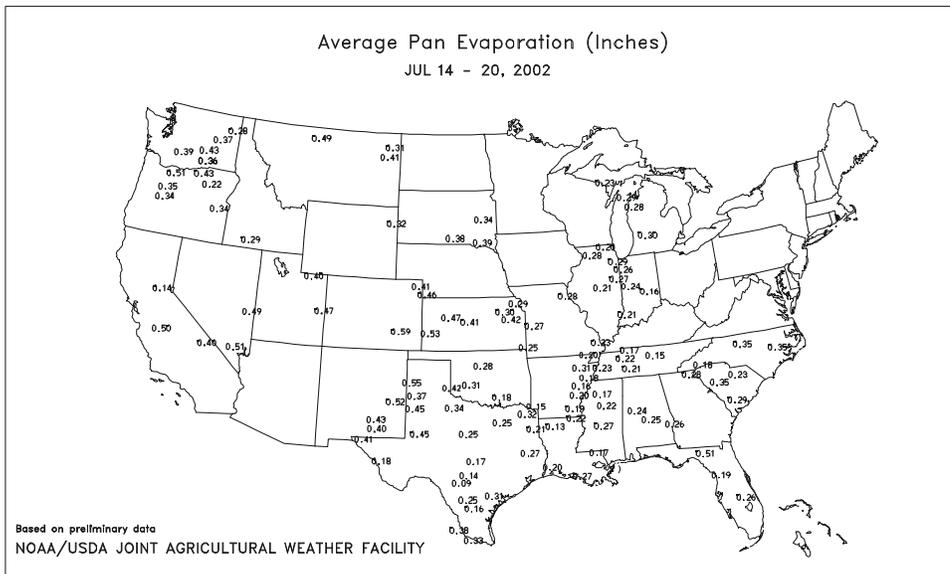
Weather Data for the Week Ending July 20, 2002

Data provided by the Mississippi State Delta Research and Extension Center (DREC), the Southern Regional Climate Center (SRCC), and the University of Missouri.

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	TEMP. °F		0.1 INCH OR MORE	50 INCH OR MORE
																		90 AND ABOVE	32 AND BELOW		
MS BATESVILLE ^x	87	70	90	67	79	-2	1.75	0.81	1.68	5.20	65	37.26	111	--	--	1	0	2	1		
BELZONI ^x	90	72	94	70	81	-1	0.65	-0.57	0.42	2.90	39	--	--	--	--	3	0	3	0		
CLARKSDALE ^x	87	71	90	68	79	-3	0.30	-0.63	0.20	4.03	51	37.51	112	--	--	1	0	2	0		
CLEVELAND ^x	90	72	95	71	81	-3	1.63	0.71	1.00	3.64	47	32.38	94	--	--	4	0	3	2		
GREENVILLE ^x	90	72	94	70	81	-2	1.22	0.31	0.95	6.36	88	34.63	103	--	--	3	0	2	1		
GREENWOOD ^x	90	70	93	69	80	-3	0.46	-0.50	0.41	3.87	53	27.00	80	--	--	4	0	3	0		
INDIANOLA 1S	91	71	95	69	81	--	1.02	--	0.78	5.13	--	27.53	--	82	74	5	0	4	1		
INVERNESS 5E	91	72	95	70	82	--	0.86	--	0.40	4.67	--	26.21	--	95	82	5	0	6	0		
LYON	90	70	93	67	80	--	0.24	--	0.11	4.25	--	--	--	88	79	4	0	4	0		
MACON	92	71	96	70	82	--	0.85	--	0.43	4.38	--	22.06	--	81	76	5	0	3	0		
MOORHEAD ^x	91	72	94	70	82	-1	0.53	-0.58	0.50	2.67	35	24.78	72	--	--	4	0	3	1		
ONWARD	90	70	95	68	80	--	1.02	--	0.77	4.72	--	23.30	--	85	80	4	0	4	1		
PERTSHIRE	90	71	93	68	81	--	2.11	--	1.28	5.85	--	--	--	93	80	4	0	3	1		
ROLLING FORK ^x	92	72	97	70	82	0	0.27	-0.65	0.18	2.48	35	22.83	66	--	--	4	0	2	0		
SIDON	92	71	95	69	82	--	0.29	--	0.13	3.36	--	24.50	--	97	81	5	0	4	0		
STARKVILLE	89	71	94	70	80	--	2.19	--	1.04	5.05	--	--	--	90	79	4	0	4	1		
TUNICA ^x	88	70	92	68	79	-3	0.59	-0.24	0.25	4.64	59	30.82	92	--	--	1	0	3	0		
TUNICA 1W	87	70	91	69	79	--	1.80	--	0.96	4.86	--	29.56	--	82	76	1	0	4	2		
VANCE	90	70	92	68	80	--	1.73	--	0.75	4.33	--	--	--	83	78	3	0	4	2		
VERONA	90	72	92	71	81	--	1.21	--	0.68	7.21	--	32.69	--	94	79	4	0	3	1		
VICKSBURG ^x	90	72	93	70	81	-1	0.60	-0.38	0.40	5.70	80	25.76	72	--	--	4	0	3	0		
YAZOO CITY ^x	90	70	94	69	80	-2	0.42	-0.56	0.22	4.95	73	33.66	92	--	--	4	0	2	0		
STONEVILLE ^x	90	72	94	70	81	-2	0.89	-0.01	0.86	5.69	85	33.24	101	95	81	4	0	2	1		
MO CARDWELL	86	70	92	68	77	-4	1.53	0.98	0.96	7.01	113	26.31	89	85	76	1	0	4	1		
CHARLESTON	87	71	93	69	78	-1	0.47	-0.43	0.43	4.88	71	29.37	102	92	77	1	0	2	0		
CLARKTON	87	70	93	68	77	-4	0.58	-0.12	0.51	6.21	100	31.76	119	87	76	2	0	3	0		
DELTA	87	69	91	65	78	-3	0.63	-0.10	0.53	6.11	98	38.20	129	86	76	1	0	3	1		
GLENNONVILLE	86	70	93	67	77	-4	0.26	-0.44	0.17	3.74	60	26.02	98	88	76	1	0	4	0		
PORTAGEVILLE #1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
PORTAGEVILLE #2	87	71	93	69	78	-2	0.88	0.26	0.86	4.80	72	26.44	91	86	77	1	0	2	1		
STEELE	87	71	93	69	78	-3	0.30	-0.21	0.19	6.25	86	27.76	92	89	79	1	0	4	0		

Compiled by USDA/OCE/WAOB's Stoneville Field Office. ^x Based on 1971-2000 normals.

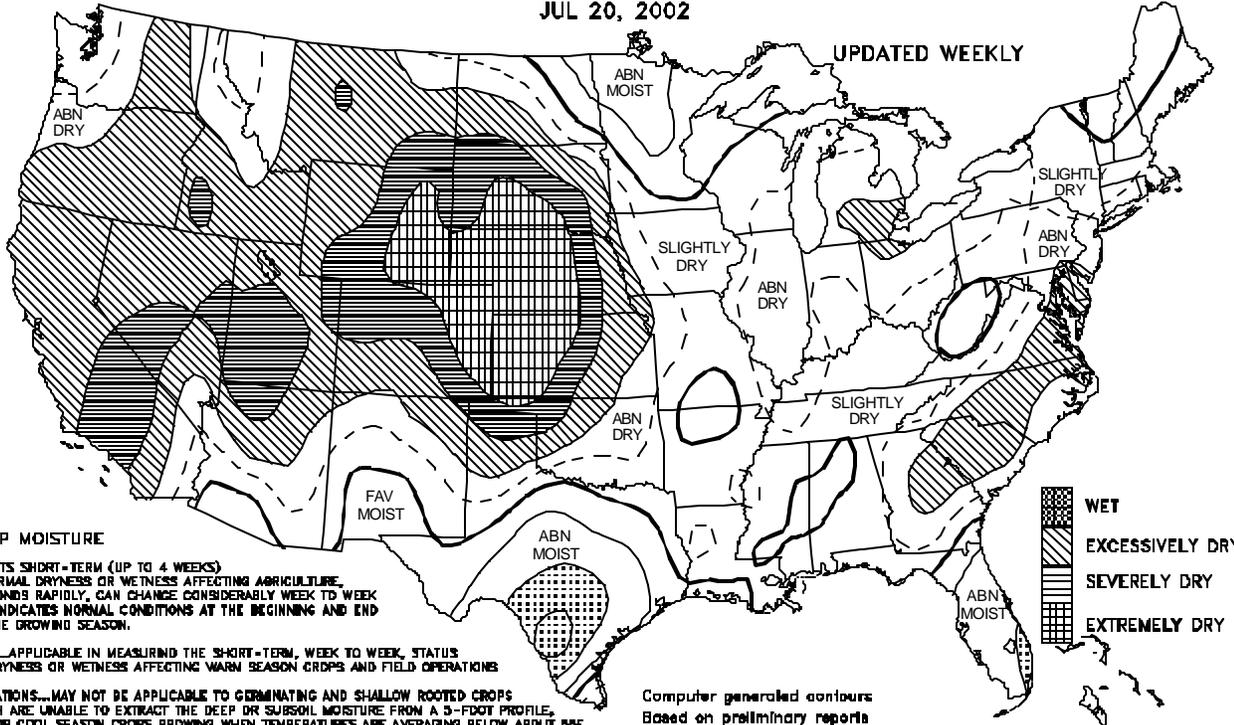
Weather and Crop Summary: Continued weakness in the Sub-tropical High brought several rounds of scattered thunderstorms to the Lower Mississippi Valley. Rainfall varied by station, but each location had at least 2 days of measurable rain. Temperatures were generally below normal due to increased cloudiness and wet soil conditions. Corn was generally in the dough or dent stage, with some black-layer stage reported in Mississippi. Corn drydown began in a few locations in the southern Delta. Sorghum continued to dry down in most Delta locations. Early-planted Delta rice was in late boot stage or heading, while later-planted varieties began to boot. Soybeans in the Delta and Bootheel continued to set pods, with some Group IV beans beginning to dry down in the southern Delta. Cotton continued to square and set bolls.



Crop Moisture

SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE
JUL 20, 2002

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

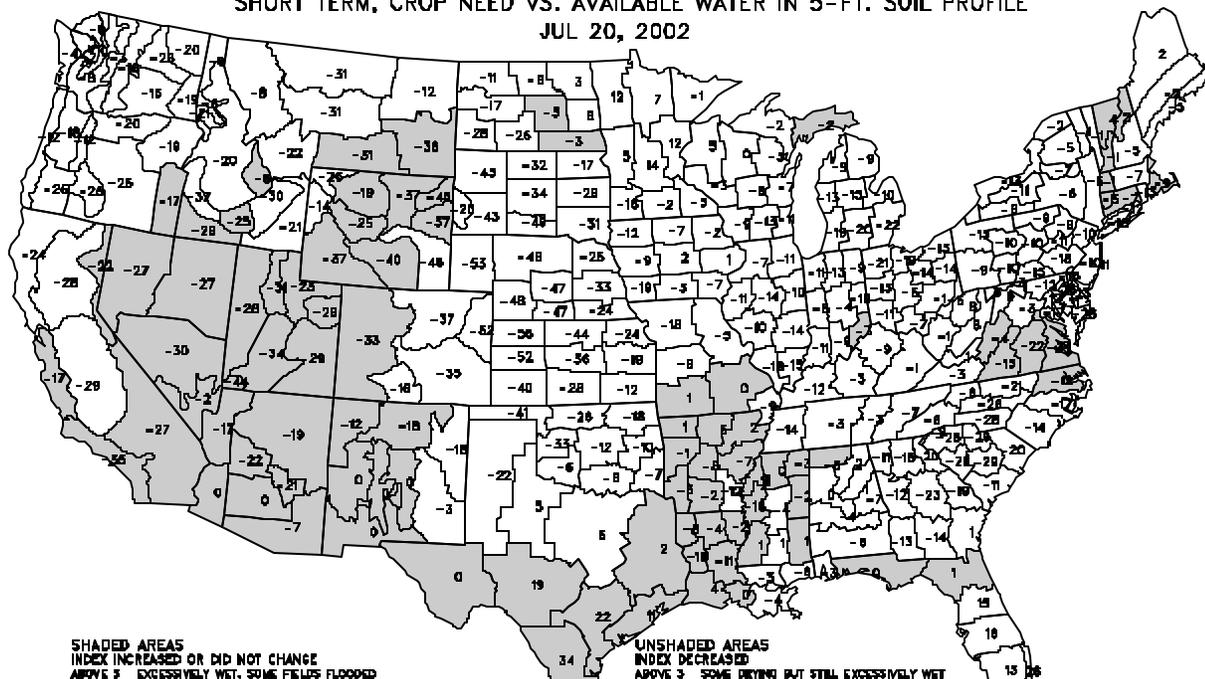
LIMITATIONS...MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 3-FOOT PROFILE, OR FOR COOL SEASON CROPS BROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55F. IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) 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 20, 2002

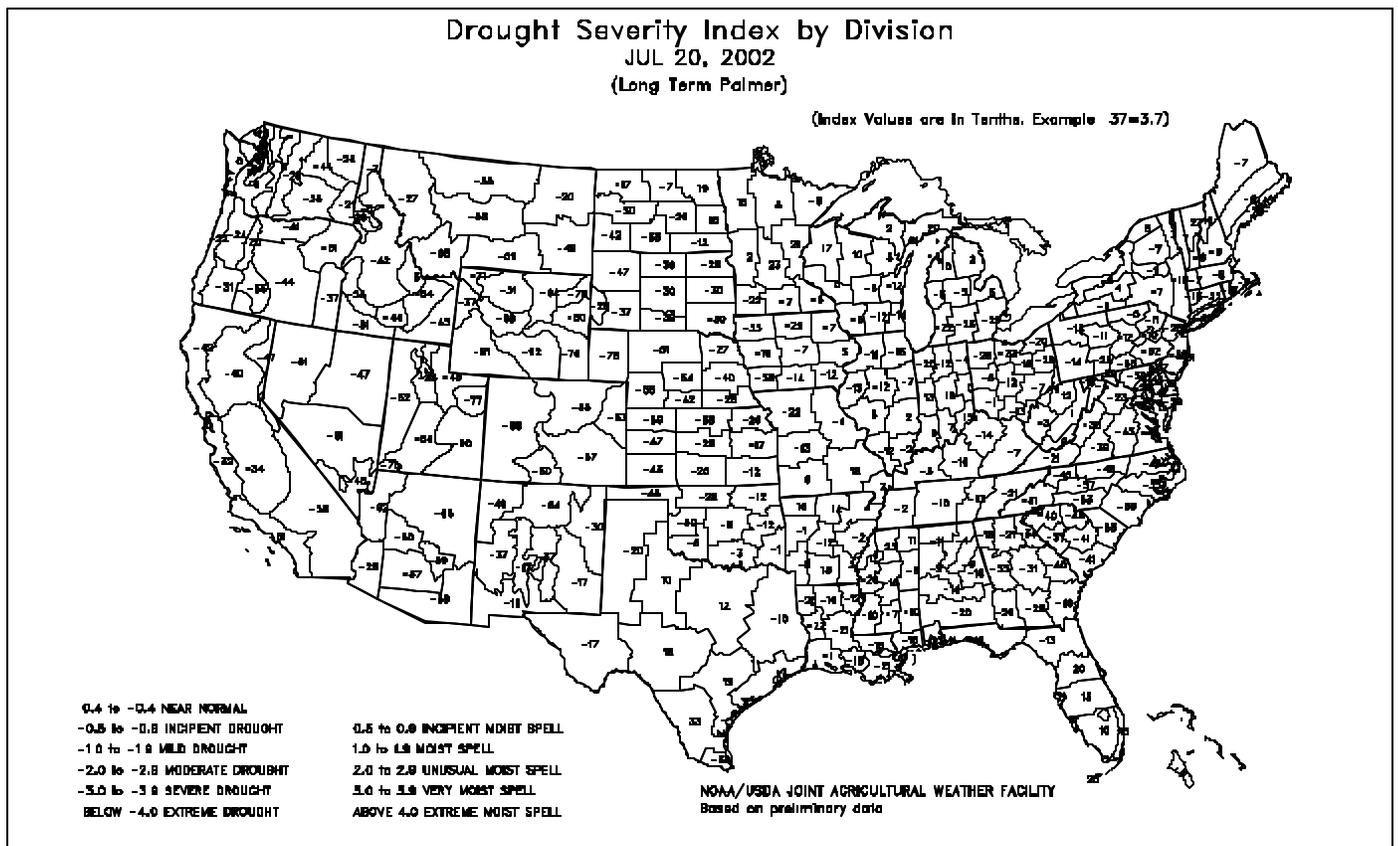
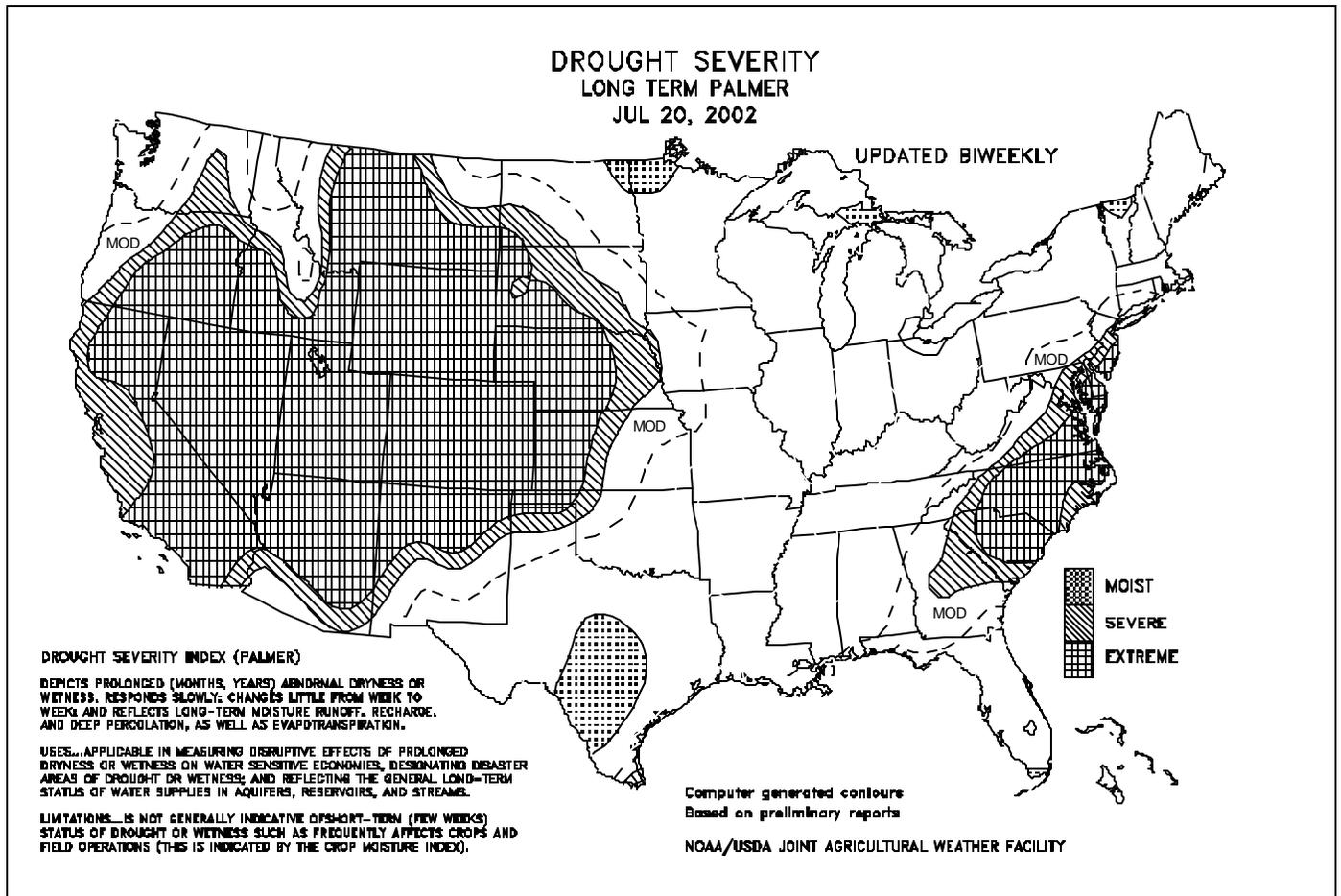


SHADED AREAS
INDEX INCREASED OR DID NOT CHANGE
ABOVE 3 EXCESSIVELY WET, SOME FIELDS FLOODED
2 TO 3 TOO WET, SOME STANDING WATER
1 TO 2 SOME FIELDS TOO WET, PROSPECTS ABOVE NORMAL
0 TO 1 MOISTURE ADEQUATE FOR PRESENT CROP NEEDS
0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED
-1 TO -2 SOME IMPROVEMENT 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 MOISTURE ADEQUATE FOR NORMAL GROWTH AND FELLOWSHIP
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 BEVERELY CUT BY DRYNESS
BELOW -4 EXTREMELY DRY, MOST CROPS RUINED

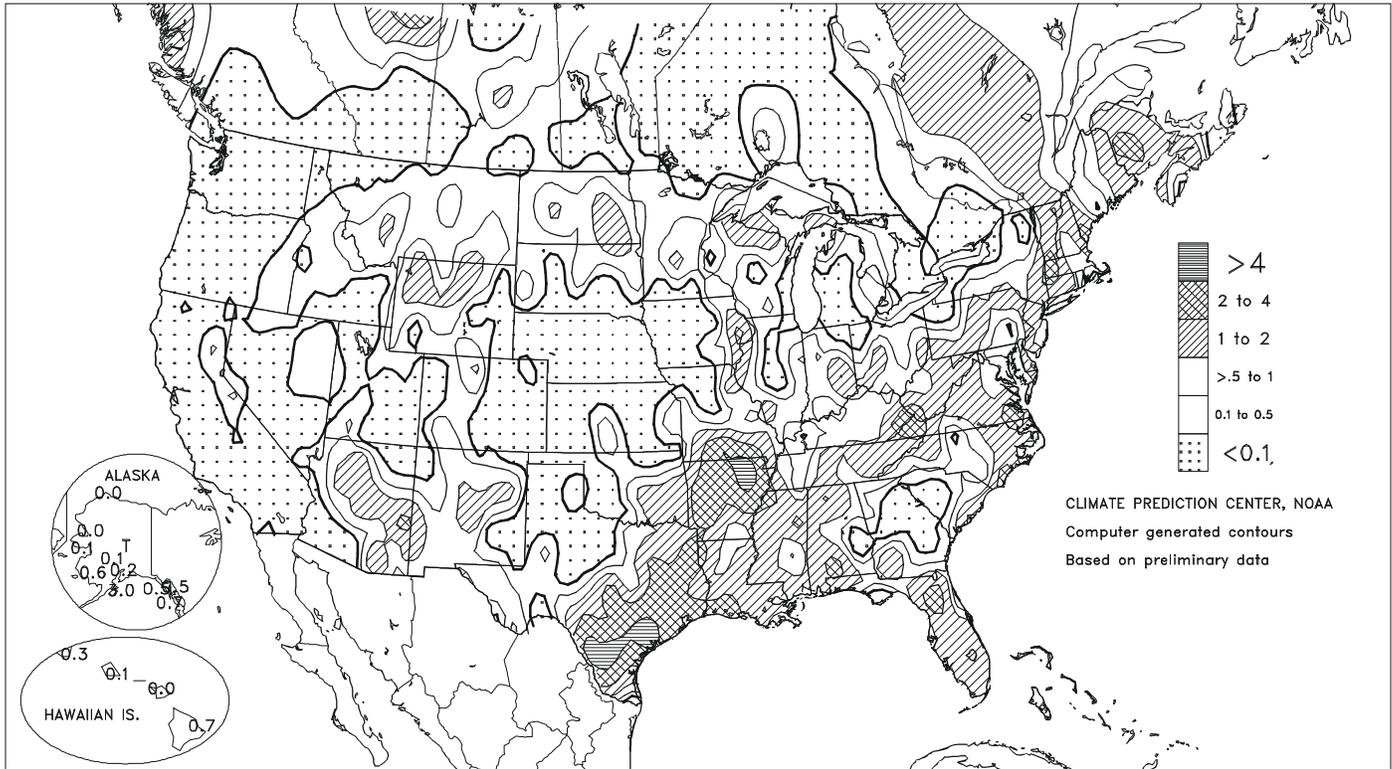
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

BASED ON PRELIMINARY DATA



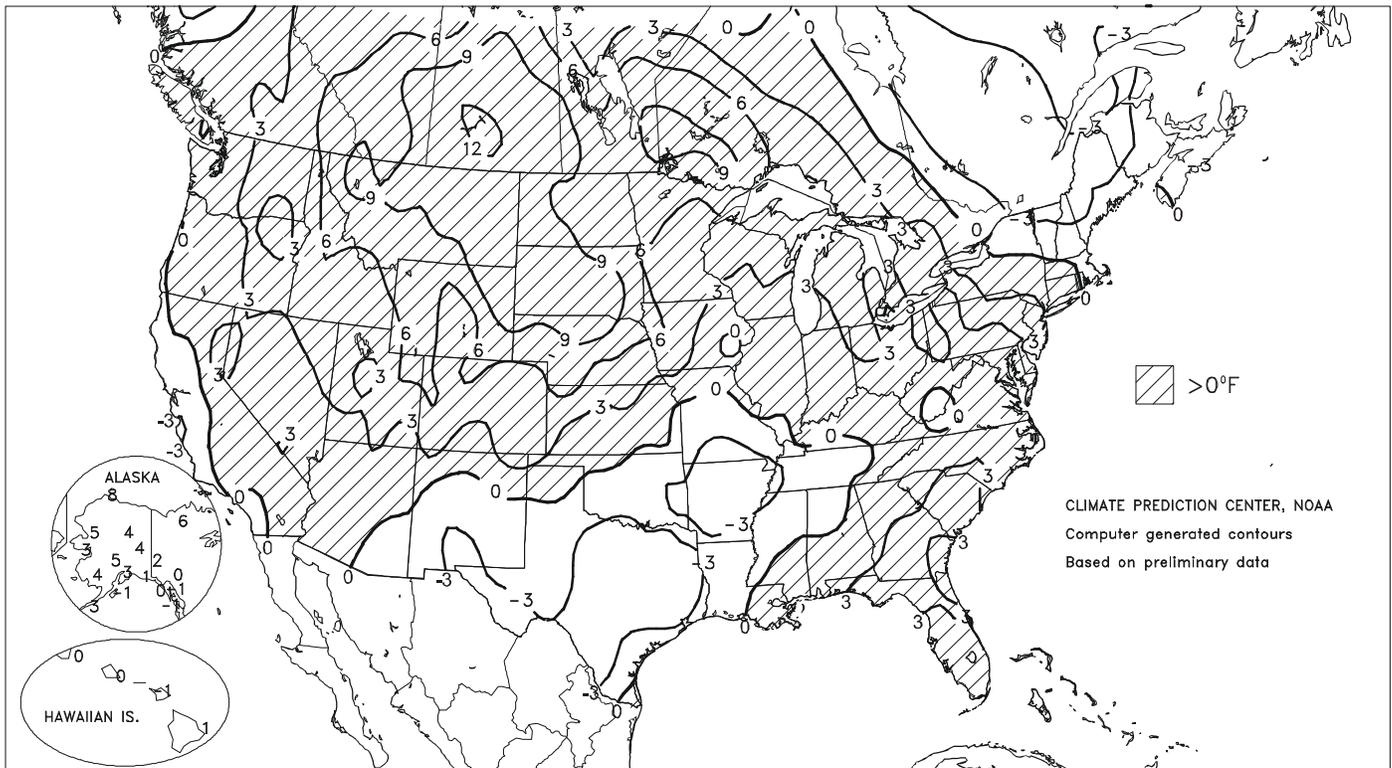
Total Precipitation (Inches)

JUL 14 - 20, 2002



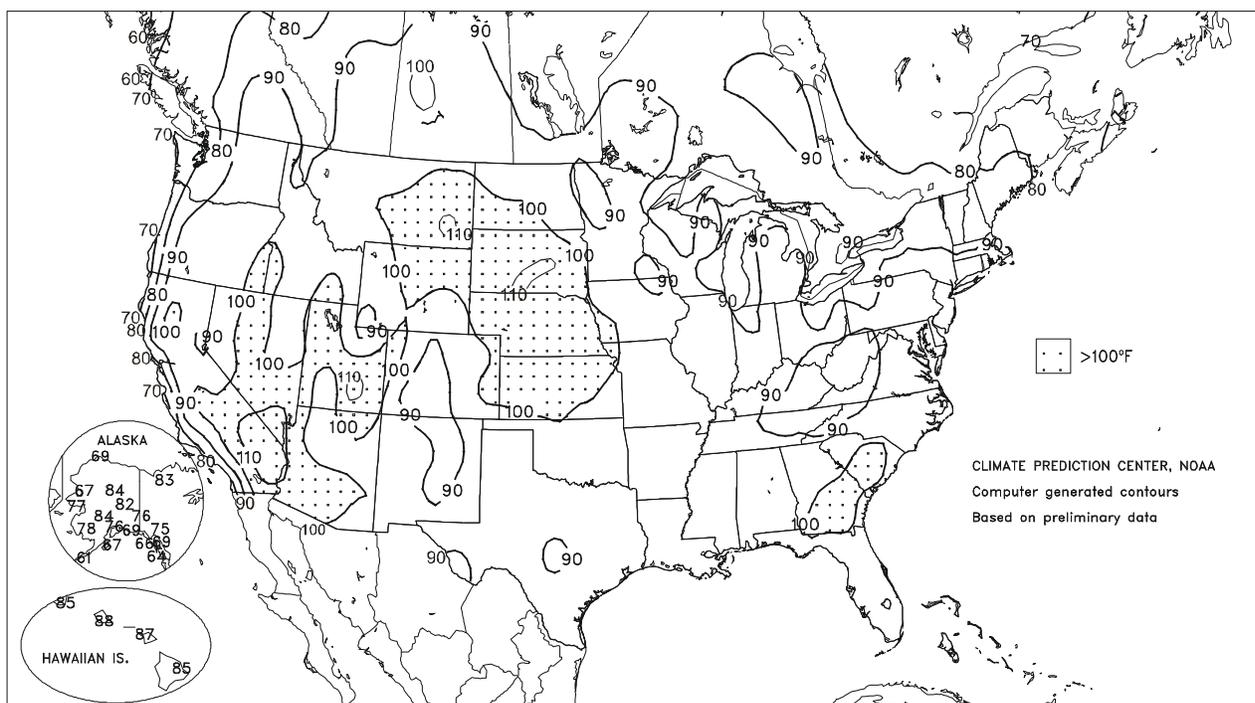
Departure of Average Temperature from Normal (°F)

JUL 14 - 20, 2002



Extreme Maximum Temperature (°F)

JUL 14 - 20, 2002



(Continued from front cover)

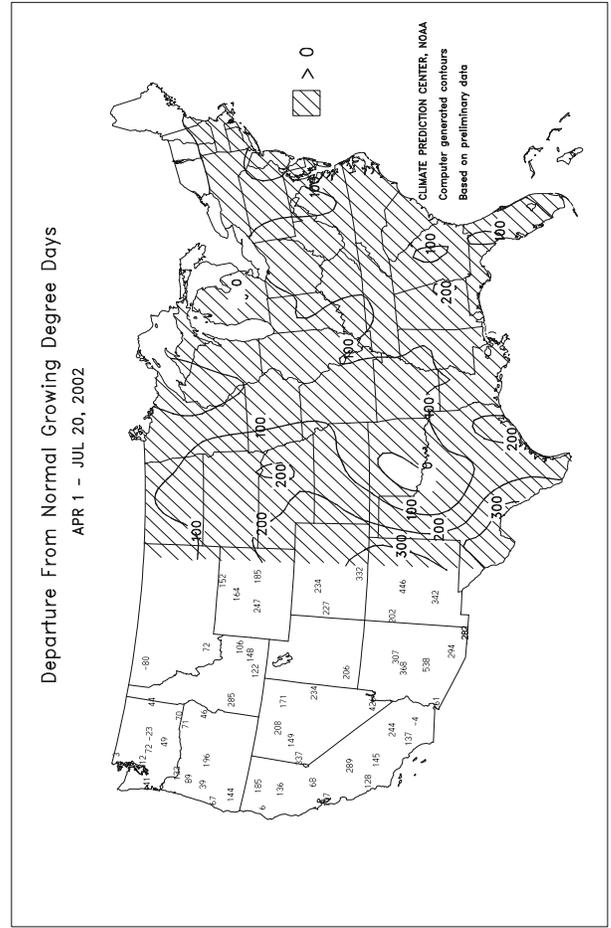
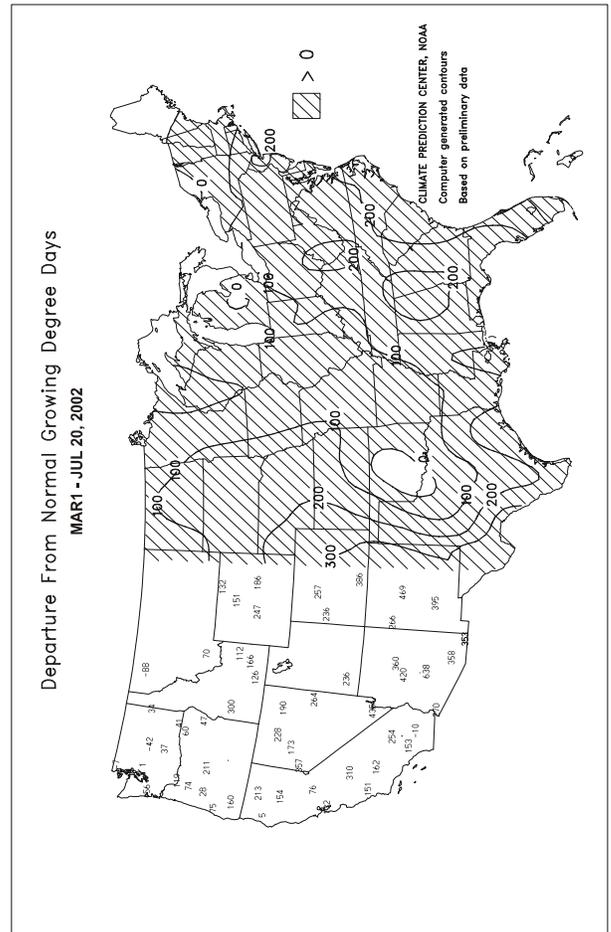
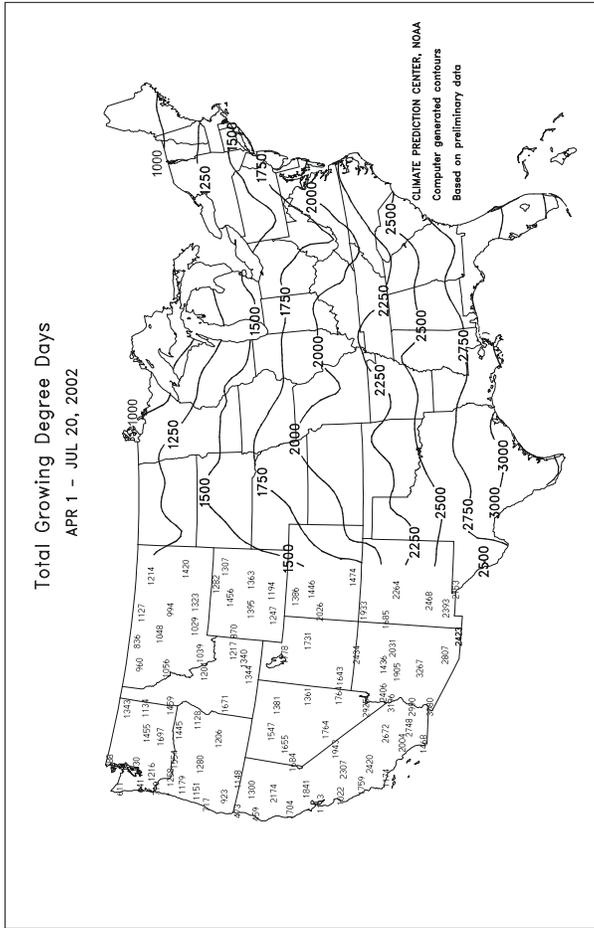
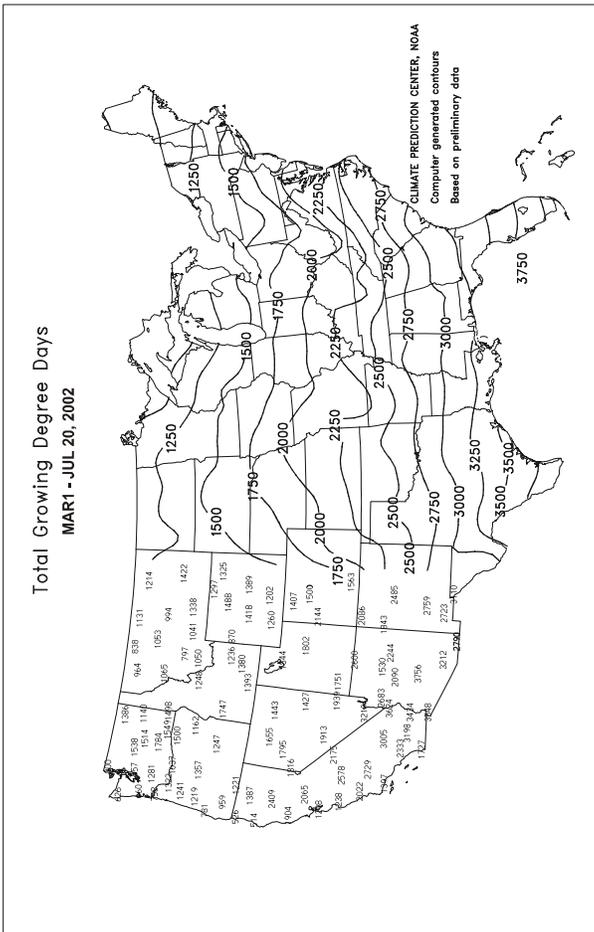
normal) and drought continued to severely stress pastures and dryland summer crops from **Texas' northern panhandle northward into southern Montana and southwestern North Dakota**. Hot weather gradually subsided on the **northern Plains**, where scattered showers boosted soil moisture reserves and eased stress on spring-sown small grains. In contrast, local wetness persisted in the **Red River Valley**. Farther south, cool (as much as 5°F below normal), wet conditions prevailed from **southern and eastern Texas to the Delta**, aiding rain-fed summer crops but causing localized flooding. Farther east, however, only scattered showers accompanied above-normal temperatures in the **middle and southern Atlantic regions**, maintaining stress on pastures and summer crops. In the **West**, scattered showers dotted inland areas, particularly across **Arizona, New Mexico, and Wyoming**, locally reducing irrigation requirements but providing rangelands and dryland summer crops with only limited relief from drought and record-setting heat. Very warm, dry weather prevailed in the **West Coast States**.

The week opened at the end of a record-setting heat wave across the **northern High Plains and the West**. On Sunday, all-time record highs included 110°F in **Miles City, MT**, 107°F in **Sheridan, WY**, and 105°F in **Grand Junction, CO**. Meanwhile, **Pocatello, ID**, completed their first 4-day streak of triple-digit heat (101, 102, 104, and 100°F from July 11-14), breaking a record most recent attained from July 29-31, 2000. In **Nevada, Battle Mountain** noted their last of six consecutive daily-record highs (108, 110, 112, 107, 105, and 104°F) on July 15. Farther east, a run of six consecutive daily records (91, 91, 89, 90, 89, and 90°F) in **Laramie, WY**, stretched from July 14-19. Toward week's end, record heat spread across portions of the **Plains and western Corn Belt**. On July 20, daily-record highs in **South Dakota** included 109°F in **Kennebec** and 102°F in **Watertown**. **Omaha (Eppley), NE**, achieved 104°F on July 20 and 21, although neither high set a daily record. Farther south, daily-record warmth was scattered across the **southern Atlantic region** in locations such as **Tampa, FL** (96°F on July 17), and **Alma, GA** (102°F on July 19). On July 20, **Atlanta, GA**, recorded their 17th day this year with a high temperature of 90°F or

higher, eclipsing last year's total of 15 days. In **Colorado, Denver** noted their 33rd day of 90°F heat by week's end, remaining ahead of the pace of 2000, when 29 of the record-high 61 days with highs at or above 90°F occurred by July 20.

Las Vegas, NV, received 0.52 inch of rain on July 17, breaking a 114-day spell (March 25 - July 16) without measurable precipitation. The rain represented the second measurable rainfall of the year (0.10 inch fell on March 24) in **Las Vegas**, which recently completed their driest water year (July-June period) on record, with 0.77 inch (17 percent of normal). Despite the rain **Las Vegas'** year-to-date rainfall stood at 0.62 inch (24 percent of normal). Similarly, July 1-21 rainfall totaled 1.69 inches (116 percent of normal) in **Flagstaff, AZ**, boosting their year-to-date precipitation to 2.91 inches (26 percent). Farther east, however, it was the driest January 1 - July 21 period on record in locations such as **Scottsbluff, NE** (2.15 inches, or 20 percent of normal) **Pueblo, CO** (2.03 inches, or 29 percent), and **Goodland, KS** (4.74 inches, or 37 percent). In the **Midwest**, month-to-date (July 1-21) rainfall remained as low as 0.13 inch (6 percent of normal) in **North Platte, NE**, 0.24 inch (9 percent) in **Dayton, OH**, and 0.33 inch (12 percent) in **Rockford, IL**. In contrast, July 1-21 rainfall reached 16.92 inches in **San Antonio, TX**, their second-highest monthly total behind only an 18.07-inch sum in October 1998. Some of the week's heaviest rain fell across **northern Arkansas**, where 24-hour totals on July 18-19 reached 5.27 inches in **Black Rock** and 4.13 inches in **Salem**.

Once again, **Hawaiian** showers were generally light and confined to windward locations. Through July 21, month-to-date rainfall in **Hawaii** included 0.10 inch (33 percent of normal) in **Honolulu, Oahu**, and 3.99 inches (56 percent) in **Hilo, on the Big Island**. Meanwhile, warm, dry weather overspread much of **Alaska**. **McGrath, AK**, posted a daily-record high of 84°F on July 18, their third consecutive day with a maximum temperatures of 80°F or higher. Wet weather was confined to parts of **south-central Alaska**, where **Kodiak's** July 1-21 precipitation totaled 4.09 inches (140 percent of normal).



National Weather Data for Selected Cities

Weather Data for the Week Ending July 20, 2002

Data Provided by Climate Prediction Center (301-763-8000, Ext. 7503)

STATES AND STATIONS	TEMPERATURE EF						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. EF		PRECIP	
																90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	5.0 INCH OR MORE
AL BIRMINGHAM	90	71	92	69	80	0	0.34	-0.86	0.33	12.32	173	34.89	108	95	55	3	0	2	0
AL HUNTSVILLE	88	70	94	68	79	-1	0.56	-0.46	0.21	5.63	79	26.33	77	97	65	2	0	4	0
AL MOBILE	93	73	96	71	83	1	1.34	-0.18	1.01	7.13	78	25.80	67	93	62	6	0	2	1
AL MONTGOMERY	94	72	96	70	83	1	0.24	-1.00	0.20	6.64	86	19.53	59	96	53	7	0	3	0
AK ANCHORAGE	70	54	76	49	62	3	0.22	-0.15	0.22	1.36	69	3.08	59	80	62	0	0	1	0
AK BARROW	57	39	69	33	48	7	0.00	-0.19	0.00	0.64	81	1.13	84	92	77	0	0	0	0
AK FAIRBANKS	77	56	82	53	67	4	0.01	-0.37	0.01	2.61	107	6.86	154	81	55	0	0	1	0
AK JUNEAU	63	49	69	46	56	-1	0.48	-0.45	0.21	6.34	108	19.44	79	96	85	0	0	4	0
AK KODIAK	57	49	67	45	53	-1	2.97	2.08	1.21	10.82	133	41.86	107	97	86	0	0	5	3
AK NOME	64	48	77	40	56	3	0.13	-0.35	0.10	1.52	65	6.81	114	90	66	0	0	2	0
AZ FLAGSTAFF	80	55	88	47	67	1	1.49	0.92	0.99	1.69	98	2.91	26	84	33	0	0	6	1
AZ PHOENIX	105	84	109	74	94	1	0.77	0.54	0.77	0.77	126	0.96	26	42	28	7	0	1	1
AZ TUCSON	96	74	104	65	85	-2	1.41	0.92	0.96	1.52	113	2.20	48	68	42	7	0	3	1
AZ YUMA	106	84	108	82	95	1	0.00	-0.04	0.00	0.00	0	0.17	15	48	26	7	0	0	0
AR FORT SMITH	89	70	96	68	80	-2	0.70	0.00	0.58	4.88	76	28.65	117	99	66	3	0	2	1
AR LITTLE ROCK	85	70	93	68	78	-5	1.13	0.41	0.77	3.38	55	25.92	91	98	66	1	0	5	1
CA BAKERSFIELD	100	73	105	69	87	3	0.00	0.00	0.00	0.00	0	1.59	34	50	34	7	0	0	0
CA FRESNO	100	69	105	66	85	3	0.00	0.00	0.00	0.02	9	2.73	35	58	36	7	0	0	0
CA LOS ANGELES	75	64	79	64	70	1	0.00	0.00	0.00	0.04	50	1.56	17	87	67	0	0	0	0
CA REDDING	100	65	106	59	82	0	0.00	0.00	0.00	0.00	0	10.86	50	60	32	7	0	0	0
CA SACRAMENTO	91	57	99	53	74	-2	0.00	0.00	0.00	0.00	0	8.37	70	87	29	4	0	0	0
CA SAN DIEGO	71	64	75	62	68	-3	0.00	0.00	0.00	0.00	0	1.58	21	85	76	0	0	0	0
CA SAN FRANCISCO	70	55	74	54	62	-1	0.00	0.00	0.00	0.00	0	5.96	45	89	72	0	0	0	0
CA STOCKTON	94	58	100	53	76	-2	0.00	0.00	0.00	0.00	0	4.61	51	78	45	6	0	0	0
CO ALAMOSA	87	44	89	42	66	2	0.18	-0.02	0.07	0.47	43	1.46	45	86	32	0	0	5	0
CO CO SPRINGS	90	57	92	55	74	4	0.00	-0.63	0.00	1.69	43	3.26	34	66	17	3	0	0	0
CO DENVER INTL	94	62	96	57	78	5	0.00	-0.53	0.00	2.84	94	5.07	62	55	17	7	0	0	0
CO GRAND JUNCTION	97	70	105	66	84	7	0.00	-0.15	0.00	0.08	11	1.76	38	38	25	6	0	0	0
CO PUEBLO	99	62	101	60	80	4	0.00	-0.46	0.00	1.07	43	1.99	29	59	28	7	0	0	0
CT BRIDGEPORT	84	68	94	63	76	2	0.33	-0.52	0.33	4.99	84	20.10	81	82	58	1	0	1	0
CT HARTFORD	88	64	94	57	76	2	1.32	0.52	1.08	6.79	110	21.89	87	88	47	2	0	3	1
DC WASHINGTON	90	72	94	65	81	2	1.38	0.54	1.38	5.31	98	16.10	75	85	47	6	0	1	1
DE WILMINGTON	88	67	92	61	78	1	0.21	-0.78	0.20	6.14	97	19.00	79	88	38	3	0	2	0
FL DAYTONA BEACH	94	76	97	73	85	3	0.19	-0.92	0.15	18.32	202	28.80	117	96	52	7	0	3	0
FL JACKSONVILLE	95	74	98	71	84	2	0.58	-0.75	0.38	7.89	85	20.45	77	95	50	7	0	2	0
FL KEY WEST	90	80	92	75	85	0	2.41	1.75	2.41	8.77	133	17.38	98	85	65	6	0	1	1
FL MIAMI	91	79	94	78	85	1	0.42	-0.75	0.40	26.83	218	41.08	148	87	66	6	0	3	0
FL ORLANDO	93	75	96	71	84	2	1.84	0.26	1.02	18.74	154	27.51	103	95	58	7	0	4	2
FL PENSACOLA	95	76	99	73	85	2	0.45	-1.39	0.20	9.05	78	25.84	71	89	59	6	0	3	0
FL TALLAHASSEE	97	74	101	72	85	3	0.49	-1.34	0.27	5.78	48	26.17	71	91	47	7	0	3	0
FL TAMPA	91	79	96	76	85	2	0.46	-0.97	0.41	16.69	174	25.56	116	89	64	6	0	3	0
FL WEST PALM	91	77	94	76	84	1	0.33	-0.95	0.33	26.07	223	44.01	144	90	69	7	0	1	0
GA ATHENS	92	71	94	69	82	2	0.01	-0.98	0.01	6.72	100	24.86	89	89	53	6	0	1	0
GA ATLANTA	92	72	94	69	82	2	0.01	-1.19	0.01	3.41	49	22.05	74	85	50	6	0	1	0
GA AUGUSTA	96	71	100	69	84	3	0.00	-0.88	0.00	7.14	106	19.30	74	90	44	7	0	0	0
GA COLUMBUS	95	76	99	73	85	3	0.34	-0.85	0.34	7.36	109	23.38	80	85	42	7	0	1	0
GA MACON	98	72	101	70	85	4	0.00	-0.98	0.00	2.09	33	18.40	68	91	38	7	0	0	0
GA SAVANNAH	95	75	98	74	85	3	0.10	-1.23	0.10	13.06	141	23.89	90	97	56	7	0	1	0
HI HILO	84	70	85	69	77	1	0.71	-1.77	0.28	11.27	79	89.36	132	88	77	0	0	6	0
HI HONOLULU	87	75	88	73	81	0	0.07	-0.04	0.04	0.17	25	9.33	98	78	68	0	0	2	0
HI KAHULUI	86	70	87	66	78	-1	0.00	-0.11	0.00	0.26	54	9.29	82	82	73	0	0	0	0
HI LIHUE	84	74	85	72	79	0	0.29	-0.19	0.12	2.00	64	21.45	105	87	78	0	0	6	0
ID BOISE	96	70	101	63	83	8	0.07	0.00	0.07	0.27	27	3.30	44	53	31	6	0	1	0
ID LEWISTON	93	67	97	59	80	6	0.00	-0.14	0.00	1.55	97	6.22	81	56	37	6	0	0	0
ID POCATELLO	91	59	100	56	75	5	0.00	-0.14	0.00	0.46	35	4.39	58	67	42	3	0	0	0
IL CHICAGO/O'HARE	89	65	92	56	77	3	0.00	-0.75	0.00	6.92	120	19.81	105	82	47	3	0	0	0
IL MOLINE	88	65	93	56	77	1	0.27	-0.60	0.17	5.49	76	19.49	92	89	55	3	0	2	0
IL PEORIA	90	67	95	57	78	3	0.14	-0.77	0.14	4.86	75	22.02	109	93	49	2	0	1	0
IL ROCKFORD	90	63	93	54	76	3	0.00	-0.88	0.00	7.81	104	18.96	94	88	49	3	0	0	0
IL SPRINGFIELD	88	64	92	56	76	-1	0.01	-0.76	0.01	6.19	103	26.47	132	99	58	2	0	1	0
IN EVANSVILLE	89	69	92	65	79	0	0.04	-0.80	0.03	3.07	47	27.97	106	96	58	3	0	2	0
IN FORT WAYNE	89	65	90	59	77	3	0.37	-0.40	0.35	3.70	58	20.52	100	92	50	2	0	2	0
IN INDIANAPOLIS	87	66	90	61	77	1	0.45	-0.54	0.37	4.22	61	25.52	110	98	61	1	0	2	0
IN SOUTH BEND	88	65	90	56	77	4	0.00	-0.81	0.00	2.63	40	18.93	91	80	50	1	0	0	0
IA BURLINGTON	88	64	92	54	76	0	1.41	0.41	0.86	8.08	109	24.05	113	96	51	2	0	2	2
IA CEDAR RAPIDS	86	63	92	54	75	0	0.07	-0.81	0.06	7.41	104	18.54	100	99	57	2	0	2	0
IA DES MOINES	89	68	97	61	78	2	0.08	-0.83	0.08	9.07	126	18.79	96	88	61	3	0	1	0
IA DUBUQUE	84	63	88	56	74	1	0.95	0.15	0.74	11.25	176	22.66	118	92	62	0	0	2	1
IA SIOUX CITY	92	65	99	57	78	3	0.00	-0.73	0.00	4.86	85	12.32	80	91	66	5	0	0	0
IA WATERLOO	88	64	91	56	76	2	0.01	-0.90	0.01	5.28	70	14.85	78	99	62	4	0	1	0
KS CONCORDIA	98	71	106	59	85	6	0.00	-0.96	0.00	0.98	15	8.09	47	77	34	7	0	0	0
KS DODGE CITY	97	67	102	61	82	2	0.00	-0.72	0.00	1.72	33	5.45	40	90	33	6	0	0	0
KS GOODLAND	98	65	101	58	81	6	0.00	-0.80	0.00	1.90	34	4.66	37	74	26	7	0	0	0
KS TOPEKA	94	68	100	59	81	2	0.04	-0.79	0.04	4.18	56	16.68	83	92	48	6	0	1	0

Weather Data for the Week Ending July 20, 2002

STATES AND STATIONS	TEMPERATURE EF						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. EF		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
KY WICHITA	95	70	101	65	83	2	0.00	-0.72	0.00	5.65	88	16.37	92	87	45	6	0	0	0
KY JACKSON	83	67	86	64	75	0	1.53	0.50	1.33	8.68	113	31.31	111	10	67	0	0	5	1
KY LEXINGTON	88	68	91	64	78	2	1.01	-0.08	0.67	4.12	54	25.03	92	94	59	1	0	3	1
KY LOUISVILLE	89	71	91	66	80	1	0.18	-0.81	0.10	4.85	75	30.24	115	93	54	2	0	2	0
LA PADUCAH	89	70	94	68	79	1	0.01	-0.99	0.01	2.30	30	32.06	111	97	55	3	0	1	0
LA BATON ROUGE	91	73	94	70	82	0	0.38	-0.96	0.38	6.04	66	27.67	76	95	57	5	0	1	0
LA LAKE CHARLES	89	73	93	72	81	-2	1.47	0.33	0.81	17.03	179	33.23	105	97	61	4	0	4	2
LA NEW ORLEANS	92	76	95	73	84	1	1.26	-0.09	1.22	8.22	74	23.05	62	88	62	6	0	2	1
LA SHREVEPORT	89	72	95	69	80	-4	2.52	1.65	2.48	5.12	66	21.15	69	96	61	4	0	2	1
ME CARIBOU	73	52	77	46	62	-4	1.06	0.19	0.58	8.35	146	22.87	119	99	61	0	0	6	1
ME PORTLAND	78	60	83	55	69	0	1.66	0.92	1.03	6.65	123	24.57	99	92	61	0	0	6	2
MD BALTIMORE	89	68	93	62	79	2	0.74	-0.14	0.74	3.88	66	17.25	74	84	54	6	0	1	1
MA BOSTON	82	65	91	60	73	-1	0.26	-0.40	0.19	5.64	109	21.41	93	82	52	1	0	3	0
MA WORCESTER	79	61	85	54	70	-1	0.66	-0.28	0.32	6.18	93	23.43	89	94	58	0	0	4	0
MI ALPENA	85	60	92	55	72	5	0.08	-0.63	0.08	4.60	104	15.47	106	91	44	2	0	1	0
MI GRAND RAPIDS	88	64	91	55	76	4	0.10	-0.68	0.10	2.15	36	15.43	81	90	49	1	0	1	0
MI HOUGHTON LAKE	88	58	93	49	73	6	0.00	-0.58	0.00	2.14	47	13.42	93	88	46	2	0	0	0
MI LANSING	87	60	91	51	74	3	0.20	-0.35	0.18	2.94	55	12.81	77	86	52	2	0	2	0
MI MUSKOGON	85	64	88	53	75	5	0.03	-0.45	0.03	4.13	105	15.36	96	88	53	0	0	1	0
MI TRAVERSE CITY	87	63	92	56	75	5	0.00	-0.67	0.00	2.42	45	14.65	85	90	44	2	0	0	0
MN DULUTH	81	61	87	52	71	5	0.00	-0.93	0.00	9.04	129	16.71	106	90	58	0	0	0	0
MN INT'L FALLS	87	62	92	58	75	9	0.08	-0.64	0.08	11.33	181	15.29	121	96	52	1	0	1	0
MN MINNEAPOLIS	87	70	92	66	79	5	0.54	-0.34	0.53	11.56	167	19.87	123	83	63	2	0	2	1
MN ROCHESTER	83	63	86	58	73	3	1.41	0.36	0.80	10.21	147	18.65	109	95	77	0	0	3	2
MN ST. CLOUD	86	63	93	56	75	5	0.21	-0.48	0.18	7.82	117	16.83	115	96	60	2	0	2	0
MS JACKSON	92	71	94	69	81	0	1.67	0.60	0.71	7.41	108	30.00	89	95	57	5	0	4	1
MS MERIDIAN	93	71	96	69	82	0	0.16	-1.12	0.08	5.41	71	22.34	62	99	61	6	0	2	0
MS TUPELO	89	71	91	70	80	-1	0.84	0.03	0.59	6.38	87	34.38	101	97	66	4	0	4	1
MO COLUMBIA	87	65	94	59	76	-2	0.05	-0.80	0.05	5.21	81	24.79	110	94	58	2	0	1	0
MO KANSAS CITY	93	68	100	62	81	2	0.00	-1.01	0.00	2.21	30	17.17	82	95	48	5	0	0	0
MO SAINT LOUIS	91	70	97	63	80	-1	0.40	-0.49	0.26	6.19	98	25.91	117	81	50	5	0	2	0
MO SPRINGFIELD	86	66	92	62	76	-3	1.99	1.23	1.66	4.34	57	25.93	105	95	69	2	0	5	1
MT BILLINGS	96	67	108	64	82	10	0.08	-0.19	0.05	1.54	56	5.53	58	65	23	6	0	2	0
MT BUTTE	85	54	95	50	70	7	0.44	0.14	0.22	3.28	109	6.42	81	86	27	1	0	4	0
MT GLASGOW	94	66	103	62	80	10	0.19	-0.19	0.09	5.72	169	8.29	119	85	45	5	0	3	0
MT GREAT FALLS	92	64	101	59	78	11	0.61	0.31	0.36	6.16	196	9.45	102	70	24	5	0	3	0
MT HAVRE	92	62	97	57	77	8	0.15	-0.18	0.13	6.62	229	9.05	127	82	46	5	0	2	0
MT KALISPELL	88	59	93	50	74	10	0.02	-0.27	0.02	2.78	85	7.40	72	83	41	2	0	1	0
MT MISSOULA	92	60	96	53	76	9	0.10	-0.12	0.07	3.32	137	8.05	98	82	48	5	0	2	0
NE GRAND ISLAND	97	68	105	59	82	6	0.00	-0.69	0.00	1.74	30	8.34	53	80	42	6	0	0	0
NE LINCOLN	96	67	103	57	82	4	0.00	-0.80	0.00	1.40	24	11.24	68	87	40	6	0	0	0
NE NORFOLK	97	67	104	56	82	7	0.00	-0.83	0.00	3.47	51	9.27	56	80	42	6	0	0	0
NE NORTH PLATTE	99	65	104	56	82	7	0.00	-0.72	0.00	2.33	45	5.83	46	75	23	7	0	0	0
NE OMAHA	95	71	104	62	83	6	0.01	-0.86	0.01	3.00	46	12.02	69	78	46	6	0	1	0
NE SCOTTSBLUFF	100	63	102	59	82	9	0.00	-0.47	0.00	0.60	15	2.18	20	66	26	7	0	0	0
NE VALENTINE	102	68	107	60	85	11	0.00	-0.77	0.00	1.03	20	6.74	55	65	24	7	0	0	0
NV ELY	88	53	96	46	71	3	0.16	0.04	0.16	0.24	25	2.28	40	63	25	2	0	1	0
NV LAS VEGAS	103	81	110	72	92	0	0.35	0.25	0.35	0.35	125	0.45	18	40	27	7	0	1	0
NV RENO	91	62	97	57	77	5	0.01	-0.02	0.01	0.24	40	2.90	64	60	28	4	0	1	0
NV WINNEMUCCA	93	54	100	46	74	1	0.00	-0.04	0.00	0.12	14	3.89	77	64	28	5	0	0	0
NH CONCORD	81	57	88	47	69	-1	0.62	-0.12	0.49	6.02	115	20.67	103	96	52	0	0	3	0
NJ NEWARK	91	72	98	68	82	4	1.13	0.03	1.13	6.98	110	20.39	79	74	44	5	0	1	1
NM ALBUQUERQUE	89	66	95	62	77	-2	0.26	-0.02	0.23	0.91	69	1.73	44	66	31	3	0	3	0
NY ALBANY	86	63	91	58	74	2	0.18	-0.57	0.18	5.88	99	20.12	97	88	47	2	0	1	0
NY BINGHAMTON	82	62	88	59	72	3	0.67	-0.09	0.65	8.25	135	25.36	120	89	52	0	0	3	1
NY BUFFALO	84	65	88	60	75	4	0.13	-0.54	0.12	1.73	30	21.26	102	89	51	0	0	2	0
NY ROCHESTER	86	63	94	59	74	3	0.06	-0.56	0.06	4.48	85	20.43	115	86	55	1	0	1	0
NY SYRACUSE	85	61	93	58	73	2	0.01	-0.89	0.01	6.07	95	22.52	108	89	49	1	0	1	0
NC ASHEVILLE	85	65	87	63	75	2	0.13	-0.72	0.13	6.53	95	21.02	77	94	58	0	0	1	0
NC CHARLOTTE	91	70	95	69	81	1	0.51	-0.34	0.32	2.28	39	17.59	72	93	48	5	0	3	0
NC GREENSBORO	87	70	90	68	79	1	0.39	-0.63	0.39	5.99	94	16.57	68	87	54	4	0	1	0
NC HATTERAS	86	76	92	72	81	2	1.14	0.02	0.94	8.36	125	27.94	98	95	72	2	0	2	1
NC RALEIGH	92	71	96	68	82	3	0.75	-0.24	0.71	5.20	84	18.93	78	95	51	5	0	3	1
NC WILMINGTON	93	75	97	73	84	3	3.12	1.36	1.97	7.11	70	18.34	61	97	52	5	0	3	2
ND BISMARCK	95	65	106	60	80	9	0.08	-0.49	0.08	3.20	75	6.15	63	83	47	5	0	1	0
ND DICKINSON	94	64	102	60	79	9	0.51	0.08	0.51	4.24	88	7.21	70	89	33	6	0	1	1
ND FARGO	87	68	91	64	78	7	0.40	-0.22	0.28	9.14	169	14.74	124	86	52	1	0	2	0
ND GRAND FORKS	86	66	90	62	76	6	0.34	-0.33	0.34	10.14	203	13.02	123	96	59	1	0	1	0
ND JAMESTOWN	88	65	95	57	77	6	0.53	-0.19	0.50	4.64	90	6.97	65	96	54	3	0	2	1
ND WILLISTON	93	66	100	62	80	11	0.22	-0.29	0.22	6.06	156	9.97	118	85	47	6	0	1	0
OH AKRON-CANTON	88	64	92	59	76	4	0.32	-0.59	0.32	3.52	58	22.76	106	86	55	2	0	1	0
OH CINCINNATI	89	65	92	62	77	0	0.43	-0.40	0.28	4.37	64	27.13	109	96	52	3	0	2	0
OH CLEVELAND	86	65	91	59	76	4	0.00	-0.76	0.00	1.36	22	19.57	94	85	45	2	0	0	0
OH COLUMBUS	89	68	92	64	78	3	0.28	-0.76	0.28	3.88	55	21.61	99	90	58	3	0	1	0
OH DAYTON	89	67	93	60	78	3	0.09	-0.73	0.09	3.36	51	22.00	96	91	45	3	0	1	0
OH MANSFIELD	89	65	92	57	77	6	0.01	-0.90	0.01	4.31	60	21.43	89	90	38	3	0	1	0

Based on 1971-2000 normals

Weather Data for the Week Ending July 20, 2002

STATES AND STATIONS	TEMPERATURE EF						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. EF		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OK TOLEDO	92	69	95	60	81	8	0.00	-0.57	0.00	2.03	36	16.91	92	76	41	6	0	0	0
OK YOUNGSTOWN	86	61	91	55	74	4	0.67	-0.25	0.36	5.62	84	23.49	113	85	49	1	0	2	0
OK OKLAHOMA CITY	90	70	93	67	80	-2	0.28	-0.35	0.28	7.90	119	20.81	100	97	57	4	0	1	0
OK TULSA	92	73	97	67	83	-1	0.03	-0.60	0.03	4.04	60	18.92	79	91	64	6	0	1	0
OR ASTORIA	68	57	72	48	62	2	0.02	-0.20	0.02	2.53	74	35.66	98	89	76	0	0	1	0
OR BURNS	92	52	95	44	72	6	0.01	-0.07	0.01	0.41	46	3.47	55	65	30	6	0	1	0
OR EUGENE	83	52	87	46	67	0	0.00	-0.12	0.00	0.68	35	19.29	69	88	65	0	0	0	0
OR MEDFORD	92	60	95	56	76	3	0.00	-0.06	0.00	0.11	13	6.70	68	69	28	5	0	0	0
OR PENDLETON	91	62	96	55	76	3	0.00	-0.08	0.00	1.32	129	6.06	83	51	36	6	0	0	0
OR PORTLAND	80	59	84	53	70	1	0.00	-0.13	0.00	1.76	85	19.13	95	82	65	0	0	0	0
OR SALEM	82	54	86	49	68	1	0.00	-0.10	0.00	1.33	71	21.57	99	85	65	0	0	0	0
PA ALLENTOWN	89	63	96	57	76	2	0.48	-0.48	0.42	5.16	77	19.12	78	83	50	4	0	3	0
PA ERIE	83	65	88	60	74	2	0.00	-0.68	0.00	2.94	46	24.92	118	82	59	0	0	0	0
PA MIDDLETOWN	91	69	96	65	80	4	0.14	-0.66	0.08	2.65	43	18.69	82	88	41	5	0	2	0
PA PHILADELPHIA	90	71	95	66	80	2	1.29	0.27	1.10	5.54	91	18.29	78	80	54	5	0	2	1
PA PITTSBURGH	88	65	93	62	77	4	0.08	-0.80	0.08	2.89	43	17.24	79	93	46	3	0	1	0
PA WILKES-BARRE	87	63	95	57	75	3	1.32	0.49	1.32	5.37	82	18.76	91	89	42	2	0	1	1
PA WILLIAMSPORT	90	64	97	60	77	4	0.30	-0.60	0.29	4.80	66	21.28	92	80	53	5	0	2	0
RI PROVIDENCE	85	64	95	58	75	1	0.07	-0.62	0.07	3.50	65	20.92	82	83	50	2	0	1	0
SC BEAUFORT	96	77	100	74	87	5	1.16	-0.06	1.16	10.58	114	19.72	75	96	46	7	0	1	1
SC CHARLESTON	95	76	100	73	86	4	2.53	1.18	2.50	10.23	104	23.58	86	96	48	7	0	2	1
SC COLUMBIA	97	74	102	73	86	4	0.00	-1.24	0.00	0.63	7	19.60	71	82	42	7	0	0	0
SC GREENVILLE	91	71	94	69	81	2	0.01	-1.06	0.01	3.53	52	19.48	67	87	49	5	0	1	0
SD ABERDEEN	94	68	98	60	81	9	0.31	-0.32	0.31	2.45	45	6.29	51	89	61	6	0	1	0
SD HURON	100	70	110	62	85	11	0.00	-0.63	0.00	1.47	28	7.11	54	84	36	7	0	0	0
SD RAPID CITY	100	68	106	61	84	12	0.34	-0.09	0.00	1.24	30	6.09	56	66	25	6	0	1	0
SD SIOUX FALLS	92	69	101	59	80	7	0.00	-0.63	0.00	3.68	68	9.64	68	83	56	5	0	0	0
TN BRISTOL	86	66	89	63	76	2	0.97	0.00	0.76	5.81	87	20.27	81	10	54	0	0	3	1
TN CHATTANOOGA	91	71	93	69	81	1	0.72	-0.37	0.60	4.16	58	24.80	77	93	57	6	0	2	1
TN KNOXVILLE	86	70	89	69	78	0	0.63	-0.46	0.25	7.37	103	33.83	114	95	62	0	0	3	0
TN MEMPHIS	87	72	92	70	79	-4	1.75	0.80	0.95	4.39	61	29.60	92	93	66	1	0	6	1
TX NASHVILLE	87	70	89	69	79	0	0.22	-0.63	0.17	5.68	87	30.29	108	92	60	0	0	2	0
TX ABILENE	89	70	91	67	79	-5	0.00	-0.33	0.00	8.67	210	18.01	148	96	58	3	0	0	0
TX AMARILLO	93	65	96	59	79	1	0.00	-0.58	0.00	1.93	39	7.02	63	80	6	0	0	0	0
TX AUSTIN	87	73	91	70	80	-4	1.75	1.36	0.93	11.37	225	16.97	91	94	74	3	0	5	2
TX BEAUMONT	90	73	94	71	81	-2	2.24	1.10	1.34	9.13	90	21.08	65	10	63	4	0	3	2
TX BROWNSVILLE	92	76	95	75	84	0	0.07	-0.27	0.07	2.73	66	6.63	55	93	66	6	0	1	0
TX CORPUS CHRISTI	91	75	94	74	83	-1	1.22	0.83	1.00	5.23	109	9.14	59	99	67	5	0	2	1
TX DEL RIO	92	73	95	70	83	-2	0.21	-0.23	0.12	3.46	94	6.86	67	92	65	6	0	2	0
TX EL PASO	90	69	96	67	79	-4	0.72	0.39	0.32	1.63	93	2.85	82	87	46	5	0	6	0
TX FORT WORTH	90	74	94	71	82	-3	0.07	-0.39	0.05	5.28	117	29.60	147	90	56	5	0	2	0
TX GALVESTON	87	78	88	74	82	-2	2.62	1.87	1.29	8.94	141	19.70	89	92	75	0	0	3	2
TX HOUSTON	89	74	95	71	82	-2	1.36	0.71	0.80	11.65	156	21.72	83	10	77	4	0	4	2
TX LUBBOCK	92	67	94	64	79	-1	0.00	-0.44	0.00	4.28	97	9.19	92	86	44	7	0	0	0
TX MIDLAND	93	70	95	67	81	-1	0.22	-0.19	0.22	1.59	55	4.01	58	87	47	7	0	1	0
TX SAN ANGELO	91	70	94	64	81	-2	0.06	-0.13	0.06	2.90	90	6.40	59	89	53	5	0	1	0
TX SAN ANTONIO	88	75	91	73	81	-3	1.20	0.81	0.85	18.42	326	26.48	145	95	63	4	0	4	1
TX VICTORIA	89	74	93	72	82	-2	3.47	2.87	1.74	10.48	150	17.72	81	98	70	5	0	2	2
TX WACO	90	73	96	71	82	-4	1.26	0.77	1.14	5.20	115	14.97	80	94	65	4	0	3	1
TX WICHITA FALLS	93	71	98	68	82	-3	0.05	-0.24	0.05	6.50	137	17.74	109	93	55	6	0	1	0
UT SALT LAKE CITY	94	69	101	64	82	4	0.09	-0.08	0.05	0.29	25	7.21	73	57	24	6	0	2	0
VT BURLINGTON	78	57	86	52	68	-3	0.00	-0.88	0.00	9.02	152	20.82	114	96	54	0	0	0	0
VA LYNCHBURG	87	67	93	61	77	2	0.91	-0.10	0.58	2.30	35	15.56	63	92	54	3	0	3	1
VA NORFOLK	90	74	96	71	82	2	1.49	0.30	0.73	5.91	85	22.32	88	92	55	4	0	3	2
VA RICHMOND	92	70	97	67	81	3	0.67	-0.41	0.67	2.58	40	17.28	71	86	51	6	0	1	1
VA ROANOKE	87	69	92	65	78	1	0.64	-0.27	0.41	3.21	51	14.35	59	88	63	2	0	4	0
VA WASH/DULLES	87	66	91	61	77	1	1.57	0.79	1.56	5.23	82	18.61	80	87	59	2	0	2	1
WA OLYMPIA	77	52	81	44	65	2	0.00	-0.15	0.00	1.98	83	29.09	107	91	66	0	0	0	0
WA QUILLAYUTE	66	53	70	46	60	1	0.08	-0.42	0.07	5.03	100	55.88	102	96	78	0	0	2	0
WA SEATTLE-TACOMA	75	56	79	52	66	0	0.00	-0.15	0.00	2.31	114	21.20	109	87	65	0	0	0	0
WA SPOKANE	88	59	92	54	74	5	0.00	-0.15	0.00	1.73	104	6.92	74	64	26	3	0	0	0
WA YAKIMA	92	57	95	50	74	5	0.00	-0.03	0.00	0.82	109	3.68	83	63	32	6	0	0	0
WV BECKLEY	79	64	82	61	71	0	1.04	-0.06	0.78	5.15	73	22.63	92	99	74	0	0	5	1
WV CHARLESTON	84	68	88	66	76	2	0.10	-1.00	0.05	4.79	67	24.09	96	99	64	0	0	3	0
WV ELKINS	82	62	86	56	72	2	1.01	-0.08	0.49	8.75	113	30.91	116	10	60	0	0	4	0
WV HUNTINGTON	84	67	89	65	76	0	0.11	-0.91	0.08	5.40	81	27.59	112	10	65	0	0	4	0
WI EAU CLAIRE	87	65	93	60	76	4	0.16	-0.69	0.16	7.56	112	19.42	114	94	49	2	0	1	0
WI GREEN BAY	84	62	91	56	73	3	0.08	-0.66	0.08	5.34	95	15.34	101	93	57	1	0	1	0
WI LA CROSSE	88	66	92	58	77	3	0.29	-0.65	0.19	7.64	113	17.39	98	93	41	3	0	2	0
WI MADISON	87	61	90	54	74	2	0.43	-0.42	0.43	4.13	63	15.00	83	90	49	1	0	1	0
WI MILWAUKEE	84	66	90	55	75	3	0.12	-0.65	0.12	4.19	72	14.75	79	81	58	1	0	1	0
WY CASPER	95	58	99	53	76	6	0.17	-0.13	0.09	1.45	64	4.23	51	72	38	6	0	2	0
WY CHEYENNE	92	60	93	57	76	8	0.00	-0.51	0.00	0.78	22	3.88	41	54	20	7	0	0	0
WY LANDER	93	61	101	58	77	6	0.67	0.48	0.47	1.07	63	5.11	61	60	34	4	0	3	0
WY SHERIDAN	95	64	107	57	80	11	1.77	1.55	1.06	2.44	87	6.27	67	70	33	6	0	4	2

Based on 1971-2000 normals

*** Not Available

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

Crop Progress and Condition

Week Ending July 21, 2002

Weekly U.S. Crop Progress and Condition Tables provided by USDA/NASS

Soybeans Percent Blooming				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
AR	48	34	67	42
IL	54	29	77	66
IN	37	22	77	68
IA	86	74	54	72
KS	50	32	70	61
KY	41	19	51	39
LA	68	55	86	81
MI	48	32	48	42
MN	73	50	49	62
MS	84	54	94	81
MO	40	19	38	48
NE	72	50	56	62
NC	19	13	24	23
ND	75	33	72	63
OH	43	19	67	68
SD	67	44	50	53
TN	51	27	52	35
WI	42	23	16	32
18 Sts	59	39	59	60
These 18 States planted 95% of last year's soybean acreage.				

Corn Percent Silking				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
CO	22	11	30	25
IL	59	29	83	68
IN	28	9	81	62
IA	62	25	30	45
KS	67	45	91	79
KY	70	57	88	75
MI	9	1	25	28
MN	61	8	16	47
MO	81	65	82	77
NE	63	31	59	55
NC	92	89	93	87
ND	41	5	33	38
OH	20	4	38	39
PA	28	13	38	36
SD	15	1	15	18
TN	98	93	99	88
TX	93	88	85	81
WI	11	3	8	25
18 Sts	51	24	52	53
These 18 States planted 93% of last year's corn acreage.				

Winter Wheat Percent Harvested				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
AR	100	100	100	100
CA	94	90	94	94
CO	98	91	79	88
ID	2	0	6	3
IL	99	96	99	98
IN	99	91	99	95
KS	100	100	100	100
MI	75	17	77	66
MO	100	100	100	100
MT	1	0	14	7
NE	93	80	67	78
NC	100	100	100	100
OH	99	90	98	89
OK	100	100	100	100
OR	31	17	14	10
SD	73	26	6	36
TX	100	99	99	99
WA	8	2	6	7
18 Sts	86	81	82	82
These 18 States harvested 90% of last year's winter wheat acreage.				

Soybeans Percent Setting Pods				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
AR	23	16	30	14
IL	11	2	27	19
IN	9	3	28	20
IA	27	12	12	23
KS	14	5	25	20
KY	10	5	25	16
LA	48	26	71	55
MI	5	1	16	11
MN	13	4	6	12
MS	60	41	80	59
MO	11	3	11	13
NE	16	10	13	11
NC	3	0	4	4
ND	23	6	25	19
OH	5	0	18	17
SD	18	7	10	18
TN	24	8	27	14
WI	0	0	0	6
18 Sts	16	6	19	18
These 18 States planted 95% of last year's soybean acreage.				

Corn Percent Dough				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
CO	1	0	3	2
IL	9	2	19	12
IN	2	0	10	8
IA	1	0	0	1
KS	13	8	25	21
KY	15	0	29	17
MI	0	0	0	0
MN	0	0	0	0
MO	30	14	33	27
NE	8	0	4	3
NC	62	41	55	55
ND	2	0	4	3
OH	0	0	4	4
PA	3	0	7	7
SD	0	0	0	1
TN	48	19	56	35
TX	67	63	60	62
WI	0	0	0	1
18 Sts	7	3	10	8
These 18 States planted 93% of last year's corn acreage.				

Peanuts Percent Pegging				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
AL	70	57	63	69
FL	87	83	76	81
GA	87	78	83	84
NC	95	80	89	76
OK	88	76	73	81
TX	73	65	74	67
VA	65	55	73	67
7 Sts	80	71	77	75
These 7 States planted 98% of last year's peanut acreage.				

Crop Progress and Condition

Week Ending July 21, 2002

Weekly U.S. Crop Progress and Condition Tables provided by USDA/NASS

Cotton Percent Squaring				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
AL	95	90	95	90
AZ	100	99	100	99
AR	100	97	100	100
CA	87	80	84	83
GA	97	95	92	94
LA	99	98	100	100
MS	98	95	100	98
MO	89	80	100	98
NC	96	94	84	84
OK	89	76	75	77
SC	92	81	73	87
TN	99	93	99	99
TX	82	75	88	88
VA	100	96	99	94
14 Sts	91	85	91	91

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

Cotton Percent Setting Bolls				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
AL	56	35	62	55
AZ	83	75	76	72
AR	79	56	96	78
CA	35	25	38	33
GA	78	64	63	66
LA	87	68	91	87
MS	85	67	87	85
MO	52	31	68	77
NC	60	40	46	43
OK	44	20	31	23
SC	38	27	35	38
TN	57	35	61	59
TX	44	27	57	45
VA	69	40	35	39
14 Sts	59	41	64	57

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

Sorghum Percent Headed				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
AR	77	68	86	69
CO	5	3	16	6
IL	12	6	39	18
KS	13	6	29	21
LA	89	80	93	84
MO	24	10	37	35
NE	11	2	3	7
NM	2	1	5	4
OK	33	22	37	18
SD	14	5	20	13
TX	65	64	66	61
11 Sts	35	30	43	36

These 11 States planted 97% of last year's sorghum acreage.

Sorghum Percent Coloring				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
AR	36	14	39	17
CO	0	0	0	0
IL	1	0	5	1
KS	1	0	4	1
LA	47	25	48	34
MO	2	0	3	2
NE	0	0	0	0
NM	0	0	0	0
OK	5	2	9	4
SD	9	0	0	1
TX	45	44	43	47
11 Sts	18	16	19	18

These 11 States planted 97% of last year's sorghum acreage.

Barley Percent Headed				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
ID	97	86	94	91
MN	97	95	91	96
MT	83	62	96	93
ND	90	79	92	87
WA	100	100	100	100
5 Sts	91	78	94	91

These 5 States planted 78% of last year's barley acreage.

Oats Percent Headed				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
IA	100	100	100	100
MN	98	95	96	98
NE	100	100	100	100
ND	87	80	90	86
OH	100	97	100	100
PA	94	92	93	97
SD	100	99	97	97
WI	93	87	93	99
8 Sts	95	91	95	95

These 8 States planted 49% of last year's oat acreage.

Oats Percent Harvested				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
IA	55	19	10	28
MN	6	0	0	5
NE	81	43	54	51
ND	0	0	0	0
OH	19	6	22	22
PA	32	8	22	17
SD	37	16	5	11
WI	3	0	5	8
8 Sts	21	7	9	13

These 8 States harvested 61% of last year's oat acreage.

Spring Wheat Percent Headed				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
ID	97	87	93	90
MN	96	92	94	96
MT	82	63	97	93
ND	92	79	90	87
SD	100	98	98	98
WA	100	100	100	100
6 Sts	92	80	94	91

These 6 States planted 98% of last year's spring wheat acreage.

Crop Progress and Condition

Week Ending July 21, 2002

Weekly U.S. Crop Progress and Condition Tables provided by USDA/NASS

Rice Percent Headed				
	Jul 21 2002	Prev Week	Prev Year	5-Yr Avg
AR	23	8	32	18
CA	5	0	13	3
LA	84	80	78	75
MS	39	15	40	35
MO	7	3	4	4
TX	92	83	83	76
6 Sts	35	24	39	29
These 6 States planted 100% of last year's rice acreage.				

Soybeans Crop Condition by Percent					
	VP	P	F	G	EX
AR	2	8	34	46	10
IL	6	16	43	32	3
IN	7	17	37	35	4
IA	4	9	27	46	14
KS	4	14	39	39	4
KY	2	7	27	49	15
LA	6	14	31	43	6
MI	7	19	36	35	3
MN	3	9	29	48	11
MS	1	6	20	50	23
MO	8	18	43	27	4
NE	18	31	35	14	2
NC	4	11	37	48	0
ND	6	13	23	51	7
OH	11	24	41	22	2
SD	12	23	36	28	1
TN	2	5	28	53	12
WI	4	11	30	44	11
18 Sts	7	15	35	36	7
Prev Wk	4	12	34	42	8
Prev Yr	3	9	33	45	10

Corn Crop Condition by Percent					
	VP	P	F	G	EX
CO	12	26	27	29	6
IL	7	17	41	32	3
IN	9	18	37	32	4
IA	5	10	26	45	14
KS	13	22	34	27	4
KY	1	6	32	48	13
MI	10	20	35	30	5
MN	4	10	27	47	12
MO	8	22	38	29	3
NE	17	17	35	25	6
NC	18	21	40	19	2
ND	7	11	28	50	4
OH	15	26	38	20	1
PA	9	19	34	32	6
SD	18	25	34	22	1
TN	4	10	28	45	13
TX	10	24	26	30	10
WI	5	11	31	42	11
18 Sts	9	16	33	35	7
Prev Wk	5	13	33	40	9
Prev Yr	3	9	29	45	14

Sorghum Crop Condition by Percent					
	VP	P	F	G	EX
AR	1	6	31	50	12
CO	16	35	38	10	1
IL	1	15	49	33	2
KS	12	29	36	22	1
LA	1	13	38	44	4
MO	4	12	46	34	4
NE	19	37	37	7	0
NM	27	32	33	8	0
OK	1	13	51	34	1
SD	26	34	34	6	0
TX	8	15	40	30	7
11 Sts	10	23	39	25	3
Prev Wk	7	18	39	31	5
Prev Yr	8	18	36	34	4

Cotton Crop Condition by Percent					
	VP	P	F	G	EX
AL	3	13	41	37	6
AZ	0	2	19	53	26
AR	2	5	37	46	10
CA	0	5	20	55	20
GA	3	10	35	41	11
LA	1	6	29	53	11
MS	0	4	15	57	24
MO	6	19	33	40	2
NC	1	4	41	50	4
OK	0	4	46	49	1
SC	3	12	67	18	0
TN	2	8	30	49	11
TX	8	15	32	33	12
VA	2	21	36	38	3
14 Sts	4	10	32	42	12
Prev Wk	4	10	32	44	10
Prev Yr	7	14	28	41	10

Peanuts Crop Condition by Percent					
	VP	P	F	G	EX
AL	3	9	47	33	8
FL	0	0	10	85	5
GA	1	8	32	47	12
NC	0	1	23	70	6
OK	0	4	25	62	9
TX	1	7	24	48	20
VA	1	10	25	61	3
7 Sts	1	7	29	51	12
Prev Wk	1	4	27	54	14
Prev Yr	2	9	30	47	12

Oats Crop Condition by Percent					
	VP	P	F	G	EX
IA	1	8	28	53	10
MN	4	10	33	47	6
NE	19	27	37	17	0
ND	16	20	32	31	1
OH	2	13	38	45	2
PA	1	7	39	46	7
SD	33	40	21	6	0
WI	2	9	25	53	11
8 Sts	12	18	30	36	4
Prev Wk	15	17	28	34	6
Prev Yr	2	6	31	52	9

Crop Progress and Condition

Week Ending July 21, 2002

Weekly U.S. Crop Progress and Condition Tables provided by USDA/NASS

Rice Crop Condition by Percent					
	VP	P	F	G	EX
AR	1	6	31	45	17
CA	0	0	35	65	0
LA	0	2	32	58	8
MS	0	5	11	63	21
MO	1	6	25	41	27
TX	0	0	19	59	22
6 Sts	1	4	29	52	14
Prev Wk	1	4	28	53	14
Prev Yr	0	3	28	54	15

Spring Wheat Crop Condition by Percent					
	VP	P	F	G	EX
ID	1	6	19	59	15
MN	8	16	41	31	4
MT	6	18	39	33	4
ND	10	14	33	39	4
SD	36	35	20	9	0
WA	1	10	51	34	4
6 Sts	11	17	34	34	4
Prev Wk	11	15	35	33	6
Prev Yr	7	7	23	50	13

Barley Crop Condition by Percent					
	VP	P	F	G	EX
ID	1	4	19	68	8
MN	10	15	37	33	5
MT	6	16	38	34	6
ND	6	9	34	47	4
WA	0	10	54	33	3
5 Sts	5	10	35	45	5
Prev Wk	5	10	32	47	6
Prev Yr	6	11	28	46	9

Pasture and Range Crop Condition by Percent											
Week Ending July 21, 2002											
	VP	P	F	G	EX		VP	P	F	G	EX
AL	2	11	40	41	6	NH	1	5	30	60	4
AZ	30	50	19	1	0	NJ	0	22	51	27	0
AR	0	4	30	57	9	NM	46	32	20	2	0
CA	5	70	25	0	0	NY	9	22	40	27	2
CO	60	32	7	1	0	NC	36	32	25	7	0
CT	10	11	40	39	0	ND	28	26	31	14	1
DE	36	39	14	9	2	OH	15	30	35	19	1
FL	0	0	20	80	0	OK	4	8	24	51	13
GA	6	23	43	26	2	OR	16	23	38	20	3
ID	1	15	36	43	5	PA	27	33	25	14	1
IL	12	27	39	20	2	RI	0	38	51	11	0
IN	10	21	44	24	1	SC	23	39	28	10	0
IA	16	29	36	18	1	SD	45	30	19	6	0
KS	30	25	24	17	4	TN	8	20	38	30	4
KY	4	14	33	40	9	TX	12	18	27	32	11
LA	4	11	34	47	4	UT	30	33	30	7	0
ME	0	2	17	49	32	VT	0	20	22	27	31
MD	26	31	32	11	0	VA	29	34	26	10	1
MA	0	3	60	37	0	WA	2	15	63	20	0
MI	13	27	32	25	3	WV	0	10	35	51	4
MN	7	17	35	36	5	WI	10	23	33	31	3
MS	3	6	25	54	12	WY	52	25	19	4	0
MO	8	19	39	29	5	48 Sts	18	24	29	25	4
MT	21	30	31	15	3	Prev Wk	16	23	30	26	5
NE	49	34	16	1	0	Prev Yr	10	21	33	32	4
NV	6	29	37	20	8						

VP - Very Poor P - Poor F - Fair G - Good EX - Excellent
NA - Not Available

National crop conditions for selected States are weighted based on the year 2001 planted acres.

CORRECTION: Last week's Pasture and Range table had the wrong date. The date should have been July 14, 2002.

National Agricultural Summary

July 15 - 21, 2002

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Crop conditions deteriorated across most of the Nation due to a combination of moisture shortages and extreme heat. Beneficial precipitation was isolated through most of the Great Plains and western Corn Belt, where moisture deficits were most severe. Much of the central and eastern Corn Belt received precipitation, but rainfall amounts were insufficient in most areas for healthy crop

development. Precipitation was also scattered and uneven in the Southeast, stressing crops along the Atlantic Coastal Plain in particular. The lower Mississippi Valley and western Gulf Coast received widespread, heavy rainfall, boosting vegetative and reproductive crop development, but also delaying harvest of mature crops.

Corn: Fifty-one percent of the crop was at or beyond the silking stage, and 7 percent was at or beyond the dough stage. Both stages were slightly behind last year and the 5-year average. Conditions deteriorated across most of the Corn Belt, as hot, dry weather prevailed. In a few isolated areas, storms provided beneficial heavy rainfall, but also produced strong winds and hail that damaged some fields. Silking rapidly advanced in the western Corn Belt and northern Great Plains, especially in Minnesota, where more than one-half of the acreage reached the silking stage during the week. In Iowa, Nebraska, and North Dakota, about one-third of the fields entered the silking stage. Some fields advanced to the dough stage, but progress in the Corn Belt was mostly confined to the lower Ohio and Missouri River Valleys.

Soybeans: Fifty-nine percent was blooming, and 16 percent was setting pods. Acreage at the bloom stage equaled progress on this date last year, but trailed the 60-percent average for this date. Acreage setting pods was slightly less than last year and the 5-year average of 19 and 18 percent, respectively. Vegetative growth was nearly nonexistent in many parts of the Corn Belt, as hot, dry weather forced root systems deep into the soil for much-needed moisture. The abnormal heat promoted rapid biological development, however, as over 40 percent of the North Dakota acreage entered the bloom stage. Elsewhere, up to one-fourth of the acreage reached the bloom stage in parts of the eastern Corn Belt, although progress remained far behind normal in Indiana and Ohio. In the western Corn Belt and northern Great Plains, fields were entering the bloom stage and setting pods much earlier than normal.

Cotton: Ninety-one percent of the acreage was at or beyond the squaring stage, matching last year's pace and the 5-year average. Fields setting bolls advanced to 59 percent, 5 percentage points less than progress on this date last year but ahead of the 57-percent average for this date. Rain and cooler-than-normal temperatures boosted crop conditions in the lower Mississippi Valley and western Gulf Coast. Meanwhile, hot, dry weather stressed many fields in the Southeast, especially along the Atlantic Coastal Plain. Moisture shortages also stressed dryland fields on the southern High Plains. Bolls were opening in 11 percent of the fields in Texas and some producers applied defoliant in preparation for harvest.

Winter Wheat: Harvest advanced to 86 percent, 4 percentage points more than last year and the average for this date. Hot weather quickly ripened remaining fields in the eastern Corn Belt, northern Great Plains, and Pacific Northwest, and dry weather supported rapid harvest. Michigan producers threshed well over one-half of their acreage during the week, and South Dakota growers reaped nearly one-half of their crop. In other areas of the eastern Corn Belt, harvest was nearly complete by the end of the week. Harvest gained momentum in the Pacific Northwest, especially in Oregon. Harvest began in Idaho and Montana, but progress was isolated.

Small grains: Barley and spring wheat at or beyond the heading stage advanced to 91 and 92 percent, respectively. Ninety-four percent of the barley and spring wheat were heading by this date last year and 91 percent would normally be heading on this date. Above-normal temperatures promoted rapid biological development across the northern Great Plains and Pacific Northwest, but hot, dry weather stunted vegetative growth. Montana's barley and spring wheat fields quickly deteriorated, as one-fifth of the acreage entered the heading stage. Fields also rapidly headed in Idaho and North Dakota.

Ninety-five percent of the oat crop was heading and 21 percent was harvested. Acreage at or beyond the heading stage matched last year and the average for this date. Harvest progress was well ahead of last year's 9-percent and the average of 13 percent. Abnormally hot weather quickly ripened fields across the Corn Belt and Great Plains. Heading neared completion ahead of normal in the Dakotas, but later than normal in Pennsylvania and Wisconsin. Harvest accelerated and progressed with few delays. Progress was especially rapid in Iowa and Nebraska, where well over one-third of the acreage was harvested during the week. Elsewhere, harvest was active in Pennsylvania and South Dakota, gained momentum in Ohio, and began in Minnesota and Wisconsin.

Rice: Thirty-five percent of the crop was heading, compared with last year's 39-percent and the 5-year average of 29 percent. Rain maintained constant flood water for developing fields in Arkansas and Texas. Many early-planted fields along the Gulf Coast were turning color and some were drained for harvest. Fields rapidly entered the heading stage in the interior Mississippi Delta, despite below-normal temperatures. In Mississippi, about one-fourth of the acreage reached the heading stage during the week.

Sorghum: Thirty-five percent was at or beyond the heading stage, and 18 percent was turning color. Both stages trailed last year's pace, when 43 percent was at or beyond the heading stage and 19 percent was turning color. Normally, 36 percent would be heading and 18 percent turning color by this date. Above-normal temperatures accelerated biological development in the central and northern Great Plains and central Corn Belt, but moisture shortages stunted vegetative growth. Meanwhile, cooler-than-normal weather limited biological progress in the southern Great Plains, lower Mississippi Valley, and southern Corn Belt. Rain promoted vegetative growth of late-planted fields in parts of the lower Mississippi Valley and southern Great Plains, but delayed harvest of mature fields along the western Gulf Coast.

Peanuts: Eighty percent of the acreage was pegging, 3 percentage points ahead of this date last year and 5 percentage points ahead of the 5-year average. Pegging progressed ahead of normal across most of the Southeast and southern Great Plains, but many dryland fields were stressed by moisture shortages.

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 5.7. Topsoil 9% very short, 28% short, 60% adequate, 3% surplus. Corn 90% silked, 96% 2001, 95% avg.; 20% dough, 60% 2001, avg not available. Corn 3% very poor, 13% poor, 39% fair, 38% good, 7% excellent. Soybeans 40% blooming, 34% 2001, 31% avg.; 14% setting pods, 21% 2001, 14% avg.; 1% very poor, 7% poor, 52% fair, 34% good, 6% excellent. Pasture, range feed 2% very poor, 11% poor, 40% fair, 41% good, 6% excellent. Livestock condition: 0% very poor, 3% poor, 17% fair, 62% good, 18% excellent. Parts of the state received much needed rainfall.

ALASKA: Days suitable for fieldwork 6.0. Topsoil 40% short, 60% adequate. Subsoil 25% short, 75% adequate. A thunder, lightning storm midweek provided some needed moisture to dry areas. Daytime high temperatures ranged from the mid sixties to mid eighties. Nighttime lows ranged from the low forties to low fifties. Barley 95% headed, 5% in dough. The oat 85% headed. Barley 10% fair, 45% good, 45% excellent. Oat 10% fair, 50% good and 40% excellent. The average height of the small grain crops was 28 inches. Potato 20% in bloom, 20% fair, 70% good, 10% excellent. Crop growth was reported as 10% slow, 70% moderate, 20% rapid. Range, pasture feed 10% poor, 20% fair, 50% good, 20% excellent. Hay harvest 90% complete. Condition of the hay crop was reported as 15% fair, 65% good, 20% excellent. Activities: Harvesting hay, vegetables, fertilizing, weed control, irrigation, fencing, equipment repair.

ARIZONA: Temperatures throughout most of the state continued to be above average. Monsoon conditions brought the first significant rainfall of the summer in most parts of the state. Cotton squaring was complete, while cotton setting bolls was reported at 83%, ahead of 2001 rate of 76%, ahead of the 5-yr avg of 72%. Cotton condition is mostly good.

ARKANSAS: Days suitable for fieldwork 4.3. Soil 3% very short, 12% short, 71% adequate, 14% surplus. Sorghum 77% headed, 86% 2001, 69% 5 yr. avg.; 36% turning color, 39% 2001, 17% 5 yr. avg.; 1% very poor, 6% poor, 31% fair, 50% good, 12% excellent; Corn 96% Tassling, 98% 2001, 99% 5 yr. avg.; 50% dough, 60% 2001, 61% 5 yr. avg.; 4% poor, 25% fair, 55% good, 16% excellent; Wheat 100% harvested, 100% 2001, 100% 5 yr. avg. Soybeans 99% planted, 100% 2001, 100% 5 yr. avg.; 97% emerged, 99% 2001, 99% 5 yr. avg.; 48% blooming, 67% 2001, 42% 5 yr. avg.; 23% setting pods, 30% 2001, 14% 5 yr. avg.; 2% very poor, 8% poor, 34% fair, 46% good, 10% excellent. Cotton 100% squaring, 100% 2001, 100% 5 yr. avg.; 79% setting bolls, 96% 2001, 78% 5 yr. avg.; 2% very poor, 5% poor, 37% fair, 46% good, 10% excellent. Rice 23% headed, 32% 2001, 18% 5 yr. avg.; 1% very poor, 6% poor, 31% fair, 45% good, 17% excellent. Other Hay 0% very poor, 3% poor, 30% fair, 60% good, 7% excellent; Pasture, range feed 0% very poor, 4% poor, 30% fair, 57% good, 9% excellent. FIELD CROP : Wheat harvest is complete. Soybean planting is winding down. Most irrigation had ceased as rainfall has benefitted sorghum, corn, cotton, but reactivated blast and sheath blight in rice fields. Grasshoppers are still being reported as a major threat to many fields. LIVESTOCK, PASTURE, RANGE: Cattle are in good condition. Producers are working cattle, vaccinating calves. Pasture land has received good rainfall with second hay cutting, baling put on hold due to excess moisture in the fields.

CALIFORNIA: Irrigation, cultivation, treatments to control diseases, pests continued in many fields. Wheat harvesting neared completion in the San Joaquin, Sacramento valleys, and commenced in the Central Coast region. Straw in harvested grain fields was baled, stacked. Alfalfa hay, seed fields continued to show robust growth. Alfalfa hay was cut, windrowed, baled, stacked in many areas. Bloom in cotton fields increased as rapid growth continued in most locations. Insecticides were applied as necessary to cotton fields to combat lygus, aphids. Oat harvesting continued. Field, silage corn progressed well due to good growing conditions. Silage corn was harvested. Harvesting of sugar beets continued with good sugar content noted. Recently planted fields of sugar beets, sweet potatoes developed well. Bloom in safflower fields was fading normally. Dry bean plantings thrived. Rice fields continued to show good development. Potato harvesting continued. Harvesting of table grapes remained active. Fruit maturity, color, quality continued to

improve. Varieties picked, packed included Flame Seedless, Thompson Seedless, Black Emerald. Raisin, wine, table grapes continued to show vigorous growth. Irrigation, cultivation, fungicide, insecticide applications continued in many vineyards. Some wine grape vineyards were thinned to improve quality. A steady harvest of stone fruit continued. Among the varieties picked and packed were: Arctic Queen, Fire Pearl nectarines; Diamond Princess, Vista peaches; Catalina, Friar plums; Dinosaur Egg, Flavor Queen pluots. Fertilizing, summer pruning activities commenced on harvested blocks of tree fruit. Irrigation, cultivation, weed, pest control treatments continued in stone fruit orchards not being harvested. Pomegranates, apples, persimmons, Asian pears continued to show good growth. Thinning of fuyu persimmon, pomegranates occurred in some locations. Fig harvesting continued. Strawberry harvesting continued in the Central Coast counties; patches in other locations were topped off or cleared in preparation for fall planting. Boysenberries, blackberries were harvested in small blocks. Treatments for the olive fruit fly continued where necessary. Fruit development continued at a steady rate in citrus orchards. The Valencia orange harvest remained slow; harvest is estimated at 50% complete. Grapefruit harvesting continued. Lemons were harvested in the coastal areas of the State. Hull split increased in almond orchards. Almond growers continued preparation of orchard floors for harvest. Walnuts, pistachios, pecans showed good size, development. Orchards were irrigated, treated for insect, disease pests. Codling moth treatment in walnut orchards ended in Tulare County, but remained active in other areas. Irrigation continued in walnut, pistachio, pecan orchards. Rapidly maturing cantaloupe, watermelon, honeydew melons were harvested in the west side districts of Fresno County. In the southern Central Valley, a steady harvest of fresh market, processing tomatoes, sweet corn, garlic, squash, cucumbers, eggplant, onions, bell peppers continued. Vegetables for later harvesting matured well. In the northern part of the State, harvesting of fresh market, processing tomatoes began in a few earlier planted fields. Full-scale harvesting was expected to begin in a few weeks. Planting of late tomato fields was nearly complete. The tomato crop continued to show high losses in some fields due to sunburn. Harvested red onions were packed in the field. In Monterey County, asparagus harvesting ended, celery harvesting reached its peak. Broccoli, cauliflower, leaf lettuce were in full production. In Merced County, harvesting of cucumbers, early watermelon, cantaloupe, fresh market tomatoes, bell peppers continued. The following vegetables were also harvested: carrots, Swiss chard, chives, garlic, okra, radishes, spinach. Scattered late movement of beef cows to higher summer pastures took place in central state. A few beef cows remained on dry foothill pastures in the central, northern part of the State. Many of these cows were receiving hay or protein supplement. Feeder cattle shipments from foothill pastures had mostly ended. Summer pasture feeds in mountain areas were mixed. Poor pastures were reported in the southern Sierra Nevada mountains. Sheep were grazing in harvested grain fields, fallow fields, old vineyards in central state. Milk production continued to suffer due to heat stress on dairy cows. Bees were active in melon, seed alfalfa fields in central state.

COLORADO: Days suitable for field work 6.9. Topsoil 68% very short, 24% short, 8% adequate, 0% surplus. Subsoil 72% very short, 25% short, 3% adequate, 0% surplus. Hot, dry conditions continued. Some produces near the end of irrigation water allocations. Spring barley 54% turning color, 78% 2001, 65% avg; 15% harvested, 15% 2001, 13% avg; condition 4% very poor, 6% poor, 35% fair, 37% good, 18% excellent. Spring wheat 48% turning color, 51% 2001, 49% avg; 13% harvested, 11% 2001, 9% avg; condition 6% very poor, 3% poor, 34% fair, 42% good, 15% excellent. Dry onions condition 1% very poor, 3% poor, 11% fair, 60% good, 25% excellent. Summer potatoes condition 1% very poor, 2% poor, 4% fair, 53% good, 40% excellent. Fall potatoes condition 0% very poor, 1% poor, 25% fair, 54% good, 20% excellent. Dry beans 37% flowered, 32% 2001, 33% avg; condition 10% very poor, 15% poor, 20% fair, 48% good, 7% excellent. Alfalfa 39% 2nd cutting, 38% 2001, 42% avg; condition 12% very poor, 14% poor, 31% fair, 34% good, 9% excellent.

DELAWARE: Days suitable for fieldwork 7.0. Topsoil 82% very short, 11% short, 7% adequate. Subsoil 61% very short, 33% short, 6% adequate. Barley 100% harvested, 100% 2001, 100% avg. Winter wheat

99% harvested, 94% 2001, 96% avg. Range, Pasture feed 36% very poor, 39% poor, 14% fair, 9% good, 2% excellent. Corn 44% very poor, 20% poor, 20% fair, 16% good, 82% silked, 62% 2001, 53% avg.; 14% dough, 17% 2001, 15% avg.; 51% very poor, 27% poor, 13% fair, 8% good 1% excellent, 9% headed avg. Snap beans 37% harvested, 34% 2001, 26% avg.; 40% very poor, 30% poor, 23% fair, 6% good, 1% excellent, 94% planted, 90% 2001, 90% avg.; 23% blooming, 19% 2001, 18% avg.; 6% setting pods, 4% avg. Apple 7% very poor, 14% poor, 26% fair, 48% good, 5% excellent. Cucumbers 31% harvested 23% 2001, 30% avg. Sweet corn 26% harvested, 20% 2001, 21% avg. Peaches 11% very poor, 15% poor, 23% fair, 41% good, 10% excellent, 33% harvested, 22% 2001, 19% avg. Watermelon 15% harvested, 13% 2001, 9% avg. Potatoes 28% harvested, 19% 2001, 22% avg. Tomatoes 5% harvested, 7% 2001, 11% avg. Cantaloupes 16% harvested, 14% 2001, 11% avg. Other Hay 23rd cutting 96%, 85% 2001, 80% avg. Other hay 3rd cutting 20%, 29% 2001, 36% avg. Alfalfa hay 2nd cutting 96%, 98% 2001, 93% avg. 3rd cutting 11%, 20% 2001, 27% avg. Hay supplies condition 7% very short, 18% short, 75% adequate. Hot, dry weather continues in Delaware, causing conditions in corn, soybeans to decline. Irrigated crops remain in mostly good condition.

FLORIDA: Topsoil 1% very short, 12% short, 32% adequate, 55% surplus. Subsoil 2% very short, 13% short, 30% adequate, 55% surplus. Rainfall range: less than 0.25 in. at Daytona Beach to almost 2.00 in. at Orlando. Temperature average: 1 to 3° above normal at major stations. Daytime highs: 90s; at least one daily high at 101, Tallahassee. Nighttime lows: 70s, 80s. Peanut 10% fair, 85% good, 5% excellent; extreme heat hindering some blooming; producers irrigating in drier localities; water standing in low areas of some fields located in wetter areas. Peanuts pegged 87%; 2001, 76%; 5-year average, 81%. Scattered nature of recent rains left some areas with surplus soil moisture supplies, some localities reporting very short to short supplies. Most Panhandle, northern Peninsula soil moisture supplies rated short to adequate. Central southern Peninsula soil moisture supplies range from very short to surplus. Heat affecting growth of some cotton, other field crops. Armyworm, grass looper infestations increasing, especially in some hay fields. Tobacco harvesting continues. Most southern Peninsula growers planning planting schedules for fall vegetables; activity to begin in August. Quincy tomato producers to start planting late July or early August. Okra harvesting active, Miami-Dade County. Northern Peninsula, Panhandle growers still picking very light supplies of watermelons. Normal summer rains with hot temperatures, citrus areas. Abundant new growth with new crop fruit making good progress. New crop droppage over, very little splitting. Late bloom picking for fresh-squeeze operations active in most areas. Caretakers cutting cover crops, hedging, topping, burning dead trees, planting new resets. Growers spraying, fertilizing, herbiciding. Pasture feed 20% fair, 80% good. Condition of cattle 5% fair, 95% good. Panhandle, northern counties, condition of pasture feed, cattle fair to good. Standing water some low areas; armyworm, grass looper pressure steadily increasing in some hay fields. Central: cattle, pasture feed in good condition. Southwest: cattle condition fair to good, lot of pasture under water.

GEORGIA: Days suitable for field work 6.4. Soil 19% very short, 46% short, 34% adequate, 1% surplus. Corn 78% dent, 59% 2001, 68% avg; 32% mature, 22% 2001, 26% avg.; 5% harvested for grain, 2% 2001, 2% avg. Hay 7% very poor, 16% poor, 44% fair, 29% good, 4% excellent. Peanuts 99% blooming, 96% 2001, 97% avg. Sorghum 1% very poor, 13% poor, 41% fair, 43% good, 2% excellent. Tobacco 17% very poor, 28% poor, 35% fair, 17% good, 3% excellent; 31% harvested, 25% 2001, 33% avg. Watermelons 91% harvested, 82% 2001, 85% avg. Apples 1% very poor, 4% poor, 43% fair, 45% good, 7% excellent; 7% harvested, 2% 2001, 2% avg. Peaches 81% harvested, 87% 2001, 85% avg. Pecans 3% very poor, 18% poor, 42% fair, 35% good, 2% excellent. Temperatures rose steadily last week. Maximum temperatures reached 100° or more, in several areas of the State. Over the weekend, scattered thunderstorms moved across the State, but did little to replenish dry soils. County agents reported that 65% of the State's crop land had less than adequate soil moisture. The continuing drought, high temperatures caused crop conditions to decline. Corn suffered from drought conditions. Growers actively cut and baled hay. Corn harvesting began. Apple picking started at a swift pace. Growers rapidly harvested watermelons. Cattlemen continued to feed hay because of poor pasture feeds. Activities: Farmers sprayed growth-regulators on cotton, sprayed pecan trees for leaf disease, routinely managed livestock, poultry.

HAWAII: Mostly sunny skies with light, passing showers, warm temperatures continued to benefit crops throughout the State. Soil moisture was adequate. Harvesting will remain active for bananas.

Papaya production will remain active. Most vegetable crops made favorable progress during the week, remained in fair to good condition.

IDAHO: Days suitable for fieldwork 6.9. Topsoil 15% very short, 41% short, 44% adequate. Irrigation water supply 3% very poor, 21% poor, 32% fair, 44% good. Potatoes 85% closing middles, 74% 2001, 73% avg.; 1% very poor, 2% poor, 12% fair, 65% good, 20% excellent. Winter wheat 80% turning color, 77% 2001, 73% avg.; 2% poor, 23% fair, 66% good, 9% excellent. Spring wheat 36% turning color, 31% 2001, 35% avg. Barley 45% turning color, 38% 2001, 35% avg. Alfalfa hay 48% 2nd cutting harvested, 53% 2001, 42% avg. Mint 15% 1st cutting harvested, 14% 2001, 10% avg. Dry Peas 4% harvested, 46% 2001, 13% avg. Activities: Irrigating, applying pesticides, baling alfalfa.

ILLINOIS: Days suitable for fieldwork 6.4. Topsoil moisture 34% very short, 44% short, 22% adequate. Corn dented <1%, 1% 2001, 1% avg. Oats turning yellow 96%, 96% 2001, 94% avg.; ripe 75%, 71% 2001, 63% avg.; harvested 41%, 35% 2001, 30% avg. Alfalfa second crop cut 78%, 89% 2001, 83% avg.; third crop 17%, 18% 2001, 12% avg.; 4% very poor, 14% poor, 40% fair, 36% good, 6% excellent. Dry soils and hot temperatures across the state last week combined to cause continued stress on the corn and soybean crops. Statewide soil moisture supplies in the past month have declined drastically, from 82 percent rated adequate or surplus on June 23 to 78 percent rated short or very short as of July 21. A few small areas did receive up to a few tenths precipitation last week but these areas were small and widely scattered. Many farmers are concerned that their corn crop has experienced "irreparable damage." Soybean crop growth has slowed to a crawl but the crops potential has been "affected to a lesser extent." Insect pressure only intensified the dry weather problem last week as reports of damage from corn rootworms, Japanese beetles, leafhoppers and grasshoppers were received. Reports of silk clipping in cornfields and defoliation of soybean plants caused by Japanese beetles were received across the state while root pruning by corn rootworms were common across northern Illinois. Growers are scouting fields trying to determine if it is economically feasible to spray. Other activities last week included harvesting oats and wheat, baling hay and straw, hauling grain and attending county fairs.

INDIANA: Days suitable for fieldwork 6.5. Topsoil 28% very short, 44% short, 27% adequate, 1% surplus. Subsoil 20% very short, 39% short, 40% adequate, 1% surplus. Hot, humid weather during most of the week. Rain some areas, spotty, scattered. Many areas received no rain. Corn, soybean crops under severe stress in most areas of the state. Most critical areas for soil moisture are in the north central, northeastern east central regions. Corn curling during the afternoon hours in most fields. Soybean leaves cupping. Irrigation active where available. Spraying for weeds continued. Japanese beetles are active. Temperatures averaged 2° below to 6° above normal. Precipitation averaged 0 to 4.45 inches. Winter wheat harvest is winding down. Alfalfa hay 74% 2nd cutting complete, 90% 2001, 78% avg. Pastures 10% very poor, 21% poor, 44% fair, 24% good, 1% excellent. Livestock mostly good condition, but under stress. Feeding of hay is underway on some farms. Activities: Baling hay, straw, harvesting mint, scouting fields, cleaning up, repairing equipment, mowing roadsides, pastures, hauling manure, attending county fairs, taking care of livestock.

IOWA: Days suitable for fieldwork were 6.5. Topsoil 26% very short, 42% short, 29% adequate, 3% surplus. Subsoil 28% very short, 39% short, 31% adequate, 2% surplus. Rains were very spotty last week leaving many areas in need of moisture. Topsoil moisture levels decreased slightly with most of the state rated short to adequate. Subsoil moisture levels are split with about half of the state rated very short to short, the other half rated short to adequate. Corn, soybean conditions remain steady, rating fair to good. Oats turning 99% color, 90% 2001, 96% avg.; 55% harvested for grain, 10% 2001, 28% avg.; 2% very poor, 9% poor, 28% fair, 47% good, 14% excellent. Corn 62% silking, 30% 2001, 45% avg.; Corn 1% doughing, 0% 2001, 1% avg; Soybeans 83% blooming, 54% 2001, 72% avg. Soybeans 27% setting pods, 12% 2001, 23% avg. Soybean 4% very poor, 9% poor, 27% fair, 46% good, 14% excellent. Pasture feed 16% very poor, 29% poor, 36% fair, 18% good, 1% excellent.

KANSAS: Days suitable for fieldwork 6.8. Topsoil 51% very short, 36% short, 13% adequate. Subsoil 44% very short, 37% short, 19% adequate. Wheat 100% harvested, 100% 2001, 100% avg. Corn 13% very poor, 22% poor, 34% fair, 27% good, 4% excellent; 67% silking, 91% 2001, 79% avg.; 13% doughing, 25% 2001, 21% avg. Sorghum 12% very poor, 29% poor, 36% fair, 22% good, 1% excellent; 13% headed, 29%

2001, 21% avg.; 1% turning, 4% 2001, 1% avg. Soybean 4% very poor, 14% poor, 39% fair, 39% good, 4% excellent; 50% blooming, 70% 2001, 61% avg.; 14% podding, 25% 2001, 20% avg. Alfalfa 2nd cutting 97% completed, 99% 2001, 98% avg.; 3rd cutting 26% completed, 45% 2001, 36% avg. Pasture feed 30% very poor, 25% poor, 24% fair, 17% good, 4% excellent.

KENTUCKY: Days suitable for fieldwork 5.2. Topsoil 12% very short, 35% short, 47% adequate, 6% surplus. Subsoil 9% very short, 41% short, 45% adequate, 5% surplus. Activities: Baling hay, clipping pastures, topping tobacco, spraying for weeds in soybeans. Corn, soybean crops had mixed reports but both need rain. There were several reports of tobacco being under stress due to lack of precipitation. Tobacco 3% very poor, 10% poor, 29% fair, 45% good, 13% excellent. Burley tobacco 30% blooming, 48% 2001, 34% 5 yr avg.; 10% topped, 23% 2001, 5 yr avg 16%. Dark tobacco 27% topped, 36% 2001, 28% 5 yr avg. The tobacco crop had mixed reports, with the most common problem being black shank. Harvesting of hay continued to be one of the major farming activities this week. Hay 2% very poor, 11% poor, 33% fair, 43% good, 11% excellent.

LOUISIANA: Days suitable for fieldwork 4.9. Soil 4% very short, 17% short, 72% adequate, 7% surplus. Corn 7% very poor, 17% poor, 41% fair, 29% good, 6% excellent; 88% dough stage, 85% last week, 97% 2001, 96% avg.; 42% mature, 27% last week, 55% 2001, 52% avg.; 1% harvested, 0% last week, 0% 2001, 3% avg. Corn harvesting began, but due to early dry spells below average yields were expected in some areas. Hay 100% 1st cutting, 99% last week, 100% 2001, 99% avg.; 37% 2nd cutting, 27% last week, 57% 2001, 40% avg. Peaches 75% harvested, 62% last week, 82% 2001, 92% avg. Rice 24% ripe, 11% last week, 25% 2001, 24% avg.; 7% harvested, 2% last week, 9% 2001, 9% avg. Sorghum 8% ripe, 0% last week, 12% 2001, 6% avg. Soybeans 100% emerged, 99% last week, 100% 2001, 100% avg. Sugarcane 3% poor, 14% fair, 50% good, 33% excellent. Sweet potatoes 100% planted, 99% last week, 100% 2001, 100% avg. Livestock 5% poor, 36% fair, 53% good, 6% excellent. Vegetables 3% very poor, 18% poor, 43% fair, 33% good, 3% excellent.

MARYLAND: Days suitable for fieldwork 6.6. Topsoil 43% very short, 42% short, 15% adequate. Subsoil 54% very short, 38% short, 8% adequate. Barley 100% harvested, 100% 2001, 100% avg. Winter Wheat 98% harvested, 93% 2001, 96% avg. Range, pasture feed 26% very poor, 31% poor, 32% fair, 11% good, 1% excellent. 23% very poor, 33% poor, 26% fair, 17% good, 1% excellent, 64% silked, 58% 2001, 53% avg.; 11% dough, 23% 2001, 14% avg.; 13% dent 2001, 3% avg. Cantaloupes 34% harvested, 22% 2001, 27% avg. Peaches 8% poor, 36% fair, 53% good, 3% excellent, 20% harvested, 22% 2001, 20% avg. Sweet 45% corn harvested, 31% 2001, 29% avg. Apples 3% poor 20% fair, 75% good, 2% excellent. Cucumbers 40% harvested, 50% 2001, 43% avg. Tobacco 5% very poor, 31% poor, 39% fair, 20% good, 5% excellent. Tobacco bloomed 24%, 29% 2001, 34% avg. Snap beans 59% harvested, 47% 2001, 40% avg. Soybean 17% very poor, 29% poor, 33% fair, 20% good, 1% excellent, 96% planted, 94% 2001, 93% avg.; 26% blooming, 26% 2001, 24% avg.; 4% setting pods, 3% 2001, 9% avg. Potatoes 33% harvested, 47% 2001, 55% avg. Tomatoes 18% harvested, 19% 2001, 17% avg. Watermelons 12% harvested, 7% 2001, 11% avg. Sorghum 1% poor, 49% fair, 50% good, 5% headed, 17% 2001, 15% avg. Other hay 2nd cutting 60%, 76% 2001, 68% avg.; 3rd cutting 25%, 25% 2001, 23% avg. Alfalfa hay 3rd cutting 28%, 38% 2001, 24% avg. Hay supplies 8% very short, 33% short, 55% adequate, and 4% surplus. Hot, dry weather continues to decline conditions in corn and soybeans. Irrigated row crops are in good condition. Rain is needed to improve soybean conditions.

MICHIGAN: Days suitable for fieldwork 7.0. Topsoil 43% very short, 38% short, 19% adequate, 0% surplus. Subsoil 27% very short, 42% short, 31% adequate, 0% surplus. All hay 1st cutting 96%, 99% 2001, 99% avg.; 2nd cutting 50%, 49% 2001, 47% avg. Hay 8% very poor, 23% poor, 28% fair, 32% good, 9% excellent. Corn Height 48 inches, 54 inches 2001, 55 inches avg. Dry beans 14% blooming, 22% 2001, 22% avg.; 5% setting pods, 4% 2001, 4% avg.; 4% very poor, 21% poor, 41% fair, 31% good, 3% excellent. Oats 67% turning yellow, 81% 2001, 72% avg.; 3% harvested, 7% 2001, 9% avg.; 4% very poor, 10% poor, 33% fair, 45% good, 8% excellent. Winter Wheat 1% very poor, 3% poor, 27% fair, 51% good, 18% excellent. Temperatures ranged from 2 to 7° above normal State. Hot, dry conditions prevailed throughout week. Thunderstorms quite scattered. Average rainfall amounts ranged from 0.15 inch southwest Lower Peninsula to 1.34 inches eastern Upper Peninsula. Corn fields that received rain starting to shape up and made

tremendous growth, even though most fields had small bad spots from earlier wet, cold weather. Fields that had not received rain looking very rough, as noticeable curling of corn a strong indication of lack of adequate moisture. Corn starting to tassel, but only a few stalks had ears. Soybeans blooming, but plants less than a foot tall. Winter wheat harvest full swing with crop looking a little better than expected. The second cutting of alfalfa fair to good. Alfalfa extremely short with some fields over threshold for potato leafhopper feeding. Early planted dry beans looking good with rows nearly closed. Later planted dry beans suffering from heat as leafhopper numbers continued to climb. Oats ripening very quickly, harvest full swing. Insect activity last week included increased numbers of potato leaf hopper, oriental fruit moth, most aphids and mites. Apples continued to size well across State. Limited fire blight shoot strikes reported a few blocks southeast. Peaches, pears continued to size well. Sweet cherry harvest complete southeast, just beginning northwest. Tart cherry harvest complete south, continued west central, northwest. Blueberry harvest picked up steam. Phomopsis problems continued southeast. Strawberry renovation nearly complete. Growers voiced disappointment shorter than normal season due to hot weather. Summer red raspberry harvest continued. Fall red raspberries beginning to turn color. Birds a problem cherries, blueberries, raspberries. Cantaloups, watermelons continued to respond positively to increased temperatures. Cucumber beetles continued to be a problem some fields. Cucumber harvest continued, with some areas winding down. The weather made it difficult to keep up with harvest as fruit maturing extremely fast. Peppers and eggplants continued to flower and early fruit sizing well. Eggplant harvest should begin later this week. Some tarnished plant bug damage reported peppers. Squash, zucchini harvest continued; volume of zucchini increasing. Tomato harvest later than normal. Some color change could be seen on fruit with blossom end rot or other damage. Sweet corn harvest began with limited quantities. Irregular height, maturity and harvest could be challenging. Snap bean harvest had begun some areas. Some root rot showing up earliest fields. In potatoes, irrigation key. Leafhopper numbers high, many fields being treated. Table stock harvest underway Bay County. Cabbage harvest continued, but head size still smaller than desired. Muskmelons netting early fields and yields looked good. Due to weather, growers encouraged to watch for spider mite infestations. Pumpkins suffering severely from heat, drought. Fruit production delayed as few female blossoms could be found. Garlic harvest a little behind, but crop of good quality. Carrots sizing well despite hot, dry conditions. Tops seem smaller than average, but due to soil conditions longer root length found. Onions continued to develop, with yellow nutsedge being a problem a number of fields. Celery harvest continued. Fern growth on asparagus fields harvested for a full season appeared to be on small side. Common asparagus beetle larvae appeared, tarnished plant bug numbers still high.

MINNESOTA: Days suitable for field work 5.8. Topsoil 11% very short, 20% short, 61% adequate, 8% surplus. Spring Wheat 45% turning ripe, 23% 2001, 42% avg.; 0% harvested, 0% 2001, 0% avg. Oats 74% turning ripe, 49% 2001, 64% avg. Barley 47% turning ripe, 28% 2001, 42% avg.; 1% harvested, 0% 2001, 1% avg. Corn 2% milking, 0% 2001, 3% avg. Soybeans 22 in. height, 17 in. 2001, 20 in. avg. Pasture feed 7% very poor, 17% poor, 35% fair, 36% good, 5% excellent. Dry beans 6% very poor, 9% poor, 43% fair, 36% good, 6% excellent. Potatoes 3% very poor, 4% poor, 23% fair, 57% good, 13% excellent. Sunflowers 12% very poor, 13% poor, 32% fair, 38% good, 5% excellent. Canola 59% very poor, 19% poor, 13% fair, 8% good, 1% excellent. Sugarbeets 7% very poor, 13% poor, 35% fair, 38% good, 7% excellent. Hot, humid weather, spotty rainfall this week contributed to stress on crops from heat, lack of moisture. Many areas of the state received little to no precipitation. Several locations across central, southeastern state, however, did receive locally heavy rains. Statewide temperatures for the week averaged 5.7° above normal. Dry conditions in the southwestern portion of the state continued to stress crops. Corn fields were beginning to fire, leaves were curling; the corn was trying to tassel, but temperatures were too warm for proper pollination. Rust was reported in some small grain fields in Watonwan, Wabasha counties. Some soybeans had stopped growing in the heat, hay and pasture feeds were very short. The Northwest District welcomed the hot, dry weather this week. Crops that were not destroyed in the recent floods appeared to be progressing well. Hay, forage shortage was a major concern for producers in this region since many fields had excess moisture combined with losses from winter kill.

MISSISSIPPI: Days suitable for fieldwork 4.9. Soil moisture 3% very short, 14% short, 72% adequate, 11% surplus. Corn 99% silked, 99% 2001, 96% avg.; 88% dough, 88% 2001, 85% avg.; 59% dent, 61% 2001, 59% avg.; 13% mature, 18% 2001, 12% avg.; 30% silage harvested, 20% 2001, 23% avg.; 1% very poor, 6% poor, 20% fair, 49% good, 24%

excellent. Cotton 98% squaring, 100% 2001, 98% avg.; 85% setting bolls, 87% 2001, 85% avg.; 4% poor, 15% fair, 57% good, 24% excellent. Rice 39% heading, 40% 2001, 35% avg.; 5% poor, 11% fair, 63% good, 21% excellent. Sorghum 94% heading, 95% 2001, 86% avg.; 40% turning color, 39% 2001, 26% avg.; 2% poor, 11% fair, 69% good, 18% excellent. Soybeans 84% blooming, 94% 2001, 81% avg.; 60% setting pods, 80% 2001, 59% avg.; 1% very poor 6% poor, 20% fair, 50% good, 23% excellent. Hay 63% harvested (Warm Season), 69% 2001, 64% avg.; 5% poor, 27% fair, 48% good, 20% excellent. Sweetpotatoes 3% very poor, 12% poor, 26% fair, 46% good, 13% excellent. Watermelons 74% harvested, 67% 2001, 54% avg. Cattle, 1% very poor, 5% poor, 20% fair, 58% good, 16% excellent. Pasture 3% very poor, 6% poor, 25% fair, 54% good, 12% excellent. Row crop conditions improved in most areas receiving rain.

MISSOURI: Days suitable for fieldwork 6.2. Topsoil 22% very short, 42% short, 35% adequate, 1% surplus, a distinct decline from a week earlier. Hot, dry weather is taking a toll on row crops, pastures. Corn leaves are rolling, firing in many northern counties areas, the moisture shortage is limiting growth, development in all areas. The northwest district continues as the driest area where the moisture ratings are 29% short, 68% very short. Corn development ranges from around 61% silking, 13% doughing in the northeast district to 98% silking, 62% doughing in the southeast. Soybeans blooming range from 10% in the south-central district to 66% in the north-central district. Late soybeans have been the most adversely affected by the dry weather, but all beans are in need of rain to make normal development. Cotton is being sprayed to control boll worms, budworms. Alfalfa 2nd crop 89% cut, 81% 2001, 85% avg.; 3rd crop 22% cut, 11% 2001, 11% avg. Other hay 93% cut, 92% 2001, 89% avg. Dry weather has sharply reduced the potential for late alfalfa crops. Pastures 8% very poor, 19% poor, 39% fair, 29% good, 5% excellent, down from a week ago in most areas, with the greatest deterioration in the northwest district where condition is 84% poor or very poor. Rainfall for the week averaged 0.43 inch, ranging from virtually none in the northwest, north-central districts to 1.37 inches in the central district.

MONTANA: Days suitable for fieldwork 6.7. Topsoil 28% very short, 42% short, 27% adequate, 3% surplus. Subsoil 41% very short, 37% short, 22% adequate, 0% surplus. Winter wheat 7% very poor, 22% poor, 44% fair, 23% good, 4% excellent. This is better than 2001 35% very poor, 34% poor, 17% fair, 12% good, 2% excellent, is also ahead of the 5-year average of 10% very poor, 18% poor, 31% fair, 36% good, 5% excellent. Winter wheat headed 99%, behind 2001, the 5-year average when headed was complete. Winter wheat is 85% now turning, close to 2001, 87% and the 5-year average of 90%. Winter wheat began to ripen, at 19% now ripe, behind 2001, 5-year average of 38% and 30%, respectively. Barley in boot 93% complete, behind both 2001, the 5-year averages of 99%. Barley headed 83%, behind 2001 when headed was at 96%, and the 5-year average of 93%. Barley turning 43%, compared to 38% 2001, the 5-year average of 35%. Barley ripening has begun with 2% ripe, compared to 2001, the five year averages of 3% each. Barley 6% very poor, 16% poor, 38% fair, 34% good, 6% excellent. Spring wheat boot increased, 94%, still behind 2001, the 5-year average of 100% and 99%, respectively. Spring wheat headed 82%, behind 2001 97%, and the 5-year average of 93%. Turning is now at 31%, behind 2001 50%, but close to the 5-year average of 34%. Spring wheat ripening is at 3%, ahead of both last year and the 5-year average of 2%. Spring wheat condition is 6% very poor, 18% poor, 39% fair, 33% good, and 4% excellent. Oats in boot is rated at 95%, behind last year at 98%, and the 5-year average of 99%. Oats headed 85%, slightly behind 2001, 91% as well as the 5-year average of 90%. Oats turning 46%, ahead of 2001, the 5-year averages of 38% and 30%, respectively. Ripening has also progressed to 4%, compared to 2001 at 8% and the 5-year average of 5%. Oats are rated 9% very poor, 17% poor, 34% fair, 35% good, 5% excellent. Dry bean 1% very poor, 12% poor, 50% fair, 34% good, 3% excellent. Corn is 0% very poor, 7% poor, 30% fair, 51% good, 12% excellent. Potatoes 0% very poor, 1% poor, 8% fair, 70% good, 21% excellent. Haying progressed as 93% of the alfalfa hay harvested, compared to 86% 2001, the 5-year average of 87%. Second cutting of alfalfa is 5% complete. All other hay harvested is at 79% complete, compared to 2001, the 5-year average of 68% and 65%, respectively. Second cutting is 1% complete. Pasture, range feed 21% very poor, 30% poor, 31% fair, 15% good, 3% excellent. 2001, 16% very poor, 25% poor, 33% fair, 21% good, 5% excellent while the 5-year average is 9% very poor, 16% poor, 35% fair, 33% good, 7% excellent.

NEBRASKA: Days suitable for fieldwork 7.0. Topsoil, subsoil moisture mostly very short to short across the State Temperatures averaged from 3 to 9° above normals for the week. Isolated precipitation

late Sunday in a few areas of the southwest, east central. Alfalfa 2nd cutting 88%, 78% 2001, 77% avg.; 3rd cutting underway. Some producers providing supplemental feed to livestock, are culling deeper into their herds.

NEVADA: Hot summer weather persisted, afternoon thunder showers remained common. Lightning resulted in a few more range, forest fires, but localized rainfall helped with suppression efforts. Precipitation measurements were generally modest with some local areas receiving heavier rains. Las Vegas recorded .52 inch which was the first measurable total there since March. Ely recorded .16 inch, Elko .03, and Reno .01 inch. Second cutting of alfalfa hay advanced in the north. Third cutting was underway in some southern valleys. Some cut hay was damaged by isolated rains. Harvest of other types of hay continued. Spraying for mite, aphid control continued. Grass seed harvest got underway. Malting barley turned color, was entering the hard dough stage. Corn continued to show good growth. Potato fields were in good condition, though late due to earlier frost. Onions remained in fair to good condition. Garlic fields were drying with harvest approaching. Mormon crickets, grasshoppers, drought continued to damage range, crop lands. Squash bugs were being sprayed in melon fields. Irrigation water supplies were very short in some areas. Activities: Alfalfa hay harvest, other hay harvest, irrigation, pest control, weed control.

NEW ENGLAND: Days suitable for field work: 6.2. Topsoil 11% very short, 32% short, 47% adequate, 10% surplus. Subsoil 10% very short, 28% short, 60% adequate, 2% surplus. Pasture feed 1% very poor, 15% poor, 26% fair, 37% good, 21% excellent. Maine Potatoes: Condition excellent/good Rhode Island Potatoes: Condition good. Massachusetts Potatoes: Condition good. Maine Oats: Condition good/excellent. Maine Barley: Condition good/excellent. Field Corn: Condition good/fair. Sweet corn 100% planted, 100% 2001, 100% avg.; 99% emerged, 100% 2001, 99% avg.; 5% harvested, 15% 2001, 10% avg.; condition good/fair. First Crop Hay: 95% harvested, 95% 2001, 90% avg.; condition good/fair. Second Crop Hay 45% harvested, 55% 2001, 35% avg.; condition good. Third Crop Hay 0% harvested, 10% 2001, 5% avg.; condition good/excellent. Shade Tobacco 10% harvested, 10% 2001, 15% avg.; condition good/fair. Broadleaf Tobacco: Condition good/fair. Apples: Condition good/fair. Peaches: Condition good/fair. Pears: Condition poor. Strawberries 99% harvested, 99% 2001, 99% avg.; condition good/fair. Massachusetts Cranberries: Fruit size avg.; condition good/fair. Highbush Blueberries: 15% harvested, 15% 2001, 15% avg.; condition good. Maine Wild Blueberries: Condition good. Northern states recorded slightly below average temperatures last week along with some rainfall, while southern states underwent exact opposite conditions. All states continue to experience drought-like conditions, and it has been necessary for many growers to irrigate, where available. Activities: Planting vegetables; harvesting tobacco, strawberries, highbush blueberries, peaches, vegetables; weeding, tilling, cultivating fields; sidedressing fields with fertilizer; cutting dry hay, chopping haylage; mowing orchards, around fields; monitoring for pests, disease; irrigating, where necessary, available; applying fungicides, insecticides.

NEW JERSEY: Days suitable for field work 6.5. Topsoil 20% very short, 50% short, 30% adequate. Temperatures averaged above normal last week as hot, humid weather returned to the area. Clear skies allowed producers to make good progress harvesting summer vegetables, blueberries, hay. Activities: Wheat, irrigating fields, spraying. Corn 22% silked, 48% fair, 52% good. Producers reported increased insect pressure in some fields due to recent weather conditions. Soybeans 20% blooming, 15% fair, 85% good. Dry weather provided excellent drying conditions for hay. Producers should finish their second cutting over the next few weeks. Declining pasture feeds caused some livestock producers to increase supplemental feed to herds. Some producers also reported a decline in milk production due to the hot weather. Vegetable producers made good progress harvesting sweet corn, tomatoes, cantaloupe. Fields under irrigation were reported in mostly good condition. Producers reported minor insect, disease problems in some fields due to recent weather conditions. Peach harvest was underway in some areas, with crop condition rated as mostly good. Some producers reported larger yields than expected. Apples were rated in mostly good condition. Blueberry harvest continued on schedule, with crop condition rated as mostly good.

NEW MEXICO: Days suitable for field work 6.3. Topsoil 47% very short, 31% short, and 22% adequate. Temperatures for the week were close to normal. Hit, miss mainly afternoon thundershowers provided some measurable rainfall at about two-thirds of the reporting stations, with the greatest amounts in the south-central portion of the state. Gran

Quivira, Carrizozo, Socorro all collected over an inch. Wind damage 26% light, 7% moderate, with no damage to 67% of the crops. Farmers were busy cutting hay, weeding, spraying for insects, irrigating, otherwise maintaining crops. Cotton, corn, chile, peanuts were all found to be in mostly fair to good condition. Cotton 95% squaring, 72% setting bolls. Corn 72% silked, 44% dough stage. Irrigated sorghum was found to be in mostly fair to good condition, but dryland sorghum was mostly in very poor to poor condition. Chile harvest has started and onion harvest is nearing completion. Alfalfa is looking good, with over half of the crop in fair to good condition. The 3rd cutting is now 80% complete, the 4th is 45% complete. Cattle 7% very poor, 27% poor, 44% fair, 21% good, 1% excellent. Sheep conditions are improving, with 7% listed as very poor, 20% poor, 55% fair, 15% good, 3% excellent. Rain has also led to some improvement in range, pasture feeds, though ranchers still had to haul water, provide supplemental feed.

NEW YORK: Days suitable for fieldwork 6.8. Topsoil 24% very short, 47% short, 29% adequate. Temperatures averaged 10° above normal. Precipitation .75 to 1.50 inches below normal most locations. Pasture feed 9% very poor, 22% poor, 40% fair, 27% good, 2% excellent. Poor regrowth; supplemental feeding necessary. Heat stress affecting milk production. Corn 10% poor, 45% fair, 39% good, 6% excellent; beginning to show stress, curl. Hay 6% poor, 31% fair, 51% good, 12% excellent; third growth stalled due heat, lack of moisture. Alfalfa 2nd cut 68% harvested, Clover-timothy 2nd cut 54%. Winter wheat harvest active; respectable yields. Soybeans 3% poor, 41% fair, 54% good, 2% excellent. Vegetable crop mostly good, need rain. Early planted sweet corn being picked; small ears. Snap bean harvest picked up. Tart cherry harvest in full swing; light crop.

NORTH CAROLINA: Days suitable for fieldwork at 6.5. Soil 25% very short, 41% short, 33% adequate, 1% surplus. Much needed rain descended on state during the week, but was extremely light in the western portion of the state. Tobacco is responding well to the limited rain, but many corn fields have not been as fortunate. Despite the rainfall, the entire State continues to be in a drought. The surplus was created in localized areas by heavy storms which caused some crop damage.

NORTH DAKOTA: Days suitable for fieldwork 5.9. Topsoil 19% very short, 25% short, 53% adequate, 3% surplus. Subsoil 20% very short, 24% short, 53% adequate, 3% surplus. Above normal temperatures across the state pushed crop development while precipitation in the eastern districts slightly improved soil moisture supplies. Barley 69% milk, 63% 2001, 60% average; 22% turning, 20% 2001, 23% average. Durum wheat 87% boot, 92% 2001, 86% average; 74% headed, 78% 2001, 71% average; 28% milk, 26% 2001, 30% average; 7% turning, 2% 2001, 6% average. Hard red spring wheat 64% milk, 55% 2001, 57% average; 26% turning, 12% 2001, 20% average. Oats 60% milk, 67% 2001, 58% average; 20% turning, 21% 2001, 19% average. Canola 14% turning, 11% 2001, 16% average. Corn 2% milk, 4% 2001, 3% average. Dry edible beans 66% blooming, 70% 2001, 70% average; 17% podding, 25% 2001, 19% average. Flax 87% blooming, 85% 2001, 78% average; 4% turning, 1% 2001, 4% average. Potatoes 74% blooming, 90% 2001, 86% average; 70% rows filled, 80% 2001, 68% average. Sunflower 2% blooming, 3% 2001, 3% average. Emerged crop conditions: Durum wheat 5% very poor, 11% poor, 38% fair, 44% good, 2% excellent. Canola 8% very poor, 14% poor, 36% fair, 39% good, 3% excellent. Dry edible beans 8% very poor, 20% poor, 22% fair, 42% good, 8% excellent. Flaxseed 9% very poor, 16% poor, 30% fair, 42% good, 3% excellent. Potatoes 6% very poor, 12% poor, 28% fair, 42% good, 12% excellent. Sugarbeets 8% very poor, 15% poor, 29% fair, 43% good, 5% excellent. Sunflower 5% very poor, 12% poor, 29% fair, 47% good, 7% excellent. Hay 26% very poor, 29% poor, 34% fair, 11% good, 0% excellent. Alfalfa 1st cutting 96% complete, while other hay was 55% complete. Pasture, range feeds 28% very poor, 26% poor, 31% fair, 14% good, 1% excellent. Stockwater supplies were 10% very short, 17% short, 71% adequate, 2% surplus.

OHIO: Days suitable for fieldwork 6.9. Topsoil 46% very short, 37% short, 17% adequate, 0% surplus. Corn 20% silked, 38% 2001, 39% avg. Soybeans 43% blooming, 67% 2001, 68% avg.; 5% setting pods, 18% 2001, 17% avg. Winter wheat 99% harvested, 98% 2001, 89% avg. Oats 60% ripe, 66% 2001, 65% avg.; 19% harvested, 22% 2001, 22% avg. Alfalfa 2nd cutting complete 72%, 72% 2001, 71% avg.; 3rd cutting complete 4%, 10% 2001, 7% avg. Other hay 2nd cutting complete 52%, 48% 2001, 45% avg. Summer apples 25% harvested, 26% 2001, 30% avg. Peaches 11% harvested, 15% 2001. Corn 15% very poor, 26% poor, 38% fair, 20% good, 1% excellent. Soybean 11% very poor, 24% poor, 41% fair, 22% good, 2% excellent. Hay 7% very poor, 19% poor,

41% fair, 31% good, 2% excellent. Pasture feed 15% very poor, 30% poor, 35% fair, 19% good, 1% excellent. Oats 2% very poor, 13% poor, 38% fair, 45% good, 2% excellent. Weather conditions remained hot, dry last week and crops continued to suffer. Passing showers brought small amounts of rain to some areas, but much more is needed. Activities: Harvesting winter wheat, baling straw, hauling grain, shearing Christmas trees, clipping pastures, topping tobacco, preparing for county fairs. The State's vegetable producers were also busy cultivating, irrigating, harvesting their crops.

OKLAHOMA: Days suitable for fieldwork 6.2. Topsoil 15% very short, 42% short, 43% adequate, 0% surplus. Subsoil 24% very short, 32% short, 44% adequate, 0% surplus. Alfalfa 66% 3rd cutting, 42% last week, 71% 2001, 51% avg.; 2% very poor, 4% poor, 28% fair, 58% good, 8% excellent; Other Hay 94% 1st cutting, 88% last week, 94% 2001, 89% avg.; 43% 2nd cutting, 34% last week, 34% 2001, 21% avg.; 3% very poor, 5% poor, 30% fair, 52% good, 10% excellent; Winter Wheat 86% plowed, 81% last week, 91% 2001, 78% avg.; 8% seedbed prepared, n/a last week, 4% 2001, 3% avg. Oats 97% harvested, 94% last week, 100% 2001, 98% avg.; 86% plowed, 78% last week, 90% 2001, 74% avg. Corn 92% silking, 79% last week, 79% 2001, 68% avg.; 55% dough, 53% last week, 29% 2001, 20% avg.; 15% mature, 10% last week, 6% 2001, 2% avg.; 0% very poor, 1% poor, 22% fair, 70% good, 7% excellent. Sorghum 99% planted, 98% last week, 100% 2001, 99% avg.; 90% emerged, 88% last week, 100% 2001, 98% avg. Soybeans 99% emerged, 96% last week, 100% 2001, 93% avg.; 60% blooming, 40% last week, 58% 2001, 43% avg.; 32% setting pods, 22% last week, 23% last year, 16% avg; 2% very poor, 6% poor, 36% fair, 48% good, 8% excellent; Watermelons 99% setting fruit, 98% last week, 100% 2001, 98% avg.; 37% harvested, 22% 1st week, 49% 2001, 32% avg. Peanuts 88% setting pods, 76% last week, 73% 2001, 81% avg. Livestock 0% very poor, 3% poor, 20% fair, 63% good, 14% excellent; Livestock: Cattle auctions reported an increase in marketings of steers, heifers less than 800 pounds. The price for feeder steers less than 800 pounds was down an average of 50 cents per cwt. from the previous week, averaged \$79.50 per cwt. The price for feeder heifers less than 800 pounds was unchanged, averaged \$75.40 per cwt.

OREGON: Days suitable for fieldwork: 6.9. Topsoil 35% very short, 42% short, 23% adequate. Subsoil 36% very short, 41% short, 23% adequate. Barley 19% harvested, 9% previous week, 16% 2001, 8% 5 yr avg.; 17% very poor, 14% poor, 33% fair, 33% good, 3% excellent. Winter wheat 31% harvested, 17% previous week, 14% 2001, 10% 5 yr avg.; 35% very poor, 25% poor, 22% fair, 14% good, 4% excellent. Range, pasture 16% very poor, 23% poor, 38% fair, 20% good, 3% excellent. Activities: Wheat harvest underway in north central state. Low wheat yields being reported from Gilliam, Morrow, Sherman counties. Yields ranged from low teens to mid thirties. In Morrow County, most annual cropped fields a complete failure, will not be harvested. Quality also down due to drought conditions. Wheat harvest in full swing in Malheur County, some barley converted to grazing. Haying continued state wide. In Baker County showers, hail, high winds hampered haying. Second crop of alfalfa being cut in Harney, Klamath counties. Grass seed harvest continued in Union County. Grass seed harvest also continued in Willamette Valley, Red clover fields in full bloom. Grass haying nearing end in Clackamas County, while in full swing in Clatsop County. Second, third cuttings of alfalfa underway in Marion County. Winter wheat harvest started in Washington County. Haying continued in Jackson County, grain harvest underway. Nurseries busy watering, feeding, weeding. Greenhouses doing cleanup, making plans for fall crops. Easter lily growers on southern state coast doing field preparations for planting. Christmas tree growers spraying for insects, starting to shear trees. In Willamette Valley, early green bean harvest underway, early sweet corn tasseling. Onions doing well, potatoes almost ready to dig. Marion County reported that green beans yielding well, about one-fourth done. Fresh vegetables still available for local markets. In Josephine County, truck gardens being harvested. In Klamath County, potato rows closed, about two-thirds of fields flowering. Willamette Valley Marionberry harvest at peak; blueberry harvest has begun, raspberry harvest winding down. Evergreen blackberries, hazelnuts continued to size. Early Polk County peaches picked. Sweet cherry harvest continued in upper Hood River Valley. Sweet cherry harvest complete in The Dalles area; higher elevations in Wasco County continued to harvest. Yamhill County continued to harvest tart cherries. Southern coast fruit set good to excellent. Jackson County pears in good condition with some sun scald from recent hot days. Livestock in good condition. Statewide range, pastures still in need of rain. Range, pasture for state mostly in poor to fair condition with a couple of reports of good conditions. Some areas have lost pasture to various fires burning.

PENNSYLVANIA: Days suitable for fieldwork 6.0. Soil 46% very short, 40% short, 14% adequate. Corn 28% silk, 38% 2001, 36% avg. Corn height 54 inches, 61 inches 2001, 54 inches avg. Corn crop 9% very poor, 19% poor, 34% fair, 32% good, 6% excellent. Barley 93% harvested, 91% 2001, 94% avg. Winter wheat 92% harvested, 83% 2001, 77% avg. Oats 94% heading, 93% 2001, 97% avg.; 69% yellow, 62% 2001, 73% avg.; 68% ripe, 37% 2001, 36% avg.; 32% harvested, 22% 2001, 17% avg.; 1% very poor, 7% poor, 39% fair, 46% good, 7% excellent. Soybean 8% very poor, 18% poor, 28% fair, 39% good, 7% excellent. Potatoes 8% harvested, 8% 2001, 3% avg. Alfalfa 2nd cutting 73% complete, 71% 2001, 67% avg.; 3rd cutting 20% complete, 14% 2001, 11% avg. Timothy clover first cutting 93% complete, 93% 2001, 92% avg.; 2nd cutting 22% complete, 22% 2001, 23% avg. Peach 31% fair, 68% good, 1% excellent, 15% harvested, 30% 2001, 15% avg. Apple 1% poor, 40% fair, 59% good, 5% harvested, 0% 2001, 2% avg. Quality of hay made 1% very poor, 6% poor, 21% fair, 50% good, 22% excellent. Pasture feeds 27% very poor, 33% poor, 25% fair, 14% good, 1% excellent. Principal farm Activities: Harvesting small grains; harvesting fruits, vegetables; harvesting forages, baling straw; fixing fences; machinery maintenance; cleaning barns; hauling, spreading manure; caring for livestock; scouting fields; spraying herbicides, insecticides; fertilizing, attending farm meetings.

SOUTH CAROLINA: Days suitable for field work 6.2. Soil 43% very short, 45% short, 12% adequate. Corn 99% silked, 99% 2001, 99% avg.; 84% doughed, 70% 2001, 74% avg.; 37% matured, 24% 2001, 30% avg.; 3% harvested; 36% very poor, 34% poor, 23% fair, 6% good, 1% excellent. Soybeans 99% emerged, 99% 2001, 99% avg.; 27% bloomed, 32% 2001, 28% avg.; 12% pods set, 17% 2001, 13% avg.; 9% very poor, 25% poor, 45% fair, 21% good. Sorghum 100% planted, 100% 2001, 100% avg.; 72% headed, 64% 2001, 66% avg.; 35% turned color, 34% 2001, 39% avg.; 1% matures, 1% 2001, 1% avg.; 5% very poor, 21% poor, 31% fair, 43% good. Cotton 92% squared, 73% 2001, 87% avg.; 38% bolls set, 35% 2001, 38% avg.; 3% very poor, 12% poor, 67% fair, 18% good. Peanuts 82% pegged, 71% 2001, 63% avg.; 6% very poor, 9% poor, 43% fair, 36% good, 6% excellent. Pastures 23% very poor, 39% poor, 28% fair, 10% good. Sweet potatoes 3% poor, 52% fair, 45% good. Tobacco 95% topped, 94% 2001, 95% avg.; Tobacco 25% harvested, 24% 2001, 21% avg.; 13% very poor, 21% poor, 31% fair, 31% good, 4% excellent. Hay 73% harvested, 64% 2001, 73% avg.; 19% very poor, 30% poor, 39% fair, 12% good. Peaches 63% harvested, 60% 2001, 60% avg.; 4% poor, 26% fair, 48% good, 22% excellent. Apples 34% fair, 64% good, 2% excellent. Snap beans 99% harvested, 93% 2001, 91% avg.; 3% poor, 96% fair, 1% good. Cucumbers 100% harvested, 100% 2001, 98% avg. Watermelons 91% harvested, 89% 2001, 90% avg.; 4% very poor, 11% poor, 66% fair, 19% good. Tomatoes 99% harvested, 98% 2001, 93% avg.; 9% very poor, 14% poor, 27% fair, 43% good, 7% excellent. Cantaloups 91% harvested, 95% 2001, 92% avg.; 1% very poor, 7% poor, 45% fair, 47% good. Livestock 1% very poor, 9% poor, 52% fair, 37% good, 1% excellent.

SOUTH DAKOTA: Days suitable for field work 6.5. Topsoil 58% very short, 33% short, 9% adequate. Subsoil 54% very short, 35% short, 11% adequate. Feed supplies 34% very short, 36% short, 30% adequate. Stock water supplies 43% very short, 31% short, 25% adequate, 1% surplus. Winter rye 11% very poor, 46% poor, 25% fair, 18% good, 100% turning color, 93% 2001, 97% avg.; 95% ripe, 55% 2001, 74% avg.; 100% turning color, 92% 2001, 94% avg.; 81% ripe, 29% 2001, 54% avg.; 29% harvested, 2% 2001, 15% avg. Barley 72% turning color, 61% 2001, 70% avg.; 48% ripe, 10% 2001, 22% avg. Oats 94% turning color, 70% 2001, 71% avg.; 60% ripe, 21% 2001, 34% avg. Spring Wheat 96% turning color, 66% 2001, 73% avg.; 51% ripe, 11% 2001, 21% avg. Sunflower 17% very poor, 31% poor, 47% fair, 5% good. Average corn height corn height in inches 57 in. 60 in. 2001, 59 in. avg. Corn cultivated twice 88%, 89% 2001, 87% avg. Corn tassled 43%, 35% 2001, 37% avg. Sunflower blooming 8%, 6% 2001, 10% avg. Cattle condition 2% very poor, 11% poor, 35% fair, 46% good, 6% excellent. Sheep condition 3% very poor, 8% poor, 29% fair, 53% good, 7% excellent. Range, pasture 45% very poor, 30% poor, 19% fair, 6% good. Alfalfa hay 49% very poor, 30% poor, 16% fair, 5% good. Alfalfa hay 1st cutting harvested 100%, 100% 2001, 99% avg.; 2nd cutting harvested 52%, 51% 2001, 47% avg. Other hay harvested 74%, 71% 2001, 67% avg. Hot, dry weather came again last week, with high temperatures reaching the 100's putting further stress on livestock, crops. Soil moisture conditions continue to decline with the hot weather conditions. Small grain harvest made good progress while alfalfa, pasture feed continue to decline due to lack of moisture, persistent hot weather.

TENNESSEE: Days suitable for fieldwork 5.0. Topsoil 12% very short, 29% short, 56% adequate, 3% surplus. Subsoil 15% very short, 33%

short, 49% adequate, 3% surplus. Tobacco 22% topped, 28% 2001, 24% avg.; 3% very poor, 12% poor, 32% fair, 44% good, 9% excellent. Alfalfa hay 86% 2nd cutting, 96% 2001, 88% avg. Pastures 8% very poor, 20% poor, 38% fair, 30% good, 4% excellent. Widely scattered showers, thunderstorms continued to be the story for the Volunteer State this past week. Rainfall averaged below normal for the week, but rains from summertime thunderstorms left localized areas with higher precipitation levels than normal. Areas receiving significant rainfall showed improvements in crop development, condition, while some other areas still suffered from very dry conditions. Many farmers were able to get some much needed spraying done between showers. The major field activity for tobacco growers last week was topping. Farmers also treated for diseases such as black shank. Pastures began to rebound as conditions improved from the previous week for the first time since late May.

TEXAS: Agricultural Summary: Conditions were mostly wet across central, southern regions during early to mid week. Additional rainfall was received in these areas which caused some rivers, creeks to flood. However, damage was minimal, isolated. Later in the week, some areas of the Plains, Trans Pecos Region received some showers as the result of a tropical air flow crossing Mexico. In all, more than thirty counties have issued a disaster declaration as the result of heavy rain, flooding so far this month. Developing crops across most areas of the state have greatly benefitted from this unusually wet month. Dryland crops have benefitted the most, but many irrigated operations have been able to reduce watering during this period. On the negative side, some of the crops ready for harvest were undergoing quality, yield losses due to extended wet conditions. Harvest of summer crops remained on hold in many central, southern locations during the week as drying out was needed. Haying operations were responding well to the rains, but most baling was delayed. Land preparation was moving ahead in some areas. Despite all the rain, some areas still remained dry, drought conditions lingered. Supplemental feeding was declining in areas where rainfall has been adequate however, feeding continued in dry areas. Insect pressure remained high especially from grasshoppers; armyworm populations continued to grow. Small Grains: Harvest was virtually complete for wheat, oats, except for a few isolated wet fields. Land preparation progressed, but was stalled in some locations as fields remained wet. Corn: Progress, development of irrigated corn continued across the Plains, state. Irrigation was in full swing in many of these locations, especially in the drier locations. Corn root worm, corn borer populations continued to increase in some areas. Harvest in southern locations resumed in a few locations however, progress was slow as some drying out was still needed. Corn 60% of normal compared with 69% 2001. Cotton: Irrigated cotton continued to make fair to good progress across areas of the Plains. Dryland cotton was responding well in areas where rainfall has been plentiful. However, in the driest locations some of cotton was a total loss. Fleahoppers continued to cause problems in some locations while bollworm infestations have been found in a few areas. Defoliation, harvest was beginning in some southern locations. Cotton 66% of normal compared with 52% 2001. Sorghum: Planting was complete in the Plains. Progress, development continued in earlier planted fields especially in areas where rain has been abundant. Harvest resumed, but was slow in central, southern locations as some fields remained too wet to support harvest equipment. Sprouting in the head was a problem in a few locations as conditions remained wet. Sorghum 89% of normal compared with 87% 2001. Peanuts: Peanuts made good progress in most areas across the state. Pegging, setting pods was active in earlier planted nuts. Many fields have lapped in the middles as the result of ideal growing conditions. Irrigation remained active in many locations across the Plains, recent rainfall has improved many dryland operations in other areas. Peanut 81% of normal compared to 68% 2001. Soybeans: Progress, development was reported as satisfactory in areas where earlier rainfall was plentiful. However, some beans were suffering from lack of moisture in a few locations across the Plains. Preparations for harvest continued in southern locations, but drying out has been slow, harvest has remained on hold. Rice: Rice condition was favorable as most fields remained under constant flood. Some fields of rice were turning color, fields were being drained. Heads continued to mature at a rapid pace in earlier planted fields. Grasshoppers continued to cause problems in some areas. Rice 89% of normal compared to 87% 2001. Commercial Vegetables, Fruit, Pecans. In the Rio Grande Valley land preparation continued in some areas, but was on hold in other areas as fields remained wet from earlier rainfall. Additional rainfall was received in some locations during the week, a few areas received in excess of five inches. In the San Antonio-Winter Garden harvest of remaining melons moved ahead in a few locations. However, additional rainfall during the week slowed most remaining harvest. Wet conditions have created mildew problems for some producers. In East Texas growth, development of sweet potatoes continued. Harvest of remaining melons, peas, tomatoes, sweet corn moved ahead, but was winding down. Some areas experienced additional rainfall, harvest was delayed further. In the High

Plains growth, development continued for earlier planted potatoes, carrots, cucumbers, pumpkins, onions. Watermelons, cantaloupes made good progress, some harvest began. Dry beans made fair progress. Pecans: Nut development continued in most areas of the state. With recent rainfall, many producers have reported extremely good filling. Pecan insects have been a problem for some producers. Peaches: Harvest was winding down across the state, but wet conditions were affecting remaining harvest. Range, Livestock: Heavy rains fell across many central, southern locations as well as parts of the Hill Country during the week. Elsewhere, scattered showers roamed throughout the week. Signs of pasture recovery was noticed across many areas of the state. However, it will take time for pastures to return to normal. Hay baling was active in areas where drying out was sufficient. Some producers were baling between rains however, many areas remained too wet. Supplemental feeding continued in some areas as pasture recovery has not been sufficient to carry livestock herds. However, generally feeding was declining. Armyworms, grasshoppers continued to cause severe damage in some locations however, control measures were on hold in many areas due to rain. Despite all of the recent widespread rains, range, pastures in some areas remained dormant.

UTAH: Days suitable for field work 7. Topsoil 37% very short, 42% short, 21% adequate. Subsoil 33% very short, 43% short, 24% adequate. Winter Wheat 12% harvested, 19% 2001, 18% avg.; 17% very poor, 18% poor, 36% fair, 24% good, 5% excellent. Spring wheat 97% headed, 100% 2001, 95% avg.; 3% harvested, 12% 2001, 7% avg.; 8% very poor, 12% poor, 46% fair, 31% good, 3% excellent. Barley 100% headed, 100% 2001, 95% avg.; 8% harvested, 12% 2001, 10% avg.; 3% very poor, 14% poor, 37% fair, 35% good, 11% excellent. Oats 82% headed, 84% 2001, 82% avg.; 77% harvested for hay or silage, 76% 2001, 61% avg. Corn 5% silked, 14% 2002, 9% avg.; 2% very poor, 7% poor, 39% fair, 45% good, 7% excellent; height 51 inches, 54 inches 2001, 49 inches avg. Alfalfa hay 2nd cutting 60%, 57% 2001, 47% avg. Other hay cut 84%, 86% 2001, 73% avg. Apricots 97% harvested, 94% 2001, 79% avg. Sweet 100% cherries picked, 100% 2001, 90% avg. Tart cherries picked 71%, 77% 2001, 44% avg. Cattle 2% very poor, 9% poor, 38% fair, 44% good, 7% excellent. Sheep 2% very poor, 8% poor, 38% fair, 48% good, 4% excellent. Range, pasture feed 30% very poor, 33% poor, 30% fair, 7% good. Irrigation water supplies 37% very short, 39% short, 24% adequate. Stock water supplies 33% very short, 45% short, 22% adequate. State farmers, ranchers remained busy last week harvesting alfalfa and other hay, harvesting grain, applying pesticides to crop land, irrigating crops. Temperatures were in the 90s, most of the state received scattered rainstorms. The yellow striped army cut worm, grasshoppers continued to cause great amounts of damage to alfalfa, grain crops in many parts of the state. Many producers have decided to cut second crop early to try to save what is left before it is eaten by insects. The northern part of the state reported grain is rapidly turning, has been irrigated for the last time. Southern state farmers reported that most grain will be cut for hay or silage because of the shortage of hay supplies. Irrigation water supplies remain to be a problem all over the state. Some irrigation companies have reduced to half turns, while others have reported irrigation supplies are gone. Rainstorms slightly improved range conditions but 13% of cattle have been removed because of the shortage in stock water, forage.

VIRGINIA: Days suitable for fieldwork 6.1. Topsoil 37% very short, 33% short, 30% adequate. Subsoil 41% very short, 43% short, 16% adequate. Pasture 29% very poor, 34% poor, 26% fair, 10% good, 1% excellent. Livestock 2% very poor, 12% poor, 30% fair, 50% good, 6% excellent. Other Hay 18% very poor, 33% poor, 33% fair, 16% good. Alfalfa hay 4% very poor, 25% poor, 43% fair, 23% good, 5% excellent. Corn 20% very poor, 38% poor, 29% fair, 11% good, 2% excellent; 80% silked, 67% 2001, 60% 5-yr avg.; 50% dough, 34% 2001, 21% 5-yr avg.; 12% dent, 3% 2001, 1% 5-yr avg. Soybeans 22% very poor, 27% poor, 30% fair, 20% good, 1% excellent; 98% emerged, 96% 2001, NA 5-yr avg.; 23% blooming, 24% 2001, 17% 5-yr avg.; 4% setting pods, 3% 2001, 2% 5-yr avg. Flue tobacco 2% very poor, 10% poor, 45% fair, 34% good, 9% excellent. Burley tobacco 20% poor, 29% fair, 30% good, 21% excellent. Dark Fire Cured tobacco 13% poor, 44% fair, 33% good, 10% excellent. Sun tobacco 35% poor, 5% fair, 60% good. Peanuts 1% very poor, 10% poor, 25% fair, 61% good, 3% excellent. Peanuts 65% pegged, 73% 2001, 67% 5-yr avg. Cotton 2% very poor, 21% poor, 36% fair, 38% good, 3% excellent. Cotton 100% Squaring, 99% 2001, 94% 5-yr avg.; 69% setting bolls, 35% 2001, 39% 5-yr avg. Summer Potatoes 5% very poor, 10% poor, 45% fair, 35% good, 5% excellent; 94% harvested, 72% 2001, 65% 5-yr avg. Summer Apples 11% poor, 38% fair, 50% good, 1% excellent; 42% harvested, 17% 2001, 16% 5-yr avg. Peaches 29% very poor, 23% poor, 29% fair, 19% good. Peaches 23% harvested, 28% 2001, 22% 5-yr avg. State experienced another week without significant rainfall. The lack of precipitation, high temperatures caused a further

decline in crop conditions. Water supplies across the state continue to deplete, pastures are drying up forcing many farmers to feed their cattle and other livestock hay. Farmers were in the final stages of wheat harvesting, continue to produce alfalfa hay. Field crops are extremely stressed due to the severe drought conditions. Corn, sweet corn have been very short in many areas due to below average rainfall. Activities: Selling livestock, hauling water, applying fungicide to peanuts, herbicide to cotton, soybeans, peanuts, irrigating tobacco.

WASHINGTON: Days suitable for fieldwork 7.0. Topsoil 4% very short, 42% short, 54% adequate. Subsoil 20% short, 80% adequate. Irrigation water supply was 10% short, 90% adequate. The highest temperature in the state was 101° in Hanford. The lowest temperature in the state was 44° in Stampede Pass. Winter wheat 1% very poor, 4% poor, 44% fair, 42% good, 9% excellent; 8% harvested. Spring wheat 1% very poor, 10% poor, 51% fair, 34% good, 4% excellent; 3% harvested. The wheat crop in Walla Walla County appeared in good shape, but yields were reported to be 15 to 20% below normal. Temperature fluctuation throughout the season caused the heads to not fill. Barley 10% poor, 54% fair, 33% good, 3% excellent; 2% harvested. Field corn 4% fair, 96% good. Dry edible bean 15% fair, 85% excellent. Dry peas 4% harvested. Processing green peas were 100% harvested. Potato 5% fair, 90% good, 5% excellent; 18% harvested. Hay, other roughage 12% short, 88% adequate. Alfalfa 2nd cutting 79% complete; 3rd cutting 10% complete. Range, pasture feeds 2% very poor, 15% poor, 63% fair, 20% good. In Kittitas County, the first cutting of timothy hay was complete, with average yields. Blueberry harvest was in full swing with berries ripening rapidly due to the warm temperatures.

WEST VIRGINIA: Days suitable for fieldwork 5.4. Topsoil 3% very short, 28% short, 68% adequate, 1% surplus, 3% very short, 22% short, 73% adequate, 2% surplus last week, 1% very short, 17% short, 80% adequate, 2% surplus in 2001. Corn 2% poor, 25% fair, 68% good, 5% excellent; 38% silked, 14% last week, 45% 2001, 48% 5-yr avg.; 2% doughing. Oats 40% fair, 45% good, 15% excellent; 94% headed, 87% last week, 100% 2001, 98% 5-yr avg.; 38% harvested, 12% last week, 17% 2001, 25% 5-yr avg. Soybeans 17% fair, 77% good, 6% excellent; 42% blooming, 13% last week, 30% 2001, 44% 5-yr avg.; 7% podding, 20% 2001, 15% 5-yr avg. Wheat harvested 99% for grain 88% last week, 80% 2001, 85% 5-yr avg. Tobacco 3% poor, 26% fair, 58% good, 13% excellent; 0% topped, 5% 2001, 6% 5-yr avg. Hay 8% poor, 36% fair, 50% good, 6% excellent; 2nd cut 38%, 28% last week, 30% 2001, 31% 5-yr avg. Apple 100% fair. Peach 100% fair. Cattle, calves 1% poor, 11% fair, 80% good, 8% excellent. Sheep, Lambs, 1% poor, 10% fair, 84% good, 5% excellent. Some heavy rainfall across the northern half of the state with over 2 inches reported in some areas. Less than 1 inch was more common across the state. Weather permitting, farmers continued with 2nd cutting hay, harvesting small grains.

WISCONSIN: Days suitable for fieldwork 6.6. Soil 25% very short, 43% short, 32% adequate. The story hasn't changed in weeks: State soils desperately need rain. Fields in the southern half of the state thirsted the most last week, and farmers in those areas remarked that no amount of rain will save some fields. Although the dry weather is conducive to hay harvest, it contributed to crop stress across the state.

WYOMING: Days suitable for fieldwork 6.6. Topsoil 66% very short, 31% short, 3% adequate. Irrigation water supply 50% very short, 30% short, 20% adequate. Barley 13% very poor, 12% poor, 27% fair, 46% good, 2% excellent. Winter wheat 46% very poor, 44% poor, 8% fair, 2% good. Spring wheat 52% very poor, 33% poor, 10% fair, 5% good. Oats 30% very poor, 18% poor, 31% fair, 20% good, 1% excellent. Corn 18% very poor, 24% poor, 33% fair, 24% good, 1% excellent. Sugarbeet 8% very poor, 12% poor, 29% fair, 46% good, 5% excellent. Dry beans 9% very poor, 14% poor, 35% fair, 40% good, 2% excellent. Barley 79% headed, 86% 2001, 88% avg.; 45% turning color, 58% 2001, 59% avg.; 18% mature, 30% 2001, 15% avg. Spring wheat 83% headed, 83% 2001, 88% avg.; 36% turning color, 18% 2001, 45% avg.; 10% mature, 6% 2001, 10% avg. Oats 84% boot, 85% 2001, 91% avg.; 64% headed, 64% 2001, 76% avg.; 21% turning color, 26% 2001, 30% avg. Dry Beans 51% bloom, 49% 2001, 47% avg.; 20% setting pods, 15% 2001, 14% average. Corn tasseled 34%, 47% 2001, 31% average; average height 49 in. Winter wheat 93% mature, 64% 2001, 82% avg.; 72% harvested, 27% 2001, 34% average. Alfalfa 1st cutting 92%, 93% 2001, 90% avg.; 2nd cutting 7%, 15% 2001, 7% average. Other hay harvested 50%, 43% 2001, 48% avg. Pasture, range 52% very poor, 25% poor, 19% fair, 4% good. Scattered showers provided some short-term relief from drought.

International Weather and Crop Summary

July 14 - 20, 2002

International Weather and Crop Highlights and Summaries provided by USDA/WAOB

HIGHLIGHTS

EUROPE: A slow-moving storm brought unseasonably heavy rain and showers across central and eastern Europe, slowing winter grain maturation in the north, but favoring summer crops in the southeast.

FSU-WESTERN: Scattered showers and slightly cooler weather eased stress on summer crops in Ukraine and the Southern Region in Russia.

FSU-NEW LANDS: Light showers kept spring grain areas well watered, although unseasonably cool weather slowed crop development.

AUSTRALIA: Isolated showers in eastern Australia offered winter grains little relief from intensifying drought.

EASTERN ASIA: Showers brought some relief to heat-stressed summer crops on the North China Plain, as tropical showers kept Japanese rice areas unseasonably wet.

SOUTHEAST ASIA: A tropical depression brought heavy showers and flooding to the Philippines.

SOUTH ASIA: A resumption of monsoon showers brought relief to oilseeds in western India.

CANADA: Unseasonable warmth and dryness continued to stress reproductive spring crops in the western Prairies.

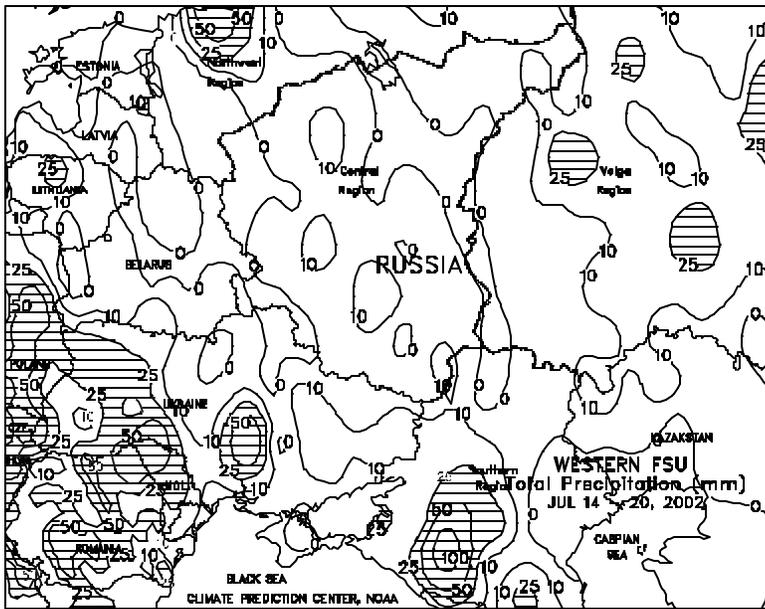
MEXICO: Showers continued to favor summer crops in the Rio Grande watershed and the Southern Plateau corn belt.

SOUTH AMERICA: In Argentina and Brazil, warmer weather improved conditions for crop harvesting and winter wheat development.



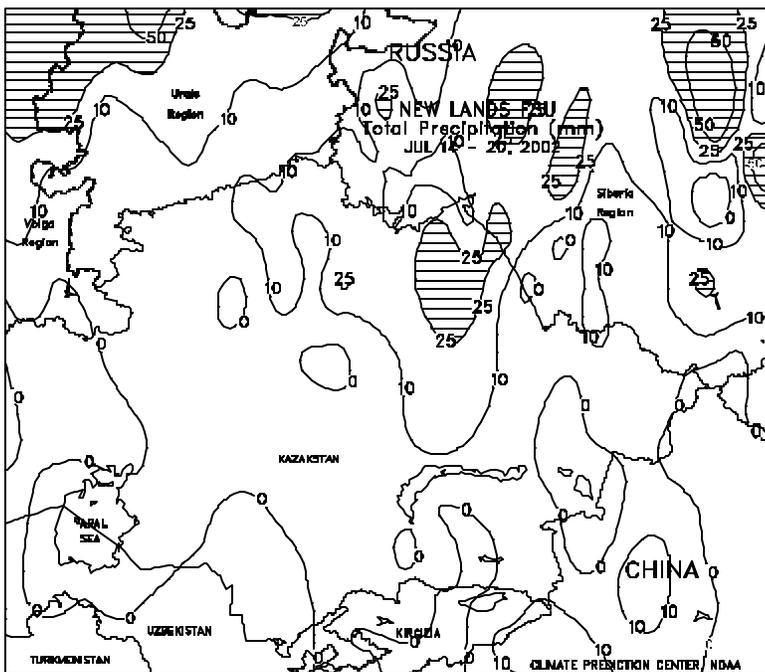
EUROPE

A slow-moving, upper-level low pressure system over the northern Mediterranean Sea (Gulf of Genoa) brought unseasonably heavy rain and showers across central and eastern Europe. These type of systems are fairly typical during the winter, but are rare during the summer. Heavy rain and showers (15-60 mm, locally near 110 mm) extended from most of Germany to central Italy and from extreme eastern France to southern Poland and southern Romania. The widespread rainfall was unfavorable for winter grain maturation and harvesting, especially in northern Germany and Italy's Po valley, but increased irrigation supplies and boosted soil moisture for vegetative to reproductive summer crops, especially in southeastern Europe. In the latter region, which has been plagued with dryness this season, beneficial rain fell in the driest areas, including Hungary (10-50 mm), Serbia (15-60 mm) and the lower Danube River valley (15-45 mm). In western Europe (i.e., England, France, and Spain), much-needed drier and seasonably warmer weather favored winter grain maturation and eased disease concerns. In Spain, cool, dry weather reduced irrigation requirements for summer crops. Temperatures averaged near normal across northwestern Europe and 1 to 4 degrees C below normal in most of Spain, southern France, and northern and central Italy, slowing summer crop development. In eastern Europe, temperatures still averaged 1 to 3 degrees C above normal.



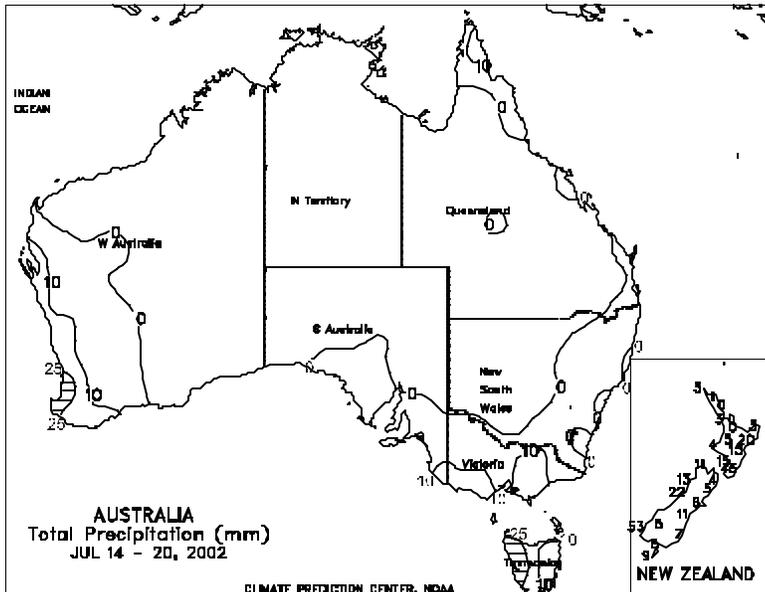
FSU-WESTERN

Scattered showers and thunderstorms were accompanied by slightly cooler weather in Ukraine and the Southern Region in Russia, easing stress on summer crops. However, the rain was light (mostly less than 15 mm) and scattered, likely resulting in a further decline in crop conditions in many areas. Maximum temperatures fell from around 35 degrees C in the beginning of the week, to around 30 degrees C at week's end. Farther north, a strong cold front moved through the Central and Volga Regions, producing widespread showers (5-25 mm or more) and sharply cooler weather. Maximum temperatures fell from the upper 20s degrees C early in the week to the upper teens and lower 20s degrees C by week's end. Winter grain harvesting continued to progress northward during the week, helped by periods of dry weather. Elsewhere, several days of dry weather in the Baltics and Belarus were accompanied by above-normal temperatures, helping winter grain maturation and harvesting. Weekly temperatures averaged 2 to 7 degrees C above normal in Ukraine, Belarus, Lithuania, and the Russian Southern Region, and 1 to 2 degrees C below normal in northern Russia.



FSU-NEW LANDS

Spring grains were likely filling in Kazakhstan and adjacent areas in Russia, and advancing through reproduction in northern Russia. Light, periodic showers (5-15 mm or more) fell in Kazakhstan and Russia, keeping spring grains well watered. Unseasonably cool weather (weekly temperatures averaging 3-7 degrees C below normal) prevailed in the Urals, northern Kazakhstan, and the western portion of Siberia, slowing crop development. Warmer, drier weather was welcomed in the Altay Kray region of Siberia, where total amounts of precipitation since the beginning of June were about 172 percent of normal, creating unfavorably wet conditions in some areas. Weekly temperatures in Altay Kray were 1 to 4 degrees C above normal. In primary cotton producing areas of Central Asia, the hottest weather so far this summer prevailed over most of the region, increasing irrigation requirements and accelerating crop development. On several days, maximum temperatures at most locations ranged from 39 to 45 degrees C.

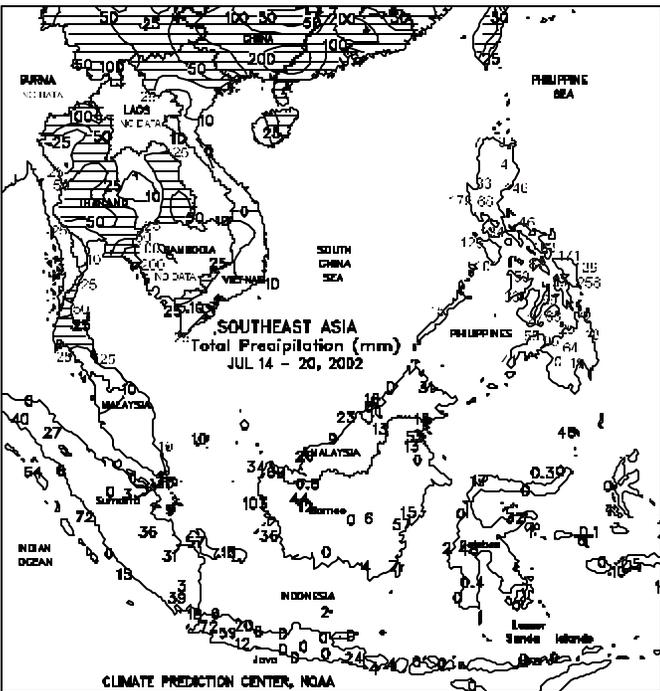
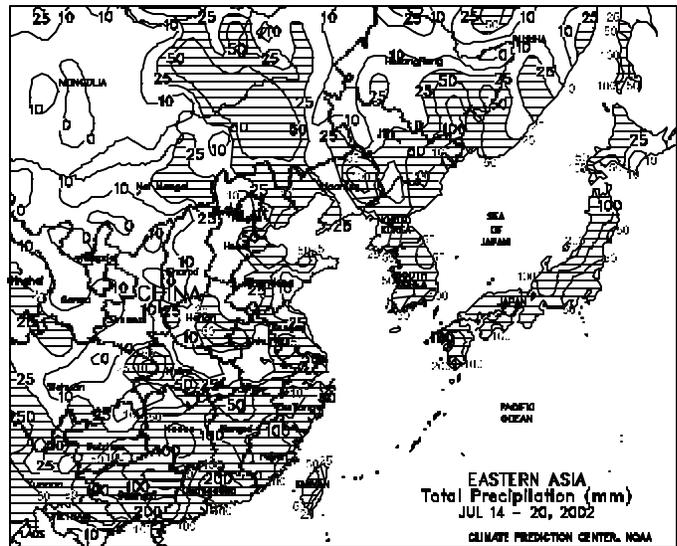


AUSTRALIA

In Western Australia, showers (2-18 mm) maintained mostly adequate moisture supplies for vegetative winter wheat and barley. Farther east, scattered, light showers (2-9 mm) moistened topsoils in South Australia and Victoria, helping winter grain development. Much more rain was needed in Victoria, however, to increase subsoil moisture following approximately 4 months of below-normal rainfall. Similarly, soaking rains would be welcomed over New South Wales and southern Queensland following several months of unseasonably dry weather. Isolated showers (1-6 mm) offered winter wheat and barley little relief from the intensifying drought in these areas. Temperatures in major winter grain producing areas averaged 0 to 2 degrees C above normal. In New Zealand, light showers (5-15 mm) maintained adequate moisture supplies for winter crops.

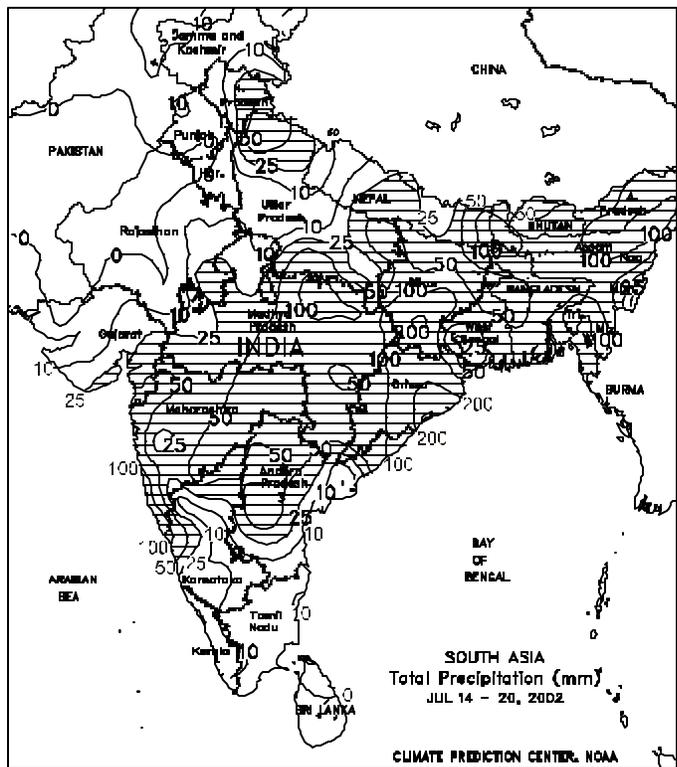
EASTERN ASIA

On the North China Plain, scattered showers (10-25 mm or more) brought some relief to summer crops stressed by very hot weather (highs in the upper 30s and lower 40s degrees C) early in the week. The rain brought more seasonable temperatures (highs generally in the lower and middle 30s degrees C) to the region, creating favorable conditions for reproductive and filling corn and soybeans. Milder, showery (10-50 mm or more) weather benefited crops in Manchuria, with highs generally in the middle and upper 20s degrees C. The rainfall was especially welcome in previously dry areas in Liaoning. In southern China, drier-than-normal weather (rainfall generally under than 25 mm) continued in the Sichuan Basin and along the Yangtze River, spurring seasonal rice fieldwork (early double-crop rice harvesting and late double-crop rice planting) and helping flood recovery efforts. Heavier rain (50-100 mm or more) fell farther south, including some valleys feeding the Yangtze River, increasing irrigation reserves for rice, sugarcane, and other summer crops. Temperatures averaged near to above normal in southern China, with highs reaching the middle 30s degrees C at most locations. Elsewhere, tropical storm activity kept Japan unseasonably wet, with locally heavy rain (50-100 mm or more) likely causing additional local flooding. Sunny skies are needed to improve growing conditions for Japanese rice, although seasonable temperatures have helped to advance rice development. Mild, showery weather continued over the Korean Peninsula, with locally heavy rain (50-100 mm or more) persisting in northeastern sections of North Korea.



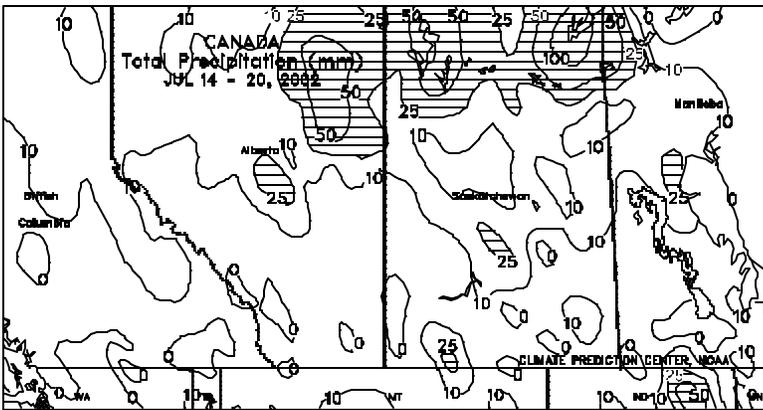
SOUTHEAST ASIA

A tropical depression moved through the central Philippines, bringing heavy showers (50-200 mm or more) from northern Mindanao to southern Luzon. As a result of the heavy showers, some flooding occurred in Luzon. Showers were mostly light throughout Vietnam, reducing moisture for 10th month rice. In Thailand, scattered showers (25-50mm) brought some moisture to main-season rice and corn. Dry weather reduced moisture supplies for oil palm in peninsular Malaysia and Sumatra, while showers in western Java, Indonesia increased irrigation supplies for second-season rice.



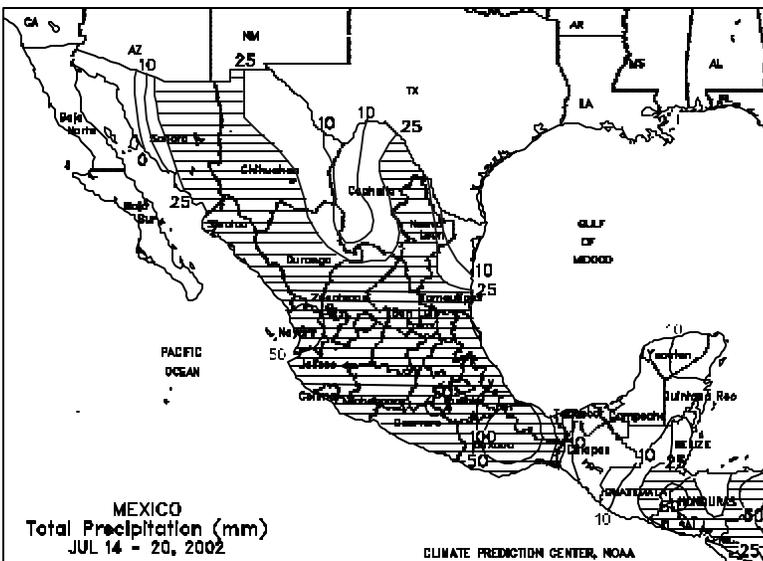
SOUTH ASIA

Showers (10-50 mm) resumed in west-central India, bringing some relief to emerging oilseeds, however, temperatures (35-39 degrees C) remained unfavorable. Heavy rains (50-200 mm, locally more) in northeastern India kept rice well watered, although there were reports of flooding. Moderate showers (25-50 mm) aided oilseeds and cotton in Maharashtra and Andhra Pradesh, while much-needed rain benefited rice in Orissa. Hot, mostly dry weather continued in Pakistan and north-central India, where the monsoon has been delayed in arriving. Although rice and cotton are heavily irrigated in the north, the lack of monsoon rains could reduce long-term moisture reserves.



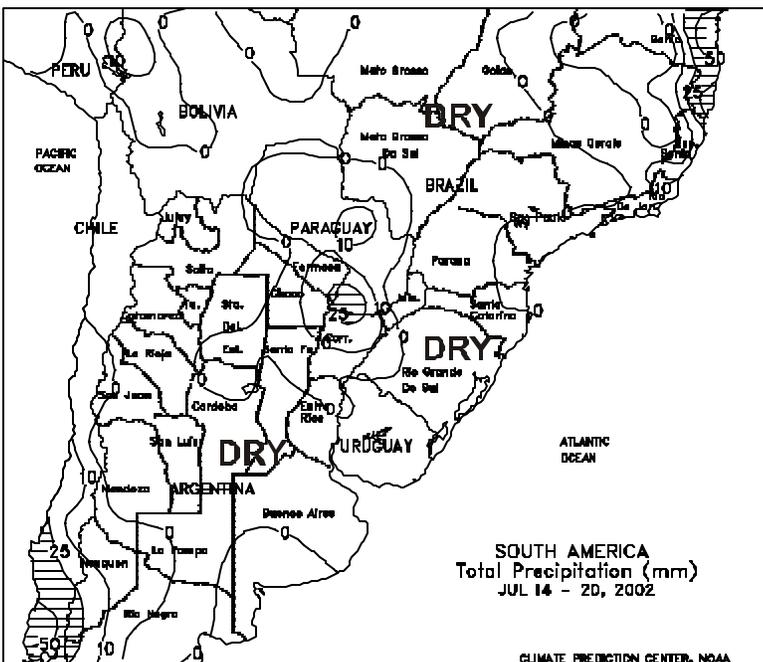
CANADA

Warmer- and drier-than-normal weather dominated the Prairies. In western growing areas (Alberta and Saskatchewan), temperatures reached the middle and upper 30s degrees C, placing additional stress on reproductive spring grains and oilseeds. At week's end, a cold front brought widely-scattered showers (less than 10 mm in most areas) and cooler weather (highs in the 20s degrees C) to the west, bringing some relief from the unfavorable warmth. In Manitoba, warm weather (highs in the lower and middle 30s degrees C) increased moisture demands of reproductive and filling spring crops. However, crops were in overall better condition than in the west and likely experienced lesser degrees of problems from the hot weather. In eastern Canada, mostly dry weather continued in Ontario's main agricultural areas, reducing moisture reserves for corn and soybean development but maintaining generally favorable conditions for winter wheat harvesting. Temperatures were generally in the upper 20s and lower 30s degrees C, limiting the potential for stress on summer crops in or nearing reproduction. Showers (5-25 mm or more) and cooler weather (highs in the lower and middle 20s degrees C) dominated crop areas in Quebec.



MEXICO

Showers (10-25 mm) continued to favor pastures and summer crops and increase long-term irrigation supplies across the Rio Grande watershed of northern Mexico. Across the southern Plateau corn belt, widespread showers (10-25 mm or more) continued to favor vegetative corn. After a slow start to the rainy season in northwestern Mexico, shower activity continued to increase (5-15 mm). Scattered showers (5-25 mm) fell across southeastern Mexico, the Yucatan Peninsula, Belize, Guatemala, and Honduras, maintaining adequate moisture supplies. Temperatures averaged slightly below normal across northern Mexico, reducing irrigation demands, and near normal elsewhere in Mexico.



SOUTH AMERICA

Temperatures moderated over the main growing areas of Argentina and Brazil, improving conditions for winter wheat development and crop harvesting. In southern Brazil, temperatures stayed well above freezing in the coffee belt, lowering the risk of isolated frost as harvesting progressed. However, frosty weather (lows near 0 degrees C) lingered early in the week in wheat areas from Santa Catarina to southern Sao Paulo, slowing development of crops nearing reproduction. Little or no rain fell in Brazil's main crop areas, but moderate showers (25-50 mm) continued along the Bahia Coast, increasing moisture for cocoa but hampering fieldwork. In Argentina, warm, dry weather improved conditions for emerging wheat, especially in southern growing areas (southern Buenos Aires and eastern La Pampa) that have been very cold recently. Freezing temperatures (0 to -1 degrees C) were recorded in the southernmost growing areas, compared with recent weeks of hard freezes (-5 degrees C or lower) that encompassed broad areas of the southern wheat belt. According to the Argentine Agricultural Secretariat, winter wheat was reportedly 68 percent planted as of July 12, compared with 70 percent last year. Corn and soybeans were virtually harvested at 97 and 99 percent, respectively.

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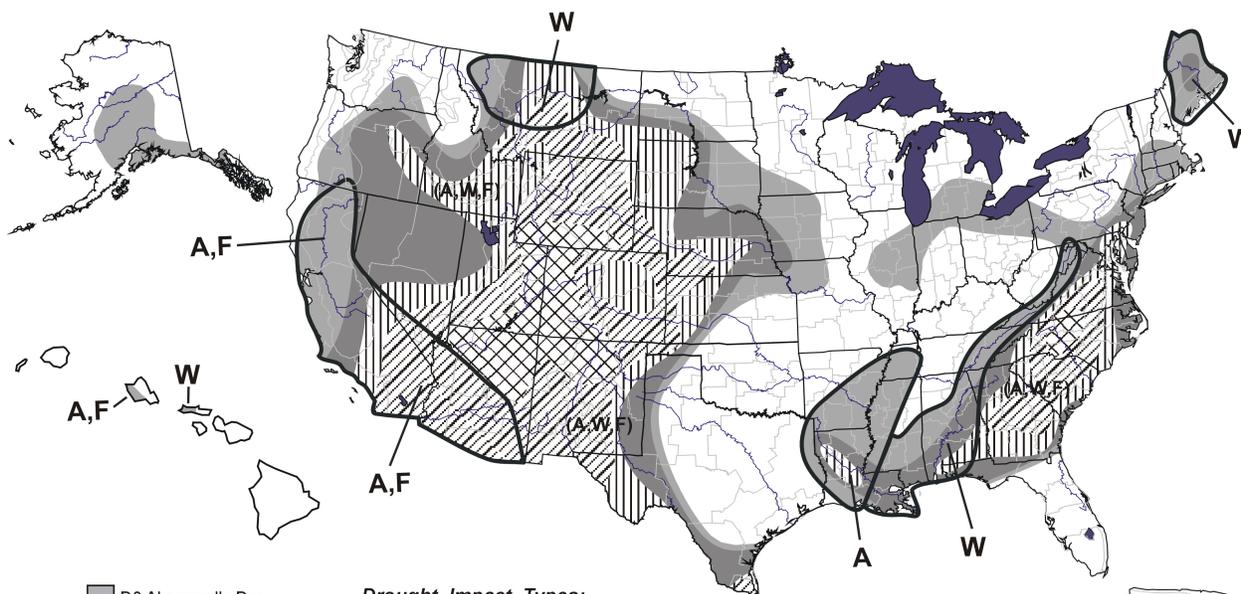
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U.S. Drought Monitor

July 16, 2002
Valid 8 a.m. EDT



- D0 Abnormally Dry
 - D1 Drought—Moderate
 - ▨ D2 Drought—Severe
 - ▩ D3 Drought—Extreme
 - ⊠ D4 Drought—Exceptional
- Drought Impact Types:**
A = Agriculture
W = Water (Hydrological)
F = Fire danger (Wildfires)
- - - Delineates dominant impacts
(No type = All 3 impacts)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



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