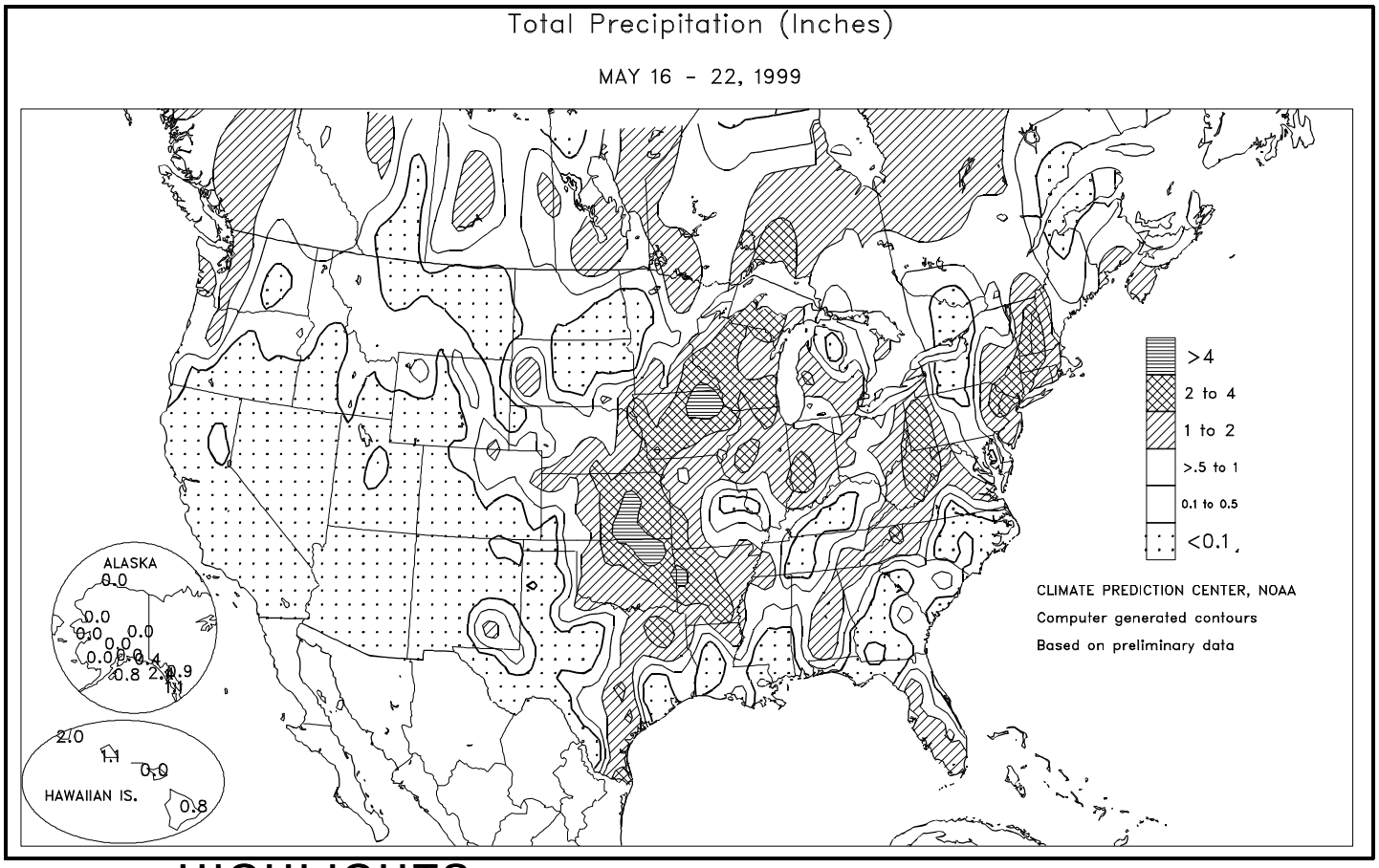
Volume 86, No. 21 **May 25, 1999**

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



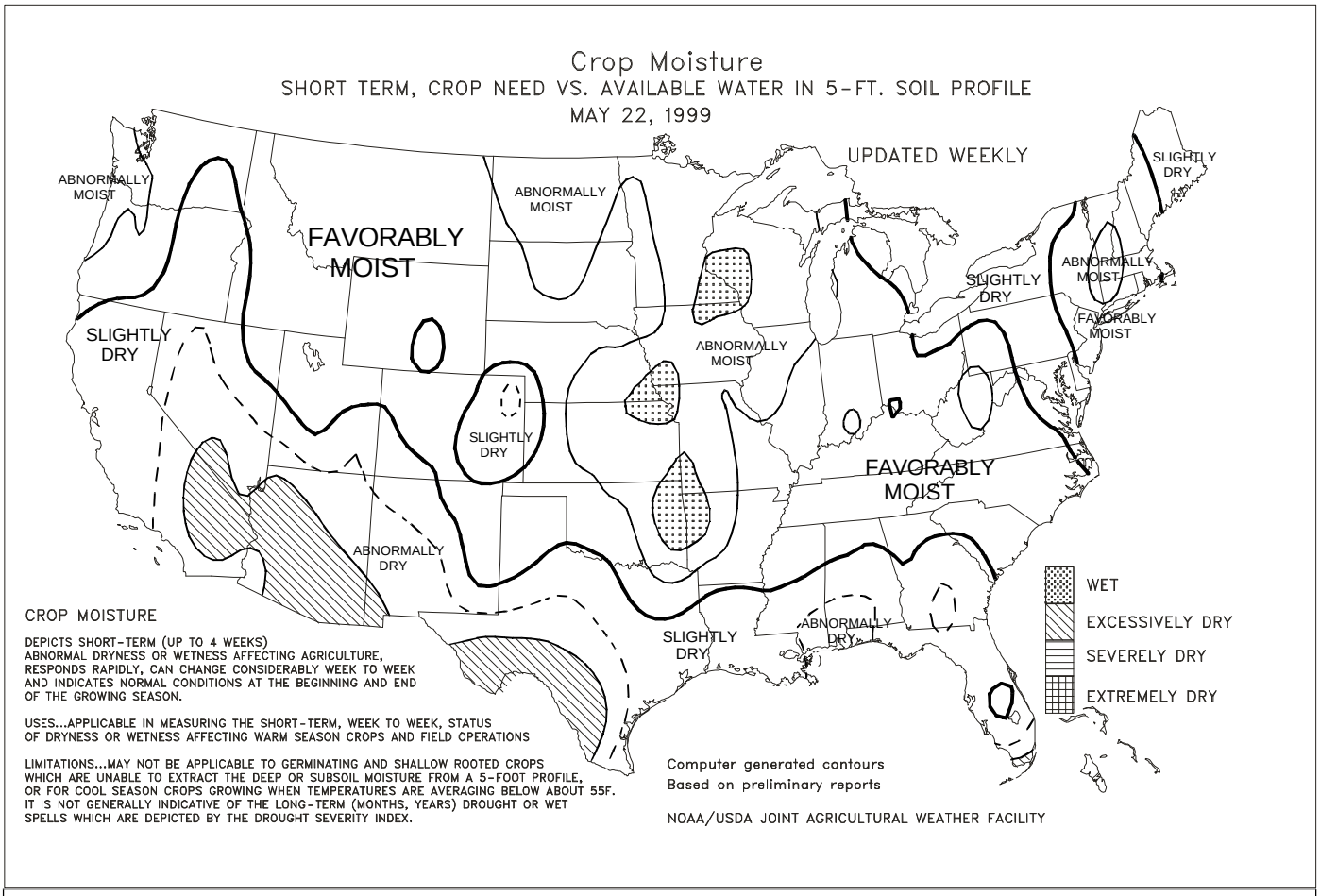
HIGHLIGHTS

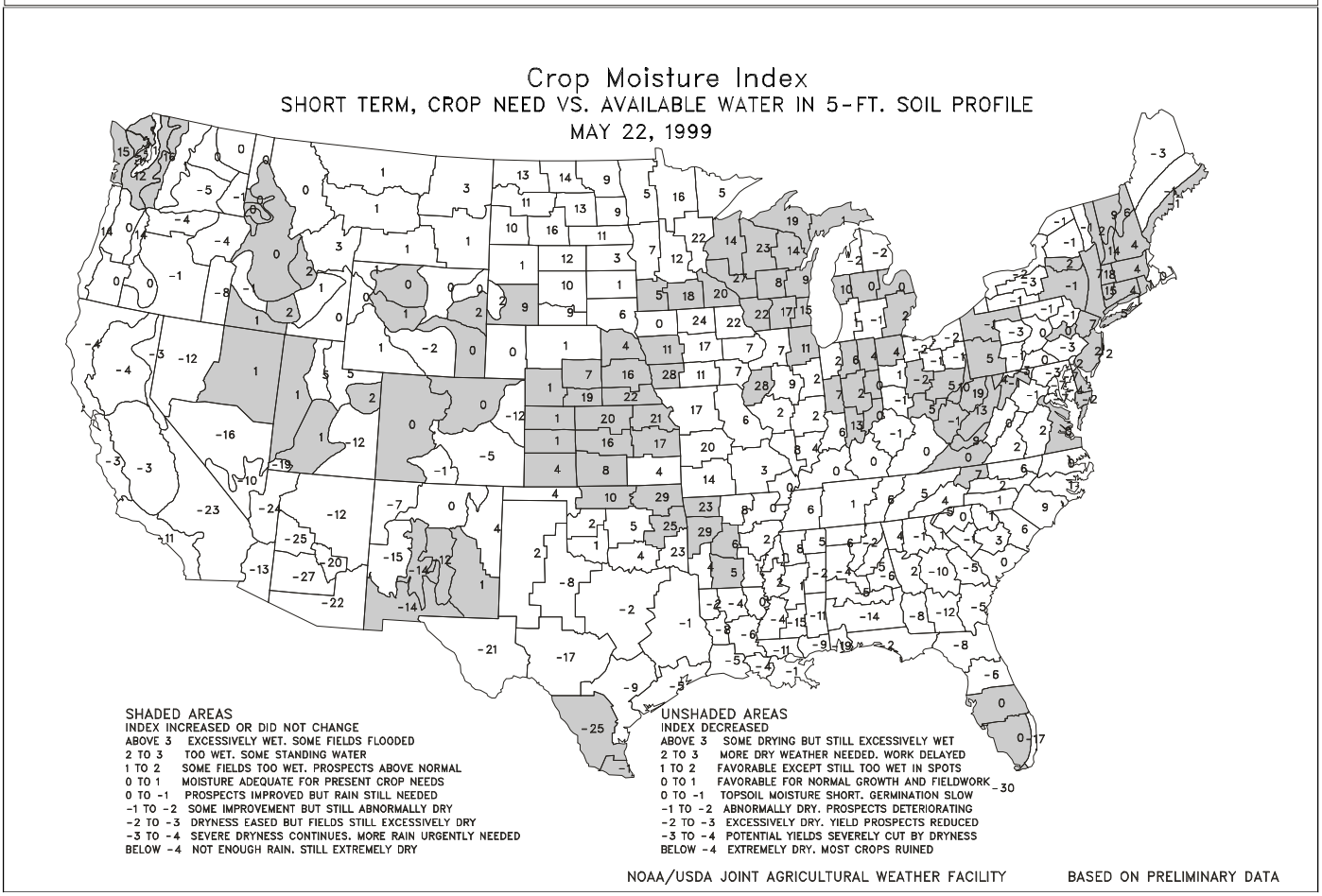
May 16 - 22, 1999

Beneficially drier weather overspread **eastern Montana** and the **Dakotas**, allowing a limited return to fieldwork. Wetness intensified, however, across the **east-central Plains** and **western Corn Belt**, causing lowland flooding and additional planting delays. Elsewhere in the **Corn Belt**, early- and late-week showers caused only minor soybean and final corn planting disruptions. Meanwhile, much-needed rainfall dampened portions of the **Northeast**. Welcomed rain also fell in parts of the **South**, including **southern Texas** and **Peninsular Florida**. Temperatures averaged within 6ºF of normal nearly nationwide. Departures reached +6ºF in the **northern Corn Belt**, aiding the development of winter wheat and spring-sown

(Continued on page 5)

Contents


Crop Moisture
SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE
MAY 22, 1999
UPDATED WEEKLY
ABNORMALLY MOIST
FAVORABLY MOIST
SLIGHTLY DRY
ABNORMALLY DRY
WET
EXCESSIVELY DRY
SEVERELY DRY
EXTREMELY DRY
CROP MOISTURE
DEPICTS SHORT-TERM (UP TO 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.
USES...APPLICABLE IN MEASURING THE SHORT-TERM, WEEK TO WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS
LIMITATIONS...MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 5-FOOT PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55F. IT IS NOT GENERALLY INDICATIVE OF THE LONG-TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.
Computer generated contours
Based on preliminary reports
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY


Crop Moisture Index
SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE
MAY 22, 1999
SHADED AREAS
INDEX INCREASED OR DID NOT CHANGE
ABOVE 3 EXCESSIVELY WET. SOME FIELDS FLOODED
2 TO 3 TOO WET. SOME STANDING WATER
1 TO 2 SOME FIELDS TOO WET. PROSPECTS ABOVE NORMAL
0 TO 1 MOISTURE ADEQUATE FOR PRESENT CROP NEEDS
0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED
-1 TO -2 SOME IMPROVEMENT BUT STILL ABNORMALLY DRY
-2 TO -3 DRYNESS EASED BUT FIELDS STILL EXCESSIVELY DRY
-3 TO -4 SEVERE DRYNESS CONTINUES. MORE RAIN URGENTLY NEEDED
BELOW -4 NOT ENOUGH RAIN. STILL EXTREMELY DRY
UNSHADED AREAS
INDEX DECREASED
ABOVE 3 SOME DRYING BUT STILL EXCESSIVELY WET
2 TO 3 MORE DRY WEATHER NEEDED. WORK DELAYED
1 TO 2 FAVORABLE EXCEPT STILL TOO WET IN SPOTS
0 TO 1 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK
0 TO -1 TOPSOIL MOISTURE SHORT. GERMINATION SLOW
-1 TO -2 ABNORMALLY DRY. PROSPECTS DETERIORATING
-2 TO -3 EXCESSIVELY DRY. YIELD PROSPECTS REDUCED
-3 TO -4 POTENTIAL YIELDS SEVERELY CUT BY DRYNESS
BELOW -4 EXTREMELY DRY. MOST CROPS RUINED
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
BASED ON PRELIMINARY DATA

Weather Data for Selected Locations in the Delta

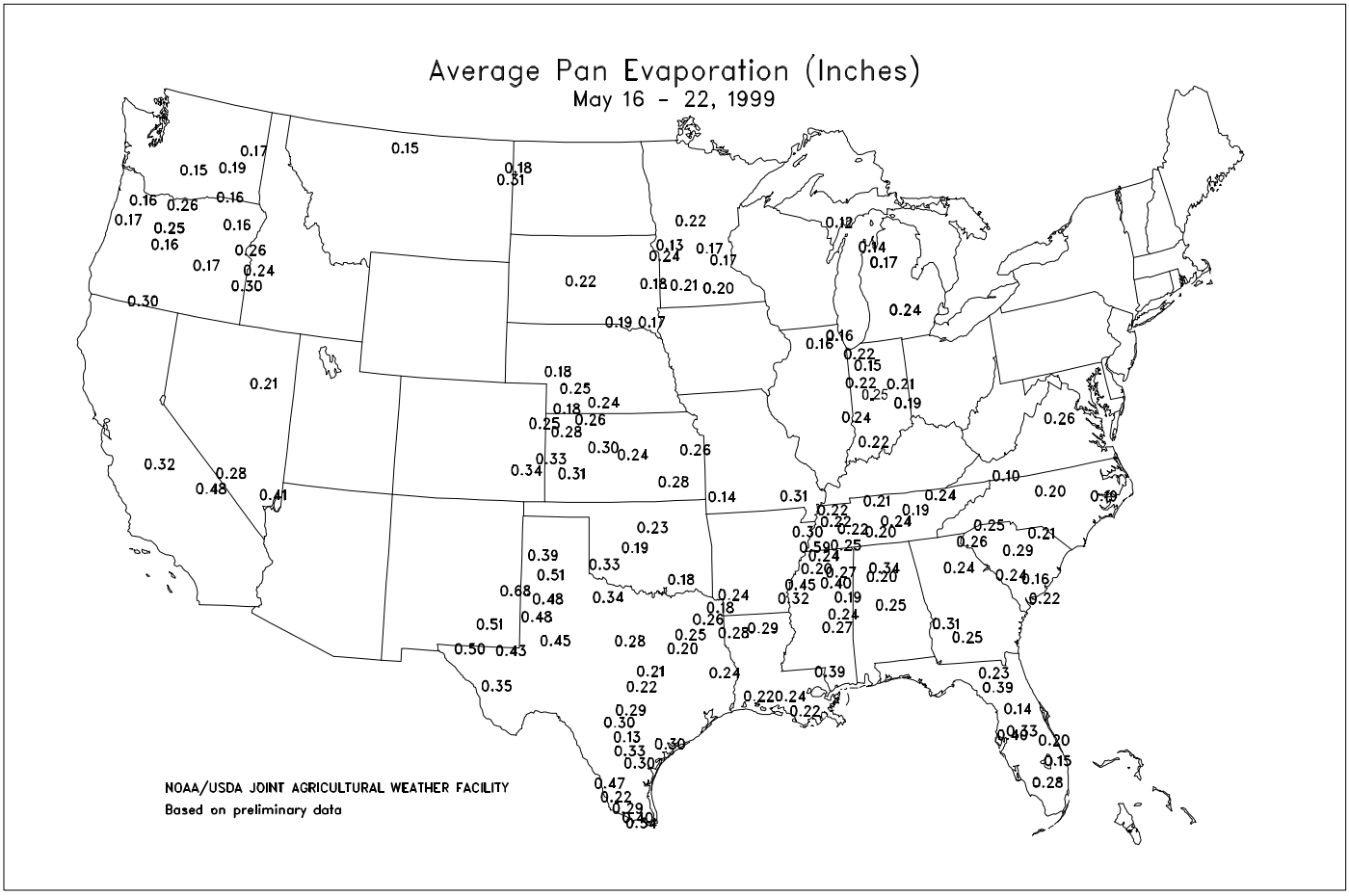
Weather Data for the Week Ending May 22, 1999

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

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							4-INCH SOIL TEMP, °F		NUMBER OF DAYS			
																	TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
MS	INDIANOLA 1S	86	64	92	58	75	--	0.52	--	0.32	13.69	--	25.24	--	79	71	1	0	2	0
	INVERNESS 5E	86	65	91	59	76	--	0.33	--	0.29	11.99	--	--	--	75	70	1	0	2	0
	LYON	87	64	91	57	76	–	0.46	–	0.22	12.37	--	22.69	--	–	–	3	0	3	0
	ONWARD	85	64	89	58	75	--	1.26	--	1.09	16.86	---	26.22	--	73	70	0	0	3	1
	SIDON	86	65	91	59	76	--	0.35	--	0.23	11.48	--	23.65	--	82	73	1	0	3	0
	STONEVILLE *	86	65	91	58	76	3	0.57	-0.53	0.57	13.47	90	28.57	117	87	72	2	0	1	1

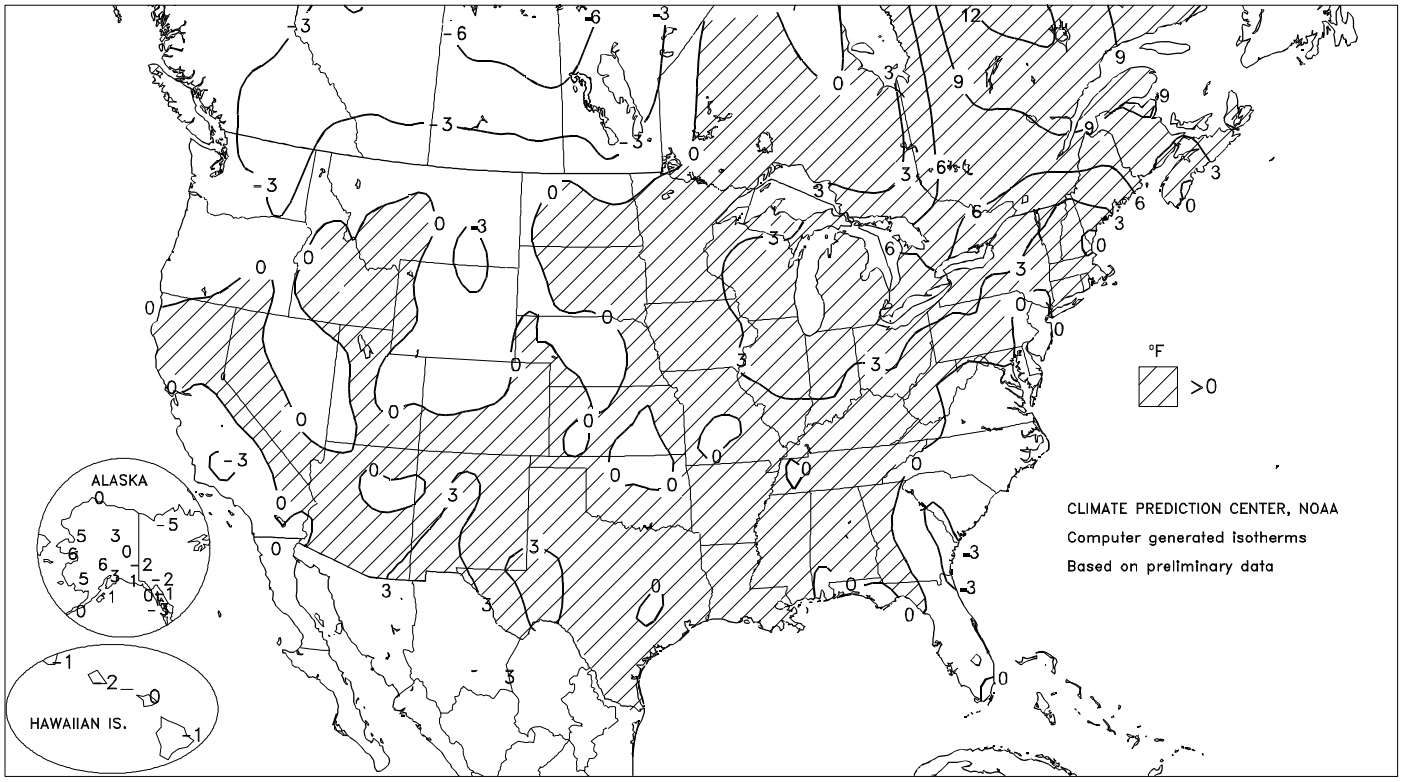
*** Based on 1964-93 normals.**

Delta Weather and Crop Summary: Conditions remained favorable for fieldwork, as warm, drier weather prevailed over most of the Delta. As a result, some farmers in central Mississippi began harvesting winter wheat. In addition, above-normal soil temperatures continued to promote cotton development.



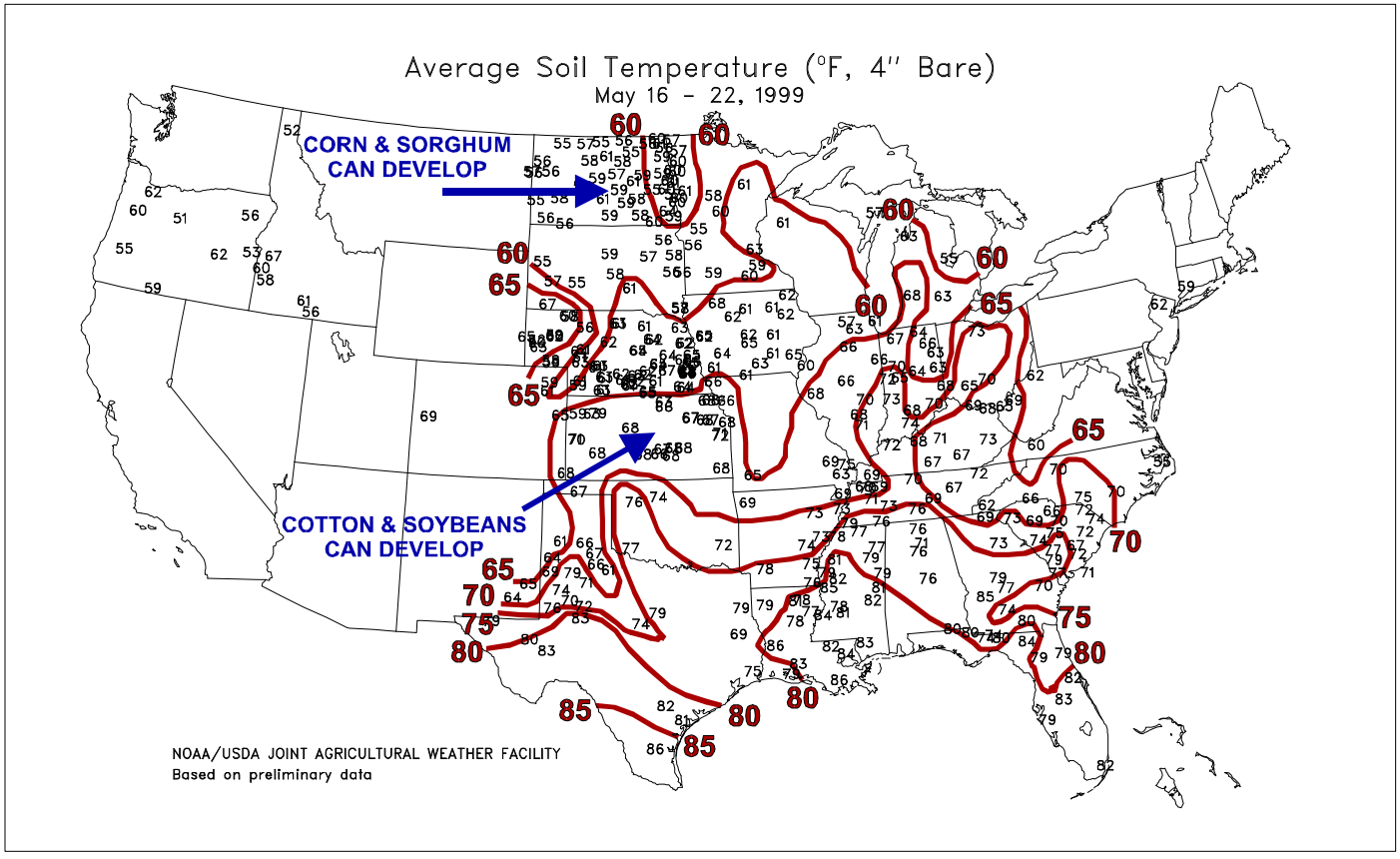
Departure of Average Temperature from Normal (°F)

MAY 16 - 22, 1999



Average Soil Temperature (°F, 4" Bare)

May 16 - 22, 1999



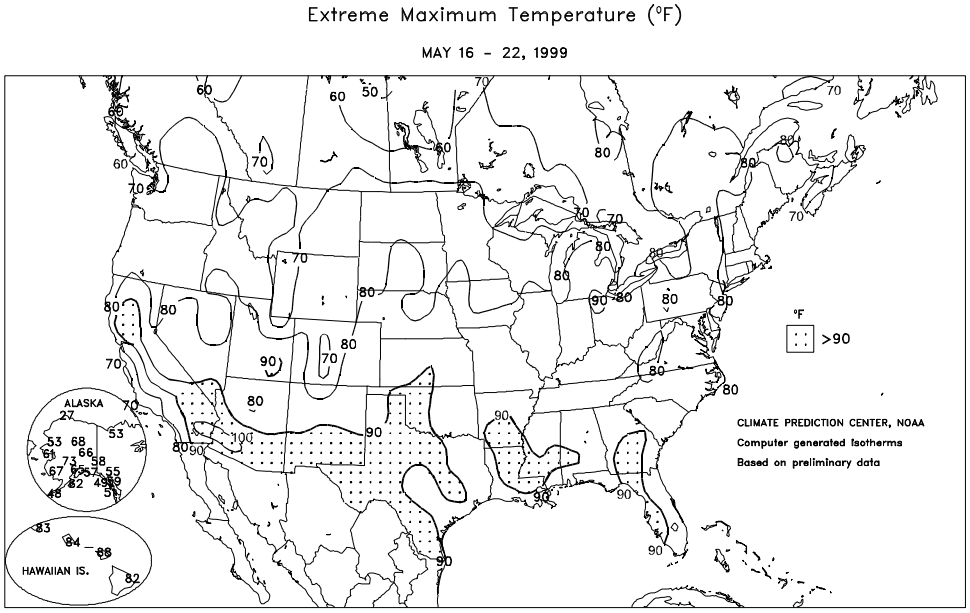
(Continued from front cover)

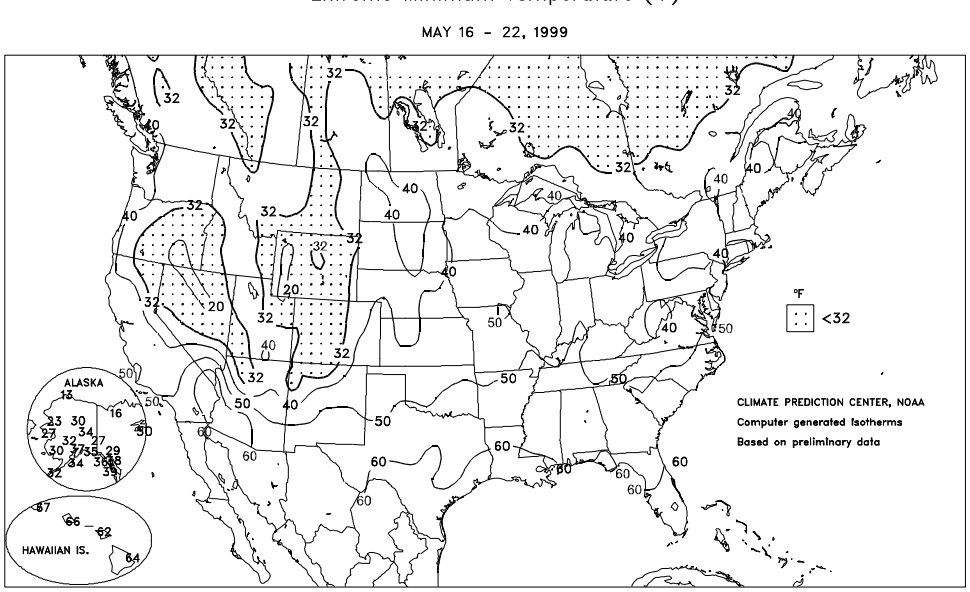
crops. Near-normal temperatures on the **Plains** and across the **South** also favored crop development, including winter wheat maturation in the latter region. In contrast, very cool weather persisted through midweek in the **Northwest**, further slowing crop growth. Markedly warmer weather arrived in the **Northwest** by week's end, spurring crop development, but reducing topsoil moisture for dryland crops.

Early in the week, locally severe thunderstorms peppered parts of the **Plains** and **western Corn Belt** with heavy rain and hail. In addition, a tornado caused two deaths near **Logan (Harrison County), IA** on Sunday, the State's first tornado-related fatalities since 1986. Across **north- eastern Iowa**, 24-hour (May 16-17) rainfall reached 6.30 inches in **Fayette** and 5.54 inches in **Elkader**. Down- stream from those locations, record flooding ensued at **Garber, IA**, at the confluence of the **Turkey and Volga Rivers**. The crest of 30.6 feet occurred on Tuesday, topping flood stage by 13.6 feet and the former record, set on May 15, 1991, by a half-foot. Record flooding was also reported along the **Wapsipinicon River** at **Independence, IA**, where Tuesday's crest exceeded flood stage by 10.32 feet and the former record, set on July 18, 1969, by 1.21 feet.

Early-week hailstorms caused localized streaks of damage to winter wheat on the **Plains**, especially across **west-central Kansas**. On the **eastern Plains**, early- and late-week rainfall boosted May 1-23 totals to 7.70 inches (252 percent of normal) in **Concordia, KS**, 7.51 inches (182 percent) in **Tulsa, OK**, and 5.62 inches (209 percent) in **Wichita, KS**. Meanwhile in **North Dakota**, weekly rainfall totaled less than a half-inch in locations such as **Bismarck** and **Jamestown**. Nevertheless, May 1-23 rainfall (6.66 inches in **Bismarck** and 5.96 inches in **Jamestown**) remained greater than 400 percent of normal at both locations. Farther south, 24-hour (May 17-18) rainfall reached 3.95 inches in **Austin** and 3.20 inches in **Corpus Christi**. **Brownsville, TX** tallied a daily-record total (2.75 inches on Tuesday), their first measurable rain of the month.

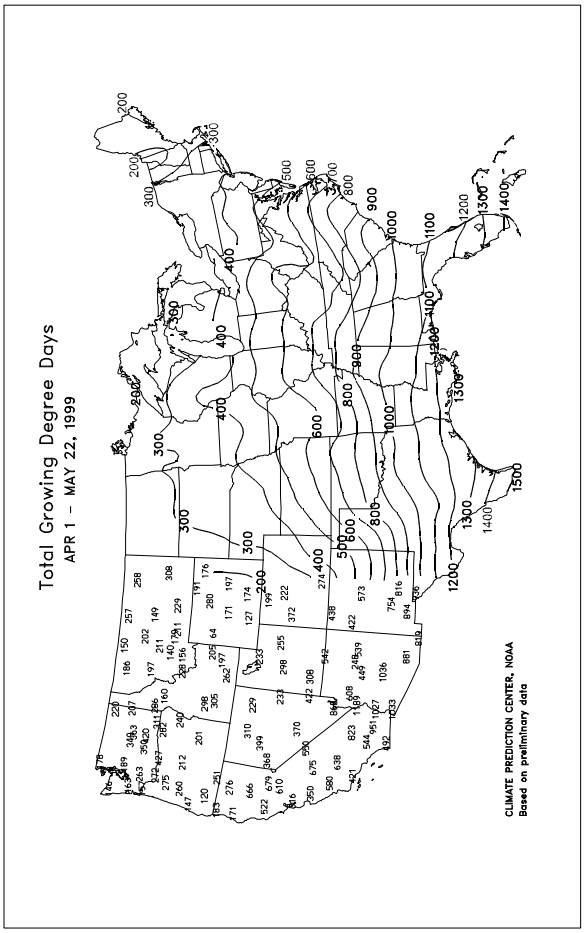
Very cool weather lingered across the **Northwest** on Sunday, resulting in an additional half-dozen daily-record lows. In **Nevada**, both **Ely** and **Winnemucca** recorded lows of 18°F, while in **Oregon**, **Burns** noted 19°F. A day later, **Grand Junc-tion, CO** notched a daily record-tying low of 34°F. By week's end, however, record warmth reached the **Pacific Northwest**. On Saturday, **Brookings, OR** posted a daily-record high of 94°F. Farther east, high temperatures reached or exceeded 80°F for the first time this year in locations such as **Sioux City, IA** (83°F on Wednesday) and **Albany, NY** (80°F on Saturday).

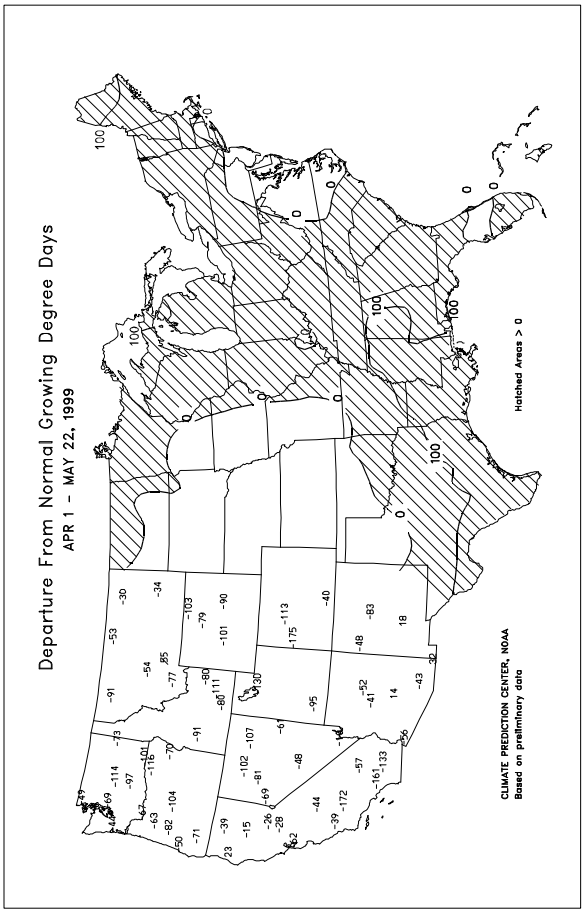


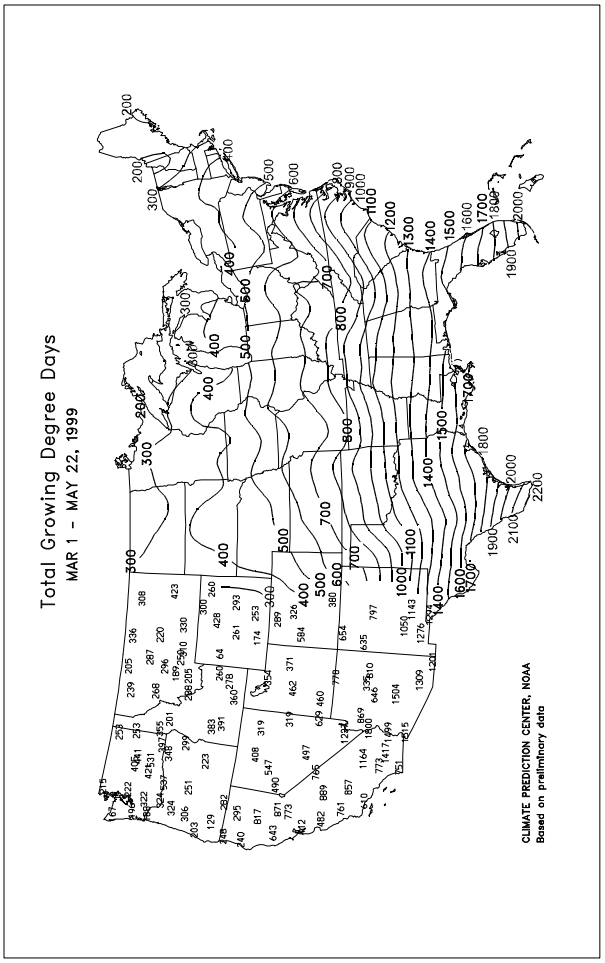


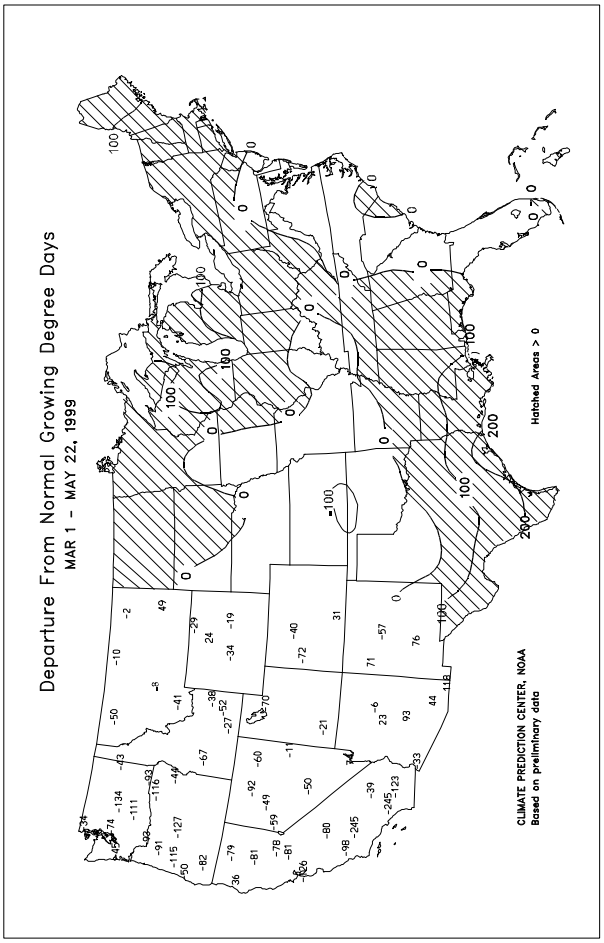
At midweek, beneficial rain swept into the **Northeast**, totaling more than 2 inches from **northeastern Pennsylvania** and **northern New Jersey** into **western New England**. Rain returned to the **northern Mid-Atlantic region** at week's end. In **Florida**, weekly rainfall reached 1.98 inches at **Miami**, boosting their year-to-date total to 7.83 inches (58 percent of normal). Farther west, heavy rain redeveloped in parts of the **Plains** and **western Corn Belt** after midweek. On Thursday, **Riverton (Franklin County), NE** netted 2.74 inches of rain in 20 minutes. Farther north, **Sioux Falls, SD** logged a daily-record total of 1.89 inches. A day later, **Rapid City, SD** also posted a daily-record rainfall (2.43 inches).

Warm, dry weather prevailed in **Alaska**, except across southeastern areas. Weekly temperatures averaged up to 6°F above normal in **western and interior Alaska**. Daily-record highs were reported at **King Salmon** (67°F on Monday) and **Nome** (61°F on Thursday).


Total Growing Degree Days
APR 1 - MAY 22, 1999
CLIMATE PREDICTION CENTER, NOAA
Based on preliminary data


Departure From Normal Growing Degree Days
APR 1 - MAY 22, 1999
Hatched Areas > 0
CLIMATE PREDICTION CENTER, NOAA
Based on preliminary data


Total Growing Degree Days
MAR 1 - MAY 22, 1999
CLIMATE PREDICTION CENTER, NOAA
Based on preliminary data


Departure From Normal Growing Degree Days
MAR 1 - MAY 22, 1999
Hatched Areas > 0
CLIMATE PREDICTION CENTER, NOAA
Based on preliminary data

National Weather Data for Selected Cities

Weather Data for the Week Ending May 22, 1999

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

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	50 INCH OR MORE
AL	BIRMINGHAM	83	60	87	52	72	1	0.51	-0.58	0.36	13.54	92	24.44	100	89	43	0	0	2	0
	HUNTSVILLE	83	60	87	54	72	2	0.81	-0.34	0.65	12.80	84	24.78	98	92	44	0	0	2	1
	MOBILE	87	62	89	58	75	0	0.02	-1.30	0.01	10.43	70	16.72	67	95	44	0	0	2	0
	MONTGOMERY	85	60	88	55	72	0	0.18	-0.70	0.12	10.76	79	15.63	66	97	53	0	0	3	0
AK	ANCHORAGE	61	40	65	37	51	3	0.00	-0.17	0.00	1.43	76	2.07	60	81	30	0	0	0	0
	BARROW	26	17	27	13	21	0	0.00	-0.03	0.00	0.29	63	0.45	65	93	80	0	7	0	0
	FAIRBANKS	62	38	66	34	50	0	0.00	-0.15	0.00	0.58	53	1.02	51	58	18	0	0	0	0
	JUNEAU	51	42	59	38	47	-1	0.94	0.14	0.39	11.92	141	22.65	135	96	67	0	0	5	0
	KODIAK	52	39	62	34	46	1	0.77	-0.51	0.46	9.92	78	21.59	85	91	59	0	0	3	0
	NOME	54	33	61	27	43	6	0.00	-0.14	0.00	1.21	72	3.37	110	84	40	0	2	0	0
AZ	FLAGSTAFF	70	28	74	26	51	-2	0.00	-0.15	0.00	3.67	79	4.43	51	60	12	0	6	0	0
	PHOENIX	95	68	10	66	82	2	0.00	-0.03	0.00	1.24	102	1.42	55	24	10	7	0	0	0
	TUCSON	94	58	98	53	76	1	0.00	-0.03	0.00	1.33	115	1.34	50	24	9	6	0	0	0
	YUMA	93	66	98	62	80	0	0.00	0.00	0.00	1.17	285	1.77	182	46	18	6	0	0	0
AR	FORT SMITH	83	61	89	54	72	2	3.48	2.28	2.21	17.70	151	20.99	129	95	49	0	0	5	2
	LITTLE ROCK	83	62	88	55	72	1	1.19	0.03	0.52	14.00	98	22.82	107	96	53	0	0	3	1
CA	BAKERSFIELD	82	52	89	49	67	-5	0.00	-0.03	0.00	1.04	59	5.42	147	71	26	0	0	0	0
	EUREKA	60	46	64	41	53	0	0.06	-0.24	0.04	12.36	132	27.05	135	90	68	0	0	2	0
	FRESNO	84	53	90	49	68	-1	0.00	-0.06	0.00	1.75	57	5.76	84	74	22	1	0	0	0
	LOS ANGELES	70	59	74	56	64	2	0.00	-0.03	0.00	3.77	133	6.18	80	80	57	0	0	0	0
	REDDING	85	53	97	48	69	2	0.00	-0.27	0.00	5.34	72	16.11	90	66	20	2	0	0	0
	SACRAMENTO	80	50	94	42	65	-1	0.00	-0.04	0.00	2.52	63	9.92	94	90	34	1	0	0	0
	SAN DIEGO	64	57	69	56	61	-4	0.00	-0.03	0.00	2.74	101	4.98	82	83	62	0	0	0	0
	SAN FRANCISCO	64	49	77	46	57	-2	0.00	-0.02	0.00	5.15	112	12.73	105	89	55	0	0	0	0
CO	ALAMOSA	73	34	78	27	53	2	0.01	-0.13	0.00	2.11	154	2.18	114	66	12	0	3	1	0
	CO SPRINGS	71	43	81	35	57	1	0.38	-0.13	0.24	9.29	257	9.46	221	82	23	0	0	3	0
	DENVER	71	44	81	32	57	-1	0.86	0.31	0.52	7.40	158	7.95	138	86	26	0	1	3	1
	GRAND JUNCTION	79	46	86	35	62	0	0.00	-0.19	0.00	2.46	109	2.83	85	47	10	0	0	0	0
	PUEBLO	81	47	91	37	64	2	0.00	-0.29	0.00	6.94	274	7.06	224	80	19	1	0	0	0
CT	BRIDGEPORT	68	51	77	45	60	0	1.56	0.67	1.39	7.00	68	17.44	105	91	54	0	0	3	1
	HARTFORD	74	46	81	38	60	-1	1.32	0.38	1.26	7.57	73	16.33	96	97	46	0	0	3	1
DC	WASHINGTON	79	56	88	51	68	0	0.69	-0.16	0.69	6.92	82	14.88	107	85	40	0	0	1	1
DE	WILMINGTON	75	51	80	44	63	-1	0.45	-0.43	0.41	8.45	88	17.38	112	90	47	0	0	3	0
FL	DAYTONA BEACH	83	64	86	62	74	-2	0.04	-0.78	0.04	3.80	52	10.43	79	95	57	0	0	1	0
	JACKSONVILLE	83	59	87	54	71	-3	0.54	-0.29	0.52	3.37	38	9.50	59	98	51	0	0	3	1
	KEY WEST	86	74	88	71	80	-1	1.18	0.35	0.53	3.14	55	7.22	76	92	65	0	0	6	1
	MIAMI	87	72	88	69	79	0	2.00	0.51	0.92	4.63	50	7.89	59	88	51	0	0	3	2
	ORLANDO	87	65	90	61	76	-2	0.00	-0.85	0.00	8.39	117	11.65	93	96	47	1	0	0	0
	PENSACOLA	85	65	88	60	75	-1	0.31	-0.66	0.30	7.17	59	13.80	62	92	46	0	0	2	0
	TALLAHASSEE	88	61	92	57	75	0	0.52	-0.59	0.36	9.81	75	15.72	67	91	40	2	0	2	0
	TAMPA	87	68	90	64	77	-1	0.18	-0.58	0.16	2.13	35	5.46	49	89	47	1	0	2	0
	WEST PALM	86	69	87	67	77	-1	0.28	-1.19	0.20	2.24	21	10.65	66	92	53	0	0	5	0
GA	ATHENS	82	57	87	53	70	0	0.10	-0.89	0.10	6.41	51	14.56	67	90	43	0	0	1	0
	ATLANTA	80	60	83	57	70	0	0.25	-0.72	0.22	8.37	64	15.67	69	86	44	0	0	2	0
	AUGUSTA	84	53	90	47	69	-3	0.03	-0.84	0.02	5.81	55	13.89	73	99	40	1	0	2	0
	COLUMBUS	86	62	90	59	74	1	0.08	-0.86	0.08	7.10	54	12.94	58	86	34	1	0	1	0
	MACON	87	57	93	52	72	-1	0.00	-0.81	0.00	4.80	45	12.98	65	97	34	2	0	0	0
	SAVANNAH	85	58	88	53	71	-3	0.00	-0.95	0.00	5.33	56	13.40	82	98	46	0	0	0	0
HI	HILO	81	67	82	64	74	0	0.80	-1.29	0.22	30.72	83	66.87	117	92	65	0	0	6	0
	HONOLULU	82	70	84	66	76	-2	1.12	0.88	0.94	3.42	74	6.28	61	86	57	0	0	2	1
	KAHULUI	86	66	88	62	76	0	0.00	-0.15	0.00	1.91	37	6.05	50	89	48	0	0	0	0
	LIHUE	80	70	83	67	75	-1	1.98	1.28	1.10	8.24	82	13.91	72	90	68	0	0	3	2
ID	BOISE	74	45	79	33	60	1	0.04	-0.21	0.04	2.37	71	5.74	98	75	23	0	0	1	0
	LEWISTON	68	45	75	37	57	-3	0.62	0.32	0.38	2.89	93	4.78	90	86	38	0	0	2	0
	POCATELLO	69	40	75	31	55	0	0.00	-0.30	0.00	3.62	106	6.27	117	80	29	0	1	0	0
IL	CHICAGO/O'HARE	75	53	83	48	64	4	1.54	0.80	0.84	12.80	148	18.91	164	94	49	0	0	4	2
	MOLINE	76	55	84	45	66	3	0.53	-0.43	0.32	10.63	107	14.69	116	94	52	0	0	3	0
	PEORIA	76	56	85	46	66	3	1.44	0.61	1.21	9.76	105	14.00	114	96	49	0	0	4	1
	ROCKFORD	74	53	80	44	64	4	0.82	-0.01	0.44	12.05	139	16.33	147	97	54	0	0	6	0
	SPRINGFIELD	78	57	86	46	67	3	0.98	0.17	0.68	8.46	89	12.55	98	93	46	0	0	3	1
IN	EVANSVILLE	79	55	85	50	67	1	0.48	-0.61	0.40	12.37	102	20.31	113	95	51	0	0	4	0
	FORT WAYNE	78	54	88	46	66	5	0.80	0.03	0.32	8.77	101	14.08	113	92	44	0	0	4	0
	INDIANAPOLIS	77	57	85	48	67	3	1.64	0.73	1.05	9.02	87	18.94	125	92	52	0	0	4	1
	SOUTH BEND	78	53	85	44	66	5	0.36	-0.36	0.20	9.50	103	14.20	107	91	46	0	0	4	0
IA	BURLINGTON	80	59	88	50	69	6	1.49	0.64	0.77	10.50	117	15.24	134	84	47	0	0	4	1
	CEDAR RAPIDS	72	54	79	46	63	1	1.37	0.52	0.75	10.72	133	14.59	145	95	59	0	0	4	1
	DES MOINES	73	55	80	49	64	1	2.65	1.82	1.10	11.69	142	13.91	135	93	56	0	0	6	2
	DUBUQUE	70	54	75	46	62	3	2.99	2.03	2.39	12.05	125	15.17	125	96	60	0	0	5	1
	SIOUX CITY	75	54	83	42	65	2	3.23	2.37	1.40	10.54	154	11.69	145	92	42	0	0	4	3
	WATERLOO	73	56	77	49	65	3	4.03	3.09	3.07	12.74	151	14.94	145	92	57	0	0	5	2
KS	CONCORDIA	76	55	81	47	66	2	2.45	1.43	1.03	14.21	191	14.98	171	91	48	0	0	4	3
	DODGE CITY	79	52	84	44	66	0	0.72	0.01	0.57	7.77	136	9.74	143	90	40	0	0	4	1
	GOODLAND	75	47	88	42	61	1	0.83	-0.01	0.35	6.06	125	6.62	118	87	40	0	0	4	0
	TOPEKA	78	56	84	48	67	1	1.68	0.64	1.13	14.68	172	16.79	159	92	49	0	0	5	1

Based on 1961-90 normals

Weather Data for the Week Ending May 22, 1999

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN.; SINCE Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL, IN.; SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	78	56	87	48	67	0	4.30	3.40	2.44	13.67	184	15.41	168	96	53	0	0	4	3
KY	JACKSON	77	56	82	51	67	2	0.51	-0.56	0.37	8.42	70	18.03	92	93	51	0	0	2	0
	LEXINGTON	79	55	84	47	67	2	0.13	-0.89	0.13	7.07	62	15.57	89	88	50	0	0	1	0
	LOUISVILLE	80	59	86	53	69	3	0.72	-0.33	0.57	11.05	90	20.67	112	91	46	0	0	3	1
	PADUCAH	81	54	84	48	68	0	0.57	-0.54	0.27	12.90	96	21.27	103	99	51	0	0	3	0
LA	BATON ROUGE	87	66	90	65	76	1	0.01	-1.08	0.01	9.17	67	16.14	67	97	51	1	0	1	0
	LAKE CHARLES	86	67	88	65	77	1	0.00	-1.33	0.00	5.86	55	12.61	68	97	56	0	0	0	0
	NEW ORLEANS	87	68	88	65	77	2	0.00	-1.04	0.00	7.63	61	11.75	50	93	46	0	0	0	0
	SHREVEPORT	85	65	88	57	75	2	0.76	-0.45	0.76	15.25	139	28.63	152	94	51	0	0	1	1
ME	CARIBOU	72	45	80	42	59	7	0.41	-0.31	0.41	4.36	62	9.33	82	86	40	0	0	1	0
	PORTLAND	65	39	74	7	52	-2	0.56	-0.24	0.45	8.26	80	18.28	106	96	58	0	1	2	0
MD	BALTIMORE	78	50	87	42	64	0	0.43	-0.42	0.43	6.39	70	13.74	90	86	38	0	0	1	0
MA	BOSTON	66	51	69	47	58	-1	0.38	-0.34	0.21	4.72	49	13.93	83	95	58	0	0	2	0
	WORCESTER	70	49	76	44	60	3	0.97	-0.02	0.83	6.81	62	16.20	89	83	44	0	0	3	1
MI	ALPENA	72	46	86	36	59	6	0.36	-0.27	0.17	2.71	43	6.46	70	93	50	0	0	3	0
	GRAND RAPIDS	75	54	84	46	65	6	0.65	-0.05	0.26	8.95	109	13.98	122	91	48	0	0	5	0
	HOUGHTON LAKE	72	48	82	37	60	5	0.80	0.21	0.74	3.87	65	7.02	81	90	53	0	0	3	1
	LANSING	75	52	86	43	63	5	0.72	0.13	0.31	7.81	113	11.12	114	95	59	0	0	4	0
	MARQUETTE	61	45	71	38	53	2	1.29	0.59	0.80	5.52	74	13.60	119	90	60	0	0	6	1
	MUSKEGON	72	53	82	45	63	6	1.48	0.90	1.02	8.27	113	11.98	108	91	57	0	0	3	1
MN	DULUTH	60	45	67	37	52	1	0.47	-0.23	0.28	7.04	113	8.55	104	96	55	0	0	4	0
	INT'L FALLS	64	44	73	33	54	1	1.00	0.42	0.62	8.23	194	8.81	153	95	48	0	0	4	1
	MINNEAPOLIS	70	54	77	47	62	3	2.84	2.05	0.96	11.64	175	14.71	173	93	51	0	0	5	3
	ROCHESTER	68	52	74	46	60	2	3.15	2.37	1.55	12.39	180	15.46	184	96	63	0	0	5	2
	ST. CLOUD	70	50	76	41	60	3	0.23	-0.51	0.11	7.96	136	8.87	123	95	47	0	0	4	0
MS	JACKSON	86	61	89	55	74	1	0.54	-0.58	0.30	8.53	56	19.04	76	92	46	0	0	2	0
	MERIDIAN	87	58	90	51	72	0	0.00	-0.97	0.00	8.91	58	16.71	64	96	40	1	0	0	0
	TUPELO	84	60	87	53	72	1	0.22	-1.08	0.12	17.96	116	32.43	129	91	46	0	0	2	0
MO	COLUMBIA	77	55	83	49	66	2	0.27	-0.89	0.25	10.48	99	15.07	109	96	56	0	0	3	0
	KANSAS CITY	77	55	82	48	66	1	1.30	0.12	0.62	14.54	159	18.60	164	93	56	0	0	5	1
	SAINT LOUIS	79	59	84	51	69	2	0.11	-0.80	0.11	8.03	81	16.65	121	86	45	0	0	1	0
	SPRINGFIELD	76	54	83	47	65	0	0.90	-0.10	0.68	16.43	148	22.28	148	10	56	0	0	4	1
MT	BILLINGS	69	44	75	36	57	1	0.08	-0.53	0.05	4.01	85	5.08	81	84	30	0	0	2	0
	BUTTE	63	36	69	29	49	1	0.15	-0.29	0.15	3.23	110	4.14	107	90	32	0	2	1	0
	GLASGOW	67	44	73	33	55	-1	0.04	-0.39	0.03	4.71	207	6.10	210	89	36	0	0	2	0
	GREAT FALLS	66	40	71	33	53	-1	0.03	-0.56	0.01	2.86	67	3.55	62	83	27	0	0	3	0
	KALISPELL	65	39	70	32	52	0	0.10	-0.34	0.04	3.00	90	5.57	93	95	34	0	1	3	0
	MILES CITY	71	45	79	37	58	0	0.10	-0.44	0.03	4.30	123	4.92	109	88	33	0	0	2	0
	MISSOULA	67	39	74	30	53	0	0.34	-0.08	0.17	1.28	41	3.33	64	89	27	0	1	3	0
NE	GRAND ISLAND	73	52	81	41	62	0	1.85	0.96	1.11	9.67	138	10.31	125	91	46	0	0	5	1
	LINCOLN	76	53	84	42	65	2	1.50	0.59	0.62	11.15	147	12.78	145	94	47	0	0	4	2
	NORFOLK	75	52	80	38	63	1	1.21	0.35	0.45	9.36	141	10.21	129	91	43	0	0	4	0
	NORTH PLATTE	73	43	83	36	58	-1	0.32	-0.49	0.21	4.46	80	5.06	79	93	42	0	0	5	0
	OMAHA	77	55	85	46	66	2	1.64	0.58	0.96	13.48	172	15.47	165	98	50	0	0	5	1
	SCOTTSBLUFF	72	45	83	39	59	1	0.31	-0.34	0.20	5.87	128	6.16	111	91	35	0	0	2	0
	VALENTINE	72	45	82	38	59	0	0.42	-0.32	0.31	6.08	124	6.95	124	91	39	0	0	3	0
NV	ELY	71	33	78	18	52	1	0.00	-0.27	0.00	1.24	45	2.05	49	67	13	0	3	0	0
	LAS VEGAS	89	66	93	61	77	2	0.00	-0.06	0.00	0.73	87	0.81	46	25	13	3	0	0	0
	RENO	76	44	82	36	60	3	0.00	-0.17	0.00	0.68	43	2.69	73	57	17	0	0	0	0
	WINNEMUCCA	76	35	82	18	56	-1	0.00	-0.19	0.00	1.39	63	3.44	96	73	18	0	2	0	0
NH	CONCORD	73	42	78	34	57	1	1.35	0.63	1.30	5.80	74	14.02	109	91	34	0	0	2	1
NJ	NEWARK	73	53	80	47	63	-1	0.97	0.04	0.73	7.26	68	17.24	101	81	42	0	0	2	1
NM	ALBUQUERQUE	83	55	88	48	69	4	0.03	-0.08	0.03	1.72	127	1.84	81	43	12	0	0	1	0
NY	ALBANY	74	47	80	43	61	2	0.99	0.21	0.94	6.65	80	13.02	101	91	43	0	0	2	1
	BINGHAMTON	72	47	78	41	59	2	0.44	-0.33	0.44	6.31	76	12.61	97	87	42	0	0	1	0
	BUFFALO	74	51	84	42	62	5	0.79	0.07	0.61	6.31	82	13.19	103	87	46	0	0	3	1
	ROCHESTER	75	50	85	41	63	5	0.02	-0.59	0.01	6.76	99	11.37	103	88	43	0	0	2	0
	SYRACUSE	75	49	83	40	62	4	0.09	-0.65	0.09	5.88	70	12.64	98	82	33	0	0	1	0
NC	ASHEVILLE	77	51	81	45	64	0	0.39	-0.64	0.36	7.76	70	17.43	96	96	47	0	0	2	0
	CHARLOTTE	79	54	82	49	66	-2	0.83	-0.06	0.74	6.57	67	12.76	74	94	48	0	0	2	1
	GREENSBORO	78	54	83	49	66	-1	0.04	-0.90	0.02	8.08	87	14.97	95	88	45	0	0	3	0
	HATTERAS	70	59	74	51	64	-3	0.17	-0.74	0.06	15.09	142	21.28	106	96	76	0	0	4	0
	RALEIGH	79	53	88	46	66	-2	0.20	-0.72	0.20	7.74	85	15.47	95	94	47	0	0	1	0
	WILMINGTON	82	60	86	55	71	0	0.01	-1.03	0.01	15.47	159	22.27	129	90	47	0	0	1	0
ND	BISMARCK	70	46	79	41	58	2	0.40	-0.10	0.32	8.51	217	10.03	208	94	48	0	0	2	0
	DICKINSON	70	44	78	36	57	2	0.65	0.06	0.42	5.35	124	6.59	131	91	41	0	0	3	0
	FARGO	71	49	76	39	60	2	0.00	-0.57	0.00	6.32	138	7.67	134	87	46	0	0	0	0
	GRAND FORKS	67	45	75	37	56	0	0.02	-0.46	0.02	5.70	156	6.92	143	94	54	0	0	1	0
	JAMESTOWN	68	48	74	41	58	1	0.02	-0.41	0.02	7.98	219	9.61	204	93	49	0	0	1	0
	WILLISTON	66	42	74	39	54	-3	0.22	-0.24	0.20	3.48	105	5.77	134	95	47	0	0	3	0
OH	AKRON-CANTON	74	51	82	44	63	3	0.64	-0.21	0.40	6.56	72	12.86	95	89	54	0	0	2	0
	CINCINNATI	77	54	84	44	65	2	0.56	-0.42	0.52	6.28	57	14.70	90	90	49	0	0	3	1
	CLEVELAND	74	53	85	42	63	4	0.51	-0.29	0.33	6.29	74	12.00	94	88	49	0	0	2	0
	COLUMBUS	79	55	87	48	67	5	1.12	0.21	0.99	7.95	86	13.58	99	92	43	0	0	3	1
	DAYTON	77	55	85	50	66	3	0.85	-0.03	0.56	6.43	67	14.33	103	85	44	0	0	3	1
	MANSFIELD	75	52	85	45	64	4	0.92	-0.07	0.83	8.74	87	15.04	107	85	45	0	0	2	1

Based on 1961-90 normals

Weather Data for the Week Ending May 22, 1999

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN.; SINCE Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL IN.; SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	77	53	90	45	65	5	2.72	2.06	1.39	9.20	121	14.02	126	91	46	1	0	4	2
	YOUNGSTOWN	74	49	83	41	62	3	0.96	0.15	0.76	8.16	94	15.57	121	90	43	0	0	3	1
OK	OKLAHOMA CITY	81	60	89	50	70	1	0.36	-0.88	0.24	12.84	141	15.85	134	91	55	0	0	2	0
	TULSA	80	59	85	50	70	0	2.99	1.69	1.77	17.11	154	21.39	146	97	56	0	0	5	3
OR	ASTORIA	60	46	71	41	53	0	1.13	0.48	0.60	17.78	128	49.85	158	98	63	0	0	4	1
	BURNS	68	35	73	19	51	0	0.05	-0.17	0.05	1.45	63	5.04	123	86	25	0	2	1	0
	EUGENE	65	43	75	36	54	-2	0.60	0.13	0.55	8.72	85	26.41	111	96	53	0	0	3	1
	MEDFORD	74	44	87	36	59	0	0.00	-0.22	0.00	1.97	53	9.94	119	85	30	0	0	0	0
	PENDLETON	67	44	75	34	55	-3	0.41	0.19	0.34	2.53	85	4.56	81	88	41	0	0	3	0
	PORTLAND	66	48	78	44	57	-1	0.87	0.41	0.52	7.80	105	23.15	139	96	50	0	0	3	1
	SALEM	66	44	79	42	55	0	0.67	0.26	0.41	8.56	107	29.57	161	95	50	0	0	3	0
PA	ALLENTOWN	73	46	81	38	60	-2	1.19	0.23	1.18	6.23	64	14.32	90	94	46	0	0	2	1
	ERIE	73	52	86	41	63	5	0.99	0.21	0.68	7.37	85	14.17	108	84	45	0	0	2	1
	MIDDLETOWN	79	53	86	46	66	3	0.04	-0.95	0.02	6.49	68	13.33	87	90	43	0	0	2	0
	PHILADELPHIA	75	54	84	50	65	1	0.66	-0.19	0.58	8.36	86	16.20	103	85	47	0	0	2	1
	PITTSBURGH	74	50	81	42	62	1	2.13	1.30	1.45	8.72	96	16.00	114	89	40	0	0	3	2
	WILKES-BARRE	73	46	79	37	59	-1	0.85	0.01	0.83	7.09	88	13.35	108	92	59	0	0	2	1
	WILLIAMSPORT	76	49	81	42	63	2	0.08	-0.81	0.08	7.04	77	13.91	97	92	40	0	0	1	0
RI	PROVIDENCE	71	50	76	42	60	2	1.09	0.25	0.69	6.79	62	18.94	103	93	46	0	0	3	1
SC	BEAUFORT	83	61	87	57	72	-2	0.00	-0.93	0.00	7.87	82	12.80	77	95	47	0	0	0	0
	CHARLESTON	82	59	84	57	71	-3	0.01	-0.93	0.01	8.61	90	15.58	96	94	47	0	0	1	0
	COLUMBIA	83	58	86	53	70	-1	0.16	-0.69	0.16	7.26	68	13.56	71	93	47	0	0	1	0
	GREENVILLE	80	56	84	52	68	-1	0.14	-0.88	0.14	7.53	61	14.20	68	86	43	0	0	1	0
SD	ABERDEEN	73	47	80	39	60	2	0.00	-0.56	0.00	5.73	116	6.56	114	95	45	0	0	0	0
	HURON	74	48	79	39	61	2	0.03	-0.64	0.02	6.38	112	7.02	104	94	49	0	0	2	0
	RAPID CITY	68	42	77	32	55	-1	2.80	2.18	2.44	7.12	150	7.37	131	94	44	0	1	5	1
	SIOUX FALLS	71	50	81	37	61	1	2.60	1.90	1.89	10.13	162	10.76	145	93	49	0	0	4	2
TN	BRISTOL	79	50	83	44	64	0	0.57	-0.31	0.39	7.02	72	14.92	91	93	43	0	0	3	0
	CHATTANOOGA	82	59	85	54	71	3	1.00	0.01	0.99	12.75	94	26.31	113	95	44	0	0	2	1
	KNOXVILLE	80	57	82	50	68	2	0.49	-0.45	0.47	12.54	107	22.06	111	97	48	0	0	2	0
	MEMPHIS	84	64	87	58	74	2	0.23	-0.88	0.15	20.00	137	28.24	125	84	44	0	0	2	0
	NASHVILLE	80	59	84	52	70	1	0.47	-0.64	0.47	9.72	76	21.28	106	89	45	0	0	1	0
TX	ABILENE	87	64	91	54	75	2	0.00	-0.69	0.00	5.56	105	7.49	100	89	39	2	0	0	0
	AMARILLO	80	53	86	45	67	1	0.00	-0.60	0.00	9.23	261	11.90	256	85	29	0	0	0	0
	AUSTIN	86	68	89	63	77	1	3.96	2.83	3.95	10.81	139	11.04	95	95	54	0	0	2	1
	BEAUMONT	87	68	88	65	78	2	0.10	-1.24	0.10	7.28	68	11.50	61	96	56	0	0	1	0
	BROWNSVILLE	88	74	92	68	81	1	2.68	1.99	2.68	5.83	141	7.59	112	94	55	3	0	1	1
	CORPUS CHRISTI	86	72	88	67	79	0	1.48	0.69	1.47	5.32	108	6.10	71	96	64	0	0	2	1
	DEL RIO	89	72	91	66	80	3	0.00	-0.47	0.00	5.33	129	5.37	95	88	50	3	0	0	0
	EL PASO	92	61	96	52	77	4	0.00	-0.06	0.00	0.04	6	0.14	9	41	15	5	0	0	0
	FORT WORTH	86	67	91	60	76	3	0.63	-0.50	0.63	8.65	88	10.57	76	87	50	1	0	1	1
	GALVESTON	83	73	84	68	78	2	0.11	-0.73	0.10	4.89	69	8.26	66	89	68	0	0	2	0
	HOUSTON	89	67	91	64	78	2	0.05	-1.18	0.05	8.06	83	10.98	69	96	51	2	0	1	0
	LUBBOCK	86	59	93	49	72	2	0.00	-0.57	0.00	5.25	155	6.60	148	85	20	3	0	0	0
	MIDLAND	91	65	97	56	78	5	0.00	-0.47	0.00	1.43	51	1.76	46	83	17	3	0	0	0
	SAN ANGELO	88	67	92	60	77	2	0.00	-0.71	0.00	4.41	94	5.03	77	86	40	2	0	0	0
	SAN ANTONIO	86	67	89	61	77	1	0.80	-0.19	0.79	7.19	103	7.28	69	94	54	0	0	2	1
	VICTORIA	87	69	89	62	78	0	1.22	0.15	1.22	7.48	107	10.05	90	99	56	0	0	1	1
	WACO	86	66	89	57	76	1	1.20	0.13	1.20	7.60	86	9.97	80	95	53	0	0	1	1
	WICHITA FALLS	86	61	93	50	74	2	0.00	-0.94	0.00	11.92	148	14.48	137	90	46	2	0	0	0
UT	SALT LAKE CITY	72	47	80	38	60	0	0.00	-0.40	0.00	6.37	118	8.62	111	72	27	0	0	0	0
VT	BURLINGTON	74	50	82	41	62	4	1.02	0.30	1.02	4.57	64	9.21	87	82	36	0	0	1	1
VA	LYNCHBURG	76	49	82	43	63	-2	0.05	-0.86	0.05	6.00	64	13.17	87	94	43	0	0	1	0
	NORFOLK	73	58	87	53	66	-1	0.85	-0.03	0.43	10.49	111	16.33	98	97	67	0	0	4	0
	RICHMOND	77	53	87	49	65	-2	1.32	0.44	1.24	9.22	100	15.39	98	88	47	0	0	2	1
	ROANOKE	76	52	82	44	64	0	0.76	-0.15	0.73	7.76	81	13.60	89	91	44	0	0	2	1
	WASH/DULLES	77	46	85	39	62	-2	0.20	-0.73	0.20	7.38	81	15.39	105	93	39	0	0	1	0
WA	OLYMPIA	63	40	74	35	52	-2	0.05	-0.40	0.02	8.74	89	36.50	155	96	49	0	0	3	0
	QUILLAYUTE	58	42	71	39	50	-1	1.70	0.52	1.19	24.58	107	65.93	132	10	64	0	0	6	1
	SEATTLE-TACOMA	60	46	70	43	53	-3	0.75	0.38	0.64	7.06	99	20.85	127	89	48	0	0	3	1
	SPOKANE	64	40	73	36	52	-3	0.05	-0.28	0.05	1.95	53	7.07	99	84	30	0	0	1	0
	YAKIMA	71	39	79	31	55	-3	0.13	0.02	0.13	0.58	38	3.29	95	82	27	0	1	1	0
WV	BECKLEY	73	49	77	41	61	1	0.52	-0.39	0.35	7.64	79	15.94	103	89	43	0	0	3	0
	CHARLESTON	79	51	84	44	65	1	1.34	0.43	0.67	7.46	77	14.94	95	94	45	0	0	2	2
	ELKINS	74	40	80	35	57	-1	2.23	1.29	1.31	9.61	91	18.37	111	99	44	0	0	3	2
	HUNTINGTON	79	54	85	46	66	2	0.69	-0.27	0.59	6.74	67	13.79	87	91	45	0	0	3	1
WI	EAU CLAIRE	71	53	78	41	62	4	2.55	1.67	1.25	11.79	165	14.50	163	96	55	0	0	4	3
	GREEN BAY	70	52	77	45	61	5	0.90	0.25	0.61	4.63	73	7.11	83	94	55	0	0	5	1
	LACROSSE	73	56	78	47	65	4	1.79	1.05	0.96	10.10	142	13.72	153	96	56	0	0	2	2
	MADISON	72	54	75	44	63	5	2.03	1.31	1.57	10.69	148	13.70	147	92	52	0	0	4	1
	MILWAUKEE	71	50	78	45	61	5	1.62	0.99	0.54	10.57	129	15.94	142	91	56	0	0	4	1
WY	CASPER	66	38	74	32	52	-1	0.88	0.38	0.71	4.29	106	4.82	93	92	31	0	1	3	1
	CHEYENNE	65	40	77	32	53	0	1.07	0.51	0.53	7.26	179	7.74	160	89	29	0	1	4	1
	LANDER	66	40	75	30	53	-1	0.22	-0.30	0.21	8.00	162	8.74	146	82	25	0	2	2	0
	SHERIDAN	67	27	73	-7	47	-7	0.07	-0.48	0.04	6.04	139	6.64	115	92	41	0	3	3	0

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

National Agricultural Summary

May 17 - 23, 1999

HIGHLIGHTS

Planting was delayed by severe thunderstorms in the western Corn Belt and adjacent areas of the central and southern Great Plains. Hail, erosion, flooding, and standing water associated with the severe storms damaged crops in parts of Iowa, Kansas, and Oklahoma. Lighter rainfall in the eastern Corn Belt and lower Mississippi Valley caused minimal planting delays, while providing good moisture for crop development. In the Northeast, drought conditions were eased by soaking rains in most areas, but coastal areas of the middle and southern Atlantic Coast States remained excessively dry. Planting was hindered by dry soils in many areas of the Southeast, especially Georgia, which received no significant rainfall. Eastern and southern Texas received timely showers that boosted crop development. Dry weather aided planting, and seasonable temperatures promoted crop development in the central High Plains, while wet conditions lingered in parts of the northern Great Plains. In the Pacific Northwest, drought conditions hindered development of nonirrigated small grains. Field activities normally progressed in California, and most crops rapidly developed as dry, seasonal weather prevailed.

Corn: Planting advanced 10 percentage points to 87 percent and emergence doubled to 60 percent, but both lagged behind last year's rapid pace. Planting remained ahead of the 82-percent average, despite long rain delays in Iowa and Minnesota. Drier conditions in the eastern Corn Belt and Great Plains aided planting and promoted seed germination. Planting accelerated in Colorado and was nearly complete in Indiana and Kentucky. Plants rapidly emerged across most of the Corn Belt, including Iowa, where hail, erosion, flooding, and standing water damaged some fields. Timely showers aided development of fields in eastern and southern Texas as they progressed through the reproductive stages.

Soybeans: Forty-four percent of the Nation's soybeans was planted, up 16 percentage points from last week, only slightly behind the 46-percent average for this date, but well behind last year's rapid pace. Planting accelerated in the eastern Corn Belt, as mostly dry weather prevailed and growers shifted from planting corn. Dry weather also aided progress in the Mississippi Delta States. Rain hindered progress in Iowa, Kansas, and Missouri. Eighteen percent of the acreage was emerged, compared with 27 percent a year ago. Light rains and warm weather provided nearly ideal conditions for emergence and seedling growth in the eastern Corn Belt, including areas along the lower Ohio Valley. Warm weather and adequate moisture also aided emergence in the lower Mississippi Valley. Dry soils limited planting and emergence in the Atlantic Coastal Plains and Southeast.

Winter Wheat: The Nation's winter wheat was 72 percent headed, ahead of the 66-percent average for this date, but slightly behind last year's development. Seasonably mild temperatures promoted rapid development in the central Great Plains and eastern Corn Belt, especially in Colorado and Ohio, where heading advanced 39 and 51 percentage points, respectively. A few fields began heading in the northern Great Plains and Pacific Northwest, while nearly all fields were headed and quickly ripening in the southern Great Plains, Atlantic Coastal Plains, and Southwest. Conditions in the eastern Corn Belt and northern Great Plains benefited from near normal temperatures and adequate soil moisture. Dry soils stressed fields in the Southeast and Pacific Northwest. Harvesting slowly gained momentum in Texas, and a few fields were harvested in the Southeast.

Cotton: Planting was 69 percent complete, behind last year and the 5-year average of 73 and 72 percent, respectively. Planting rapidly advanced in the Southeast, where earlier rains provided much-needed moisture, but soils in many areas remained too dry. In the southern Great Plains, planting steadily progressed, but less than half of the acreage was seeded in Oklahoma and Texas. Dry weather aided progress in the Mississippi Delta States and in the Southwest, as planting neared completion. Sunny weather aided development where soil moisture levels were adequate. Four percent of the acreage was squaring, equal to the 5-year average, but slightly behind last year. Development was aided by timely showers and warm weather in coastal areas of Texas, where a few fields were setting bolls.

Rice: Planting advanced to 95 percent complete, and 78 percent of the acreage was emerged. Normally, 90 percent would be planted and 74 percent would be emerged by this date. Planting neared completion in the western Gulf Coast rice-producing areas and steadily progressed in California. Mild temperatures and light showers eased flooding requirements and promoted early growth in Texas.

Small grains: Sixty-eight percent of the spring wheat and 66 percent of the barley were planted. Both small grains lagged well behind last year and the average, as damp soils lingered in parts of the northern Great Plains and upper Mississippi Valley. Seasonal temperatures, sunshine, and adequate moisture aided emergence and early development in Idaho, Montana, and South Dakota, while soil moisture shortages stressed small grains in the Pacific Northwest. Oats planted, at 83 percent, was behind last year's 98-percent pace and the 86-percent average. In North Dakota, planting was aided by sunny weather, but progress remained well behind normal. Warm, sunny weather aided emergence in the eastern Corn Belt.

Other crops: Sorghum planting slowly advanced to 32 percent, compared with 47 percent last year and the normal 45 percent. Progress accelerated in Colorado, where warm, dry weather prevailed, but lagged well behind normal in most other areas of the Great Plains. The pace also decreased in the lower Mississippi Valley, as the planting season neared completion. Peanut planting rapidly advanced to 75 percent, slightly ahead of last year and the 5-year average. Dry soils continued to hinder development, especially in Georgia.

Crop Progress and Condition

Week Ending May 23, 1999

Soybeans Percent Planted

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
AL	34	24	44	39
AR	37	21	44	35
GA	30	16	29	31
IL	45	27	45	41
IN	78	55	47	42
IA	33	21	82	64
KS	19	13	66	40
KY	44	19	17	18
LA	63	44	82	58
MI	64	34	66	36
MN	41	26	90	62
MS	76	62	77	71
MO	20	12	46	31
NE	30	12	76	51
NC	23	15	26	30
OH	92	74	50	47
SC	29	22	23	21
SD	22	6	55	36
TN	26	11	20	18
19 Sts	44	28	60	46

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

Winter Wheat Percent Headed

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
AR	100	99	100	100
CA	99	99	99	99
CO	50	11	44	26
GA	100	98	100	100
ID	1	1	2	3
IL	91	69	92	67
IN	78	52	87	53
KS	93	74	92	83
MI	7	0	39	8
MO	79	61	88	73
MT	0	0	4	1
NE	30	2	26	16
NC	100	98	98	98
OH	72	21	73	25
OK	99	97	100	99
OR	7	0	19	31
SD	1	0	15	4
TX	96	90	90	90
WA	5	1	33	25
19 Sts	72	59	74	66

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

Corn Percent Planted

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
CO	87	53	95	90
GA	100	100	98	99
IL	87	77	88	77
IN	98	90	78	69
IA	88	83	97	91
KS	84	74	98	89
KY	96	89	77	77
MI	85	72	89	68
MN	91	87	99	88
MO	65	51	89	78
NE	89	71	98	89
NC	93	90	90	97
OH	98	93	75	71
PA	83	65	61	61
SD	55	31	88	67
TX	95	92	98	98
WI	86	73	91	78
17 Sts	87	77	91	82

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

Soybeans Percent Emerged

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
AL	18	10	29	6
AR	17	7	29	19
GA	17	8	17	NA
IL	14	3	10	NA
IN	44	13	15	NA
IA	7	0	41	19
KS	10	3	38	NA
KY	26	3	1	2
LA	41	29	75	47
MI	24	3	24	6
MN	7	2	56	20
MS	57	43	57	54
MO	8	4	15	NA
NE	3	1	29	16
NC	15	10	10	NA
OH	51	22	15	14
SC	17	9	0	5
SD	4	0	23	5
TN	8	3	6	NA
19 Sts	18	6	27	NA

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

Sorghum Percent Planted

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
AR	87	79	89	88
CO	29	6	17	17
IL	11	4	22	17
KS	16	7	31	25
LA	91	80	96	87
MS	94	89	73	85
MO	24	14	39	40
NE	12	5	57	40
NM	9	2	12	17
OK	7	5	16	22
SD	6	1	38	18
TX	55	50	66	71
12 Sts	32	25	47	45

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

Corn Percent Emerged

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
CO	35	5	70	50
GA	100	99	97	NA
IL	61	36	56	NA
IN	77	37	40	NA
IA	61	18	84	60
KS	48	29	85	NA
KY	87	71	46	66
MI	55	20	65	25
MN	68	31	92	50
MO	55	36	65	NA
NE	46	18	80	56
NC	85	75	83	17
OH	79	45	35	36
PA	51	18	30	NA
SD	20	7	65	13
TX	83	76	90	NA
WI	57	21	70	NA
17 Sts	60	30	69	NA

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

Crop Progress and Condition

Week Ending May 23, 1999

Cotton Percent Planted

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
AL	87	72	89	89
AZ	93	87	97	98
AR	91	74	93	90
CA	99	95	91	97
GA	74	53	82	85
LA	99	88	98	97
MS	93	78	87	95
MO	96	88	92	86
NM	96	78	90	87
NC	88	70	83	88
OK	45	16	46	35
SC	75	56	81	88
TN	95	65	80	89
TX	45	34	56	49
14 Sts	69	56	73	72

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

Cotton Percent Squaring

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
AL	0	NA	0	0
AZ	3	NA	3	17
AR	0	NA	0	0
CA	2	NA	0	0
GA	2	NA	0	2
LA	0	NA	0	1
MS	0	NA	0	2
MO	0	NA	0	0
NM	0	NA	0	0
NC	0	NA	0	0
OK	0	NA	0	0
SC	3	NA	0	2
TN	0	NA	0	0
TX	7	NA	11	8
14 Sts	4	NA	5	4

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

Peanuts Percent Planted

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
AL	85	67	91	89
FL	74	49	76	NA
GA	81	54	82	89
NC	85	45	64	74
OK	62	37	63	47
SC	85	65	79	86
TX	55	32	47	29
VA	94	80	85	89
8 Sts	75	50	72	NA

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

Oats Percent Planted

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
IA	100	100	99	99
MI	100	97	100	92
MN	83	79	99	91
NE	100	99	100	100
ND	48	25	95	66
OH	100	100	97	94
PA	98	96	95	92
SD	91	83	100	88
WI	100	97	100	92
9 Sts	83	74	98	86

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

Oats Percent Emerged

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
IA	99	95	94	94
MI	96	85	95	69
MN	69	60	94	76
NE	97	95	99	NA
ND	29	17	74	37
OH	99	92	91	86
PA	89	72	77	NA
SD	71	60	91	66
WI	97	83	96	NA
9 Sts	72	61	88	NA

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

Spring Wheat Percent Planted

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
ID	94	89	96	95
MN	71	69	99	71
MT	81	80	97	89
ND	50	35	93	67
SD	94	91	100	89
5 Sts	68	60	96	77

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

Spring Wheat Percent Emerged

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
ID	76	66	83	83
MN	58	52	92	49
MT	50	32	77	62
ND	34	27	78	40
SD	80	77	96	70
5 Sts	49	39	82	52

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

Barley Percent Planted

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
ID	89	76	92	91
MN	53	48	97	66
MT	81	80	98	88
ND	39	21	94	66
SD	87	81	100	85
WA	100	99	100	97
6 Sts	66	56	96	79

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

Barley Percent Emerged

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
ID	61	51	76	75
MN	43	33	92	46
MT	50	37	80	59
ND	23	15	75	38
SD	65	62	93	62
WA	97	89	98	88
6 Sts	46	36	81	55

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

Rice Percent Planted

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
AR	93	86	91	93
CA	90	80	41	64
LA	99	94	99	96
MS	99	92	96	98
TX	99	97	99	95
5 Sts	95	88	86	90

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

Rice Percent Emerged

	May 23 1999	Prev Week	Prev Year	5-Yr Avg
AR	74	59	78	78
CA	60	20	4	26
LA	96	89	97	91
MS	82	74	88	91
TX	92	86	94	83
5 Sts	78	63	73	74

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

Crop Progress and Condition

Week Ending May 23, 1999

Winter Wheat Crop Condition by Percent

	VP	P	F	G	EX
AR	0	1	18	55	26
CA	0	0	5	85	10
CO	1	3	12	61	23
GA	9	23	34	31	3
ID	0	1	17	66	16
IL	0	3	21	65	11
IN	0	1	13	61	25
KS	1	3	19	63	14
MI	0	2	15	63	20
MO	1	6	33	49	11
MT	1	5	43	45	6
NE	0	2	14	72	12
NC	0	2	20	70	8
OH	0	1	10	57	32
OK	0	4	22	66	8
OR	5	15	34	38	8
SD	0	0	13	60	27
TX	4	13	30	43	10
WA	9	12	29	46	4
19 Sts	2	5	22	58	13
Prev Wk	2	5	20	58	15
Prev Yr	1	7	23	56	13

Oats Crop Condition by Percent

	VP	P	F	G	EX
IA	0	1	17	57	25
MI	0	6	24	61	9
MN	4	6	21	52	17
NE	0	0	12	67	21
ND	0	2	26	68	4
OH	0	3	24	59	14
PA	1	2	36	58	3
SD	0	1	9	66	24
WI	0	0	7	66	27
9 Sts	1	2	19	62	16
Prev Wk	NA	NA	NA	NA	NA
Prev Yr	1	2	22	61	14

Rice Crop Condition by Percent

	VP	P	F	G	EX
AR	0	1	22	58	19
CA	0	0	30	60	10
LA	0	2	17	66	15
MS	1	3	32	60	4
TX	0	2	11	57	30
5 Sts	0	1	22	60	17
Prev Wk	0	2	26	56	16
Prev Yr	0	7	31	48	14

Barley Crop Condition by Percent

	VP	P	F	G	EX
ID	0	0	11	66	23
MN	4	30	29	32	5
MT	1	3	24	62	10
ND	1	4	35	56	4
SD	0	1	10	61	28
WA	0	17	72	11	0
6 Sts	1	7	31	52	9
Prev Wk	NA	NA	NA	NA	NA
Prev Yr	1	6	25	49	19

Spring Wheat Crop Condition by Percent

	VP	P	F	G	EX
ID	0	0	9	79	12
MN	3	19	30	44	4
MT	0	1	23	61	15
ND	1	5	33	57	4
SD	0	2	11	61	26
5 Sts	1	5	26	58	10
Prev Wk	NA	NA	NA	NA	NA
Prev Yr	2	7	24	51	16

Pasture and Range Crop Condition by Percent
Week Ending May 23, 1999

	VP	P	F	G	EX		VP	P	F	G	EX
AL	5	8	31	47	9	NH	0	5	22	69	4
AZ	20	23	31	25	1	NJ	0	35	65	0	0
AR	0	3	29	59	9	NM	14	25	40	18	3
CA	0	0	20	60	20	NY	0	18	52	30	0
CO	1	3	18	63	15	NC	1	4	21	69	5
CT	0	0	14	86	0	ND	0	3	24	63	10
DE	0	3	14	83	0	OH	1	6	31	49	13
FL	5	25	65	5	0	OK	1	4	20	63	12
GA	5	16	41	35	3	OR	0	6	25	68	1
ID	0	2	11	70	17	PA	1	11	42	43	3
IL	0	1	14	63	22	RI	0	0	12	84	4
IN	0	2	18	65	15	SC	1	3	29	59	8
IA	1	2	12	55	30	SD	1	1	9	60	29
KS	0	1	18	64	17	TN	1	4	25	60	10
KY	2	7	22	50	19	TX	4	10	33	41	12
LA	2	11	40	44	3	UT	0	1	21	67	11
ME	2	6	40	52	0	VT	0	3	45	39	13
MD	2	12	45	38	3	VA	2	17	43	34	4
MA	0	0	7	93	0	WA	3	15	36	44	2
MI	5	10	23	53	9	WV	0	19	41	36	4
MN	1	3	16	61	19	WI	0	1	7	41	51
MS	3	10	26	52	9	WY	0	1	14	64	21
MO	0	2	19	62	17	48 Sts	2	6	25	52	15
MT	4	5	25	48	18						
NE	0	1	8	69	22	Prev Wk	2	6	26	51	15
NV	0	2	23	73	2	Prev Yr	3	11	24	46	16

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

State Agricultural Summaries

These summaries, issued weekly through the summer growing season, provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service. The crop weather reports are also available on the Internet through the NASS Home Page on the World Wide Web at http://www.usda.gov/nass/ or from JAWF at http://www.usda.gov/oce/waob/jawf.

ALABAMA: Days suitable for fieldwork 5.8. Topsoil 7% very short, 24% short, 64% adequate, 5% surplus. Although a handful of areas did get significant showers, rainfall was scarce for most of the State. Temperatures were a few degrees above normal. Corn 99% planted, 99% 1998, 97% average. Corn emerged 91%, 95% 1998. Cotton planted 87%, 89% 1998, 89% avg: Soybeans 34% planted, 44% 1998, 39% avg. Peanuts 85% planted, 91% 1998, 89% avg. Wheat 98% headed 97% 1998, 95% avg. Hay 53% harvested, 72% 1998, 43% average. Wheat 2% very poor, 4% poor, 17% fair, 60% good, 17% excellent. Pasture condition 5% very poor, 8% poor, 31% fair, 47% good, 9% excellent. Livestock 1% very poor, 3% poor, 22% fair, 61% good, 13% excellent. Peach size on early varieties has been smaller than desired. Post emergence herbicides were applied on many row crops. Strawberry harvest concluded in many areas, while plum and blackberry harvest continues. Peppers, green tomatoes, squash, sweet corn, cherry tomatoes were also harvested.

ALASKA: Days suitable for fieldwork 6.5. Topsoil 45% short, 55% adequate. Subsoil 30% short, 65% adequate, 5% surplus. Warm, windy, sunny conditions prevailed and allowed fieldwork and planting to continue across the State. Daytime high temperatures were mostly in the 60's degrees F, lows mostly in the 30's degrees F. However, lows were mostly in the 20's in the Sawmill Creek area. The continued dry conditions caused the topsoil and subsoil ratings to deteriorate. Oats planting 70% complete, 85% 1998. Barley planting progress 75%, complete, 95% 1998. Potatoes 40% planted, 35% 1998. Vegetable 35% planting complete, 25% 1998. Progress of farm work 5 to 2.5 days behind. Prospects of new feed growth on pasture, hay fields, 10% poor, 50% fair, 35% good, 5% excellent.

ARIZONA: Cotton planting is still behind schedule. Small grains continue to progress. As of May 23, 38% of the durum wheat, 41% other wheat, 42% barley, 35% other small grains had matured. Small grain harvest has begun. As of May 23, 11% durum wheat, 9% other wheat, 7% barley, 8% other small grains had been harvested. Alfalfa harvest activity was reported as 66% not being harvested, 2% light, 5% moderate, 27% active. Alfalfa 3% poor, 13% fair, 53% good, 31% excellent. Range, pasture feed 20% very poor, 23% poor, 31% fair, 25% good, 1% excellent. Central area producers shipped artichokes, broccoli, cabbage, cantaloupes, carrots, dry onions, kale, mixed greens, parsley, potatoes. Eastern area producers shipped greenhouse tomatoes. Western producers harvested bell peppers, cabbage, cantaloupes, dry onions, and watermelons. Central and western area citrus shipments included grapefruit, valencia oranges .

ARKANSAS: Days suitable for fieldwork 5. Topsoil 6% short, 81% adequate, 13% surplus. Temperatures were normal for the week, with numerous thunderstorm warnings issued and some reports of wind and hail damage. Cotton 91% planted 65% emerged, rice 93% planted 74% emerged, soybeans 37% planted 17% emerged, corn 98% planted 90% emerged, sorghum 87% planted 77% emerged, wheat 100% headed, oats 95% headed. Livestock in good condition. Main farm activities: Planting of rice, corn, cotton, soybeans, sorghum, fertilizing corn, harvesting hay. Other activities: Replanting some cotton, spraying cotton for trips planting spring forages, spraying pecans for insects, stringing of tomatoes, harvesting strawberries, spraying rice fields for weeds, flushing of rice fields, deforming cattle, weaning calves, cleaning poultry houses.

CALIFORNIA: Field activities progressed normally under favorable conditions in most areas. Many small grain fields received final irrigation, although ripening was still being slowed by cool weather. Durum wheat grain harvest was in full swing in the Imperial Valley. Cotton planting was complete in the San Joaquin Valley. Growth of emerging fields continued to be hampered by the cool conditions. Some fields were cultivated, sprayed for mites. Old crop sugar beet harvest remained active in the San Joaquin and Imperial Valleys. Planting of new crop fields was ongoing in the San Joaquin Valley, and emerging fields were showing good growth. Seed alfalfa was blooming; some fields were treated for aphids, lygus, and mites. Corn, black eye beans were planted following winter forage, grain hay harvests. Early seeded corn, dry bean fields were thriving. Some dry bean fields were sprayed for mites. Rice planting was virtually complete in the Sacramento Valley but was still gaining momentum in the San Joaquin Valley. Emerged fields were treated for weeds, water weevils. Alfalfa, small grains, winter forages were cut for hay or greenchopped. Grape growers were applying sulfur, insecticides to control powdery mildew and insects. Other cultural activities included extensive weed control and irrigation of vineyards and orchards. Thinning was active in the stone fruit varieties. Harvest of apricots, cherries, as well as in the early varieties of nectarines, freestone peaches. Cool weather this spring has delayed maturity somewhat and fruit size has been small. Almond growers were applying fungicides and miticides. Tree limbs in almond orchards were propped up to bear the weight of the heavy nut set. Walnut trees were treated for blight. Southern area citrus was picked. Strawberry picking in the Central Valley continued. Mild weather throughout the vegetable growing regions prevented crops from ripening too quickly. Fresh market tomato fields continued to be planted in the San Joaquin Valley, and early planted stands were being weeded. Other crops planted in this region included melons, sweet potatoes, sweet corn. Spring lettuce harvest came to a close in the San Joaquin Valley. The Imperial Valley harvesting of cantaloupes, mixed melons intensified, as the harvesting of other crops, including sweet corn, onions ,carrots, progressed normally. Other crops harvested this week were asparagus, artichokes, broccoli, cabbage, cauliflower, cilantro, leeks, turnips, potatoes, various greens. There was heavy movement of cattle, sheep from rangeland pastures, as grass had either dried or was rapidly drying. Cooler weather extended shipment dates of some cattle by a week or two. However, livestock shipment dates were closer to normal than the prior 2 years' prolonged, El Nino-affected seasons. Large numbers of cattle were moving to auctions in central and northern California. Overall condition of livestock was good.

COLORADO: Days suitable for fieldwork 5.9. Topsoil 1% very short, 6% short, 90% adequate, 3% surplus. Subsoil 4% very short, 13% short, 81% adequate, 2% surplus. Warmer, drier conditions permitted increased field activities as well as growth and development of emerged crops. Localized heavy rain with some hail occurred late Saturday. Winter wheat 97% jointed, 95% 1998, 90% avg. Spring wheat 96% planted, 88% 1998, 91% avg; 82% emerged, 69% 1998, 73% avg; 8% poor, 26% fair, 51% good, 15% excellent. Spring barley 100% seeded, 98% 1998, 98% avg; 93% emerged, 86% 1998, 87% avg; 8% poor, 27% fair, 53% good, 12% excellent. Sorghum 29% planted, 17% 1998, 17% avg; 2% emerged, 8% 1998, 3% avg. Oats 97% seeded, 94% 1998, 92% avg; 86% emerged, 76% 1998, 79% avg; 3% very poor, 4% poor, 25% fair, 53% good, 15% excellent. Dry onions 1% very poor, 1% poor, 11% fair, 63% good, 24% excellent. Sugar beets 76% up to stand. Dry beans 3% planted, 12% 1998, 10% avg. Summer potatoes 90% planted, 100% 1998, 97% avg; 40% emerged, 55% 1998, 46% avg. Fall potatoes 92% planted, 87% 1998, 78% avg. Alfalfa 3% 1st cutting, 4% 1998, 4% avg. Pasture, range feed in mostly good condition.

DELAWARE: Days suitable for fieldwork 6.0. Topsoil 58% short, 42% adequate. Subsoil 42% short, 58% adequate. Winter wheat 18% fair, 73% good, 9% excellent; 82% headed, 79% 1998, 74% avg. Barley 23% fair, 70% good, 7% excellent; 30% turned, 28% 1998, 17% avg. Field corn 87% planted, 74% 1998, 78% avg; 59% emerged. Soybeans 17% planted, 8% 1998, 9% avg. Sorghum 88% planted, 2% 1998, 9% avg. Sweet corn 65% planted, 51% 1998, 59% avg. Snap beans 61% planted, 34% 1998, 27% avg. Tomatoes 66% planted, 61% 1998, 40% avg. Cantaloupes 60% planted, 45% 1998, 39% avg. Cucumbers 23% planted, 22% 1998, 20% avg. Watermelons 60% planted, 47% 1998, 43% avg. Clover, other hay 1st cutting 74% baled, 37% 1998, 32% avg. Alfalfa hay 1st cutting 52% baled, 36% 1998, 29% avg. Strawberries 97% bloomed, 95% 1998, 94% avg. Hay supplies 100% adequate. Pasture 3% poor, 14% fair, 83% good. Activities: Rain over weekend bodes well for germination and growth of seedlings. Picking strawberries.

FLORIDA: Topsoil short to adequate, with scattered areas adequate or surplus. Tobacco irrigation active. Clash of Atlantic, Gulf of Mexico sea breezes brought afternoon, early-evening storms, many Peninsula localities. Rainfall ranged from traces to 2.00 in. Palmetto-Ruskin received from 0.50

to 5.00 in., hail accompanying some storms. Immokalee reported traces to 3.00 in. received last part of week. Homestead recorded 1.33 in. also received late week. Temperatures averaged normal to 3 degrees F below. Daily highs mostly 80's degrees F, some localities recording 90's degrees F at least one day. Lows averaged mostly 50's, northern areas; 60's central, some southern areas; 70's degrees F, extreme southern areas. Growers delaying planting peanuts, cotton, some areas due to dry soil. Some replanting cotton. Hay growth delayed by dry weather. Peanuts 74% planted. Hot weather bringing most vegetable harvesting to end, many southern Peninsula localities. Major crops shipped: snap beans, blueberries, sweet corn, cucumbers, eggplant, escarole, endive, okra, peppers, potatoes, radishes, squash, tomatoes, watermelons. Rains improving citrus tree condition. Bloom continues all areas. New growth on well-cared-for trees. New crop fruit size varied due to long blooming cycle. Valencia harvest slowing; grapefruit, temple, honey tangerine harvest almost complete. Caretakers cutting cover crops, spraying, pushing dead trees, planting new trees. Pasture feed; very poor 5%, poor 25%, fair 65%, good 5%. Condition of cattle; poor 20%, fair 70%, good 10%. Panhandle pastures poor to good condition. Most areas short moisture, some severe need of moisture. Some pasture being re-seeded, will need rain to come up. First hay cutting underway. North: pastures greened up after showers, rain at end of week. Central counties: pastures very dry; drought still in effect. West Central area: cattle, pastures fair. Pastures improved following recent rains. Hay crops delayed by dry weather. Bahia grass planting delayed by high cost, shortage of seed. Southwest: some pasture got much-needed rain, others just a trace. Statewide pastures slightly improved.

GEORGIA: Days suitable for fieldwork 6.2. Soil moisture 17% very short, 44% short, 38% adequate, 1% surplus. Corn 6% very poor, 20% poor, 34% fair, 36% good, 4% excellent; 10% silked, 3% 1998, 8% avg. Cotton 6% very poor, 13% poor, 42% fair, 34% good, 5% excellent. Hay 4% very poor, 16% poor, 40% fair, 37% good, 3% excellent. Peanuts 3% very poor, 10% poor, 37% fair, 44% good, 6% excellent; 4% blooming, 2% 1998, 4% avg. Sorghum 7% very poor, 18% poor, 41% fair, 33% good, 1% excellent; 64% planted, 57% 1998, 60% avg. Soybeans 8% very poor, 10% poor, 51% fair, 30% good, 1% excellent. Tobacco 7% very poor, 24% poor, 42% fair, 26% good, 1% excellent. Wheat 17% harvested for grain, 10% 1998, 13% avg. Onions 5% very poor, 14% poor, 28% fair, 52% good, 1% excellent; 78% harvested, 77% 1998, 88% avg. Watermelons 3% very poor, 5% poor, 36% fair, 45% good, 11% excellent; 98% planted, 96% 1998, 98% avg. Apples 1% very poor, 7% poor, 36% fair, 43% good, 13% excellent. Peaches 9% very poor, 11% poor, 17% fair, 28% good, 35% excellent; 8% harvested, 12% 1998, 17% avg. The lack of significant rainfall in much of the State contributed to worsening soil moisture conditions. The dry weather limited planting. Corn, soybean, sorghum condition decreased. Sorghum planting continued ahead of last year's and the 5-year average pace. Cotton, peanut planting continued behind the 5-year average pace. Both crop conditions worsened. Blue Mold, Tomato Spotted Wilt Virus contributed to declining tobacco conditions. Watermelon planting neared completion, with slightly decreased condition. Onion harvest continued. County extension officials reported 6.2 days suitable for fieldwork. Other activities included weed control, orchard work, and routine care of livestock.

HAWAII: Crop progress was fair. Days varied from mostly sunny to partly cloudy. Rainfall generally light and limited to windward areas. Banana orchards in fair to good condition. The advent of warmer conditions benefited growth. Harvesting will be steady. Papayas in good condition. Some orchards in need of more rain. Harvesting generally steady increase expected from Kaui Island. Most vegetables in fair to good condition. Harvesting steady. Sweet corn, watermelon planting progressing. Harvesting to increase during Memorial Day weekend.

IDAHO: Days suitable for fieldwork 6.0. Topsoil 8% short, 85% adequate, 7% surplus. Warm, dry conditions across State. Hay, roughage supplies 11% short, 67% adequate, 22% surplus. Irrigation supply 70% excellent, 28% good, 2% fair. Alfalfa hay 6% harvested 3% 1998, 4% avg. Dry peas 94% planted, 100% 1998, 79% avg.56% emerged 88% 1998 58% avg. Dry beans 15, 13% 1998, 18% avg.; 1% emerged, 1% 1998, 2%. avg. Oats 79% planted, 88% 1998,84% avg.; 50% emerged,68% 1998, 67% avg. Lentils planted 95%, 99% 1998,76% avg.; 49% emerged 85% 1998,50% avg. Corn planted 86%, 78% 1998, 82% avg.; 26% emerged, 56% 1998,47% avg. Potatoes planted 82%, 81% 1998,83% avg.; 8% emerged,14% 1998,18% avg. Barley 61% emerged 76% 1998, 75% avg.; 13% jointed;1% booted. Spring wheat emerged, 76% 1998, 83% avg.;83% 14% jointed;0% booted. Sugar beets 70% emerged,87% 1998, 91% avg. Winter wheat 66% jointed; 6% booted; 1% headed. Activities: finishing small grain plantings, seeding row crops, cultivating, fertilizing, fencing, moving livestock to early pasture.

ILLINOIS: Days suitable for fieldwork 3.2. Topsoil 1% short, 62% adequate, 37% surplus. Farmers continued to plant corn, soybeans. Continued rains have farmers in the northern half of the State anticipating some corn replanting. However, warm weather has promoted corn emergence. Other activities for included cutting hay and spraying fertilizer. Corn 1% very poor, 3% poor, 21% fair, 61% good, 14% excellent. Winter wheat filled 39%, 37% 1998, 18% avg. Winter wheat turning yellow 1%, 2% 1998, 1% avg. Oats headed 14%, 3% 1998, 9% avg. Oats filled 4%, 1% 1998, 1% avg. Oats condition 17% fair, 69% good, 14% excellent. Alfalfa first cut 21%, 27% 1998, 15% avg. Alfalfa condition 1% poor, 13% fair, 69% good, 17% excellent. Red clover cut 13%, 24% 1998, 12% avg. Red clover condition 5% poor, 15% fair, 66% good, 14% excellent.

INDIANA: Days suitable for fieldwork 4.9. Topsoil 1% very short,11% short, 78% adequate, 10% surplus. Subsoil 1% very short, 11% short, 78% adequate, 10% surplus. Winter wheat 100% jointed, 100% 1998, 91% avg. Tobacco plants set 22%, 19% 1998, 11% avg. Wheat condition 86% good to excellent. No major wheat disease problems. Corn planting near record pace set in 1988. Corn planting 99% complete in northern and central districts. Soybean planting 1 day behind record pace set in 1987. Pastures 80% good to excellent. First cutting of hay continued, southern areas. Activities: Planting corn, soybeans, rotary hoeing, mowing hay, spraying, transplanting tobacco, monitoring fields for insects.

IOWA: Days suitable for fieldwork 1.8. Topsoil 1% short, 38% adequate,61 % surplus. Subsoil 46% adequate 54% surplus. Wet conditions continue, some flooding. Corn 88% planted 97% 1998,91% avg: corn 61% emerged, 84% 1998, 60% avg. Soybean 33% planted 82% 1998, 64% avg: soybean acreage 7% emerged 41% 1998, 18% avg. Oats 100% planted,99% 1998,99% avg: oats 99% emerged, 94% 1998, 94% avg: 1% poor, 17% fair, 57% good,25% excellent. Winter wheat, 12% fair, 74% good, 14% excellent. Fertilizer applied (including fall applications) 96% complete. Seedbed preparation (including fall preparation) 93% complete. Muddy feedlots and cool, wet weather are not hindering calves. Recent rains continue to keep pastures in good shape for grazing. Range, pasture 1% very poor, 2% poor, 12% fair, 55% good, 30% excellent.

KANSAS: Days suitable for fieldwork 3.0. Topsoil 3% short, 54% adequate, 43% surplus. Subsoil 1% short, 76% adequate, 23% surplus. Heavy rains slowed planting progress during the week. Hail and high winds in some areas on May 16 and 17 resulted in severe crop and livestock damage, the extent of which is still being evaluated. The area with the worst hail damage extends almost directly east from Greely County on the Kansas-Colorado border to Saline County. Wheat turning 3%, 4% 1998, 4% average. Disease pressure is increasing in the winter wheat crop as wet weather persists. Diseases reported include barley yellow dwarf, wheat streak mosaic, wheat spindle streak, speckled leaf blotch, leaf rust, crazy top, septoria and tan spot. Disease infestation 8% moderate, 24% light, 68% with no infestation. Sunflowers planted 7%, 11% 1998, NA average. First cutting alfalfa 44%, 64% 1998, 35% average. Primary activities: planting corn, soybeans, sorghum, cotton, cutting and baling alfalfa, and applying herbicides and fertilizers. Livestock producers continue to work calves and move cattle to pastures. Grass growth has been slow because of cool weather. Hay, forage supplies 90% adequate, 10% surplus. Stock water 2% short, 75% adequate, 23% surplus.

KENTUCKY: Days suitable for fieldwork 5.2. Topsoil 11% very short, 37% short, 47% adequate, 5% surplus. Subsoil 10% very short, 30% short, 56% adequate, 4% surplus. Temperatures averaged near normal, while rainfall continued below normal. Average corn height 9 in., with most advanced fields 18 in. Armyworms reported in corn, flea beetles, cutworms in tobacco. Burley tobacco 46% set, 25% 1998, 21% 5 year. Dark tobacco 53% set, 23% 1998, 25% 5-year. Condition set tobacco 2% very poor, 4% poor, 29% fair, 45% good, 20% excellent. Tobacco with adequate moisture showing good development, while tobacco in drier areas needs moisture. Some set tobacco will need to be reset due to dry conditions and some farmers waiting for improved soil moisture to set tobacco. Winter wheat good with only light disease problems. Some farmers cutting wheat for hay instead of harvesting for grain. Winter wheat condition 9% fair, 58% good, 33% excellent. Pasture condition 2% very poor, 7% poor, 22% fair, 50% good, 19% excellent. Harvesting first cutting hay, yield generally light, while quality good. Hay 8% poor, 21% fair, 48% good, 23% excellent.

LOUISIANA: Days suitable for fieldwork 6. Soil moisture 8% very short, 39% short, 52% adequate, 1% surplus. Corn 4% poor, 27% fair, 57% good, 12% excellent; 9% silked, 5% 1998, 6% avg. Corn was showing signs of stress. Cotton 1% very poor, 3% poor, 36% fair, 54% good, 6% excellent; 89% emerged, 92% 1998, 90% avg. Hay 63% 1st cutting, 63% 1998, 47% avg. Peaches 0% harvested, 4% 1998, 4% avg. Rice planting edged closer to completion. Sorghum 5% poor, 31% fair, 61% good, 3% excellent; 80% emerged, 88% 1998, 78% avg. Soybeans spring plowing 100% plowing, 99% 1998, 97% avg. Sugarcane 2% poor, 17% fair, 57% good 24% excellent. Sugarcane producers were busy lay-bying, applying fertilizer, controlling weeds. Sweet potatoes 31% planted, 23% 1998, 17% avg. Wheat 3% poor, 23% fair, 62% good 12% excellent; 100% turning color, 100% 1998, 95% avg.; 49% harvested, 49% 1998, 33% avg. Several wheat farmers finished harvesting this week. Livestock 4% poor, 33% fair, 54% good, 9% excellent. Vegetables 1% very poor, 12% poor, 41% fair, 39% good, 7% excellent. Pastures need rain to promote new forage growth after the first hay cutting.

MARYLAND: Days suitable for fieldwork 6.3. Topsoil moisture 18% very short, 54% short, 28% adequate. Subsoil moisture 12% very short, 48% short, 40% adequate. Winter wheat 6% poor, 20% fair, 68% good, 6% excellent; 81% headed, 97% 1998, 85% avg. Barley 5% poor, 20% fair, 68% good, 7% excellent; 32% turned, 56% 1998, 28% avg. Rye 4% poor, 20% fair, 70% good, 6% excellent; 8% turned, 17% 1998, 7% avg. Field corn 88% planted, 77% 1998, 79% avg; 60% emerged. Soybeans 17% planted, 14% 1998, 15% avg. Sorghum 19% planted, 11% 1998,12% avg. Sweet corn 79% planted, 72% 1998, 65% avg. Snap beans 36% planted, 57% 1998, 65% avg. Lima beans 59% planted, 19% 1998, 27% avg. Tomatoes 84% planted, 83% 1998, 78% avg. Cucumbers 49% planted, 52% 1998, 57% avg. Cantaloupes 80% planted, 76% 1998, 73% avg. Watermelons 81% planted, 72% 1998, 70% avg. Strawberries 20% harvested, 26% 1998, 21% avg. Clover and other hays 1st cutting 27% harvested, 33% 1998, 23% avg. Alfalfa 1st cutting 47% harvested, 36% 1998, 28% avg. Pasture condition 2% very poor, 12% poor, 45% fair, 38% good, and 3% excellent. Hay supplies 16% short, 80% adequate, 4% surplus. Activities: Warm days early week favored hay cutting and curing. Planting active. Picking strawberries.

MICHIGAN: Days suitable for fieldwork 5.0. Topsoil 6% very short, 19% short, 70% adequate, 5% surplus. Subsoil 9% very short, 30% short, 61% adequate. Hay first cutting 4%, 22% 1998, 5% avg. Asparagus harvested 48%, 61% 1998, 33% avg. Barley 95% emerged, 84% 1998, 31% avg. Potatoes 75% planted 90% 1998, 74% avg. 42% emerged, 66% 1998, 29% avg. Rain interrupted corn but will help with spotty emergence and activate pre-emergent herbicides. Soybean planting progressed as soils dried. Wheat in good to excellent condition with very limited spraying for powdery mildew. March-planted sugarbeets in excellent condition as fields were cultivated and post-emergent herbicides applied. Rain spurred alfalfa growth as harvest began. Many fall and spring seeded alfalfa fields were replanted, since they have not recovered from drier weather since fall. Rain, above-normal soil temperatures, provided ideal conditions for direct seeding and transplanting of vegetables. Asparagus harvest accelerated. Carrot planting continued central. Celery transplanting continued as weather permitted. Direct seeded cucumbers at first and second leaf southwest, transplants at third and fourth leaf. Onion plants at second leaf. Peas at first bloom southwest. Pepper transplanting began southeast. Tomato transplanting continued at a rapid rate southwest. Growers still irrigated young trees and small fruits. Fruit development was generally 5 to 7 days ahead of average. Insect activity increased significantly. Several fruit species under attack by plum curculio. Deer became active in young orchards northwest. Apples had 8 mm fruit south and petal fall north, thinning window began south. Peaches had 8 mm fruit. Concord grapes remained in 4 to 8 inch shoot stage. The crop looked lighter than last year's. Strawberries in full bloom. Sweet cherries had 6-10 mm fruit. Tart cherries in shuck split. Bluecrop blueberries in petal fall. Stanley plums in shuck split.

MINNESOTA: Days suitable for fieldwork 1.7. Topsoil 0% very short, 0% short, 39% adequate, 61% surplus. Soybeans 64% ground prepared, 96% 1998, 74% avg. Potatoes 57% planted, 86% 1998, 60% avg. Sugarbeets 84% planted, 99% 1998, 86% avg. Sunflowers 24% planted, 64% 1998, 33% avg. Sweet corn 47% planted, 72% 1998, 59% avg. Green peas 72% planted, 91% 1998, 84% avg. Flax 16% planted, 68% 1998, 30% avg. Dry beans 21% planted, 69% 1998, 37% avg. Alfalfa 1% 1st cutting, 14% 1998, 3% avg. Pasture feed 1% very poor, 3% poor, 16% fair, 61% good, 19% excellent. Continued rainy and cool conditions are keeping crop progress at a minimum. Many fields have standing water and planting will have to be redone in certain areas. Much of the corn acreage that has not been planted yet will now probably be planted to soybeans instead. Most corn that is emerged has a yellow color to it but should look better with some sunshine.

MISSISSIPPI: Days suitable for fieldwork 6.1. Soil moisture 12% very short, 37% short, 46% adequate, 5% surplus. Corn 100% emerged, 93% 1998, 97% avg; 6% silked, NA 1998, 1% avg; 1% very poor 5% poor, 26% fair, 60% good, 8% excellent. Cotton 93% planted, 87% 1998, 95% avg; 72% emerged, 65% 1998, 81% avg.; 3% very poor, 8% poor, 29% fair, 51% good, 9% excellent. Rice 99% planted, 96% 1998, 98% avg; 82% emerged, 88% 1998, 91% avg; 1% very poor, 3% poor, 32% fair, 60% good, 4% excellent. Sorghum 94% planted, 73% 1998, 85% avg; 83% emerged, 66% 1998, 76% avg; 1% poor, 12% fair, 82% good, 5% excellent. Soybeans 76% planted, 77% 1998, 71% avg; 57% emerged, 57% 1998, 54% avg.; 3% very poor, 4% poor, 31% fair, 55% good, 7% excellent. Sweetpotatoes 15% planted, 10% 1998, 15% avg. Hay (cool-season) 75% harvested, 51% 1998, 54% avg.; 2% very poor, 11% poor, 41% fair, 39% good, 7% excellent. Hay (warm-season) 13% harvested, 6% 1998, 11% avg. Watermelons 82% planted, 73% 1998, 88% avg; 59% fair, 32% good, 9% excellent. Wheat 100% heading, 99% 1998, 100% avg; 40% mature, 37% 1998, 35% avg.; 2% very poor, 3% poor, 25% fair, 63% good, 7% excellent. Blueberries 33% fair, 55% good, 12% excellent. Cattle 1% very poor, 6% poor, 24% fair, 60% good, 9% excellent. Pasture 3% very poor, 10% poor, 26% fair, 52% good, 9% excellent. Some areas of the State received rain. Rice plantings are virtually complete. Cotton, sorghum plantings are nearing competion.

MISSOURI: Days suitable for fieldwork 2.7. Topsoil 1% short,59% adequate, 40% surplus. Corn planting complete in Bootheel. Soybean planting well behind last year and avg. Sorghum planting 62% in Bootheel, 47% south-central, 20% or less in all other districts. Cotton planting nearly a week ahead of last year and normal. Winter wheat heading complete in the southeast, south-central, nearly complete in east-central, while the remainder of the State ranges from 63 to 90%. Wheat condition generally fair to good. Pasture condition 2% poor, 19% fair, 62% good, 17% excellent, above avg. for this date. Precipitation for week ending May 23 avg. 0.75 in.

MONTANA: Days suitable for fieldwork 4.6. Most areas of the State received small amounts of precipitation during the week. Topsoil moisture 3% very short, 14% short, 76% adequate, and 7% surplus. Subsoil moisture 5% very short, 15% short, 72% adequate, and 8% surplus. Sugar beets emerged 95%, 96% 1998, 84% avg. Oats seeded 75%, 91% 1998, 78% avg. Oats emerged 37%, 72% 1998, 51% avg. Corn planted 39%, 92% 1998, 82% avg. Corn emerged 10%, 73% 1998, 44% avg. Potatoes planted 29%, 33% 1998, 48% avg. Potatoes emerged 1%, 2% 1998, 6% avg. Dry beans planted 55%, 72% 1998, 60% avg. Dry beans emerged 5%, 43% 1998, 19% avg. The mild temperatures have resulted in livestock being in good condition as feed supplies remain adequate. However, some livestock producers have experienced sick calves as a result of the recent wet and cool conditions. Calving and lambing is making good progress as few problems have occurred and death losses are down. Calving completed 97%, 98% 1998, 98% avg. Lambing completed 85%, 93% 1998, 90% avg. Cattle and calves being moved to summer ranges 62%, 68% 1998, 62% avg. Sheep and lambs being moved to summer ranges 51%, 69% 1998, 55% avg.

NEBRASKA: Days suitable for fieldwork 3.0. Statewide, temperatures averaged near normals or slightly above for the week. Topsoil 1% short, 72% adequate, 27% surplus. Subsoil 3% short, 81% adequate, 16% surplus. Corn 89% planted, behind 98% 1998, and average;46% emerged, 18% 1998, 56% avg: Soybeans 30% planted, 76% 1998, 51% avg. Sorghum 12% planted, 57% 1998, 40% avg. Alfalfa 1% poor, 13% fair, 64% good, 22% excellent. Wheat 2% poor, 14% fair, 72% good, 12% excellent; 97% jointed ahead of 88% 1998, same as avg; 30% headed, 26% 1998, 16% avg: Oats 12% fair, 67% good, 21% excellent; 99% emerged, 1998. First cutting of alfalfa 2%. Alfalfa condition rated 1% poor, 13% fair, 64% good, and 22% excellent. Pasture, range improved 1% poor, 8% fair, 69% good, 22% excellent. Other producer activities; planting of row crops, preparing for sunflower ,dry bean planting, applying fertilizer, herbicide, working, moving cattle to pastures.

NEVADA: Summer weather has finally graced the Silver State with its presence. Northern Nevada had highs in the 80's and the southern portions of the State had highs in the low 90's degrees F. Minimal precipitation fell in the north from seasonal thunder storms. Irrigation water supply remains adequate as irrigation continues. Harvesting of hay began in southern

Nevada. Hay crops, grain crops remain in good condition. Potatoes have started to germinate. Cattle, sheep are being moved to summer range, branding, vaccinating of calves is wrapping up. Main farm and ranch activities: irrigating, spraying, preparing equipment for harvesting alfalfa, moving livestock, branding, vaccinating.

NEW ENGLAND: Days suitable for fieldwork 6.1. Topsoil 4% very short, 40% short, 56% adequate. Subsoil 8% very short, 43% short, 49% adequate. Pasture feed 4% poor, 33% fair, 57% good, 6% excellent. Maine potatoes 90% planted, 80% 1998, 45% avg; <5% emerged, condition good. Massachusetts potatoes 90% planted, 95% 1998, 85% avg; 65% emerged, condition good. Rhode Island potatoes 99% planted, 85% 1998, 75% avg; 50% emerged, condition good to excellent. Oats in Maine 95% planted, 80% 1998, 55% avg; 50% emerged, condition good. Barley in Maine 95% planted, 85% 1998; 55% emerged, condition good. Field corn 70% planted, 45% 1998, 40% avg; 35% emerged, condition good. Sweet corn 50% planted, 50% 1998, 40% avg; 30% emerged, condition good. Shade Tobacco 50% planted, 45% 1998, 35% avg; condition good. First-cut hay 5% harvested, 10% 1998, <5% avg; condition good to fair. Apples Petal Fall to Full Bloom, condition good. Peaches Petal Fall, condition good to fair. Pears petal fall, condition good. Strawberries full bloom to early bloom, condition good. cranberries bud stage, condition good to excellent. Highbush blueberries full bloom, condition good. Wild blueberries full bloom, condition fair. Crops responding well from rain. Major farm activities: planting vegetables, corn, tobacco, potatoes; cutting first cut hay; releasing bees in orchards, manure spreading and applying fertilizers.

NEW JERSEY: Days suitable for fieldwork 5. Estimated soil moisture, in percentage of field capacity, this past week averaged 88% North, 74% Central, 59% South. Four-inch soil temperatures 59° North, 60° Central, 61° South. Fields benefited from the rainfall. Farmers continue to irrigate crops where the rainfall was not as prevalent. Temperatures slightly below normal. Extremes 38° at Long Valley on the 18th; 88° at Pemberton on the 23rd. Rainfall 1.79 in. North, 1.29 in. Central, 1.11 in. South. Heaviest 24-hour total 2.04 in. at Pemberton on the 19th to 20th. Good supply of arugula, asparagus, beets, cilantro, dill, endive, escarole, herbs, leeks, radishes, spinach, lettuce of all types (Boston, Romaine, Leaf and Bibb), except Iceberg. Planting of sweet potatoes, tomatoes, snap beans, peppers, eggplant, sweet corn continues. Hay, alfalfa hay cutting reported. Field corn, soybeans are being planted. Peach trees are past the shuck split stage, starting to size. Apple trees are beyond the petal fall stage, beginning to set fruit. Strawberries, blueberries are sizing well. Early varieties of strawberry harvest is underway in southern areas.

NEW MEXICO: Scattered showers and thunderstorms brought relief to many areas of the State late. The greatest accumulation was in the southeast, where Carlsbad received 1.74 inches. Temperatures averaged close to normal statewide. Despite the precipitation, farmers,ranchers avg. 6.7 days of fieldwork. The rainfall did little to slow alfalfa harvest, with the first cutting advancing to 67% complete. The end of corn, cotton plantings were in sight, with 90% of both crops in the ground. As corn, cotton producers were coming to an end of planting, sorghum farmers were just getting started. In the south, lettuce harvest moved to 80% complete, as some onion producers began harvesting their crop. By the end of the week, 5% of the onions had been picked. Ranchers continued with branding and light supplemental feeding in some areas. Cattle stayed in mostly good condition, while sheep were still rated in mostly fair condition.

NEW YORK: Days suitable: 6.1. Soil 13% very short, 53 % short, 34 % adequate. Pasture 18 % poor, 52 % fair, 30% good. Oats 20% fair, 80% good. Wheat 7 % fair, 86 % good, 7 % excellent. Corn 81 % planted, 67 % 1998, 42 % avg. Oats 98 % seeded, 95 % 1998, 70 % avg. Soybean planting began as threat of hard frost diminished. Germination, growth of seeded crops would benefit from additional rains. Onions showing stress due to dry conditions--behind normal growth. Strawberries ahead of schedule. Cabbage transplants doing well despite frost, lack of rain. Ideal conditions for fruit set. Good bee activity, little disease. Dairy herds enjoyed sunshine, mild breezes, spring grasses.

NORTH CAROLINA: Statewide, 5.6 days were suitable for fieldwork, compared to 5.1. Warm, dry weather allowed major advancements in fieldwork. Precipitation was widespread in western and northeastern North Carolina, though rainfall levels were limited. Soil moisture is rated 2% very short, 16% short, 79% adequate, and 3% surplus. Corn planting, flue-cured tobacco setting are both more than 90% complete. Cotton, peanuts, sorghum, burley tobacco farmers took advantage of the weather to make major strides in plantings. Soybean, sweetpotato plantings are also well under way. Other activities included first cuttings of hay, harvesting small grains, cultivating, applying pesticides, tending livestock, and pasture maintenance. Apple producers in Henderson County received a blow from the weather as strong storms, including high winds and hail, stripped leaves and damaged small fruit on May 13th. Elsewhere, early-season cool and wet weather in some parts has reduced cotton emergence and prompted some growers to replant.

NORTH DAKOTA: Dry conditions across most of the State allowed producers to make planting progress. Planting progress for all crops is behind the 5-year avg. An average of 4 days was suitable for fieldwork. Topsoil 0% very short, 0% short, 67% adequate, 33% surplus. Subsoil 0% very short, 0% short, 65% adequate, 35% surplus. Durum wheat 31% planted, 83% 1998, 56% avg; 17% emerged, 53% 1998, 26% avg. Canola 38% planted, 92% 1998; 17% emerged, 67% 1998. Corn 50% planted, 84% 1998, 61% avg; 12% emerged, 44% 1998, 22% avg. Dry edible beans 10% planted, 51% 1998, 28% avg. Flaxseed 30% planted, 87% 1998, 38% avg; 12% emerged, 52% 1998, 15% avg. Potatoes 47% planted, 85% 1998, 59% avg. Soybeans 19% planted, 50% 1998, 35% avg. Sugarbeets 79% planted, 100% 1998, 84% avg; emerged 63%, 93% 1998, 46% avg. Sunflowers 6% planted, 45% 1998, 22% avg. Pasture conditions improved to 0% very poor, 3% poor, 24% fair, 63% good and 10% excellent. Pasture and ranges supplied 90% of the roughage requirements. Stockwater supplies were rated 0% very short, 0% short, 82% adequate and 18% surplus.

OHIO: Days suitable for fieldwork 6.1. Topsoil 16% very short, 45% short, 37% adequate, 2% surplus. Corn 98% planted, 75% 1998, 71% avg; 79% emerged, 35% 1998, 36% avg. Soybeans 92% planted, 50% 1998, 47% avg. Soybeans emerged 51%, 15% 1998, 14% avg. Winter wheat headed 72% complete, 73% 1998, 25% avg. Winter wheat turning 1%, 0% 1998, avg. Oats 99% emerged, 91% 1998, 86% avg; 14% headed, 3% 1998, 1% avg. Tobacco beds transplanted, 19%, 11% 1998. Potatoes 94% planted, 87% 1998, 82% avg. Alfalfa 31% 1st cutting; other hay 20% 1st cutting. Pasture 1% very poor, 6% poor, 31% fair, 49% good, 13% excellent. Winter wheat 0% very poor, 1% poor, 10% fair, 57% good, 32% excellent. Corn 0% very poor, 3% poor, 28% fair, 55%good, 14% excellent. Activities for the week include finishing corn, soybean planting; spraying weeds; making hay; planting vegetable crops; applying corn nitrogen; seeding grass, alfalfa; chopping haylage; scouting for pests; seeding CRP acres; hauling manure; spraying orchards; mowing fence rows, farm lots; installing tile; installing grass waterways; clearing out bins; maintaining equipment; setting tobacco; planting ornamental crops; hoping for rain. Herbicide effectiveness has been harmed due to dry weather resulting in some minor weed pressure. Reported insects include seed corn maggots, black cutworms, flea beetles in corn; alfalfa weevil, aphids, spittlebugs in alfalfa; leaf beetle in soybeans. Other insects reported were carpenter bees, cicadas, locusts, mosquitoes, and pine saw flies. Few diseases were reported as of yet; however, there has been heat bed damage in tobacco, fungus disease in orchards. Light hail damage was reported on vegetable crops in Meigs County. Reporters there indicated cabbage heads, tomatoes, peppers were forming. Strawberries that were irrigated are coming along nicely, while other patches may have small fruit because of dry weather. Grass, pasture conditions range from good to poor. Much of the pasture is short, heading out due to lack of moisture. Some farmers were hesitant to seed grasses because of dry conditions. Livestock are in good condition, with face flies being the only problem.

OKLAHOMA: Days suitable for fieldwork 5.0. Subsoil 4% short, 84% adequate, 12% surplus. Topsoil 9% short, 79% adequate, 12% surplus. Dry weather west encouraged wheat development, some fields harvested. Cool, wet weather east restricted crop progress. Wheat 63% soft dough, 33% 1998, 39% avg; Oats 94% heading, 84% 1998, 77% avg; 59% soft dough, 38% 1998, 33% avg; Corn 1% poor, 4% fair, 93% good, 2% excellent; 97% up-to-stand, 95% 1998, 90% avg; Sorghum 4% up-to-stand, 5% 1998, 11% avg; Soybeans 39% planted, 43% 1998, 45% avg; 24% up-to-stand, 15% 1998, 21% avg; Peanuts 35% up-to-stand, 26% 1998, 16% avg; Cotton 24% up-to-stand, 21% 1998, 14% avg; Alfalfa Hay 1% poor, 17% fair, 71% good, 11% excellent; 83% 1st cutting, 80% 1998, 71% avg; Other Hay 42% 1st cutting, 35% 1998, 38% avg; Livestock 2% poor, 11% fair, 75% good, 12% excellent. Feeder cattle prices up $1.00 to $1.50 per cwt. from the previous week.

OREGON: Days suitable for fieldwork 6.5. Topsoil 7% very short, 27% short, 62% adequate, 4% surplus. Subsoil 4% very short, 24% short, 70% adequate, 2% surplus. Barley planted 92%, 95% 1998, 86% avg. Winter wheat 5% very poor, 15% poor, 34% fair, 38% good, 8% excellent. Range, pasture 6% poor, 25% fair, 68% good, 1% excellent. Activities: Light rain on Eastside gave boost to spring planted crops, but more is needed. Early cutting of hay continued. Aphid control on grass, wheat reported in Northeast, along with rust & mildew control sprays on grass seed crops. In Malheur County, sugarbeets being thinned & first cutting of mint started. Klamath Basin & Central Areas replanted their sugarbeets due to damaging high winds or frost kill. Mite damage to hay fields in Central Areas On Westside fields of grass seed falling down, if weather improves could still pollinate. Crimson clover approaching full bloom & field corn planting in full swing in Willamette Valley. Movement of balled & burlapped trees & containers continued to local & distance markets. Easter lily growers monitoring soil moisture. Most Christmas tree growers report trees sold out for next fall's harvest. Planting of processing vegetables resumed in Willamette Valley. Rhubarb ready for harvest, most crops emerged. Potatoes emerging on Eastside, except Klamath Basin & Central Areas where planting continued. Onion root maggot & replanting of some blown out onion fields reported in Northeast. Onions being thinned in Malheur County. In the Willamette Valley strawberries reaching full bloom, caneberries nearing bloom. Hazelnut setting continued along with spraying. Apple thinning, Bartlett pears, cherries set. Rogue River Valley first cover sprays for codling moth, two spotted mite, & pear psylla began. South coast blueberry bloom past peak & cranberry growth between cabbage head to hook stage. Hood River Valley pear bloom fading in upper valley & apple bloom underway. Lower valley growers finished "Agrimek timing" spray applications. Livestock good to excellent. Cattle movement to spring, summer pastures continued in Northeast. Grass growing on Eastside; hay feeding mostly stopped. Westside pastures doing nicely; some supplemental feeding continued on coast.

PENNSYLVANIA: Days suitable for field work 5.7. Soil 11% very short, 44% short, 44% adequate, 1% surplus. Plowing 92% complete, 86% 1998, 84% avg. Corn 83% planted complete, 61% 1998, 61% avg. Corn 51% emerged complete, 30% 1998, average not available. Soybeans planted 48% complete, 22% 1998, 30% avg. Soybeans 18% emerged complete, 4% 1998, average not available. Oats 89% emerged complete, 77% 1998, average not available. Potatoes 87% planted complete, 53% 1998, 63% avg. Tobacco beds transplanted 10% complete, 9% 1998, 8% avg. Barley heading or headed 88% complete, 92% 1998, 75% avg. Wheat heading or headed 42% complete, 63% 1998, 41% avg. Wheat crop condition 2% poor, 19% fair, 66% good, 13% excellent. Oat crop condition 1% very poor, 2% poor, 36% fair, 58% good, 3% excellent. Timothy clover stand 2% very poor, 5% poor, 42% fair, 48% good, 3% excellent. Alfalfa 1st cutting 29% complete, 22% 1998, 13% avg. Quality of hay made 5% very poor, 16% fair, 58% good, 21% excellent. Cherries 100% pink, 100% 1998, 100% avg.; 100% full bloom or past, 100% 1998, 97% avg. Apples 99% full bloom or past, 100% 1998, 93% avg. Activities included spring plowing; planting oats, alfalfa, potatoes, soybeans, tobacco, vegetables, corn; machinery maintenance; fixing fences; hauling manure; spreading fertilizers; caring for livestock; cutting hay; making haylage; and applying pesticides.

SOUTH CAROLINA: Soil moisture 1% very short, 22% short, 74% adequate, 3% surplus. Barley 100% headed,100% 1998, 99% avg; 79% turned color, 55 % 1998, 70% avg; 34% ripe, 13% 1998, 28% avg; 27% fair, 52% good, 21% excellent. Cantaloupes 100% planted, 93% 1998, 94% avg; 15% poor, 44% fair, 34% good, 7% excellent. Corn 99% emerged, 99% 1998, 100 % avg. Cucumbers 100% planted, 93 % 1998, 92% avg. Cotton 75% planted, 81% 1998, 88% avg. Hay 77% harvested, 82% 1998, 80% avg. Oats 100% headed, 100% 1998, 100% avg; 3% poor, 27% fair, 61% good, 9% excellent. Peaches 5% very poor, 10% poor, 8% fair, 51% good, 26% excellent. Rye 100% headed, 100% 1998, 100% avg; 87% turned color, 73% 1998, 81% avg; 39% ripe, 37% 1998, 45% avg; 10% harvested, n/a 1998, n/a avg.; 2% poor, 32% fair, 63% good, 3% excellent. Peanuts 85% planted, 79% 1998, 86% avg. Sorghum 65 planted, 51% 1998, 38% avg. Snapbeans 95% planted, 95% 1998, 88% avg. Tobacco 100% transplanted, 100% 1998, 99% avg. Tomatoes 100% planted, 98%1998, 99%avg. Watermelons 99% planted, 99% 1998, 97% avg. Winter Wheat 100% Headed, 100% 1998, 100 % avg; 74% turning color, 86% 1998, 87% avg; 23% ripe, 51% 1998, 43% avg; 2% poor, 27% fair, 62% good, 9% excellent.

SOUTH DAKOTA: Topsoil 60% adequate, 40% surplus. A week of drier weather allowed producers to get back into fields and resume planting, with 3.6 days suitable for fieldwork. Subsoil 59% adequate and 41% surplus. . Corn 26% excellent, 57% good, 13% fair, 4% poor. Corn height 2 in., 3 in. 1998, 1 in. avg. Soybean 23% excellent, 69% good, 7% fair, 1% poor. Sorghum 16% excellent, 81% good, 3% fair. Winter rye 28% excellent, 55% good, 15% fair, 2% poor. Alfalfa 35% excellent, 57% good, 7% fair, 1% poor. Spring wheat 1% in boot stage, 17% 1998, 4% avg. Oats 1% in boot stage, 12% 1998, 3% avg. Barley 1% in boot stage, 8% 1998, 2% avg. Winter wheat 66% in boot stage, 70% 1998, 27% avg. Winter rye headed 0%, 31% 1998, 8% avg. Winter rye 48% in boot, 71% 1998, 31% avg. Flaxseed 53% seeded, 81% 1998, 38% avg. Flaxseed 24% emerged, 68% 1998, 26% avg. Sunflower 7% seeded, 36% 1998, 15% avg. Alfalfa first cutting 1%, 7% 1998, 1% avg. Cattle 30% excellent, 63% good, 7% fair. Sheep 34% excellent, 60% good, 6% fair. Calving 93% completed, 96% 1998. Lambing 94% completed, 94% 1998. Cattle moved to pasture 74%. Feed 3% short, 82% adequate, 15% surplus. Stock water 67% adequate, 33% surplus.

TENNESSEE: Days suitable for fieldwork 6.0. Topsoil 14% short, 78% adequate, 8% surplus. Subsoil 8% short, 84% adequate, 8% surplus. Corn 93% emerged, 78% 1998; 1% very poor, 2% poor, 15% fair, 63% good, 19% excellent. Tobacco 48% transplanted, 37% 1998, 42% avg. Wheat 50% turning color, 64% 1998, 38% avg.; 3% poor, 15% fair, 60% good, 22% excellent. Pasture feed 1% very poor, 4% poor, 25% fair, 60% good, 10% excellent. Alfalfa 76% harvested, 76% 1998, 63% avg.; 2% poor, 19% fair, 61% good, 18% excellent. Other hay 48% harvested, 57% 1998; 1% very poor, 5% poor, 25% fair, 58% good, 11% excellent. As a result of great planting conditions, farmers made excellent progress with their planting activities. Corn growers were busy putting the finishing touches on planting and tobacco growers transplanted an additional 25% of the crop. Tobacco transplants are in good condition, there seems to be an adequate supply of transplants available. Hay producers continued harvesting their crop.

TEXAS: Weather conditions favorable for crop development, planting, harvesting activities during week. Beneficial rain fell at crucial time Coastal Bend, Rio Grande Valley. Rainfall recorded parts of Hill Country, Blacklands, East, Central early in week. Temperatures warm most areas for week allowing for good drying conditions where heavier rains fell. Ranges, pastures continued make good progress most areas. Livestock conditions good across state.

Crops: Small Grains: Fields in High Plains looked good, continued to head out. Warmer temperatures made for rapid advancement. Harvest expected begin soon across North Central where fields rapidly matured. Harvest resumed by middle week Central, South. Wheat 5% harvested, 4% 1998, 3% avg. Oats harvested 23%, 27% 1998, 15% avg. Corn: Planting winding down High Plains under favorable conditions. Fields emerging to good stands. Fields in Blacklands, Central made rapid progress, entered silk stage. Fields in dough stage in Coastal Bend, Rio Grande Valley, received very beneficial rain during week. Growth, development good along Upper Coast. Statewide corn condition rated 81% normal compared 64% last year. 27% silked, 16% 1998, 13% avg. 2% doughing, 1% 1998, 1% avg. Cotton: Planting progress good Plains with early fields showing good germination. Growth good in Blacklands, Central, along Upper Coast. Early fields continued to square. Rio Grande Valley, cotton setting bolls, fields made good progress despite being short of moisture early on many areas. Rain fell most areas of Valley improving conditions. Statewide cotton condition rated 79% normal compared 58% last year. Peanuts: Planting winding down many fields in Plains with early planted fields showing good emergence, development. Planting continued South Central. Statewide peanut condition rated 77% of normal. Rice: Good progress continued most fields along Upper Coast. Flooding, fertilization continued. Some fields entering boot stage. Sorghum: Planting increased Plains, early fields showed good emergence, making good growth, development. Fields beginning head out in Blacklands, continued to head out Central. Development good these areas also. Beneficial rain fell in Coastal Bend, Rio Grande Valley where fields rapidly maturing. Statewide sorghum condition rated 78% normal compared 56% last year. 17% headed, 17% 1998, 15% avg. Soybeans: Some planting occurred in Plains with majority of planting to begin next few weeks. Fields blooming in Northern Blacklands. Fields along Upper Coast setting pods, continued to make good progress. Other Crops: Sunflowers 49% planted, 49% 1998, 33% avg.

Commercial Vegetables: Rio Grande Valley, cucumber, carrot, watermelon, cantaloup harvest continued as weather conditions allowed. Onion harvest completed for most part. San Antonio-Winter Garden, watermelon harvest continued, some onion harvest still underway. East, progress good on most fields. Sweetpotato planting continued as field conditions allowed. High Plains, planting activity continued. Trans Pecos: cantaloup planting continued, onion harvest increased. Peaches: Harvest began early varieties East, the Hill Country. Producers continued to hope

later varieties will improve. Pecans: Spraying activity increased for first generation casebearers. Nut sets heavy most areas.

Range and Livestock: Haying activity increased many areas after early week rains. Ranges, pastures continued to improve across state. South, Rio Grande Valley received beneficial rains but need more. Livestock conditions remained good across state.

UTAH: Days suitable for field work 6. Top soil 14% short, 82% adequate, 4% surplus. Subsoil 9% short, 83% adequate, 8% surplus. Pasture, range feed 1% poor, 21% fair, 67% good, 11% excellent. Spring wheat 97% emerged, 99% 1998, 97% avg: Winter wheat headed 3%. Oats 3% planted, 90% 1998, 86% avg.; 67% emerged, 60% 1998, 64% avg. Corn: 50% planted 78% 1998, 79% avg; 11% emerged, 37% 1998. Alfalfa hay: first cutting 3%; height (first crop only) 13 inches, 16 inches 1998, 15 inches avg. Potatoes 96% planted, 96% 1998, 58% avg. Cattle moved to summer range 39%, 43% 1998, 43% avg. Sheep moved to summer range 33%, 31% 1998, 36% avg. Major activities included moving cattle, sheep to summer ranges, spraying for weeds. Tooele county reported major grasshopper, cricket infestation, while Salt Lake county reported fruit tree damage due to freezing.

VIRGINIA: Days suitable for fieldwork 5.8. Topsoil 7% very short, 33% short, 58% adequate, 2% surplus. Subsoil 14% very short, 44% short, 41% adequate, 1% surplus. Pastures 2% very poor, 17% poor, 43% fair, 34% good, 4% excellent. Livestock 5% poor, 17% fair, 63% good, 15% excellent. Hay, Other 3% very poor, 26% poor, 42% fair, 25% good, 4% excellent. Hay, Alfalfa 2% very poor, 4% poor, 28% fair, 52% good, 14% excellent. Corn for Grain 92% planted, 78% 1998, 81% avg. Soybeans 22% planted, 13% 1998, 17% avg. Winter Wheat 1% very poor, 8% poor, 33% fair, 47% good, 11% excellent. Barley 6% poor, 36% fair, 49% good, 9% excellent. Tobacco, Flue Cured 93% planted, 71% 1998, 79% avg. Tobacco, Burley 50% planted, 18% 1998, 23% avg. Tobacco, Dark Fire Cured 79% planted, 49% 1998, 51% avg. Tobacco, Sun Cured 62% planted, 15% 1998, 30% avg. Peanuts 94% planted, 85% 1998, 89% avg. Cotton 99% planted, 95% 1998, 98% avg. Apples, All 8% fair, 82% good, 10% excellent. Peaches 5% poor, 10% fair, 81% good, 4% excellent. Scattered precipitation, mostly over the weekend, provided only minimal relief from dry topsoil conditions. While topsoil moisture in most areas of the Commonwealth has been adequate to support plant growth, additional rainfall is necessary in order for crops to mature properly. Warm, dry conditions during most of last week allowed nearly six days suitable for fieldwork. Producers took full advantage, making great strides in planting of corn, soybeans, tobacco, peanuts, cotton, vegetables, and other crops. Corn planting is nearly complete with many producers reporting emergence of early planted acres. Transplanting of all varieties of tobacco continues at a rapid pace. While it is still early in the growing season producers are reporting the crop to be in mostly good condition. Lack of significant rainfall has limited the effectiveness of many post-emergence herbicides. Other activities for the week included irrigation of vegetables and other crops, scouting and spraying for disease and insects, top-dressing of hay acres, as well as chemical and hand thinning of fruit.

WASHINGTON: Days suitable for fieldwork 5.8. Topsoil moisture was 10% very short, 22% short, and 68% adequate; subsoil moisture 2% very short, 23% short, 75% adequate. Rain showers early in the week and warmer weather through the weekend were welcomed in eastern Washington for the development of the winter wheat, however, more moisture is needed as the winter wheat starts to head out. Winter wheat, dryland 10% very poor, 13% poor, 32% fair, 41% good, 4% excellent; irrigated 1% fair, 99% good. Headed 5%, 33% 1998, 25% avg. Spring wheat, dryland 17% poor, 79% fair, 4% good; irrigated 100% good. Planted 100%, 100% 1998, 97% avg; 95% emerged, 99% 1998, 88% avg. Barley, dryland 19% poor, 78% fair and 3% good; irrigated, 100% good. Planted 100%, 100% 1998, 97% avg; 97% emerged, 98% 1998, 88% avg. Conditions for the spring crops were declining and development was slow due to the lack of moisture and cold nights. Hay and other roughage supplies were 1% very short, 15% short, 70% adequate and 14% surplus. Range and pasture, 3% very poor, 15% poor, 36% fair 44% good, and 2% excellent. Warm weather in central Washington accelerated fruit growth. Cherries were being sprayed with first cover sprays and the grapes were reported with little frost damage. Carrots were still being planted, while pumpkin, potato plantings were winding down. Rangeland growth was still slow due to the lack of moisture causing some livestock producers to supplement with hay. First cuttings of alfalfa was being harvested.

WEST VIRGINIA: Days suitable for fieldwork 3.8. Topsoil 13% short, 77% adequate, 10% surplus. Producers made good progress planting crops despite rain across most areas of the State. Planting progress is ahead of last year. Wheat condition 1% poor, 10% fair, 75% good, 14% excellent. Hay 10% poor, 39% fair, 46% good, 5% excellent. Intended Acreage Prepared for Spring Planting 67%, 59% 1998, 61% 5-yr avg. Corn 18% planted, 10% 1998, 18% 5-yr avg. Oats 67% Planted, 29% 1998, 56% 5-yr avg; Oats 30% emerged, 15% 1998, 22% 5-yr avg. Tobacco 85% beds seeded, 81% 1998, 88% 5-yr avg. Tobacco beds 54% emerged, 48% 1998, 61% 5-yr avg. Apples 15% fair ,85% good. Peaches 16% fair, 84% good. Cattle 19% fair, 79% good, 2% excellent; 94% calved. Sheep 1% poor, 20% fair, 78% good, 1% excellent; 92% lambed. Feed grain 2% short, 98% adequate. Hay, roughage 4% short, 96% adequate. Activities: Field preparation, planting, calving, lambing, and general maintenance.

WISCONSIN: Days suitable for fieldwork: 3.0. Soil moisture 0% very short, 1% short, 49% adequate, 50% surplus. Soybeans planted: 50% 1999, 64% 1998, 49% 5-year average. "Rain, Rain, Go Away, Come Again Some Other Day," was probably being sung by many farmers as unusually wet conditions still dominate the state's agriculture scene. Each district received anywhere from 1.7 to 3.1 inches rain on top of the pre-existing moist conditions that many were already experiencing. The excessive moisture is now beginning to create some problems for many farmers. Many lowlands are either flooded or too wet to work. This has delayed some of the remaining planting chores, and flooded fields may have to be replanted. Already, there are several comments about corn, oats, hay, soybeans emerging with a yellowish color, indicative of a lack of sunshine and/or too much moisture. Some custom chemical spray applicators are falling behind schedule because the fields are too muddy, whereas others will have to reapply chemicals that have been too diluted by the rains to be effective. In addition, a few have noted problems with soil erosion. Fortunately, the impact on the state's crops is not yet critical, as all crops were overwhelmingly rated at fair or better. However, everyone is in need of a few days of dry and sunny weather to prevent this situation from worsening. The rains have slowed potato planting in the northern districts, where farmers planted between the rain showers in an attempt to finish. In the southern two-thirds of the state, potatoes are already emerging. Rain has also slowed the progress of first crop hay harvested. For most, it is just too wet to cut. However, farmers were able to harvest 1% of the state's crop. Pasture feed conditions: 0% very poor; 1% poor; 7% fair; 41% good; 51% excellent.

WYOMING: Days suitable for fieldwork 5.8. Topsoil 1% short, 91% adequate, 8% surplus. Subsoil 3% short, 92% adequate, 5% surplus. Winter wheat 46% jointed, 79% 1998, 58% avg.; 3%, boot, 0% 1998, 5% avg. Barley 95% seeded, 94% 1998, 95% avg.; 75% emerged, 77% 1998, 82% avg ;21% jointed, 19% 1998, 14% avg. Oats 91% seeded, 92% 1998, 88% avg.; 46% emerged, 54% 1998, 57% avg.; 3% jointed, 5% 1998, 5% avg. Spring wheat 99% seeded, 95% 1998, 87% avg;57% emerged, 62% 1998, 59% avg.;5% jointed, 11% 1998, 6% avg. Sugarbeets 100% planted, 100% 1998, 100% avg.;87% emerged, 78% 1998, 79% avg. Corn 75% planted, 90% 1998, 88% avg.;38% emerged , 52% 1998, 48% avg. Dry beans 21% planted, 34% 1998, 22% avg.; 0% emerged, 6% 1998, 2% avg. Range 70% flock lambed, 71% 1998, 64% avg. Range flock 91% sheep shorn, 95% 1998, 96% avg. Range, pasture feed 1% poor, 14% fair, 64% good, 21% excellent. Stock water supplies 1% short, 89% adequate. 10% surplus. Improved weather conditions allowed an increase in crop progress toward normal levels.

International Weather and Crop Summary

May 16 - 22, 1999

HIGHLIGHTS

EUROPE: Wet weather delayed corn planting in southwestern France, while several days of dry weather in eastern Europe helped fieldwork.

FSU-WESTERN: Although the third consecutive week of unseasonably cold weather slowed crop development, sub-freezing temperatures were confined to extreme northern areas in Russia.

FSU-NEW LANDS: Weather conditions continued to favor spring grain planting in Western Siberia, Russia, and major grain-producing areas in Kazakstan.

EASTERN ASIA: In the North China Plain, much-needed rain benefited reproductive to filling winter wheat.

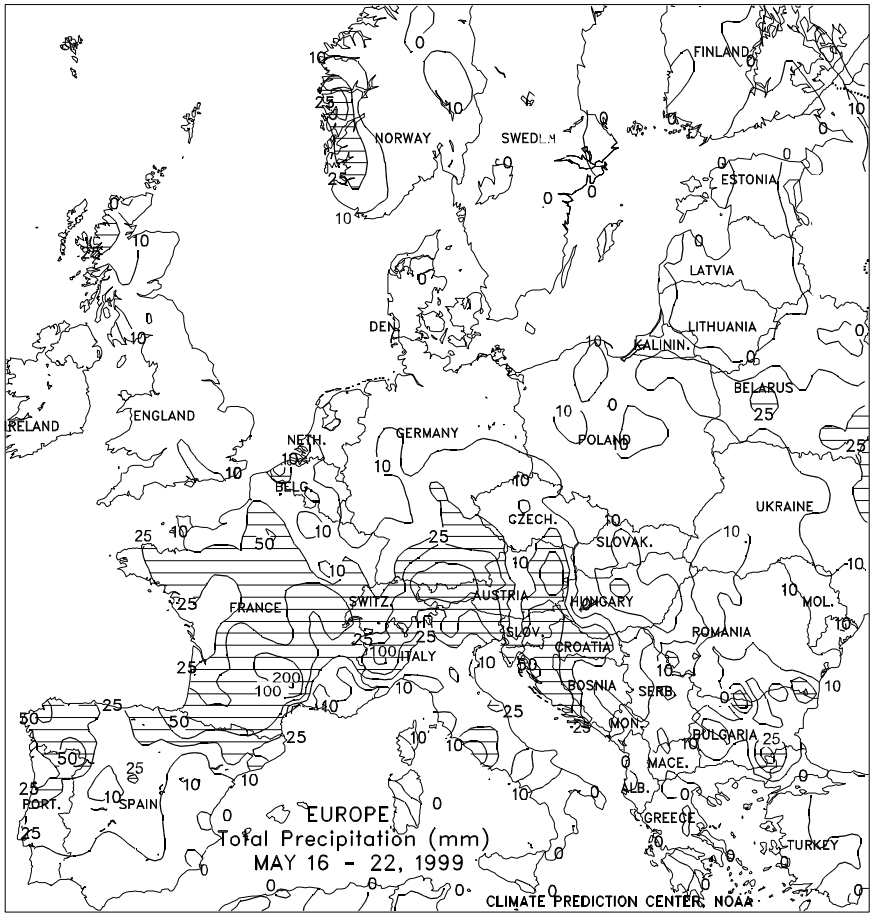
SOUTHEAST ASIA: In Thailand, Vietnam, and the Philippines, widespread heavy showers boosted moisture supplies for main-season rice planting, but caused some flooding.

AUSTRALIA: Moderate rain improved prospects for winter grain planting in the west and southeast.

CANADA: Prairie spring grain and oilseed planting remained well behind schedule due to persistent cool, wet weather.

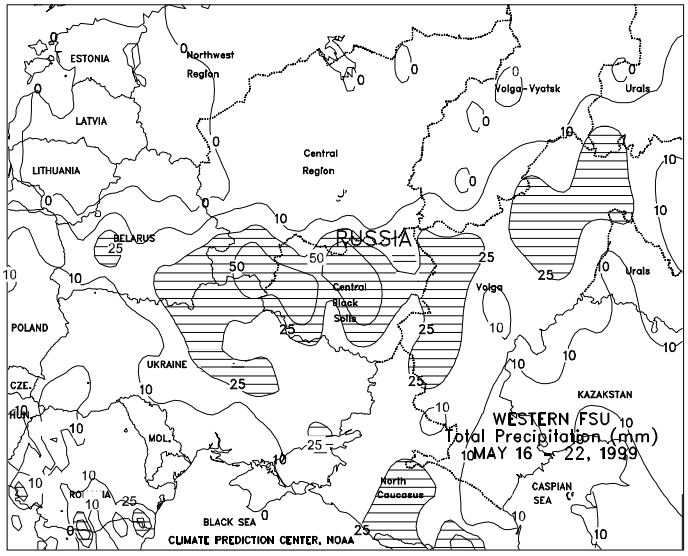
SOUTH AMERICA: Dry weather continued to favor summer crop harvesting across Argentina and southern Brazil.

MEXICO: Rain increased moisture supplies in the northeast, while scattered light rain aided pre-planting fieldwork in the western corn belt.



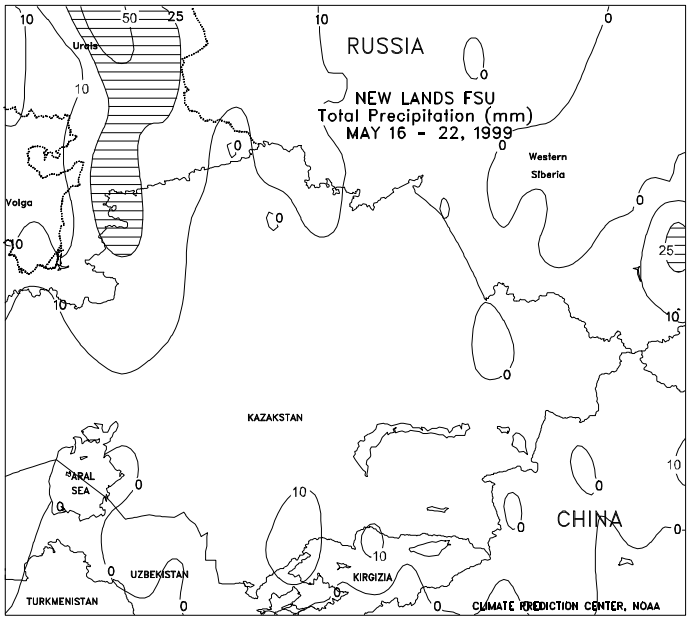
EUROPE

Scattered showers (3-13 mm) and seasonable temperatures extended from England eastward through the Benelux countries into Scandinavia and northern Germany, favoring winter grains in or nearing reproduction, and allowing fieldwork for summer crop planting. Farther south, although wet weather (25 to 60 mm or more) in France benefited winter grains advancing through reproduction, it caused further delays in corn planting. In Spain and Portugal, light to moderate showers (10-50 mm) in northern areas benefited immature crops, while dry weather in southern areas helped winter grain harvesting. Although moderate to heavy rain (20-75 mm or more) in central Europe (southern Germany, Austria, northern Italy, and Slovenia) provided abundant moisture for crop development, localized flooding was likely. In eastern Europe, several days of dry weather helped fieldwork from Poland southward through Hungary into Bulgaria. However, unseasonably cold weather (weekly temperatures averaged 1 to 4 degrees C below normal) prevailed over the region, slowing winter grain development and summer crop emergence. Near- to below-freezing temperatures were confined to extreme southeastern Poland and adjacent areas in eastern Slovakia.



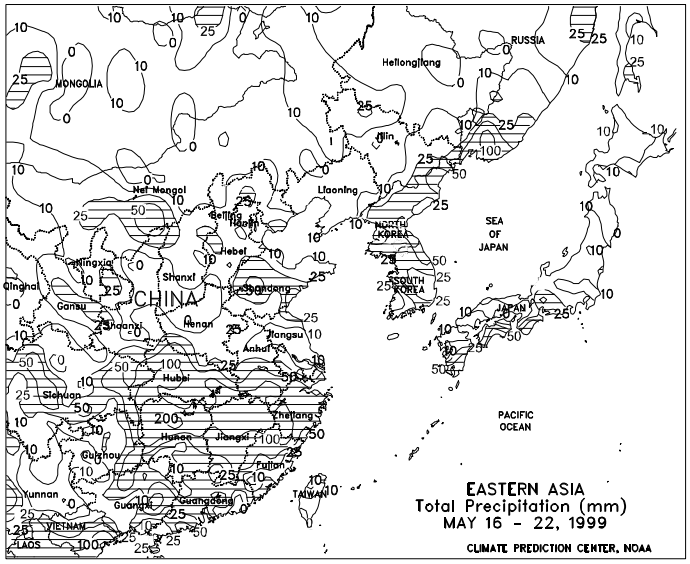
FSU-WESTERN

The third consecutive week of unseasonably cold weather slowed crop development in Russia, Ukraine, and Belarus. Sub-freezing temperatures (-1 to -3 degrees C) were confined to extreme northern areas in Russia, having minimal impact on newly emerging spring grains. Widespread rain (10-40 mm or more) fell in southern Belarus, eastern Ukraine, and southern Russia, including most of the Volga Valley. The precipitation was especially welcomed in eastern Ukraine and southern Russia, where soils were becoming unfavorably dry. Crop progress for winter grains likely ranged from heading in southern Ukraine and extreme southern areas in Russia to jointing over the remainder of the region. Spring grains were likely tillering in Ukraine and southern Russia and emerging in Belarus, the Baltics, and northern Russia. Reports indicated that spring grain planting in Russia continued to progress ahead of last year's pace. However, cool, wet weather has slowed planting since early May. Furthermore, some resowing of sugar beets and sunflowers was necessary in the Central Black Soils region in Russia, due to the freeze in early May. Weekly temperatures averaged 1 to 3 degrees C below normal in western Ukraine, Belarus, and the Baltics, and 3 to 6 degrees C below normal in eastern Ukraine and the remainder of Russia.



FSU-NEWLANDS

Spring grain planting is typically well underway in most areas. Unseasonably cold, wet weather (10-25 mm or more) in the Urals region of Russia and western Kazakstan slowed planting activities. Weekly temperatures averaged 2 to 4 degrees C below normal in these areas, with sub-freezing temperatures (-1 to -2 degrees C) reported in the Urals. In contrast, unseasonably warm, dry weather prevailed farther east in major spring grain-producing areas of central Kazakstan and Russian areas in Western Siberia, allowing planting activities to rapidly progress. Weekly temperatures averaged 3 to 5 degrees C above normal in these areas, promoting rapid crop emergence. However, the highest weekly temperatures ranged from 31 to 36 degrees C, causing rapid drying of topsoils. In cotton-producing areas of Central Asia, unseasonably warm, dry weather in most areas favored late-season fieldwork and crop development.

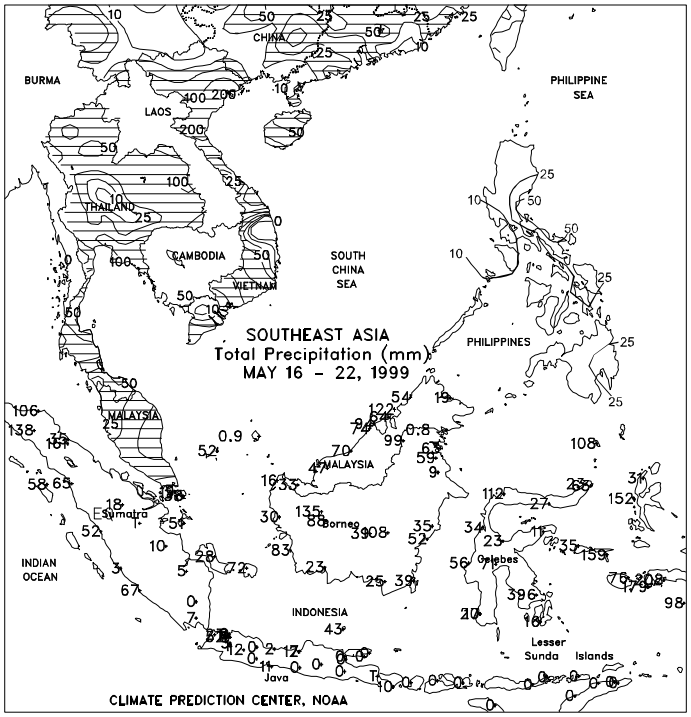


EASTERN ASIA

Much-needed rain (15-40 mm) covered the North China Plain, benefiting reproductive to filling winter wheat and germinating summer crops, especially in Hebei and Shandong. Cool temperatures (1-2 degrees C below normal) reduced crop water use. In Manchuria, scattered rain (5-25 mm) increased topsoil moisture for germinating summer crops, but more is needed, especially in Heilongjiang. Across the Yangtze Valley and southern China, widespread showers (25-75 mm) maintained adequate moisture supplies for early rice, but slowed winter grain and oilseed harvesting. Heavier showers (100-175 mm) possibly caused flooding in northern Hunan and Jiangxi. Temperatures averaged 1 to 2 degrees C above normal across southern China and Manchuria.

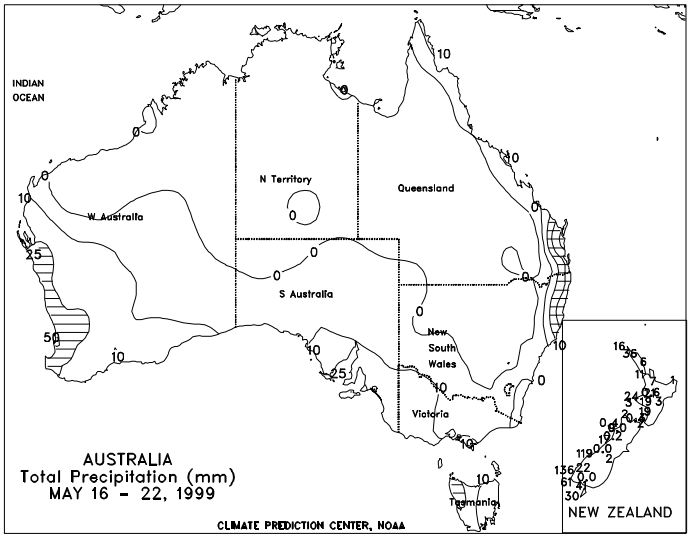
SOUTHEAST ASIA

Widespread showers (25-80 mm) covered Thailand, increasing irrigation supplies for main-season rice and corn, but slowing second-season rice harvesting. In Vietnam, heavy showers (125-200 mm) caused some flooding and possible damage to maturing winter-spring rice in the northern Red River Valley. Showers (10-70 mm) increased moisture supplies in southern Vietnam. In the northern and central Philippines, moderate to heavy showers (40-125 mm) boosted moisture supplies for main-season rice and corn. Drier weather (10-40 mm) prevailed in the southern Philippines. Heavy showers (70-125 mm) aided oil palm across peninsular Malaysia, but caused local flooding. In Java, Indonesia, mostly dry weather aided main-season rice harvesting.



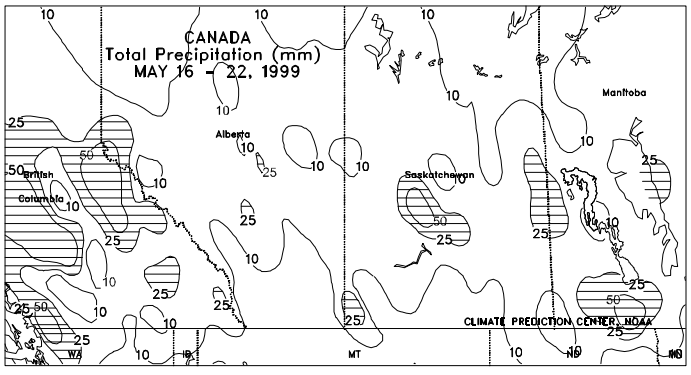
AUSTRALIA

Beneficial rain (10-25 mm or more) swept across Western Australia's prime wheat and barley areas, increasing topsoil moisture levels for planting and establishment. In the southeast, most winter grain areas received at least 10 mm, although a few dry pockets persisted at the northern edge of the grain belt in South Australia and northwestern Victoria. The moisture was timely for planting, but much more will be needed throughout the southeast to recharge long-term moisture reserves. Reports from within Australia indicated that oilseed and pulse sowing had progressed following last week's light rainfall. However, winter grain planting usually peaks during June, making this week's moisture especially timely. Drier weather returned to the northeastern grain belt (Queensland and northern New South Wales), favoring winter crop planting in addition to late summer crop harvesting. In New Zealand, dry weather covered grain and pasture areas from the central coast of South Island to southern sections of North Island. Scattered showers (10-25 mm or more) elsewhere favored crops and pastures.



CANADA

Cool, showery weather persisted across the Prairies, inhibiting spring fieldwork. Rainfall was lighter than last week in most areas, but moderate to heavy rain (25-50 mm or more) covered a broad section of Manitoba, exacerbating fieldwork delays. Temperatures averaged 1 to 3 degrees C below normal, slowing the drying process and reducing the rate of emergence. Patches of frost and freezing temperatures were common throughout the region, but occurred well within the normal time frame for spring freezes. Provincial reports as of May 20 indicated that overall planting was about a week behind schedule. Fieldwork was most advanced (over 50 percent complete) in the southwest and in eastern sections of Manitoba. Elsewhere, completion rates were as low as 10-20 percent. Warmer, drier weather will be critical for planting completion within the optimal time frame (by early June), as some of the wettest areas may need up to a week of dryness to allow the use of heavy machinery. In eastern Canada, scattered showers (5-25 mm or more) and above-normal temperatures (2-4 degrees C above normal) favored summer crop germination and winter wheat development.

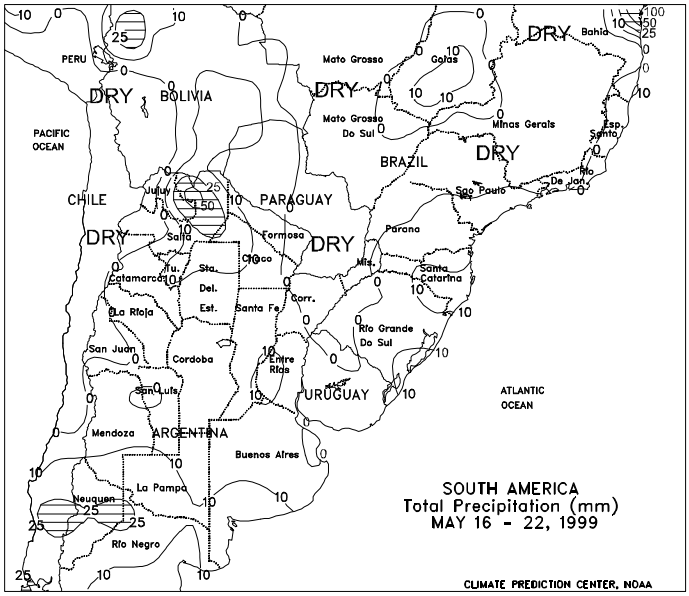


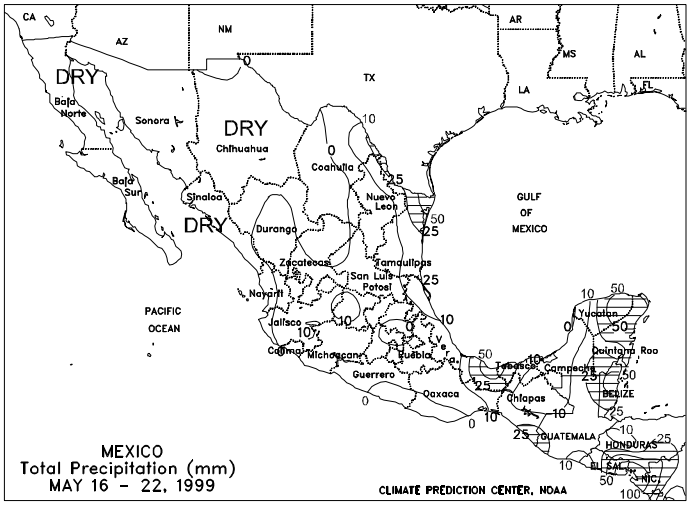
SOUTH AMERICA

In Argentina and southern Brazil, mostly dry weather (rainfall less than 10 mm) continued to favor summer crop harvesting. The dry weather also favored coffee and citrus harvesting in southern Brazil. Temperatures averaged 1 to 3 degrees C below normal across Argentina and southern Brazil. Despite the unseasonably cool weather, minimum temperatures remained above freezing across the Brazilian coffee areas. Freezing temperatures were reported in portions of central Argentina, aiding summer crop maturation. According to reports as of May 14, Argentine corn was 65 percent harvested, compared with 56 percent last year, soybeans were 70 percent harvested, compared with 67 percent last year, and cotton was 37 percent harvested, compared with 38 percent last year.

MEXICO

Moderate showers (20-60 mm) boosted irrigation supplies across northeastern areas. Seasonably dry weather prevailed across northwestern and north-central Mexico. Scattered light rain (7-23 mm) increased topsoil moisture for pre-planting fieldwork in the western corn belt. Showers (10-50 mm) fell across the Yucatan Peninsula and the southeast. Temperatures averaged 1 to 4 degrees C above normal across northern Mexico and near normal elsewhere.





La Niña Update: May 10, 1999

The following is derived from the ENSO Advisory 99/5 issued by the Climate Prediction Center/National Centers for Environmental Prediction (NCEP) on May 10, 1999.

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

Consistent with these features, the pattern of equatorial subsurface temperature anomalies has also been highly persistent, with negative temperature anomalies in the upper ocean throughout the region east of 160 °E and positive temperature anomalies in the western Pacific between 50 and 200 m depth. The lack of any significant shift towards the east of these positive subsurface temperature anomalies suggests that the present cold episode is likely to continue for the next several months. In addition, the most recent NCEP coupled model forecast and other available coupled model and statistical predictions indicate that cold episode conditions will likely persist through the end of 1999.

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

The *Weekly Weather and Crop Bulletin* (ISSN 0043-1974) is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the *Weekly Weather Chronicle*. It is issued under general authority of the Act of January 12, 1895 (44-USC 213), 53rd Congress, 3rd Session. NOAA is responsible for managing, printing, and distributing the bulletin. The contents may be reprinted freely, with proper credit.

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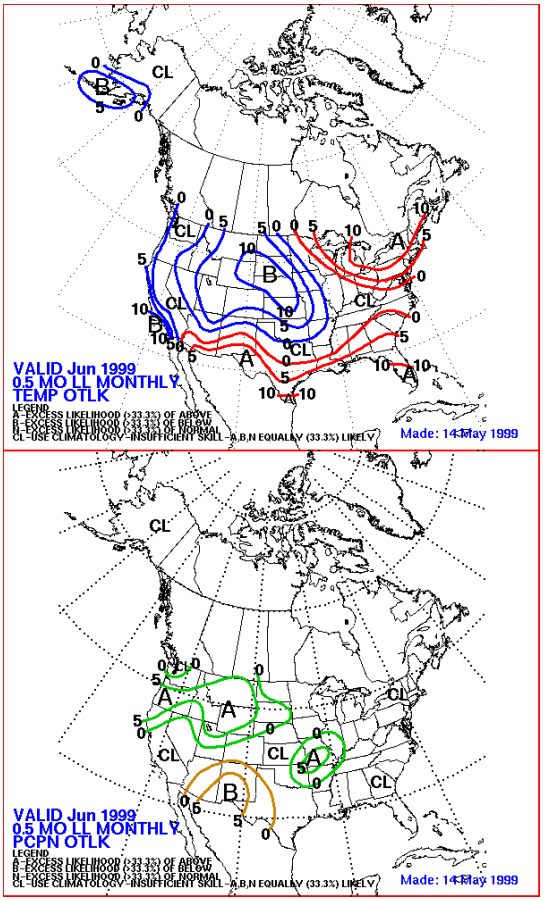
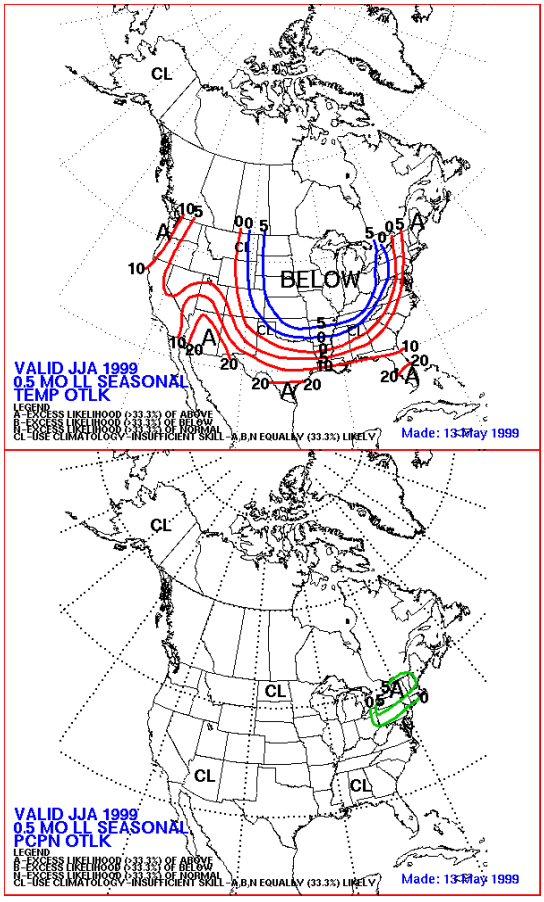


June 1999
Temperature (Top) and Precipitation (Bottom) Outlook



June - August 1999
Temperature (Top) and Precipitation (Bottom) Outlook

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