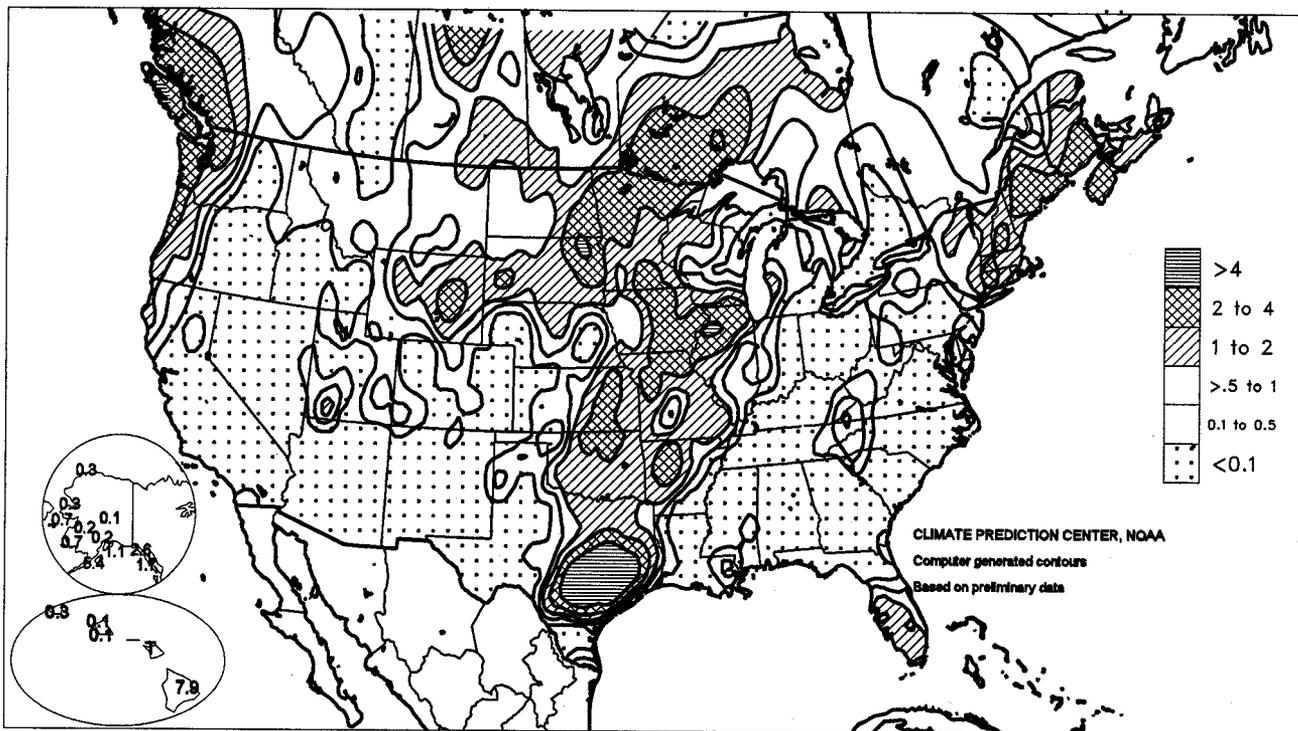


WEEKLY WEATHER AND CROP BULLETIN

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

Total Precipitation (Inches)
OCT 11 - 17, 1998



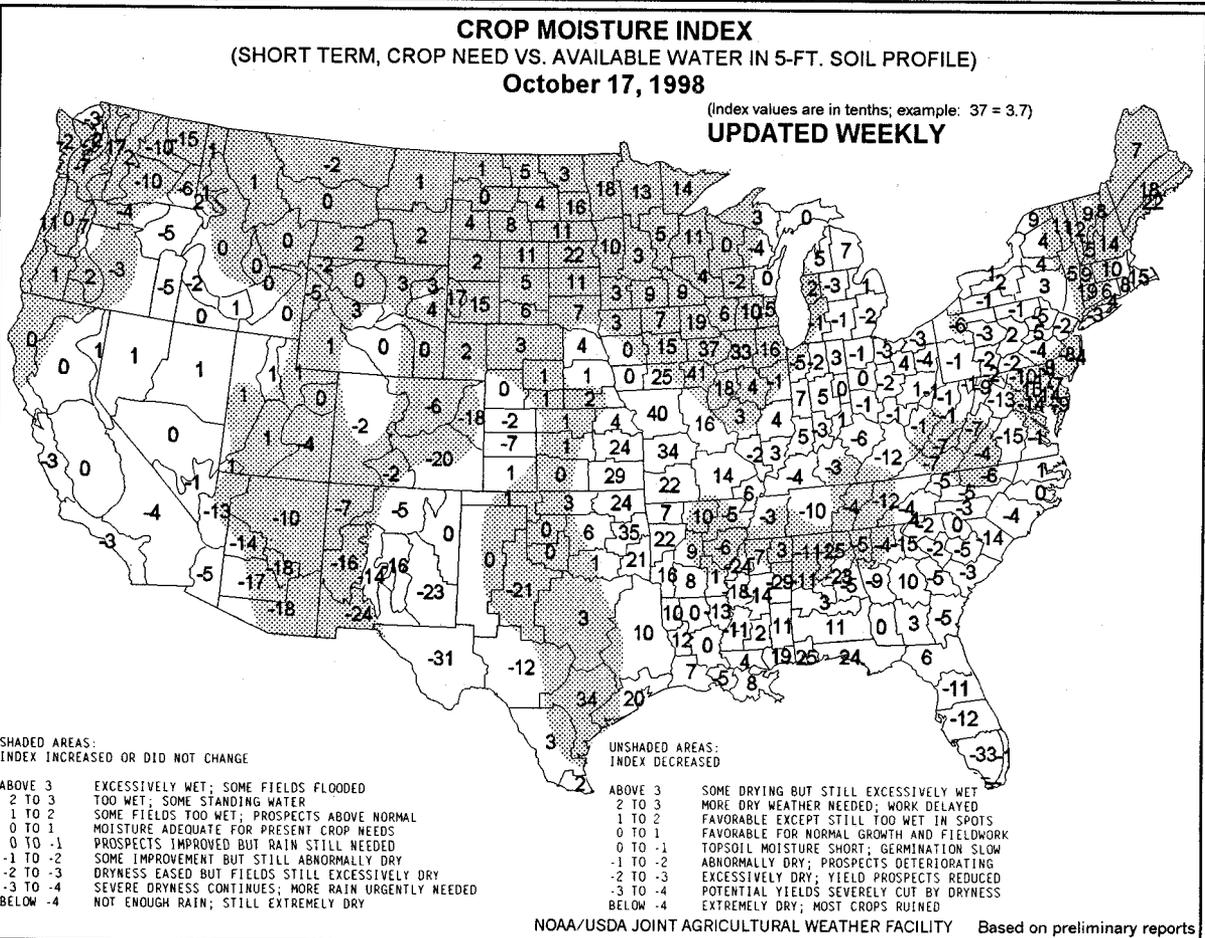
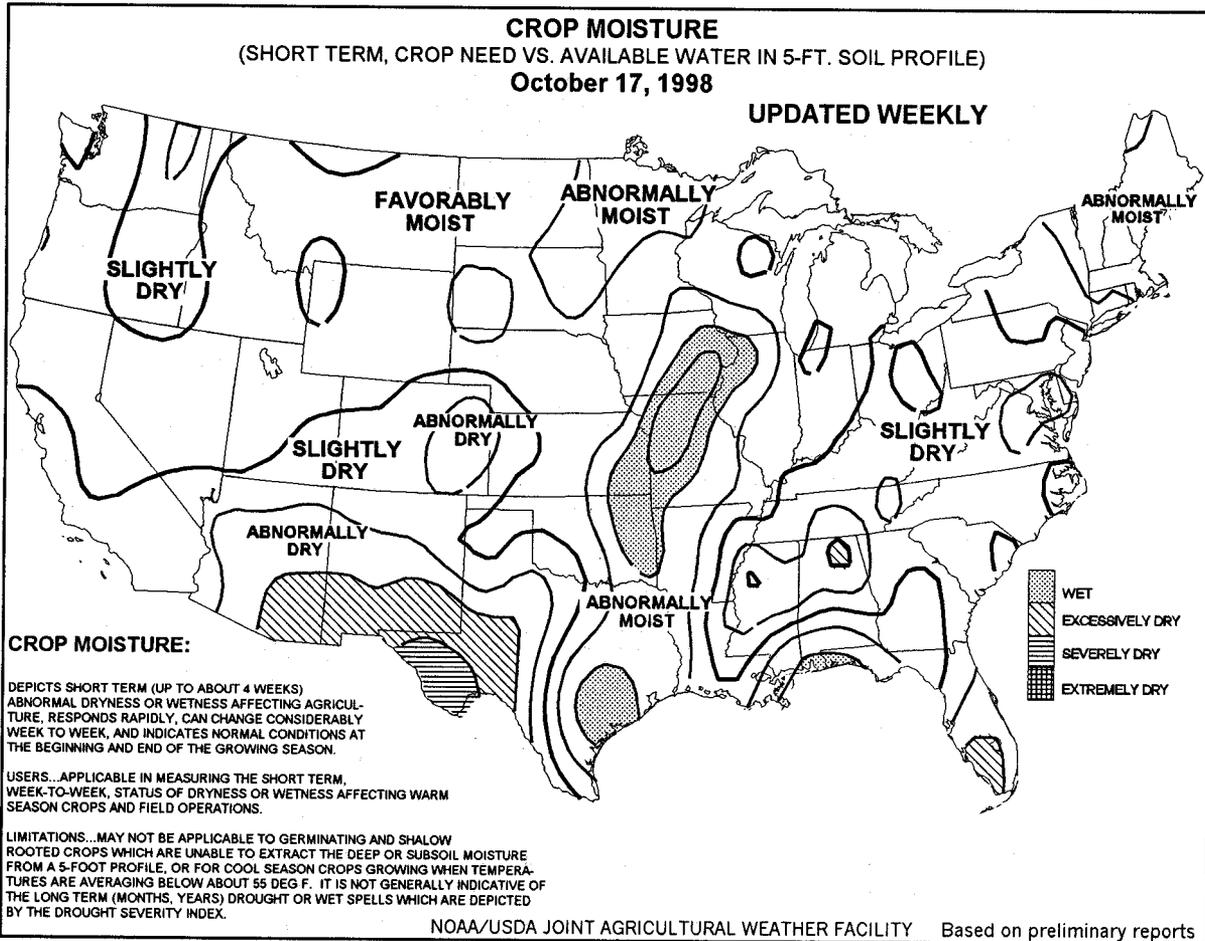
HIGHLIGHTS

October 11 - 17, 1998

Late-week heavy rains halted fieldwork in the western and central Corn Belt following several days of favorable harvest weather. Warm, dry weather continued to aid harvest activities in the eastern Corn Belt (corn and soybeans) and the Southeast (cotton, peanuts, and soybeans). Late in the week, flooding rains (locally in excess of 10 inches) struck southern and eastern Texas, especially in the vicinity of Austin and San Antonio. On the Plains, late-week rainfall further delayed winter wheat planting in eastern areas, and slowed late wheat planting elsewhere. Topsoils remained unfavorably dry, however, in far western portions of the central and southern Plains. Cool weather on the
(Continued on page 3)

Contents

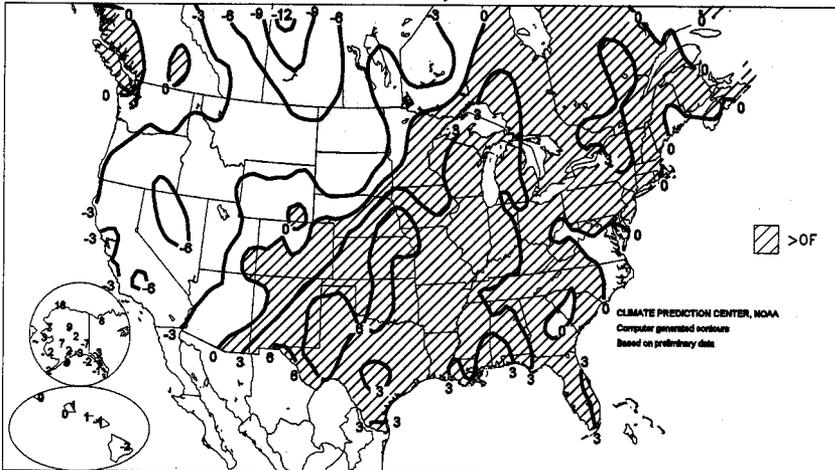
Crop Moisture Maps	2
Temperature Departure Map	3
Extreme Maximum & Minimum Temperature Maps	4
Growing Degree Day Maps	5
National Weather Data for Selected Cities	6
National Agricultural Summary	9
Crop Progress and Condition Tables	10
La Niña Update	11
State Agricultural Summaries	12
International Weather and Crop Summary & September Temperature/Precipitation Maps	18
Subscription information & Pasture Condition Table	32



(Continued from front cover)

northern Plains slowed winter wheat emergence. Farther west, below-normal temperatures prevailed in **California** for a fourth consecutive week, while heavy snow fell in portions of the **Intermountain West**. Weekly temperatures were generally 2 to 6°F below normal in **California**, the **Great Basin**, the **northern Plains**, and the **Northwest**. In contrast, readings averaged 2 to 8°F above normal in the **Corn Belt** and the **central and southern Plains**.

Departure of Average Temperature from Normal (°F)
OCT 11 - 17, 1998

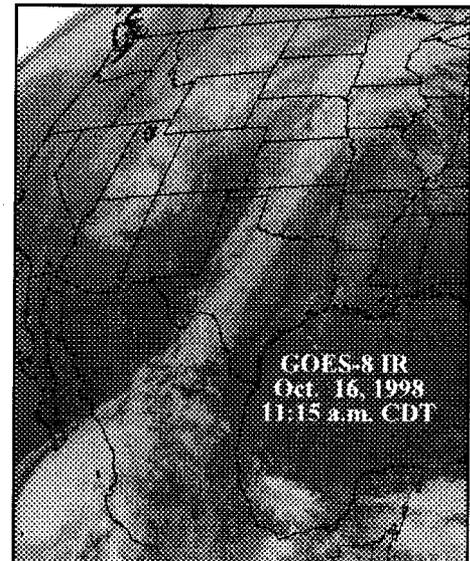


Early in the week, cool weather blanketed the **Northwest**, while locally heavy showers dotted the **northern Plains**. In **California**, daily-record lows were set on Sunday in locations such as **Redding** (37°F) and **Stockton** (41°F). Farther east, **Williston, ND** posted a daily-record rainfall (0.49 inches). Meanwhile, very warm air overspread the **Southwest**, producing consecutive daily-record highs in **Tucson, AZ** (99°F on both October 12 and 13).

Precipitation returned to **New England** on Wednesday, less than a week after record rains and flooding struck coastal areas. **Hartford, CT** posted a daily-record rainfall (2.11 inches) for October 14. **Portland, ME** received 1.20 inches on October 14-15, boosting their monthly rainfall to 10.12 inches. Meanwhile, a warm, dry pattern continued across the **Southeast**, where **New Orleans'** Audubon Park notched a record-tying high of 89°F on Thursday. Two days later, highs reached daily-record levels in locations such as **Jackson, KY** (81°F) and **Beckley, WV** (79°F).

Late in the week, a strong low-pressure system developed over the **Intermountain West**, tracking slowly eastward onto the **central High Plains**, then northeastward to the **western Great Lakes region**. Heavy snow developed in parts of the **West**, accumulating to a depth of 15 inches at **Brian Head, UT**, near **Cedar City**. In **Wyoming**, October 16-17 snowfall totaled 18.7 inches in **Casper** and 6.2 inches in **Lander**. Meanwhile, heavy rain arrived across parts of the **northern Plains** and **western Corn Belt**. In **South Dakota**, storm-total (October 15-17) rainfall reached 2.68 inches in **Rapid City** and 3.50 inches in **Aberdeen**. As a result, October-record precipitation totals were established in **Rapid City** (4.97 inches, breaking their 1982 standard by more than 1 inch) and **Aberdeen** (6.73 inches, eclipsing a 1983 record). Farther east, October 14-17 rainfall reached 4.63 inches in **Moline, IL** and 4.34 inches in **Cedar Rapids, IA**. Cold air trailed the storm into the **West**, producing several daily-record lows. On Saturday morning, minima dipped to 12°F in **Burns, OR**, 18°F in **Flagstaff, AZ**, and 26°F in **Boise, ID**.

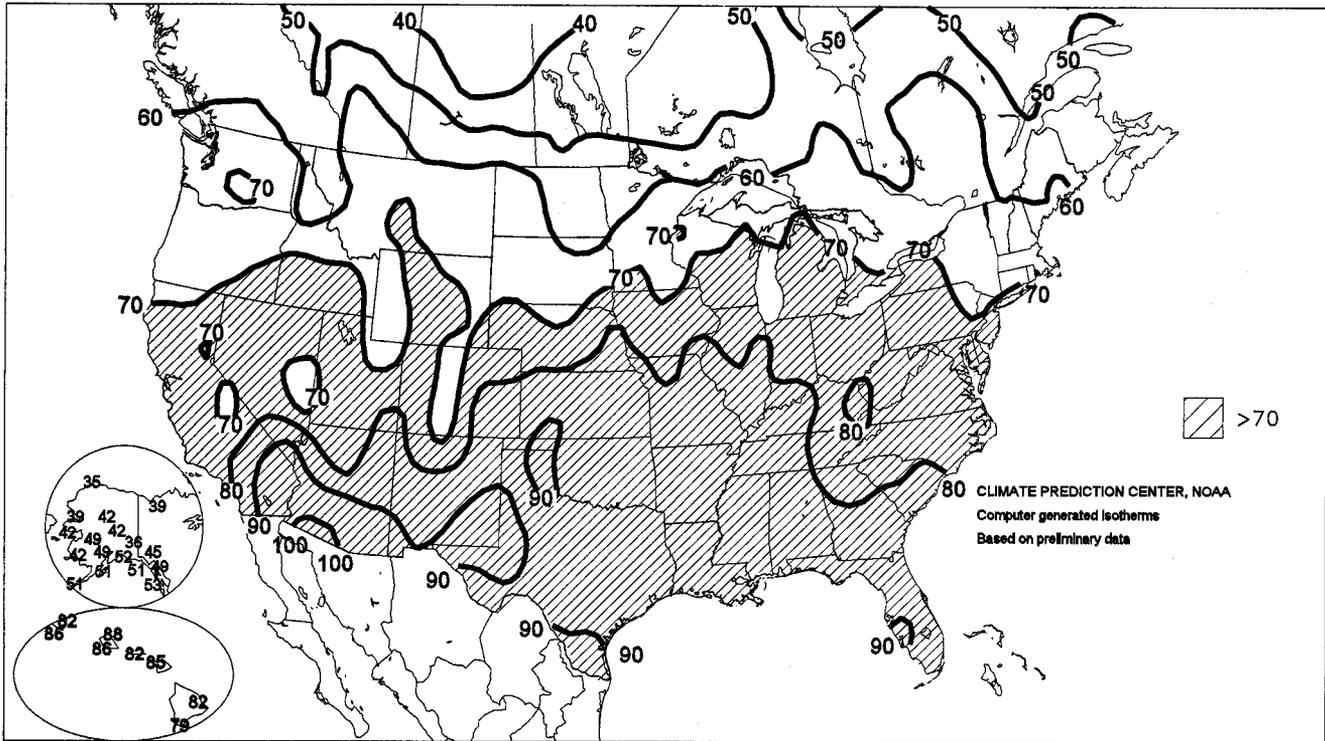
Torrential rains erupted across **southern and eastern Texas** on Saturday. **Austin** netted 6.24 inches, their greatest single-day October rainfall since 1925, while 5.17 inches fell in **College Station**. An all-time-record, calendar-day total of 11.26 inches inundated **San Antonio**, boosting their monthly rainfall to an October-record 13.66 inches. Additional rainfall on October 18-19 included 2.48 inches in **Austin** and 4.35 inches in **San Antonio**, raising monthly totals to 12.08 and 18.01 inches, respectively. In addition, **San Antonio's** total surpassed their previous highest monthly rainfall on record, 15.78 inches in September 1946.



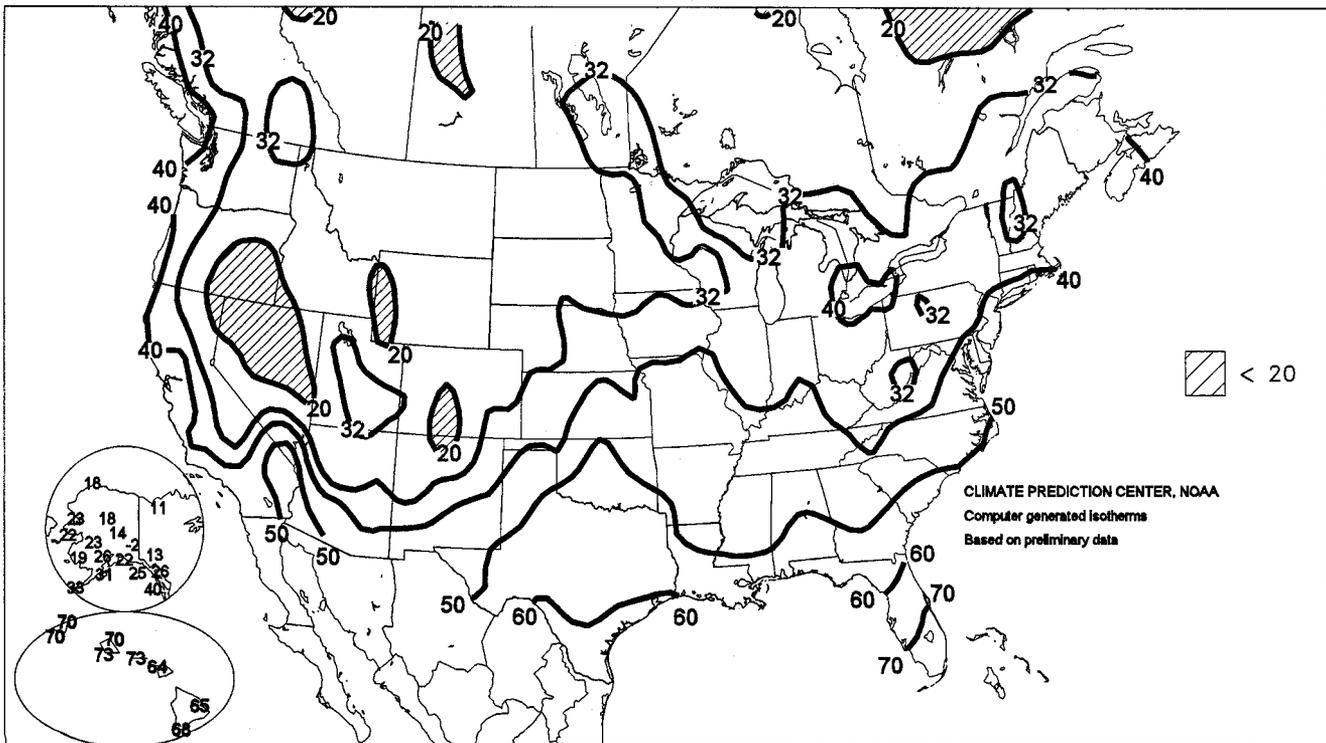
Tropical Interaction: In the satellite photo above, a developing storm system is generating heavy snow in the central Rockies and scattered showers across the northern Plains and upper Midwest. Meanwhile over the eastern Pacific Ocean, Tropical Storm Madeline churns near the western coast of Mexico.

A day later, Madeline became a hurricane, peaking in strength on October 18 with maximum sustained winds near 85 mph. Moisture from Madeline and elsewhere in the tropics was drawn into the U.S. storm, contributing to the excessive rainfall and flooding that struck southern and eastern Texas from October 17-19.

Extreme Maximum Temperature (°F) OCT 11 - 17, 1998



Extreme Minimum Temperature (°F) OCT 11 - 17, 1998



National Weather Data for Selected Cities

Weather Data for the Week Ending October 17, 1998

Data Provided by Climate Prediction Center (301-763-8000 EXT. 7503) and the Southern Regional Climate Center

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	30 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE		
																		0.1 INCH OR MORE	.50 INCH OR MORE	
AL BIRMINGHAM	81	62	82	47	66	3	0.02	-0.58	0.01	2.23	42	56.19	128	93	35	0	0	2	0	
AL HUNTSVILLE	79	49	83	45	64	2	0.00	-0.70	0.00	2.87	50	35.82	80	96	34	0	0	0	0	
AL MOBILE	81	57	86	50	69	0	0.01	-0.64	0.01	25.53	338	79.39	149	96	48	0	0	1	0	
AK MONTGOMERY	82	53	84	49	68	1	0.05	-0.48	0.01	10.27	192	45.56	106	96	42	0	0	5	0	
AK ANCHORAGE	43	31	49	25	37	1	0.10	-0.38	0.07	0.85	22	9.38	73	96	55	0	5	3	0	
AK BARROW	33	26	35	18	30	15	0.27	0.16	0.17	1.34	180	3.63	97	94	82	0	7	4	0	
AK FAIRBANKS	38	19	42	14	29	1	0.03	-0.16	0.03	1.22	68	9.63	109	93	49	0	7	1	0	
AK JUNEAU	47	35	50	26	41	-2	1.00	-0.84	0.33	8.31	78	36.91	89	89	68	0	2	5	0	
AK KODIAK	47	36	51	32	42	0	6.09	4.43	2.35	20.32	188	88.15	171	93	58	0	1	5	2	
AK NOME	37	31	42	23	34	5	0.86	0.55	0.55	4.62	143	21.61	173	98	74	0	5	5	1	
AZ FLAGSTAFF	64	28	72	24	46	-2	0.09	-0.27	0.06	4.54	158	22.18	125	70	15	0	6	2	0	
AZ PHOENIX	88	63	97	58	76	0	0.00	-0.14	0.00	0.58	48	8.63	150	36	15	5	0	0	0	
AZ TUCSON	90	56	98	48	73	2	0.00	-0.25	0.00	1.10	48	12.26	125	34	10	5	0	0	0	
AZ YUMA	90	63	97	57	76	-1	0.00	-0.06	0.00	2.26	514	4.38	187	56	13	5	0	0	0	
AR FORT SMITH	80	54	85	48	67	3	1.71	0.87	1.30	10.94	212	37.18	116	96	45	0	0	4	1	
AR LITTLE ROCK	79	54	82	49	66	2	0.03	-0.78	0.00	6.85	116	33.80	86	97	45	0	0	1	0	
CA BAKERSFIELD	73	49	78	45	61	-8	0.00	-0.06	0.00	0.31	111	11.99	285	76	33	0	0	0	0	
CA EUREKA	84	44	71	37	54	-1	0.74	0.25	0.74	2.34	121	42.61	189	96	57	0	0	2	1	
CA FRESNO	75	49	79	45	62	-4	0.00	-0.10	0.00	0.15	35	16.12	218	82	31	0	0	0	0	
CA LOS ANGELES	71	58	73	56	65	-3	0.02	-0.02	0.01	0.03	7	23.85	287	100	87	0	0	2	0	
CA REDDING	72	45	74	37	59	-6	0.00	-0.44	0.00	0.06	3	47.46	224	72	20	0	0	0	0	
CA SACRAMENTO	75	49	78	42	62	-3	0.00	-0.20	0.00	0.30	39	23.74	206	84	25	0	0	0	0	
CA SAN DIEGO	69	62	71	60	65	-3	0.00	-0.06	0.00	0.03	9	14.30	216	88	68	0	0	0	0	
CA SAN FRANCISCO	66	52	69	48	59	-2	0.01	-0.23	0.01	0.13	21	28.71	222	89	48	0	0	1	0	
CO ALAMOSA	87	25	72	18	46	1	0.00	-0.17	0.00	1.00	78	4.97	79	87	10	0	6	0	0	
CO CO SPRINGS	70	40	78	34	55	4	0.00	-0.19	0.00	0.76	42	14.94	100	60	15	0	0	0	0	
CO DENVER	70	39	79	32	55	2	0.05	-0.17	0.05	1.53	86	15.02	112	68	25	0	1	1	0	
CO GRAND JUNCTION	72	42	77	36	57	1	0.11	-0.11	0.01	1.57	118	7.19	105	50	14	0	0	2	0	
CO PUEBLO	78	37	87	32	57	2	0.39	0.25	0.39	1.65	135	10.61	105	70	13	0	1	1	0	
CT BRIDGEPORT	64	52	69	46	58	2	2.65	1.96	1.40	5.49	119	39.39	120	92	63	0	0	4	2	
CT HARTFORD	61	48	69	40	55	2	2.75	1.95	2.13	7.77	139	41.70	121	87	68	0	0	5	1	
DC WASHINGTON	68	53	73	47	60	0	0.02	-0.67	0.00	2.55	52	33.40	108	86	50	0	0	1	0	
DE WILMINGTON	66	50	72	41	58	1	0.33	-0.31	0.24	4.58	93	34.24	105	93	57	0	0	3	0	
FL DAYTONA BEACH	84	69	86	64	77	2	0.30	-0.67	0.15	7.09	81	36.97	91	94	60	0	0	2	0	
FL JACKSONVILLE	81	63	82	59	72	1	0.31	-0.38	0.31	10.72	120	54.13	119	97	60	0	0	1	0	
FL KEY WEST	86	77	87	4	82	1	2.17	1.16	1.33	15.72	185	33.36	101	87	65	0	0	3	2	
FL MIAMI	86	76	87	72	81	2	2.86	1.31	2.45	17.94	165	59.44	121	85	60	0	0	3	1	
FL ORLANDO	88	71	90	68	79	3	0.04	-0.52	0.00	5.66	75	42.08	98	97	50	1	0	1	0	
FL PENSACOLA	81	60	83	54	71	0	0.00	-0.87	0.00	19.81	262	60.18	115	92	51	0	0	0	0	
FL TALLAHASSEE	83	56	85	51	70	0	0.00	-0.65	0.00	14.20	197	55.89	101	98	47	0	0	0	0	
FL TAMPA	86	71	87	70	79	3	0.11	-0.38	0.00	8.85	121	54.00	138	93	56	0	0	1	0	
FL WEST PALM BEACH	86	76	89	73	81	3	0.02	-1.52	0.02	13.99	114	55.22	109	85	56	0	0	1	0	
GA ATHENS	77	51	78	46	64	1	0.00	-0.74	0.00	6.78	135	48.39	115	98	42	0	0	0	0	
GA ATLANTA	77	54	78	51	65	2	0.00	-0.68	0.00	4.77	96	42.42	103	89	40	0	0	0	0	
GA AUGUSTA	79	49	81	45	64	0	0.00	-0.65	0.00	8.59	190	45.74	122	99	40	0	0	0	0	
GA COLUMBUS	80	55	81	52	68	1	0.00	-0.47	0.00	5.90	135	30.83	75	90	39	0	0	0	0	
GA MACON	79	51	81	48	65	-1	0.09	-0.40	0.08	8.47	216	41.21	113	99	40	0	0	2	0	
GA SAVANNAH	80	57	83	54	69	0	0.00	-0.55	0.00	6.89	118	46.92	108	100	46	0	0	0	0	
HI HILO	80	69	82	65	74	-2	7.85	5.85	3.10	23.31	177	79.38	82	100	73	0	0	7	3	
HI HONOLULU	85	74	86	70	78	0	0.12	-0.38	0.06	0.26	14	2.87	20	87	57	0	0	2	0	
HI KAHULUI	84	70	85	64	77	-1	0.10	-0.15	0.02	0.70	86	3.82	27	88	55	0	0	2	0	
HI LIHUE	82	73	82	71	77	0	0.31	-0.66	0.08	1.88	42	17.30	58	86	65	0	0	7	0	
ID BOISE	63	40	79	35	51	-2	0.02	-0.13	0.02	2.01	178	14.04	159	72	29	0	0	1	0	
ID LEWISTON	56	41	61	33	49	-5	0.23	0.04	0.11	2.48	195	13.85	143	93	54	0	0	4	0	
ID POCATELLO	60	32	76	24	46	-3	0.07	-0.12	0.00	2.16	167	11.46	122	79	25	0	3	1	0	
IL CHICAGO/O'HARE	67	45	80	38	56	2	2.72	2.21	2.89	4.23	82	30.68	105	93	49	0	0	2	1	
IL MOLINE	68	44	79	34	56	1	4.63	3.97	4.14	10.13	177	42.79	130	96	50	0	0	2	1	
IL PEORIA	69	44	79	36	57	1	1.05	0.48	0.84	3.54	66	35.66	119	94	46	0	0	3	0	
IL ROCKFORD	65	42	77	33	54	1	2.02	1.39	1.99	5.08	94	32.61	107	95	48	0	0	4	0	
IL SPRINGFIELD	72	44	81	35	58	1	1.12	0.68	1.09	3.19	67	39.53	137	93	42	0	0	1	1	
IN EVANSVILLE	75	45	83	41	60	2	0.03	-0.60	0.01	2.45	56	35.99	105	96	41	0	0	3	0	
IN FORT WAYNE	67	42	78	39	54	0	0.00	-0.55	0.00	4.63	118	35.00	126	94	44	0	0	0	0	
IN INDIANAPOLIS	70	45	79	37	57	2	0.00	-0.58	0.00	6.53	156	44.62	139	89	43	0	0	0	0	
IN SOUTH BEND	65	44	78	38	54	1	0.03	-0.68	0.01	2.28	44	30.13	97	93	53	0	0	3	0	
IA BURLINGTON	72	48	83	42	60	5	3.51	2.83	3.47	13.43	222	42.13	138	84	44	0	0	2	1	
IA CEDAR RAPIDS	64	42	77	33	53	0	0.11	-0.42	0.06	5.11	98	37.28	128	96	56	0	0	4	0	
IA DES MOINES	69	47	76	39	58	3	1.35	0.74	1.27	3.85	78	36.88	128	88	51	0	0	2	1	
IA DUBUQUE	62	43	75	34	53	1	1.88	1.10	1.16	7.52	120	40.15	124	92	55	0	0	3	2	
IA SIOUX CITY	74	46	81	32	60	7	0.11	-0.35	0.08	2.57	64	27.78	120	86	45	0	1	2	0	
IA WATERLOO	64	42	76	32	53	2	1.25	0.68	0.81	4.75	95	40.74	138	94	52	0	1	3	1	
KS CONCORDIA	75	52	81	41	64	6	0.21	-0.26	0.21	6.11	147	28.59	110	89	45	0	0	1	0	
KS DODGE CITY	80	52	91	39	66	7	0.22	-0.08	0.20	2.15	81	17.40	90	88	35	1	0	2	0	
KS GOODLAND	73	41	82	34	57	4	0.24	0.03	0.24	1.56	75	15.63	94	85	31	0	0	1	0	
KS TOPEKA	76	53	82	40	64	7	0.48	-0.24	0.39	7.06	128	33.17	109	92	45	0	0	3	0	

Based on 1961-90 normals

Weather Data for the Week Ending October 17, 1998

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																		.01 INCH OR MORE	50 INCH OR MORE	.01 INCH OR MORE	50 INCH OR MORE
KY	WICHITA	77	56	82	48	66	6	0.53	0.01	0.63	5.28	110	23.02	90	92	53	0	0	1	1	
	JACKSON	69	48	76	42	56	0	0.00	-0.69	0.00	3.87	74	44.44	112	90	39	0	0	0	0	
	LEXINGTON	69	45	78	38	57	-1	0.01	-0.55	0.01	2.52	56	43.96	122	92	44	0	0	1	0	
	LOUISVILLE	74	50	82	46	62	4	0.01	-0.57	0.01	2.93	66	42.39	119	91	43	0	0	1	0	
LA	PADUCAH	78	49	84	43	64	4	0.01	-0.82	0.01	6.79	128	48.93	126	93	39	0	0	1	0	
	BATON ROUGE	82	57	87	50	70	0	0.00	-0.78	0.00	10.79	161	49.89	101	99	48	0	0	0	0	
	LAKE CHARLES	83	62	86	54	72	2	0.47	-0.42	0.47	17.91	228	49.96	114	97	52	0	0	1	0	
	NEW ORLEANS	81	61	86	56	71	1	0.34	-0.33	0.24	20.93	292	73.50	146	96	53	0	0	2	0	
ME	SHREVEPORT	80	57	87	50	68	1	0.15	-0.87	0.12	12.97	283	39.24	110	98	50	0	0	4	0	
	CARIBOU	50	42	56	36	46	2	0.26	-0.43	0.10	4.54	90	31.25	110	95	73	0	0	4	0	
MD	PORTLAND	56	47	61	39	51	2	8.93	6.08	6.46	13.14	266	51.07	157	95	77	0	0	4	2	
	BALTIMORE	67	47	73	39	57	-1	0.10	-0.56	0.09	2.45	50	32.10	98	96	51	0	0	2	0	
MA	BOSTON	59	51	64	46	55	-1	2.27	1.55	1.20	8.09	172	50.40	160	93	75	0	0	3	2	
	WORCESTER	56	48	65	44	52	1	1.57	0.61	1.37	5.73	93	42.34	114	98	78	0	0	3	1	
MI	ALPENA	57	38	69	32	47	-1	0.89	0.41	0.88	7.52	177	29.40	124	97	63	0	1	2	1	
	GRAND RAPIDS	62	43	74	37	52	2	0.00	-0.62	0.00	4.24	74	27.55	96	94	54	0	0	0	0	
	HOUGHTON LAKE	60	36	70	30	49	1	0.03	-0.46	0.03	5.86	127	20.57	89	96	58	0	1	1	0	
	LANSING	62	40	73	33	51	1	0.07	-0.39	0.01	4.68	99	26.46	107	95	53	0	0	2	0	
MN	MARQUETTE	60	40	72	24	50	5	0.85	-0.18	0.30	5.71	93	23.02	107	92	57	0	2	4	0	
	MUSKEGON	62	43	75	37	53	1	0.03	-0.60	0.02	5.09	94	22.41	89	91	58	0	0	2	0	
	DULUTH	53	41	66	32	47	2	2.28	1.70	1.91	6.54	124	27.28	105	95	73	0	1	4	1	
	INT'L FALLS	50	38	57	32	44	0	2.03	1.58	0.78	3.40	79	19.40	90	97	74	0	2	6	1	
MS	MINNEAPOLIS	60	44	72	31	52	2	1.05	0.54	0.92	2.55	65	30.65	124	89	58	0	1	4	1	
	ROCHESTER	59	40	69	30	50	1	1.41	0.87	0.63	3.72	78	28.72	110	96	61	0	2	3	1	
	ST. CLOUD	58	41	71	30	50	2	0.89	0.37	0.62	2.72	61	22.06	91	92	62	0	2	4	1	
	JACKSON	84	51	88	45	67	2	0.00	-0.70	0.00	2.72	53	40.79	95	98	38	0	0	0	0	
MO	MERIDIAN	82	50	85	44	66	1	0.29	-0.37	0.28	3.09	61	46.73	105	100	41	0	0	2	0	
	TUPELO	80	50	85	45	65	1	0.00	-0.74	0.00	3.10	58	40.10	93	93	39	0	0	0	0	
	COLUMBIA	72	48	79	41	60	2	0.06	-0.68	0.04	10.06	180	40.28	125	97	51	0	0	3	0	
	KANSAS CITY	74	52	80	45	63	5	2.30	1.54	2.30	14.82	215	40.63	124	89	51	0	0	2	2	
MT	SAINT LOUIS	73	49	80	44	61	1	0.32	-0.27	0.32	2.93	66	38.63	129	88	42	0	0	1	0	
	SPRINGFIELD	73	49	80	42	61	2	0.01	-0.80	0.01	8.85	135	42.58	124	94	51	0	0	1	0	
	BILLINGS	54	37	64	30	45	-5	0.60	0.33	0.37	1.85	92	12.60	97	92	46	0	2	3	0	
	BUTTE	51	31	67	25	41	-1	0.31	0.15	0.10	1.49	89	13.50	124	92	39	0	4	4	0	
NE	GLASGOW	51	36	64	29	43	-5	1.89	1.74	1.02	3.32	242	12.90	128	95	61	0	2	4	1	
	GREAT FALLS	62	34	67	29	43	-6	0.90	0.72	0.65	1.87	111	16.80	118	92	48	0	4	3	1	
	KALISPELL	63	31	67	20	42	-1	0.25	0.06	0.20	2.15	125	17.29	133	96	48	0	3	3	0	
	MILES CITY	58	38	70	29	47	-3	0.67	0.45	0.26	2.02	112	12.14	97	95	53	0	1	4	0	
NV	MISSOULA	63	33	62	28	43	-2	0.17	0.00	0.09	1.65	109	17.66	158	96	45	0	2	3	0	
	GRAND ISLAND	73	48	80	35	61	7	0.24	-0.07	0.24	1.46	40	23.06	102	93	45	0	0	1	0	
	LINCOLN	75	49	79	36	62	7	0.39	-0.11	0.39	4.04	86	29.73	118	91	47	0	0	1	0	
	NORFOLK	72	46	79	34	59	6	0.20	-0.17	0.20	2.84	84	31.54	139	93	45	0	0	1	0	
OH	NORTH PLATTE	69	39	76	28	54	3	0.10	-0.13	0.09	2.08	96	20.15	113	98	48	0	3	2	0	
	OMAHA	73	50	80	36	62	7	0.37	-0.17	0.37	3.28	65	37.89	143	89	45	0	0	1	0	
	SCOTTSBLUFF	65	38	74	32	51	0	0.13	-0.06	0.08	2.64	174	14.66	107	96	38	0	1	2	0	
	VALENTINE	63	36	76	29	51	0	0.84	0.63	0.49	2.85	138	21.33	127	98	51	0	2	2	0	
NV	ELY	60	26	73	20	43	-4	0.23	0.02	0.23	1.21	79	10.25	121	86	17	0	6	1	0	
	LAS VEGAS	80	57	88	54	68	-1	0.00	-0.04	0.00	1.29	349	6.37	202	34	12	0	0	0	0	
	RENO	64	37	75	33	50	-2	0.00	-0.08	0.00	2.17	417	10.87	200	81	26	0	0	0	0	
	WINNEMUCCA	57	27	70	21	42	-8	0.00	-0.14	0.00	2.81	428	13.13	215	82	27	0	5	0	0	
NH	CONCORD	58	47	69	34	53	4	2.54	1.83	1.83	6.07	115	32.30	116	93	69	0	0	4	2	
	NEWARK	66	53	73	46	59	1	0.34	-0.32	0.28	4.31	83	41.34	118	94	60	0	0	3	0	
	ALBUQUERQUE	77	49	83	43	63	5	0.00	-0.22	0.00	0.23	15	7.43	99	47	14	0	0	0	0	
	ALBANY	60	47	63	40	53	2	3.04	2.41	2.22	6.22	141	36.37	127	98	73	0	0	4	2	
NC	BINGHAMTON	58	44	62	35	50	0	1.15	0.52	0.79	5.36	111	35.79	122	98	66	0	0	3	1	
	BUFFALO	61	44	67	41	53	0	0.53	-0.16	0.50	4.20	83	31.33	106	97	56	0	0	3	1	
	ROCHESTER	59	43	71	36	51	-1	0.18	-0.37	0.15	4.38	104	38.88	154	98	63	0	0	2	0	
	SYRACUSE	60	47	68	42	53	2	0.66	-0.06	0.43	4.34	79	32.79	108	95	62	0	0	3	0	
ND	ASHEVILLE	72	43	76	36	58	1	0.01	-0.79	0.01	3.21	56	42.02	108	98	42	0	0	1	0	
	CHARLOTTE	74	48	77	45	61	-1	0.00	-0.77	0.00	5.54	105	35.86	103	96	43	0	0	0	0	
	GREENSBORO	73	48	75	45	60	1	0.01	-0.79	0.01	3.06	57	41.52	120	95	46	0	0	1	0	
	HATTERAS	72	58	74	56	65	-1	0.01	-1.12	0.01	9.15	117	56.94	129	83	57	0	0	1	0	
OH	RALEIGH	74	47	77	44	60	-1	0.02	-0.61	0.01	6.42	137	46.87	138	100	46	0	0	2	0	
	WILMINGTON	77	54	79	52	66	0	0.00	-0.60	0.00	6.74	103	58.69	127	96	44	0	0	0	0	
	BISMARCK	51	34	59	25	43	-5	0.82	0.61	0.39	3.86	190	21.85	155	95	69	0	2	3	0	
	DICKINSON	52	35	64	28	43	-5	1.84	1.43	0.86	7.07	308	23.25	156	97	60	0	4			

Weather Data for the Week Ending October 17, 1998

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	92 AND BELOW	TEMP, °F		PRECIP.	
																		.01 INCH OR MORE	.50 INCH OR MORE		
OK TOLEDO	86	41	75	39	63	1	0.01	-0.46	0.01	2.03	52	29.33	112	99	49	0	0	0	0	0	0
OK YOUNGSTOWN	82	40	69	36	51	-2	0.00	-0.58	0.00	4.97	103	32.41	108	93	52	0	0	0	0	0	0
OK OKLAHOMA CITY	79	59	81	53	69	6	0.24	-0.52	0.24	9.33	186	29.81	101	93	58	0	0	0	0	0	0
OR TULSA	78	56	82	45	66	3	0.02	-0.82	0.02	12.28	183	39.82	118	93	47	0	0	0	1	0	0
OR ASTORIA	58	46	62	37	52	-2	2.59	1.40	1.22	6.08	113	51.56	121	98	67	0	0	6	1	1	0
OR BURNS	56	27	69	20	42	-4	0.03	-0.12	0.02	1.07	116	12.89	179	81	27	0	6	2	0	0	0
OR EUGENE	61	44	64	40	52	-2	0.73	0.08	0.26	1.98	67	29.80	98	87	58	0	0	6	2	0	0
OR MEDFORD	61	42	69	36	52	-4	0.46	0.16	0.33	1.14	79	19.10	167	86	41	0	0	4	0	0	0
OR PENDLETON	60	40	68	31	50	-3	0.07	-0.11	0.07	1.32	136	10.36	123	89	43	0	1	1	0	0	0
OR PORTLAND	59	48	64	40	54	-2	0.54	0.00	0.21	2.96	103	27.97	120	97	59	0	0	4	0	0	0
OR SALEM	59	46	63	36	52	-2	1.01	0.41	0.45	2.69	97	31.19	128	97	59	0	0	5	0	0	0
PA ALLENTOWN	64	48	68	37	56	2	0.72	0.08	0.64	6.28	116	36.47	105	82	56	0	0	2	1	0	0
PA ERIE	60	46	65	42	52	-2	0.18	-0.67	0.04	3.34	52	28.01	87	93	59	0	0	5	0	0	0
PA MIDDLETOWN	66	51	75	43	59	3	0.06	-0.59	0.05	3.68	73	43.67	136	89	51	0	0	2	0	0	0
PA PHILADELPHIA	66	53	72	46	60	2	0.23	-0.35	0.12	3.67	77	29.63	89	86	56	0	0	2	0	0	0
PA PITTSBURGH	63	41	69	37	52	-2	0.00	-0.52	0.00	2.85	68	30.39	102	91	49	0	0	0	0	0	0
PA WILKES-BARRE	62	45	68	34	53	1	0.26	-0.36	0.26	5.82	120	33.30	114	97	58	0	0	2	0	0	0
PA WILLIAMSPORT	63	45	71	36	54	1	0.40	-0.34	0.24	3.99	79	37.94	117	95	54	0	0	2	0	0	0
RI PROVIDENCE	61	51	67	45	56	1	1.05	0.24	0.87	4.58	86	47.17	136	95	69	0	0	3	1	0	0
SC BEAUFORT	80	59	82	57	69	1	0.00	-0.59	0.00	7.63	118	47.17	105	99	46	0	0	0	0	0	0
SC CHARLESTON	79	57	80	56	68	1	0.01	-0.66	0.01	16.71	262	63.20	142	95	43	0	0	1	0	0	0
SC COLUMBIA	78	50	80	48	64	0	0.00	-0.68	0.00	6.83	130	43.10	103	93	38	0	0	0	0	0	0
SC GREENVILLE	75	51	77	47	63	1	0.01	-0.90	0.01	8.61	146	47.09	113	94	44	0	0	1	0	0	0
SD ABERDEEN	53	38	60	25	46	-3	4.04	3.78	2.98	6.81	265	26.26	154	96	72	0	1	4	4	4	4
SD HURON	61	40	73	29	50	0	1.49	1.14	1.25	3.07	120	21.04	115	92	61	0	1	3	1	0	0
SD RAPID CITY	58	38	67	29	48	-2	2.73	2.45	2.47	5.82	305	19.32	128	94	57	0	1	4	2	1	0
SD SIOUX FALLS	64	42	73	30	53	3	1.56	1.14	1.40	5.68	139	26.91	126	92	55	0	1	4	1	0	0
TN BRISTOL	73	42	77	37	57	0	0.02	-0.56	0.01	2.54	55	37.12	112	98	37	0	0	2	0	0	0
TN CHATTANOOGA	78	48	80	46	63	2	0.00	-0.69	0.00	2.13	37	44.80	106	98	37	0	0	0	0	0	0
TN KNOXVILLE	74	47	77	44	61	1	0.02	-0.61	0.01	2.71	60	45.43	121	96	40	0	0	2	0	0	0
TN MEMPHIS	79	55	85	48	67	3	0.00	-0.64	0.00	3.63	73	45.58	115	92	41	0	0	0	0	0	0
TN NASHVILLE	77	47	82	44	62	1	0.00	-0.55	0.00	2.91	61	42.81	115	93	37	0	0	0	0	0	0
TX ABILENE	84	61	87	52	72	5	0.31	-0.27	0.27	0.49	11	10.35	50	83	38	0	0	2	0	0	0
TX AMARILLO	82	53	89	45	68	8	0.31	-0.01	0.21	2.52	91	11.21	63	83	25	0	0	2	0	0	0
TX AUSTIN	84	64	87	58	74	2	6.22	5.45	6.22	16.36	310	30.72	117	98	59	0	0	1	1	0	0
TX BEAUMONT	83	64	87	58	73	3	0.02	-0.94	0.01	14.02	162	47.55	104	96	58	0	0	2	0	0	0
TX BROWNSVILLE	86	67	91	62	77	0	1.00	0.37	0.74	9.96	128	14.39	63	98	62	1	0	5	1	0	0
TX CORPUS CHRISTI	86	68	88	63	77	2	0.03	-0.69	0.02	10.71	145	21.80	83	97	56	0	0	2	0	0	0
TX DEL RIO	83	65	85	59	74	2	0.11	-0.43	0.11	2.53	61	26.35	167	92	63	0	0	1	0	0	0
TX EL PASO	87	59	90	52	73	8	0.00	-0.18	0.00	0.78	36	4.07	54	48	20	1	0	0	0	0	0
TX FORT WORTH	83	61	87	55	72	4	0.77	-0.07	0.43	5.84	108	24.42	87	94	48	0	0	2	0	0	0
TX GALVESTON	84	73	86	66	78	5	0.14	-0.45	0.14	16.76	218	54.43	158	96	71	0	0	1	0	0	0
TX HOUSTON	84	62	89	54	73	3	0.68	-0.40	0.31	12.68	173	35.38	96	97	55	0	0	4	0	0	0
TX LUBBOCK	85	57	87	51	71	8	0.00	-0.45	0.00	1.18	31	10.60	64	87	27	0	0	0	0	0	0
TX MIDLAND	87	60	93	53	74	8	0.00	-0.42	0.00	0.28	8	3.33	25	85	33	1	0	0	0	0	0
TX SAN ANGELO	82	57	85	49	70	3	0.27	-0.29	0.16	0.56	12	9.50	54	95	45	0	0	2	0	0	0
TX SAN ANTONIO	83	63	87	52	73	2	11.25	10.55	11.25	15.24	293	33.88	133	96	62	0	0	1	1	0	0
TX VICTORIA	84	66	87	50	75	2	0.36	-0.41	0.35	13.98	183	28.07	89	97	61	0	0	2	0	0	0
TX WACO	84	62	90	55	73	3	1.97	1.20	1.96	9.51	174	25.47	97	96	49	1	0	2	1	0	0
TX WICHITA FALLS	84	60	88	54	72	6	1.18	0.54	1.17	2.41	44	18.25	73	87	37	0	0	2	1	0	0
UT SALT LAKE CITY	61	40	77	35	50	-4	0.12	-0.21	0.12	2.46	121	20.94	163	78	31	0	0	1	0	0	0
VT BURLINGTON	66	47	64	37	52	3	1.49	0.86	0.63	7.95	166	48.92	178	98	76	0	0	5	2	0	0
VA LYNCHBURG	70	44	73	36	57	-1	0.01	-0.84	0.00	3.06	59	43.20	132	100	45	0	0	1	0	0	0
VA NORFOLK	68	55	71	50	62	0	0.01	-0.71	0.01	4.07	73	47.68	129	86	55	0	0	1	0	0	0
VA RICHMOND	71	49	72	43	60	0	0.00	-0.80	0.00	4.26	83	40.33	115	93	45	0	0	0	0	0	0
VA ROANOKE	71	48	74	39	58	1	0.07	-0.81	0.01	2.74	50	42.01	127	88	40	0	0	2	0	0	0
VA WASH/DULLES	68	45	73	35	57	1	0.07	-0.65	0.01	2.81	56	34.74	108	94	46	0	0	1	0	0	0
WA HANFORD	62	43	73	33	52	-	0.00	-	0.00	0.11	-	4.45	-	72	40	0	0	0	0	0	0
WA OLYMPIA	57	42	60	33	50	-1	1.77	0.88	0.86	3.36	83	29.89	94	100	66	0	0	6	2	0	0
WA QUILLAYUTE	58	44	63	36	51	0	3.80	1.51	1.33	7.59	77	54.67	78	99	66	0	0	7	4	0	0
WA SEATTLE-TACOMA	58	47	63	41	53	-1	1.59	0.92	0.67	3.41	104	22.61	96	97	59	0	0	6	1	0	0
WA SPOKANE	54	37	66	27	48	-3	0.14	-0.06	0.09	0.51	46	10.72	94	83	47	0	2	3	0	0	0
WA YAKIMA	61	33	67	28	47	-4	0.00	-0.09	0.00	0.28	49	7.21	136	96	39	0	5	0	0	0	0
WV BECKLEY	65	39	73	34	52	-1	0.00	-0.66	0.00	2.67	55	40.69	122	97	45	0	0	0	0	0	0
WV CHARLESTON	67	42	76	36	54	-3	0.00	-0.63	0.00	3.54	75	42.66	125	100	47	0	0	0	0	0	0
WV ELKINS	61	37	70	29	49	-2	0.05	-0.84	0.05	4.96	92	42.31	116	100	51	0	2	1	0	0	0
WV HUNTINGTON	69	43	77	38	56	-1	0.11	-0.52	0.02	2.80	80	37.98	114	98	38	0	0	3	0	0	0
WI EAU CLAIRE	61	40	73	31	50	1	0.14	-0.43	0.08	2.12	40	27.05	97	91	57	0	2	2	0	0	0
WI GREEN BAY	61	39	75	32	50	1	0.00	-0.51	0.00	4.76	101	26.45	110	94	59	0	1	0	0	0	0
WI MADISON	63	40	75	30	51	1	0.00	-0.49	0.00	4.48	98	36.50	141	94	52	0	1	0	0	0	0
WI MILWAUKEE	61	44	71	38	53	1	0.02	-0.52	0.01	3.56	77										

National Agricultural Summary

October 12 - 18, 1998

HIGHLIGHTS

Above-normal temperatures east of the Rocky Mountains aided ripening of late-developing crops in the Corn Belt and across the South from the southern Great Plains to the southern Atlantic Coastal Plains region. Dry weather from the Mississippi and Ohio Valleys eastward provided nearly ideal harvest conditions. A band of rain extending from southern Texas northward along

the eastern edge of the Great Plains and into the central Corn Belt delayed harvest activities late in the week. Dry conditions in the High Plains aided harvest efforts and allowed winter wheat seeding to continue. Temperatures were below normal along the Pacific coast, but late-planted crops continued to mature and harvest activities maintained a steady pace.

Corn: The Nation's corn harvest continued to advance more than 1 week ahead of the 5-year average, with 57 percent harvested, compared with the normal 38 percent. Heavy rainfall in northern Illinois and eastern Iowa hampered progress in the central Corn Belt, while dry weather aided progress in the western and eastern Corn Belt. Growers made steady progress in eastern South Dakota and southern Minnesota, despite scattered rains. Harvest was nearly complete in the Southeast and southern Plains.

Soybeans: Seventy-one percent of the Nation's soybeans have been harvested, compared with 64 percent normally harvested by this date. Rain and soggy conditions hampered harvest efforts in the central Corn Belt late in the week. Most of the western and eastern Corn Belt and the Mississippi Delta remained dry, and harvest activities continued unhindered. In the Southeast, the harvest pace gained momentum as above-normal temperatures quickly ripened fields and dry weather provided ideal harvest conditions.

Cotton: The Nation's cotton crop continued to ripen slightly ahead of the 5-year average, with bolls opening on 96 percent of the crop, compared with the 91 percent normal rate. Development was slightly behind normal in many areas of the Southeast, but well ahead of normal in the southern Plains, especially in Oklahoma, where development was 25 percentage points ahead of the 5-year average. Harvest progress reached 51 percent, more than 1 week ahead of the normal pace. Dry conditions aided progress from the lower Mississippi Valley eastward to the southern Atlantic Coastal Plains region. Cotton growers in North Carolina harvested one-fourth of their crop. In the Southwest, harvest lagged due to the lateness of the crop, especially in California, where the harvest was just beginning.

Winter Wheat: Planting progressed to 75 percent and emerged to 50 percent. Dry weather allowed growers in the central and southern Great Plains to make substantial planting progress; however, planting continued to lag well behind the 5-year average.

Dry weather also assisted progress in the southern and eastern Corn Belt. Progress was ahead of normal in Ohio, but remained slightly behind the 5-year average in Illinois. Planting operations were just beginning in the Southeast and Southwest, and began to gain momentum in the Mississippi Delta. Emergence lagged in the central and southern Plains due to the slow planting pace. In the northern Great Plains, rain boosted emergence, while early planting accounted for rapid emergence in the northern Rocky Mountains and Pacific Northwest.

Rice: Harvest progressed to 93 percent complete, compared with the normal pace of 91 percent. Growers along the western Gulf coast and in the northern Mississippi Delta regions were virtually finished with harvesting. In California, harvest activity slowed from the previous week's rapid pace, but continued at a good rate, advancing 15 percentage points.

Sorghum: Ninety-six percent of the crop has reached maturity, compared with 91 percent normally mature by this date. Warm weather aided ripening in the central and southern High Plains, where the crop was less advanced. The harvest pace continued to gain momentum, advancing 14 percentage points to 63 percent, ahead of the 56 percent average. In the central and southern Great Plains, harvest activity was limited by rain, except in the High Plains and western Corn Belt, where dry conditions prevailed. Nebraska growers harvested nearly 40 percent of their sorghum. Harvest was virtually complete in most areas of the Mississippi Delta States.

Peanuts: Harvest activity increased, advancing 19 percentage points to 57 percent complete, but remained slightly behind the normal pace. Progress was aided by dry weather in the Southeast, but remained well behind normal along the eastern Gulf coast region, except in Florida, where harvest progress was well ahead of normal. Late-week rains halted harvest operations in the southern Texas coastal plains, while dry weather aided harvest in Oklahoma.

Crop Progress and Condition

Week Ending October 18, 1998

Soybeans Percent Harvested

	Oct 18 1998	Prev Week	Prev Year	5-Yr Avg
AL	35	28	35	25
AR	44	30	33	31
GA	15	7	15	10
IL	71	49	88	77
IN	74	56	85	75
IA	87	64	93	81
KS	57	32	58	54
KY	55	31	30	27
LA	87	73	84	67
MI	60	44	55	51
MN	90	81	96	78
MS	82	72	67	56
MO	50	29	58	45
NE	78	52	77	78
NC	15	5	12	9
OH	83	70	79	69
SC	5	3	6	4
SD	75	55	81	66
TN	42	26	23	20
ALL	71	53	74	64

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

Winter Wheat Percent Planted

	Oct 18 1998	Prev Week	Prev Year	5-Yr Avg
AR	16	15	28	26
CA	1	0	3	4
CO	98	95	99	96
GA	4	4	3	6
ID	87	75	84	79
IL	57	17	81	63
IN	62	44	77	68
KS	80	52	92	92
MI	81	59	83	80
MO	34	17	59	48
MT	89	80	95	85
NE	98	95	99	99
NC	25	20	18	24
OH	86	64	83	76
OK	68	44	82	84
OR	70	55	80	71
SD	98	93	99	98
TX	69	61	72	75
WA	91	90	98	93
ALL	75	58	83	81

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

Cotton Percent Bolls Opening

	Oct 18 1998	Prev Week	Prev Year	5-Yr Avg
AL	94	92	95	91
AZ	99	97	100	100
AR	99	96	95	96
CA	95	90	100	100
GA	89	85	88	90
LA	100	100	100	100
MS	100	100	99	99
MO	100	100	100	97
NM	94	89	100	98
NC	99	98	92	98
OK	99	98	72	74
SC	97	94	91	93
TN	100	100	99	100
TX	94	90	89	83
ALL	96	93	93	91

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

Corn Percent Harvested

	Oct 18 1998	Prev Week	Prev Year	5-Yr Avg
CO	50	35	50	32
GA	98	97	97	96
IL	58	46	55	45
IN	45	30	24	32
IA	52	31	45	32
KS	82	71	76	69
KY	88	85	73	74
MI	51	32	7	17
MN	59	46	54	31
MO	69	62	68	57
NE	63	44	41	31
NC	98	95	86	87
OH	36	22	12	21
PA	42	23	24	27
SD	42	31	30	22
TX	95	93	93	94
WI	40	28	12	19
ALL	57	43	45	38

These 17 States planted 92% of last year's corn acreage.

Winter Wheat Percent Emerged

	Oct 18 1998	Prev Week	Prev Year	5-Yr Avg
AR	5	2	10	11
CA	0	0	0	0
CO	87	79	88	85
GA	2	1	1	3
ID	50	34	53	43
IL	20	6	40	25
IN	31	18	38	29
KS	49	31	73	67
MI	60	32	60	51
MO	13	6	31	23
MT	64	51	73	54
NE	91	79	94	92
NC	5	0	0	4
OH	53	20	33	31
OK	33	16	51	48
OR	51	35	50	37
SD	88	78	94	88
TX	47	37	51	55
WA	81	76	89	77
ALL	50	36	62	57

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

Cotton Percent Harvested

	Oct 18 1998	Prev Week	Prev Year	5-Yr Avg
AL	55	48	35	44
AZ	24	16	44	43
AR	61	45	39	53
CA	2	1	38	30
GA	38	23	33	38
LA	81	73	87	77
MS	87	79	57	63
MO	44	29	42	54
NM	10	5	9	12
NC	55	30	17	31
OK	55	54	11	18
SC	55	42	21	35
TN	70	58	40	52
TX	53	49	29	35
ALL	51	43	36	41

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

Rice Percent Harvested

	Oct 18 1998	Prev Week	Prev Year	5-Yr Avg
AR	97	93	90	92
CA	70	55	95	75
LA	100	99	99	99
MS	98	97	96	94
TX	100	98	97	99
ALL	93	88	94	91

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

Crop Progress and Condition

Week Ending October 18, 1998

Sorghum Percent Mature				
	Oct 18 1998	Prev Week	Prev Year	5-Yr Avg
AR	100	100	100	100
CO	95	75	70	76
IL	88	87	94	88
KS	99	98	95	92
LA	100	100	100	100
MS	100	100	100	100
MO	99	95	95	92
NE	100	98	96	95
NM	63	49	75	56
OK	89	71	85	66
SD	99	95	98	94
TX	95	92	93	94
ALL	96	93	93	91

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

Sorghum Percent Harvested				
	Oct 18 1998	Prev Week	Prev Year	5-Yr Avg
AR	99	97	94	94
CO	23	6	6	22
IL	34	31	48	35
KS	62	43	50	47
LA	100	100	100	99
MS	100	100	97	97
MO	69	56	57	54
NE	60	21	51	37
NM	12	1	18	11
OK	29	23	33	24
SD	62	35	44	39
TX	73	67	69	78
ALL	63	49	56	56

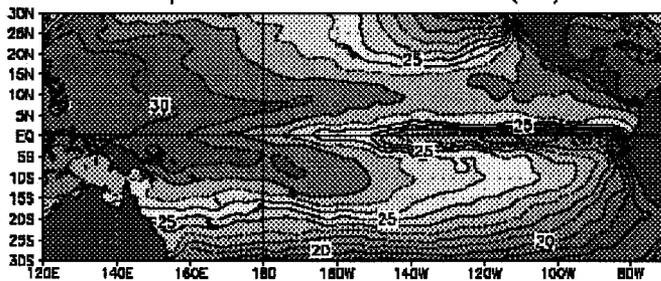
These 12 States planted 99% of last year's sorghum acreage.

Peanuts Percent Harvested				
	Oct 18 1998	Prev Week	Prev Year	5-Yr Avg
AL	50	34	92	79
FL	67	39	97	35
GA	64	43	87	80
NC	60	*40	46	51
OK	50	18	40	42
SC	55	39	67	63
TX	43	33	39	30
VA	82	58	86	85
ALL	57	38	71	61

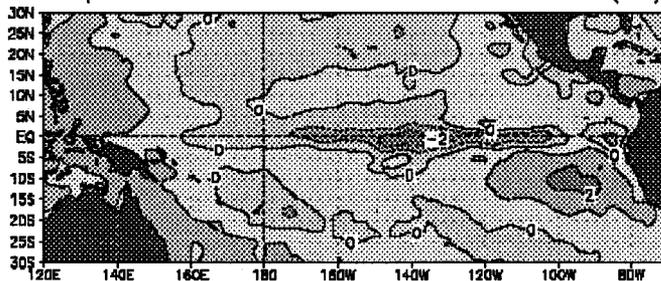
These 8 States planted 99% of last year's peanut acreage.

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

September 1998 SST (°C)



September 1998 SST Anomalies (°C)



Sea surface temperatures, mean (top) and departures from average (bottom) for September 1998. Contour interval is 1°C. Departures from average are computed based on the 1950-1979 adjusted OI climatology (Reynolds and Smith 1995, *J. Climate*, 8, 1571-1583).

La Niña Update, October 14, 1998

Weak cold episode conditions continued in the tropical Pacific during September. Monthly averaged sea surface temperatures (SSTs) were 1°C below normal along the equator from 170°W eastward to near 100°W, with departures of more than -2°C at 140°W (see Figure). The pattern of anomalous precipitation, as inferred from the anomalous outgoing longwave radiation (OLR), is consistent with the cold episode conditions. Enhanced convection was observed over the eastern Indian Ocean, Indonesia, Malaysia, and the Philippines, while suppressed convection was observed over the western and central equatorial Pacific. Consistent with these features, the SOI was again positive (+1.2), primarily due to substantially above normal pressure at Tahiti.

During early September, the low-level easterlies weakened and SSTs increased briefly throughout the equatorial Pacific. This was followed by an intensification of the easterlies and a strengthening of negative SST anomalies during the last half of the month. This variability in the low-level winds and SSTs was associated with variations in the global pattern of 200-hPa velocity potential, which may be linked to an increase in 30-60 day (Madden-Julian) oscillation activity.

The latest NCEP coupled model predictions indicate strengthening cold episode conditions in the tropical Pacific during the remainder of 1998, with moderate cold episode conditions continuing through March-May 1999. Other statistical and coupled model forecasts indicate a similar evolution.

Weekly updates for SST, 850-hPa wind, and OLR are available on the Climate Prediction Center homepage at: <http://nic.fb4.noaa.gov> (Weekly Update).

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 6.7. Topsoil moisture 8% very short, 39% short, 50% adequate, 3% surplus. Drier weather allowed farmers in the southern part of the State to resume harvest. Continued dry conditions in northern regions kept harvest well ahead of schedule. Cotton bolls opened 94%, 95% 1997, 91% avg.; harvested 55%, 35% 1997, 44% avg. Soybeans dropping leaves 89%, 90% 1997, 77% avg.; harvested 35%, 35% 1997, 25% avg. Peanuts dug 63%, 96% 1997, 86% avg.; combined 50%, 92% 1997, 79% avg. Cotton 15% very poor, 15% poor, 37% fair, 25% good, 8% excellent. Soybean 8% very poor, 48% poor, 34% fair, 9% good, 1% excellent. Peanut 6% very poor, 31% poor, 36% fair, 26% good, 1% excellent. Livestock 4% very poor, 13% poor, 57% fair, 24% good, 2% excellent. Pasture feed 5% very poor, 24% poor, 42% fair, 27% good, 2% excellent.

ARIZONA: Cotton harvest is well underway but is still about 2 weeks behind 1997, avg. Some reporters stated that early cotton harvest yields were about average for their areas. Alfalfa harvest activity 22% not being harvested, 55% moderate, 23% active; improved from the previous week. Condition was reported as 4% poor, 19% fair, 54% good, 23% excellent. Light sheepling off was reported in a few areas. Last week, central area growers continued to harvest cantaloupes, green onions, honeydews, head lettuce, mixed greens, watermelons, while eastern producers shipped gold, red delicious apples, Granny Smith apples, chili peppers, head lettuce, a steady volume of pumpkins. Western, central citrus groves harvested lemons.

ARKANSAS: Days suitable for fieldwork 6. Soil moisture 1% very short, 17% short, 79% adequate, 3% surplus. Temperatures above normal for the past week, precipitation was above normal at many locations. Reporting stations, with less than normal rainfall, were mostly in the east, south. Main farming activities included harvesting soybeans, cotton, planting wheat. Other farm activities included over seeding, fertilizing pastures, finishing up the rice harvest, armyworm control in pastures. Crop development continued ahead of the 5-year average in most categories due to hot, dry conditions that prevailed during the crop's earlier development stages. In addition, crop development continues to progress nearly a week ahead of last year's crop in most categories. There have also been reports of armyworms attacking wheat. Producers continue to wean, market cattle from their herds, and are still feeding hay in some instances. In addition, some producers sold cattle early due to poor pasture conditions. Alfalfa 5% very poor, 32% poor, 43% fair, 10% good, 0% excellent. Other hay 5% very poor, 22% poor, 43% fair, 26% good, 4% excellent. Range, pasture feed 10% very poor, 23% poor, 40% fair, 23% good, 4% excellent.

CALIFORNIA: Field activities progressed normally under favorable conditions in most areas. Seedbed preparation for planting small grains, forage crops was ongoing. Seeding of winter forages continued, wheat planting began in some locations. San Joaquin, Sacramento Valleys cotton defoliation was active, although some cotton bolls remained unopened due to cool weather. Limited harvest on early-seeded cotton fields was underway in the San Joaquin Valley, while cotton harvest was in full swing in the desert areas. Corn for grain, silage, dry beans, sugar beets were harvested. Some sugarbeet fields were treated for worms, some harvested fields were being prepared for next year's crop. Dry bean crop field residue was baled for dairy feed in the central San Joaquin Valley. Alfalfa fields were sprayed for weeds. Alfalfa, sudan grass were cut for hay or green chopped. A few late fields of seed alfalfa were harvested, stubble was immediately burned to control insect

migrations. Rice harvest continued at a moderate pace due to high-moisture content. Harvest of grapes for fresh use continued in the San Joaquin Valley. Emperor, fantasy seedless, red globe, ruby seedless were the major varieties being harvested. Thompson seedless variety grapes were harvested for fresh, raisin and wine uses. About 22% of the raisin crop was on open trays, 19% rolled, 59% picked up. Cool weather has slowed the drying process. Harvest of grapes for wine was also active. Late-variety stone fruit picking was nearly completed. Fuji, Granny Smith apple picking was active. Fig, olive, persimmon, pomegranate harvests continued. Kiwifruit picking was active; fruit was of good quality, small. Almond, pistachio, walnut harvests continued. Valencia orange picking was progressing slowly. New crop navel oranges were maturing, with small-sized fruit. Lemon, grapefruit picking was ongoing. Fall season strawberry harvest continued. Harvest of potatoes, bell peppers, pumpkins, cucumbers was ongoing. Tomato harvest was completed in the northern end of the Sacramento Valley. High winds in the central, northern areas adversely affected the harvest of some crops, especially beans. Honeydew, watermelon harvests came to a close in the Sacramento Valley, cantaloupe harvest was nearly complete. Sweet corn harvest was winding down. Lettuce was being harvested in the central coast area, as well as in the San Joaquin Valley. Additional vegetable crops harvested included fresh, processing onions, eggplant, sweet corn, green beans, squash, radishes, sweet potatoes, bitter melon (fruit, leaves) beets. Fall lettuce crops were progressing well. Broccoli, cauliflower crops were making good progress in the southern San Joaquin Valley. Spinach was still being planted for early spring harvest. Garlic, carrot, onion, potato, broccoli, cauliflower, lettuce fields were planted in central, southern counties. Pasture, rangeland conditions were mostly fair, except along the north coast. New season grass growth had not yet begun in most central, northern foothill areas. Dry feed, stock water supplies continued to be very good due to heavy spring, summer rains. Livestock were in generally good condition. There was some early movement of stock cows to winter pastures; most were being supplemented. A growing number of calves, stocker weight cattle were going into feedlots or hay lots. Mild, dry weather was beneficial for dairy cattle.

COLORADO: Days suitable for fieldwork 6.2. Topsoil moisture 13% very short, 28% short, 56% adequate, 3% surplus. Subsoil moisture 11% very short, 22% short, 64% adequate 3% surplus. Week was generally favorable for harvest activities. A quick-moving cold front passed through the State at the end of the week, with a rain/hail storm along the front range, moderate to heavy snow in the mountains, a freeze advisory for the eastern plains. Dry onions 98% harvested, 98% 1997, 95% avg. Sugar beets 44% harvested, 30% 1997, 39% avg.; 1% very poor, 4% poor, 5% fair, 48% good, 42% excellent. Summer potatoes 99% harvested, 99% 1997, 98% avg. Fall potatoes 98% harvested, 99% 1997, 94% avg. Dry beans 100% cut, 98% 1997, 97% avg.; 98% threshed, 89% 1997, 93% avg. Alfalfa 94% 3rd cutting, 98% 1997, 92% avg.; 53% 4th cutting, 62% 1997, 49% avg.; 2% very poor, 4% poor, 28% fair, 50% good, 16% excellent. Pasture, range feed in mostly fair to good condition. Livestock being moved to graze crop residues as harvest is completed.

DELAWARE: Days suitable for fieldwork 6.0. Topsoil moisture 31% short, 69% adequate. Subsoil moisture 7% very short, 33% short, 60% adequate. Barley 23% fair, 75% good, 2% excellent; 60% planted, 74% 1997, 61% avg. Wheat 3% fair, 94% good, 3% excellent; 12% planted, 20% 1997, 17% avg. Soybeans 72% shedding leaves, 71% 1997, 75% avg.; 14% harvested, 16% 1997, 18% avg. Field corn 95% mature,

92% 1997, 98% avg.; 73% combined, 51% 1997, 70% avg. Apples 94% harvested, 96% 1997, 92% avg. Sorghum 40% harvested, 11% 1997, 17% avg. Alfalfa hay 94% 4th cutting, 96% 1997, 89% avg.; 20% 5th cutting, 22% 1997, 25% avg. Other hay 66% 4th cutting, 92% 1997, 55% avg. Hay supplies 10% short, 90% adequate. Pasture feed 4% poor, 30% fair, 66% good. Activities: Dry weather for week allowed for more harvesting of corn, beans, sorghum. Apple harvest near completion; small grain seedings continued.

FLORIDA: Topsoil moisture mostly adequate, scattered areas short or surplus. Haying active. Tobacco marketing winding down, last market day 20th. Cotton, peanut, soybean harvests active. Sugarcane harvest starting. Sugarcane planting active. Peanut acreage for nuts 67% harvested. Cooler weather aided vegetable development. Major vegetables shipped included snap beans, sweet corn, cucumbers, eggplant, peppers, pickles, squash, tomatoes, watermelons. Normal October week, citrus area few showers, some irrigation on high sand hills, new growth slowing, new crop fruit sizing in well-cared-for groves. Maturity testing continues. Fresh fruit packing houses increasing early fruit shipments. Few processing plants receiving packing house eliminations. Caretakers cutting cover crops, completing spraying, fertilizing. Pasture feed fair 60%, good 40%. Cattle fair 35%, good 65%. North small grains planted for winter grazing started to emerge. West-central grass growth slow. Armyworms still problem. Southwest, some ranchers cutting pasture weeds. Statewide, cattle, calves, fair to good condition.

GEORGIA: Days suitable for fieldwork 6.5. Soil moisture 3% very short, 25% short, 68% adequate, 4% surplus. Cotton 9% very poor, 26% poor, 38% fair, 24% good, 3% excellent. Hay 9% very poor, 21% poor, 37% fair, 31% good, 2% excellent. Peanuts 5% very poor, 15% poor, 36% fair, 38% good, 6% excellent; 81% dug, 93% 1997, 90% avg. Rye 49% planted, 45% 1997, 43% avg. Sorghum 69% harvested for grain, 66% 1997, 68% avg. Soybeans 22% very poor, 28% poor, 33% fair, 16% good, 1% excellent; 80% dropping leaves, 88% 1997, 85% avg. Wheat 1% poor, 26% fair, 70% good, 3% excellent. Other small grains 26% planted, 30% 1997, 29% avg. Apples 88% harvested, 86% 1997, 88% avg. Pecans 14% very poor, 24% poor, 46% fair, 15% good, 1% excellent; 10% harvested, 9% 1997, 8% avg. Cool, dry weather conditions across the State enabled farmers to make good harvesting progress. Extreme northwestern localities in need of rain. Corn harvesting underway in some northern areas. Cotton, peanut harvest extremely active. Boll rot, hard lock bolls a problem in some areas. Defoliating cotton continues. Peanut digging made significant progress, still trails more than a week behind last year, average. Armyworms remain visible in some pasture, hay fields. Other activities include harvesting soybeans, sorghum, pecans, cutting, baling hay, planting fall vegetables, general maintenance field equipment.

HAWAII: Cloudy skies, localized, heavy showers provided fair conditions for agriculture. Most of the heavy showers fell in the windward areas of the southern islands. Immediate losses were light, farmers spraying to prevent disease outbreaks. Banana orchards in fair to good condition. Production steady, meeting market demand. Howerly weather not favorable for papaya orchards. Praying intensified, crop progress slowed. Head cabbage production steady, quality good. Tomato, cucumber production light, crop condition fair to good.

IDAHO: Days suitable for fieldwork 6.0. Topsoil moisture 71% adequate, 29% short. Snowfall in low elevations slows potato, sugar beet harvest. Temperatures remain below normal. Irrigation supply 23% excellent, 64% good, 8% fair, 4% poor, 1% very poor. Dry beans harvested 98%, 1997 99%, avg. 96%. Onions harvested 88%, 1997 98%, avg. 97%. Prunes, plums harvested 100%, 1997 100%, avg. 100%. Apples harvested 42%, 1997 69%, avg. 68%. Potatoes harvested 83%, 1997 82%, avg. 85%. Corn harvested for silage 93%,

1997 96%, avg. 90%. Corn harvested for grain 19%, 1997 19%, avg. 20%. Sugar beets harvested 34%, 1997 34%, avg. 35%. Activities: Fall ground preparation, planting winter wheat, wrapping up fall harvest, winterizing sprinkler systems, moving livestock off of summer range.

ILLINOIS: Days suitable for fieldwork 6.2. Topsoil moisture 2% very short, 12% short, 85% adequate, 1% surplus. Farmers took advantage of the nice fall weather last week, continued harvesting corn, soybeans. Soybeans harvested last week represents the highest increase in acreage harvested for this time period on record. Winter wheat seeding is in full swing. Corn mature 99%, 97% 1997, 98% avg. Soybeans shedding leaves 97%, 99% 1997, 98% avg.

INDIANA: Days suitable for fieldwork 6.8. Topsoil moisture 7% very short, 29% short, 62% adequate, 2% surplus. Subsoil moisture 12% very short, 33% short, 54% adequate, 1% surplus. Farmers had a good week for harvest. Dry weather allowed soybean harvest to advance 18%, corn 15%. Wheat seeding fell behind average despite making good progress during the past week. Tobacco harvest 97% complete, 94% 1997, 99% avg. Range, pasture feed 8% very poor, 22% poor, 44% fair, 25% good, 1% excellent. Activities: Harvesting corn, soybeans, seeding winter wheat, harvesting tobacco, caring for livestock.

IOWA: Days suitable for fieldwork 5.7. Topsoil moisture very short 2%, short 15%, adequate 67%, surplus 16%. Subsoil moisture very short 5%, short 24%, adequate 62%, surplus 9%. Soybean harvest progressing rapidly, wrapping up in northwest, north-central areas. Grain storage getting tight in some areas. Rain, hail delaying harvest, damaged some fields in central two-thirds of State. Corn acreage harvested 52%, 45% 1997, 32% avg. Percentage moisture of all field corn averaged 20%; harvested corn averaged 18%. Corn lodging 37% none, 44% light, 15% moderate, 4% heavy; corn ear droppage 51% none, 37% light, 11% moderate, 1% heavy. Soybean acreage harvested 87%, 93% 1997, 81% avg. Soybeans lodging 55% none, 33% light, 10% moderate, 2% heavy; shattering 50% none, 37% light, 10% moderate, 3% heavy. Winter wheat planted 62%, 83% 1997, 77% avg. Completion of 1999 row crop fall tillage 9%, 10% 1997, 10% avg.; fall fertilizer applied 6%, 10% 1997, 9% avg. Livestock generally in good condition. Pasture feed improved, 2% very poor, 12% poor, 29% fair, 43% good, 14% excellent.

KANSAS: Days suitable for fieldwork 5.7. Topsoil moisture 1% very short, 9% short, 81% adequate, 9% surplus. Subsoil moisture 12% short, 86% adequate, 2% surplus. Fall harvest ahead of schedule, wheat seeding behind normal progress. Wheat 1% very poor, 4% poor, 21% fair, 69% good, 5% excellent. Sorghum 1% very poor, 5% poor, 21% fair, 57% good, 16% excellent. Soybean 1% very poor, 8% poor, 32% fair, 45% good, 14% excellent. Sunflowers mature 95%, 96% 1997, NA avg.; harvested 77%, 49% 1997, NA avg. Major field activities were seeding wheat, harvesting grain. Pasture feed 1% very poor, 10% poor, 31% fair, 53% good, 5% excellent. Stock water supplies 6% short, 92% adequate, 2% surplus. Cattle being moved to crop stubble, feedlots. Producers busy with fall calving, weaning, marketing calves, yearlings.

KENTUCKY: Days suitable for fieldwork 5.9. Topsoil moisture 12% very short, 49% short, 38% adequate, 1% surplus. Subsoil moisture 23% very short, 43% short, 34% adequate. Temperatures 61°, 3° above normal. Rainfall 0.21 in., 0.45 in. below normal. Rain heaviest in west, decreased eastward. Soybeans shedding leaves 96%, 86% 1997, 87% avg. Late tobacco still being cut, housed. Cooler weather improved moisture in air helped tobacco curing, improved color of some earlier cured tobacco. Condition housed tobacco 2% very poor, 15% poor, 42% fair, 32% good, 9% excellent. Burley stripped 15%, 10% 1997,

13% avg. Waiting for tobacco to come into case so that stripping can continue. Winter wheat 48% seeded, 47% 1997, 46% avg. Pasture feed 11% very poor, 28% poor, 45% fair, 15% good, 1% excellent. Some farmers pasturing cattle, while others feeding hay. Some farmers hauling water for livestock.

LOUISIANA: Days suitable for fieldwork 6.4. Soil moisture 1% very short, 22% short, 72% adequate, 5% surplus. Hay 88% final cutting, 99% 1997, 95% avg. Pecans 7% very poor, 21% poor, 41% fair, 24% good, 7% excellent; 10% harvested, 15% 1997, 9% avg. Rice harvest is complete. Soybeans 100% turning color, 100% 1997, 98% avg., 98% leaves shedding, 97% 1997, 93% avg. Some producers plowed soybeans under due to low yields, excessive insect damage. Sugarcane 3% very poor, 12% poor, 27% fair, 41% good, 17% excellent; 96% planted, 100% 1997, 98% avg., 8% harvested, 17% 1997, 13% avg. Sweet potatoes 70% harvested, 77% 1997, 72% avg.; harvest continues with soft spots on potatoes still being reported. Wheat 28% planted, 23% 1997, 14% avg.; 16% emerged, 5% 1997, 5% avg. Livestock 2% very poor, 11% poor, 40% fair, 41% good, 6% excellent. Livestock continue to be stressed by mosquitos. Vegetables 4% very poor, 20% poor, 43% fair, 30% good, 3% excellent. Pasture conditions have improved. Cooler temperatures have reduced armyworm populations in pastures.

MARYLAND: Days suitable for fieldwork 6.3. Topsoil moisture 10% very short, 33% short, 54% adequate, 3% surplus. Subsoil moisture 19% very short, 42% short, 37% adequate, 2% surplus. Barley 9% very poor, 13% poor, 16% fair, 50% good, 12% excellent; 69% planted, 65% 1997, 70% avg. Rye 8% poor, 36% fair, 47% good, 9% excellent; 50% planted, 55% 1997, 53% avg. Wheat 5% poor, 24% fair, 49% good, 22% excellent; 38% planted, 27% 1997, 31% avg. Field corn 75% combined, 44% 1997, 65% average. Soybeans 90% shedding leaves, 81% 1997, 83% avg.; 35% harvested, 21% 1997, 23% avg. Sorghum 38% harvested, 24% 1997, 32% avg. Pastures feed 10% very poor, 21% poor, 25% fair, 36% good, 8% excellent. Apples 79% harvested, 78% 1997, 77% avg. Other hay 4th cutting 90% harvested, 77% 1997, 63% avg. Alfalfa hay 94% 4th cutting, 85% 1997, 91% avg.; 38% 5th cutting, 29% 1997, 36% avg. Hay supplies 6% very short, 21% short, 61% adequate, 12% surplus. Activities: Seeding of small grains, continued harvesting of corn, soybeans, sorghum, hay, stripping tobacco.

MICHIGAN: Days suitable for fieldwork 6.0. Topsoil moisture 4% very short, 30% short, 65% adequate, 1% surplus. Subsoil moisture 18% very short, 42% short, 40% adequate. Hay 4th cutting 56%, 66% 1997, 58% avg. Soybeans mature 98%, 93% 1997, 92% avg. Most of State, except for southeast quarter, received some rain this past week. Only western tip of Upper Peninsula, area around Grand Rapids, Muskegon received more than an inch of rain. Temperatures 2 to 4 degrees F above normal for week. Limited sugar beet harvest continued. Harvest halted on 17th when temperatures reached lower 70's degrees F. Full harvest for all areas expected to begin this week. Most other fieldwork in sugar beet growing areas completed. Corn harvest about 3 weeks ahead of 5-year average, at least 4 weeks ahead of 1997. Practically all soybeans including those double cropped have reached maturity, some areas are hoping for a freeze to take out last of green. Winter wheat planting continued although some areas still too dry for emergence. Apple harvest was nearing completion. Substantial portion of juice apples will go unharvested due to low prices. Carrot, onion, pumpkin harvests continued. Winter squash volume was steady.

MINNESOTA: Days suitable for fieldwork 3.7. Topsoil moisture 1% very short, 9% short, 74% adequate, 16% surplus. Soybeans 12% moisture content, 11% 1997, 13% avg.; 51% stubble worked, 65% 1997, 39% avg. Potatoes 92% harvested, 95% 1997, 92% avg. Sugar beets 77% harvested, 65% 1997, 76% avg. Sunflowers 44% harvested,

44% 1997, 53% avg. Corn 18% moisture content, 20% 1997, 25% avg.; stubble worked 24%, 22% 1997, 13% avg. Pasture feed 4% very poor, 21% poor, 38% fair, 33% good, 4% excellent. Two consecutive weeks of above-normal precipitation have hampered harvesting efforts across the State. Statewide precipitation 2.33 in. is the largest weekly total of the year.

MISSISSIPPI: Days suitable for fieldwork 6.5. Soil moisture 13% very short, 43% short, 43% adequate, 1% surplus. Cotton 87% harvested, 57% 1997, 63% avg. Rice 98% harvested, 96% 1997, 94% avg. Soybeans 100% shedding leaves, 91% 1997, 87% avg.; 82% harvested, 67% 1997, 56% avg. Sweet potatoes 70% harvested, 63% 1997, 73% avg.; 1% very poor, 10% poor, 40% fair, 47% good, 2% excellent. Wheat 45% planted, 36% 1997, 35% avg.; 26% emerged, 9% 1997, 8% avg.; 3% very poor, 22% poor, 44% fair, 30% good, 1% excellent. Peanuts 85% harvested, 93% 1997, NA avg.; 4% poor, 20% fair, 61% good, 15% excellent. Cattle 4% very poor, 8% poor, 33% fair, 47% good, 8% excellent. Pasture feed 8% very poor, 24% poor, 38% fair, 27% good, 3% excellent. Activities: Fair, dry weather continue to allow for early cotton, soybean harvests.

MISSOURI: Days suitable for fieldwork 5.8. Topsoil moisture 4% short, 68% adequate, 28% surplus. Wettest areas are west central, northeast districts at 40% surplus. Ground intended for next year's spring crops that has been worked at least once (excluding no-till) 11%, 16% 1997, 9% avg. Corn harvesting continues to be most advanced for this date since 1991. Corn harvest least advanced northeast district 43%, northwest 53%, due to late plantings, wet harvest weather. Soybeans mature 86%, 88% 1997, 79% avg.; harvest most advanced in northeast, east-central districts at 60%, least advanced west-central 35%, southeast 44% due to more double crop acres as well as weather delays. Sorghum harvest most advanced in southwest 87%, southeast 95%, while north-central, central least advanced at 35%. Wheat planting most advanced in Bootheel at 49%, followed by northwest 37%, east-central 35%, least advanced west-central, central 20%. Cotton harvest about 5 days behind normal. Pasture feed 1% very poor, 6% poor, 31% fair, 53% good, 9% excellent.

MONTANA: Days suitable for fieldwork 4.1. Topsoil moisture 6% very short, 30% short, 63% adequate, 1% surplus. Subsoil moisture 8% very short, 48% short, 44% adequate. Conditions at beginning of week were cooler with temps mostly in the 50's, 60's degrees F, cooled off 16th. Higher elevations received small amounts of snow. Much-needed moisture was prevalent over most of the eastern part of the State, as some areas reported receiving as much as 1.90 inches of rain. Corn harvested for silage 99%, 99% 1997, 96% avg. Dry beans harvested 100%, 99% 1997, 95% avg. Sugar beets harvested 56%, 72% 1997, 63% avg. Potatoes harvested 81%, 80% 1997, 77% avg. Winter wheat 6% poor, 39% fair, 46% good, 9% excellent. Range, pasture remains in mostly fair to good condition. Precipitation improved range conditions slightly, colder weather the past couple of weeks across the State has stopped the growth of grass. Ranchers have moved 70% of the cattle, 77% of the sheep off summer pastures, compared with a 5-year average of 56% of the cattle, 64% of sheep moved off by this time.

NEBRASKA: Days suitable for fieldwork 6.3, allowed significant harvest progress. Topsoil moisture 2% very short, 17% short, 80% adequate, 1% surplus. Subsoil moisture 5% very short, 22% short, 72% adequate, 1% surplus. Corn harvest 63%, nearly 2 weeks ahead of 41% 1997, 31% avg. Soybean harvest 78%, 77% 1997, 78% avg. Sorghum harvest jumped to 60%, 51% 1997, 37% avg. Dry beans harvested 96%, 98% 1997, 97% avg. Alfalfa 3% poor, 31% fair, 62% good, 4% excellent; 4rd cutting 94%, 82% 1998, 84% avg. Wheat emergence 91%, 94% 1997, 92% avg. Pasture feed 4% very poor, 12% poor, 31% fair, 44% good, 9% excellent. Producer activities; millet,

sugar beet, sunflower, grain, hay harvests, fall tillage, fencing, weaning calves and livestock care.

NEVADA: Temperatures averaged well-below-normal statewide, with the greatest departures in the northeast. Precipitation was limited, with most locations recording only traces. Final irrigations were being applied to hay, grain fields. Last cutting of alfalfa continued with 4th cutting underway north. Seeding of new alfalfa fields was completed. Winter wheat, barley planting well along. Mint distilling continued in Orovada. Garlic, onion harvests virtually complete. Potato harvest well along in Humboldt County. Pasture, range condition remained mostly good. Cattle movement to fall pastures continued. Main farm, ranch activities: Haying, potato harvest, seeding of alfalfa, mint distilling, irrigating, cattle marketing.

NEW ENGLAND: Days suitable for fieldwork 4.7. Topsoil moisture 8% short, 63% adequate, 29% surplus. Subsoil moisture 8% short, 78% adequate, 14% surplus. Pasture feed 2% very poor, 6% poor, 23% fair, 40% good, 29% excellent. Maine potatoes 99% harvested, 95% 1997, 95% avg.; condition good to fair. Massachusetts potatoes 95% harvested, 95% 1997, 95% avg.; condition good. Rhode Island potatoes 95% harvested, 99% 1997, 95% avg.; condition good to fair. Oats in Maine 100% harvested, 95% 1997, 99% avg.; condition good to fair. Field corn 90% harvested, 85% 1997, 85% avg.; condition good to fair. Sweet corn 100% harvested, 99% 1997, 99% avg.; condition good to fair. Second cut hay 99% harvested, 95% 1997, 95% avg.; condition good to fair. Third-cut hay 85% harvested, 95% 1997, 90% avg.; condition good. Apples 90% harvested, 90% 1997, 90% avg.; size average; condition good to fair. Pears 90% harvested, 90% 1997, 95% avg.; size average; condition good to fair. Cranberries 80% harvested, 70% 1997, 70% avg.; size average, condition good. Major farm activities: Harvest of field corn, potatoes, apples, raspberries, cranberries, squash and pumpkins. Farmers also spread manure, lime, disked harvested fields, planted cover crops.

NEW JERSEY: Days suitable for fieldwork 5. Farmers are harvesting fall vegetables, planting cover crops, spraying for disease, pests. Amount of feed requirements pastures are supplying is average. Irrigation water supply is adequate. Fall items (spinach, cabbage, parsley, endive, escarole, Indian corn, beets, turnips, sweet potatoes, pumpkins) are being harvested, with farmers finishing up their harvest of summer vegetables (tomatoes, peppers). Good supply of pumpkins. Moderate supply of beans, cabbage, endive, escarole, leeks, lettuce of all types, parsley, peppers, spinach. Light supply of cucumbers, Indian corn, squash, tomatoes. Harvesting of cranberries reported. Moderate volume of apples. Harvesting of soybeans, corn for grain, silage continue. Hay baling reported in a few localities. Pasture feed, range fair to good.

NEW MEXICO: Excellent harvest conditions prevailed across the State last week. As a result of the weather, farmers and ranchers were able to average 6.7 days of fieldwork. Most of the work involved fall harvests of chile, corn, sorghum, cotton or lettuce. Chile producers finished picking green chile as red chile harvest advanced to 29% picked, 19% 1997; 2% poor, 34% fair, 51% good, 13% excellent. Corn harvest continued with 67% of the grain in, 71% 1997; 2% poor, 31% fair, 56% good, 11% excellent. Sorghum harvest started in earnest along the east side of the State last week. Cotton harvest, just getting underway in the south, moved to 10% complete. Hay producers were busy baling hay from their final cuttings of the year. The 5th, 6th cuttings moved to 92%, 68% complete, respectively; 4% poor, 32% fair, 49% good, 15% excellent. Apples 90% picked, 99% 1997; 15% poor, 25% fair, 57% good, 3% excellent. Lettuce harvest moved to 20% complete. Lettuce crop 18% fair, 55% good, 27% excellent. Fall planting continued. Seventy-eight percent of the onion crop was in the ground as wheat planting was winding down across the State. Pecans

remained in good condition. Cattle, sheep stayed in fair to good condition. Range, pasture feed conditions remained steady, as topsoil moisture dropped to 26% very short, 41% short and 33% adequate.

NEW YORK: Days suitable for fieldwork 4.5. Soil moisture 14% short, 57% adequate, 29% surplus. Pasture feed 13% poor, 21% fair, 66% good. Hay 80% good, 20% excellent. Third-cutting alfalfa 97% finished, 94% 1997, 95% avg. Corn silage 93% harvested, 83% 1997, 84% avg. Grain corn 49% harvested, 11% 1997, 17% avg. Corn 33% fair, 34% good, 33% excellent. Potato harvest continued. Early-planted dry beans were being harvested. Apple harvest near completion. Concord grape harvest finished. Vegetable harvests winding down. Cabbage was major crop left for harvest. Pumpkins moving to market in volume.

NORTH CAROLINA: Days suitable for fieldwork 6.4. Across the State, very little rainfall was recorded, while temperatures were near normal. Dry weather, average temperatures allowed farmers to make good progress in small grain plantings. However, these plantings still lag behind the 5-year averages. Soil moisture remains short in most areas, for the State 11% very short, 36% short, 53% adequate. Activities for the week: Harvesting cotton, peanuts, sweet potatoes, sorghum; cutting hay; planting small grains, tending livestock.

NORTH DAKOTA: Days suitable for fieldwork 3. Topsoil moisture 3% short, 82% adequate, 15% surplus. Subsoil moisture 1% very short, 13% short, 77% adequate, 9% surplus. Rains showers, wet conditions halted the row crop harvest for most of the week. Late-season crop harvest continued at a pace ahead of avg., except potatoes, sugar beets. Corn for grain 55% harvested; 45% 1997; 29% avg.; corn for silage 98% chopped; 99% 1997; 96% avg.; potatoes 94% dug; 98% 1997; 97% avg.; soybeans 81% harvested; 97% 1997; 81% avg.; sugar beets 75% lifted; 59% 1997; 77% avg.; sunflower 39% harvested; 61% 1997; 36% avg. Producers have not been able to get a good start on the sunflower harvest, which ran 1 week behind last year. Lush, green pastures have developed in the central, south-central districts due to sufficient moisture during October. Pasture feed 5% very poor, 17% poor, 43% fair, 32% good, 3% excellent.

OHIO: Days suitable for fieldwork 6.7. Topsoil moisture 4% very short, 26% short, 69% adequate, 1% surplus. Corn harvested for grain 36%, 12% 1997, 22% avg. Corn harvested for silage 92%; 72% 1997; 86% avg. Soybeans mature 99%, 97% 1997, 99% avg.; harvested 83%, 79% 1997, 69% avg. Winter wheat planted 86%, 83% 1997, 76% avg.; emerged 53%, 33% 1997, 31% avg. Alfalfa hay 95% 4th cutting. Tobacco 13% stripped, 4% 1997. Fall, winter apples 87% harvested, 71% 1997, 68% avg. Hay 5% very poor, 6% poor, 35% fair, 44% good, 10% excellent. Winter wheat 1% poor, 23% fair, 61% good, 15% excellent. Most of the fresh market vegetable crop is finished; however, a number of producers are picking peppers, a couple are digging potatoes, picking tomatoes. Much of the pumpkin harvest is finishing up, there are fewer reports of the mildew problem on the crop. Farmers are also harvesting gourds, squash, Indian corn. Other activities include fall harvest, ground tillage; spreading fertilizer, lime, potash, manure; sowing wheat, rye, barley; cutting hay; baling corn stalks; pressing cider; cutting firewood; vaccinating, weaning calves; shipping mums, pansies to the south. Reported weed pressures were trumpet keeper, foxtail, broadleaf, Johnson grass, thistles, lambs quarters, ragweed. A Wayne County reporter mentioned some weedy soybeans would be left in the field. There has also been wildlife damage by deer, turkeys, raccoons, birds. A Clinton County reporter mentioned large flocks of Canadian geese attacking wheat fields at emergence. Rain, mild temperatures over the past 2 weeks have improved pasture regrowth in most of the State. Farmers in the south report the worst pasture conditions as regrowth has been slow due to a dry August, September.

OKLAHOMA: Days suitable for fieldwork 5.4. Topsoil moisture 3% very short, 22% short, 73% adequate, 2% surplus. Subsoil moisture 8% very short, 28% short, 62% adequate, 2% surplus. Late-week rains boosted wheat germination. Recent cool weather slowed late row-crop growth. Wheat 95% seedbed prepared, 99% 1997, 99% avg. Oats 93% seedbed prepared, 97% 1997, 98% avg.; 79% planted, 49% 1997, 55% avg.; 34% up-to-stand, 22% 1997, 27% avg. Corn 100% harvested, 97% 1997, 92% avg. Sorghum 7% very poor, 6% poor, 14% fair, 73% good. Soybeans 49% harvested, 33% 1997, 42% avg. Peanuts 91% mature, 76% 1997, 78% avg.; 28% combined, 26% 1997, 20% avg. Alfalfa hay 5% very poor, 13% poor, 37% fair, 41% good, 4% excellent; 81% 4th cutting, 92% 1997, 96% avg.; 22% 5th cutting, 37% 1997, 53% avg. Other hay 45% 2nd cutting, 73% 1997, 95% avg. Livestock 2% very poor, 8% poor, 30% fair, 58% good, 2% excellent. Prices for feeder cattle up \$1.00 per cwt. from the previous week.

OREGON: Days suitable for fieldwork 6.0. Topsoil moisture 7% very short, 38% short, 51% adequate, 4% surplus. Subsoil moisture 2% very short, 29% short, 69% adequate. Barley planted 39%, 46% 1997, 34% average. Winter wheat 2% fair, 93% good, 5% excellent; planted 70%, 80% 1997, 71% avg.; emerged 51%, 50% 1997, 37% avg. Range, pasture feed 2% very poor, 8% poor, 40% fair, 49% good, 1% excellent. Activities: Grain planting continued. Rain delayed planting in Willamette Valley. Herbicide, fertilizer applications on perennial grass seed fields. Heavy planting of clover for seed, field corn for silage about completed. East of the Cascades field corn harvest continued, sugar beets for sugar harvest winding down. Nurseries, greenhouses busy with fall sales of baled, burlapped material, containers sales. Easter lily growers busy grading, packing commercial bulbs. Potato harvest winding down east of the Cascades, with good yields, quality. Onion harvest in final stages. West of the Cascades, harvest of cole crops, squash, pumpkins continued. Carrots harvested between rains. Onions nearly finished, with yellows smaller than average; red onion yields average. Apple harvest nearing end in Willamette Valley, hazelnut harvest interrupted due to rain. Berry fields finished up winter preparation. In Rogue River Valley, tree fruit harvest winding down, grape harvest started. South-coast cranberry harvest continued. Apple harvest continued in Milton-Freewater area. Livestock condition good to excellent. Gathering cattle, weaning calves, other fall work continued in northeast. Willamette Valley pastures continued to green up, reduce supplemental feeding. Southwest pastures burned, some already showing green grass.

PENNSYLVANIA: Days suitable for fieldwork 5.2. Soil moisture 8% very short, 30% short, 60% adequate, 2% surplus. Ensilage corn harvested 92% harvested, 83% 1997, 85% avg. Soybean harvest 16% complete, 23% 1997, 23% avg. Soybean 1% very poor, 4% poor, 20% fair, 55% good, 20% excellent. Potato harvest 85% complete, 84% 1997, 82% avg. Fall plowing 64% complete, 75% 1997, 73% avg. Wheat planted 50% complete, 71% 1997, 68% avg. Wheat emerged 35% complete, 41% 1997, average not available. Barley planted 77% complete, 88% 1997, 85% avg. Barley emerged 50% complete, 56% 1997, average not available. Alfalfa 3rd cutting 96% complete, 96% 1997, 95% avg. Alfalfa 4th cutting 78% complete, 72% 1997, 68% avg. Timothy clover second cutting 100% complete, 100% 1997, 100% avg. Quality of hay made 3% very poor, 4% poor, 26% fair, 53% good, 14% excellent. Grape harvest 80% complete, 58% 1997, 76% avg. Apple harvest 80% complete, 73% 1997, 78% avg. Activities: Fall plowing; cutting hay, haylage; harvesting grapes, apples, pumpkins, corn, soybeans, potatoes, fall vegetables; seeding wheat, barley and cover crops; filling silos; machinery maintenance; fixing fences; hauling manure; seeding cover crops; spreading manure; spreading lime; marketing lambs; caring for livestock.

SOUTH CAROLINA: Days suitable for fieldwork 6.4. Soil moisture 11% very short, 42% short, 46% adequate, 1% surplus. Apples 93% harvested, 88% 1997, 86% avg. Barley 38% planted, 42% 1997, 26%

avg.; 17% emerged, 31% 1997, 16% avg. Livestock 4% poor, 29% fair, 63% good, 4% excellent. Oats 30% planted, 37% 1997, 31% avg.; 13% emerged, 31% 1997, 21% avg. Pasture feed 2% very poor, 9% poor, 35% fair, 51% good, 3% excellent. Peanuts 55% harvested, 67% 1997, 63% avg.; 14% very poor, 29% poor, 41% fair, 16% good. Pecans 25% harvested, 18% 1997, 14% avg.; 20% poor, 50% fair, 29% good, 1% excellent. Rye 45% planted, 51% 1997, 38% avg.; 30% emerged, 32% 1997, 25% avg.; 9% poor, 27% fair, 64% good. Sorghum 88% matured, 100% 1997; 62% harvested, 82% 1997; 2% very poor, 9% poor, 53% fair, 35% good, 1% excellent. Sweet potatoes 60% harvested, 56% 1997, 45% avg.; 1% fair, 98% good, 1% excellent. Tobacco 97% stalks destroyed, 98% 1997, 93% avg. Winter grazings 65% planted, 62% 1997, 56% avg.; 47% emerged, 43% 1997, 37% avg.; 5% very poor, 7% poor, 32% fair, 56% good. Winter wheat 21% planted, 27% 1997, 12% avg.; 12% emerged, 15% 1997, 6% avg.

SOUTH DAKOTA: Days suitable for fieldwork 3.7. Topsoil moisture 3% short, 84% adequate, 13% surplus. Subsoil moisture 8% short, 83% adequate, 9% surplus. Heavy rains halted row crop harvest late in the week. Sunflower 7% poor, 27% fair, 48% good, 18% excellent; 99% mature, 99% 1997, 95% avg.; 66% harvested, 55% 1997, 43% avg. Sorghum 12% fair, 61% good, 27% excellent. Corn 1% poor, 6% fair, 49% good, 44% excellent. Soybeans 1% poor, 10% fair, 52% good, 37% excellent. Heavy rains aided soil conditions and winter wheat emergence. Winter rye 1% poor, 35% fair, 53% good, 11% excellent; emerged 95%, 95% 1997, 91% avg. Winter wheat 1% poor, 15% fair, 72% good, 12% excellent. Livestock, pasture conditions benefited from the much-needed precipitation. Livestock 1% poor, 10% fair, 70% good, 19% excellent. Stock water supplies 5% short, 86% adequate, 9% surplus.

TENNESSEE: Days suitable for fieldwork 6.0. Topsoil moisture 12% very short, 43% short, 43% adequate, 2% surplus. Subsoil moisture 13% very short, 41% short, 41% adequate, 5% surplus. Burley stripped 33%, 22% 1997, 26% avg. Pasture 10% very poor, 32% poor, 37% fair, 21% good. Winter wheat 30% seeded, 35% 1997, 33% avg.; 12% poor, 33% fair, 51% good, 4% excellent. Producers took advantage of 6 days suitable for fieldwork and seeded an additional 13% of the State's wheat acreage totaling 30% as of 18th. Burley tobacco stripping remained ahead of the 5-year average pace, with 33% complete by week's end. Inadequate moisture kept winter wheat seedings slightly behind normal.

TEXAS: Several weather systems combined over the Central region in the late week, causing heavy amounts of rain, widespread flooding. High water washed out fences, caused losses to livestock, property. Recently planted small grain fields in the Central region received heavy rains; replanting maybe necessary. Rainfall also spread into the Blacklands, northern areas as a result of a cold front by late week. Temperatures much cooler by end of week. Fieldwork moved ahead in the plains as rainfall was scattered, light in most areas.

Crops: Small grains: Producers in the High Plains spraying for armyworms. Many dryland fields needed moisture. Irrigated fields making good progress. Producers in other areas still trying to get acreage seeded between showers. Armyworm problems diminished in many Blackland, central fields with cooler weather. Rainfall will benefit fields in most areas along with return to sunny conditions. Winter wheat 44% of normal, 43% 1997. Corn scattered fields remained for harvest by end of week in the High Plains. Cotton harvest, defoliation activity continued in the plains, north-central areas most of the week. Yields have varied; however, some turning out better than expected. Stalk destruction delays continued in the Rio Grande Valley because of rain. Grain sorghum harvest continued in the Plains, with only minor delays. Peanuts harvest increased in the north-central, southern areas. Yields varied widely these areas. A few fields showing disease problems. Rice second-crop harvest continued as conditions allowed. Soybeans harvest operations increased in the plains, where yields have been good.

Commercial Vegetables: Rio Grande Valley, planting activity slowed by rain that was heavy at times. Orange harvest expanding as conditions allowed. San Antonio-Winter Garden, some planting occurred early week. Watermelons continued shipped out of area. East, sweet potato harvest continued early week, with yields reported as disappointing. High Plains, pepper, pumpkin harvest continued. Trans Pecos, land preparations continued. Pecan harvest increased early week, with production prospects down from year ago in most areas. Insect problems slowed recently with cooler weather, rain.

Range and Livestock: Cooler weather slowed grass growth; however, recent rains have increased greening in most areas. Haying operations continued in many areas through midweek, when rainfall stopped progress. Supplemental feeding activity continued. Heavy rains damaged fences, pastures and caused some livestock losses in the Central region.

UTAH: Days suitable for fieldwork 6. Topsoil moisture 1% very short, 17% short, 82% adequate. Subsoil moisture 18% short, 82% adequate. Pasture feed, range 3% very poor, 11% poor, 26% fair, 56% good, 4% excellent. Cattle moved from summer range 83%, 77% 1997, 83% avg. Sheep moved from summer range 86%, 86% 1997, 86% avg. Winter wheat emerged 78%, 78% 1997, 73% avg. Corn mature 82%, 64% 1997, 79% avg.; harvested for grain 20%, 37% 1997, 29% avg. Corn silage harvested 95%, 88% 1997, 92% avg. Alfalfa hay 4th cutting 90%, 68% 1997, 80% avg. Alfalfa seed harvested 98%, 80% 1997, 82% avg. Onions harvested 82%, 92% 1997, 90% avg. Potatoes harvested 90%, 87% 1997, 85% avg. Apples 63% picked, 63% 1997, 68% avg. Farmers are preparing for the end of harvest season.

VIRGINIA: Days suitable for fieldwork 6.7. Topsoil moisture 28% very short, 39% short, 33% adequate. Subsoil moisture 31% very short, 42% short, 27% adequate. Corn 82% harvested, 56% 1997, 69% avg. Cotton 65% harvested, 15% 1997, 29% avg.; 1% very poor, 9% poor, 21% fair, 64% good, 5% excellent. Soybeans 71% dropping leaves, 65% 1997, NA% avg.; 15% harvested, 14% 1997, 15% avg.; 12% very poor, 25% poor, 30% fair, 30% good, 3% excellent. Winter wheat 15% seeded, 16% 1997, 21% avg. Barley 40% seeded, 43% 1997, 51% avg. Flue-cured tobacco 93% harvested, 89% 1997, 97% avg. Fall apples 71% harvested, 69% 1997, 80% avg.; winter apples 41% harvested, 54% 1997, 48% avg.; apples 3% very poor, 12% poor, 40% fair, 38% good, 7% excellent. Pasture feed 23% very poor, 37% poor, 26% fair, 14% good. Soil moisture levels declined slightly this past week for much of the Commonwealth; however, conditions were favorable for many field activities due to cooler weather, softer ground, which resulted from showers received the previous week. The rain showers from 2 weeks ago helped to improve current pasture conditions minimally. While some livestock producers normally find it necessary to feed hay this time of year, short pastures are making this phenomenon a necessity for many. Cotton harvest continues to be ahead of the 5-year average. Many soybean producers are harvesting their crop ahead of schedule this year also due to dry conditions. Some producers are reporting that beans are starting to pop out of the pods. Small grain seeding is underway in many areas but is still behind the 5-year average. Other activities for the week included continued marketing of cattle, shelling corn, stripping and grading of burley tobacco, small grain seeding, harvesting vegetables, applying lime and fertilizer, defoliating, harvesting of cotton.

WASHINGTON: Days suitable for fieldwork 5.9. Topsoil moisture 9% very short, 25% short; 66% adequate. Subsoil moisture 1% very short, 52% short, 47% adequate. Precipitation would greatly benefit the winter wheat crop, late seeding into dry soil continued in eastern areas, some reseeding was necessary due to crusting. Temperatures dropped to freezing in some areas, with no negative impact on crop development. Potatoes 80% harvested, 81% 1997, 81% avg. Sugar beet, potato harvests continued. Buckwheat harvest was in progress. Hay, other roughage supplies, 10% short, 73% adequate, 17% surplus. Range,

pasture 25% poor, 65% fair, 10% good. Moisture improved pastures in western areas, cattle were moved to harvested fields to graze aftermath. Grape harvest neared completion, with a higher quality crop than anticipated, apple harvests progressed into late varieties. Sweet corn harvest neared completion in western areas, with disappointing yields. Truck gardeners reported brisk sales of fall produce. Some Christmas tree growers reported they were sold out for the first time in nearly two decades.

WEST VIRGINIA: Days suitable for fieldwork 6.3. Topsoil moisture 9% very short, 51% short, 40% adequate. Weather conditions were conducive for harvesting crops and planting wheat. Apple harvest 87%, 67% 1997. Hay 3rd cut 90%, 83% 1997, 89% avg. Corn 10% poor, 28% fair, 58% good, 4% excellent; dent 91%, 100% 1997; mature 89%, 86% 1997; harvested for grain 50%, 41% 1997, 57% avg. Soybean 4% poor, 28% fair, 62% good, 6% excellent; 95% dropping leaves, 90% 1997; harvested for grain 67%, 23% 1997, 33% avg. Wheat planted 52%, 45% 1997, 47% avg.; emerged 22%. Cattle 2% poor, 18% fair, 72% good, 8% excellent. Sheep 1% poor, 32% fair, 62% good, 5% excellent.

WISCONSIN: Days suitable for fieldwork 5.9. Soil moisture 3% very short, 17% short, 76% adequate, 4% surplus. Soybeans harvested 65%, 81% 1997, 56% avg. Corn for silage harvested 99%, 87% 1997, 86% avg. In sharp contrast to the week ending on October 11, farmers experienced great harvest weather last week. State, there were 5.9 days suitable for fieldwork, individual districts varied from 5.3 to 6.6 days. Most of the harvest activity was concentrated on soybeans. Currently, 65% of the soybeans have been harvested. This represents an increase of nearly 30 points over the previous week. General consensus is that this year's crop is looking very good, with yields being average to well above average. Some soybean yields reported by our crop weather reporters follow (Please note that these are not official USDA yields.): Polk Co., 50 bu./acre; Portage Co., 50 to low 60 bu./acre; Iowa Co., 60 bu./acre; Columbia Co., up to 70 bu./acre; Waukesha Co., 55 to 60 bu./acre. At 99% harvested, statewide, corn for silage is essentially complete for this year. Corn being harvested for grain jumped to 40% last week, compared with 28% for the prior week. Not only is the corn crop ahead of normal in terms of harvest progress, but it appears there will be excellent yields as well. Besides corn and soybeans, very little else remains to be harvested. However, there were a few comments that potato and apple harvests are nearly complete, still looking good in terms of quantity and quality. Pasture feed 1% very poor, 14% poor, 33% fair, 43% good, 9% excellent.

WYOMING: Days suitable for fieldwork 4.4. Topsoil moisture 15% short, 78% adequate, 7% surplus. Winter wheat emerged 99%, 99% 1997, 94% avg. Corn harvested for grain 25%, 15% 1997, 36% avg. Alfalfa 3rd cutting 89%, 91% 1997, 96% avg. Sugar beets harvested 58%, 71% 1997, 60% avg. Range, pasture feed 1% very poor, 5% poor, 22% fair, 60% good, 12% excellent. Corn 2% poor, 7% fair, 83% good, 8% excellent. Sugar beet 15% fair, 85% good. Winter wheat 11% fair, 84% good, 5% excellent. Hay, roughage supplies 6% short, 73% adequate, 21% surplus. Livestock 2% fair, 84% good, 14% excellent. Stock water supplies 5% short, 95% adequate. Cattle moved from summer ranges 83%, 71% 1997, 75% avg. Sheep moved from summer ranges 85%, 76% 1997, 77% avg. Winter weather hampered the corn, sugar beet harvest.

International Weather and Crop Summary

October 11 - 17, 1998

HIGHLIGHTS

FSU-WESTERN: Topsoils remained unfavorably dry for winter wheat emergence and establishment in major producing areas of eastern Ukraine and southern Russia.

FSU-NEW LANDS: Wet weather continued to hamper late-season spring grain harvesting in Russia.

EUROPE: Showers continued to slow summer crop harvesting and winter grain planting in northern and eastern Europe.

NORTHWESTERN AFRICA: Dry weather helped pre-planting fieldwork in Morocco and Algeria, with light showers causing only brief interruptions in Tunisia.

AUSTRALIA: The trend of favorable dryness in New South Wales favored maturing winter grains and helped summer crop planting.

SOUTH ASIA: Unfavorable, locally heavy rain returned to cotton and rice areas of northern India.

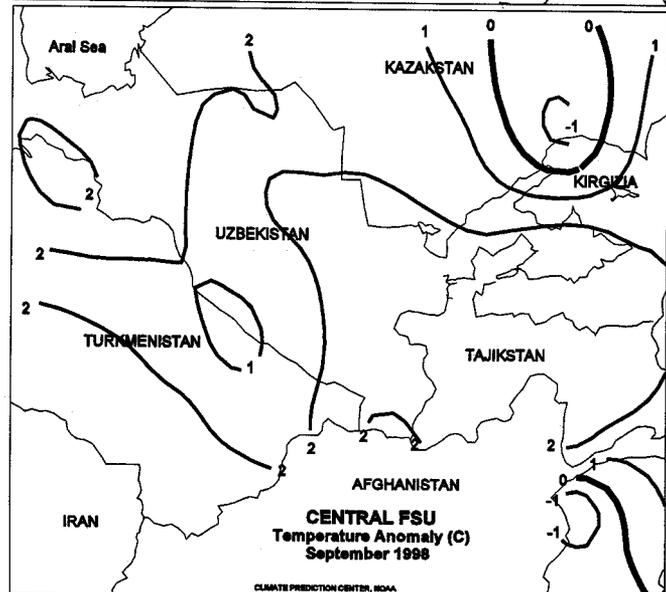
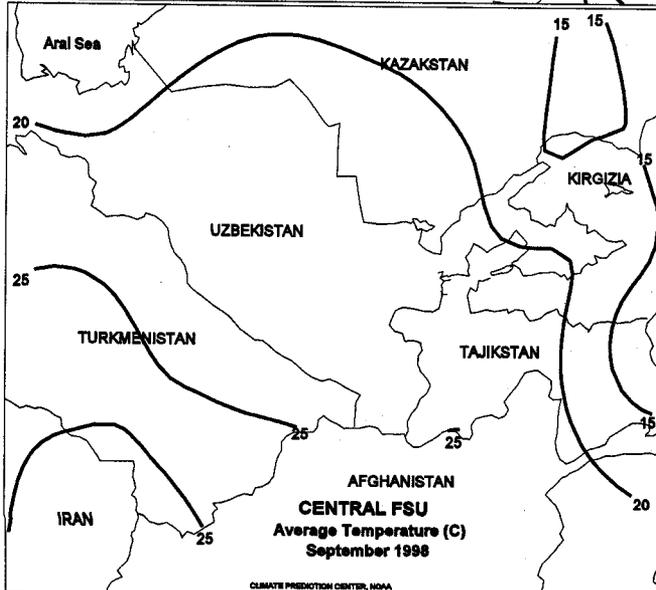
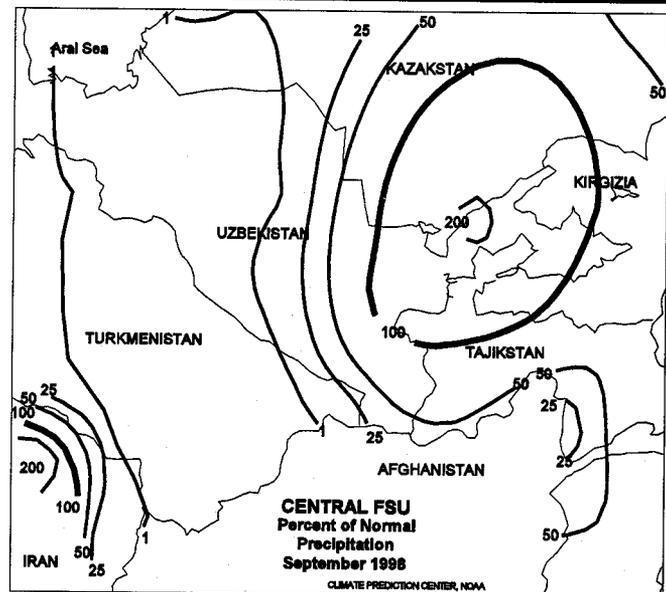
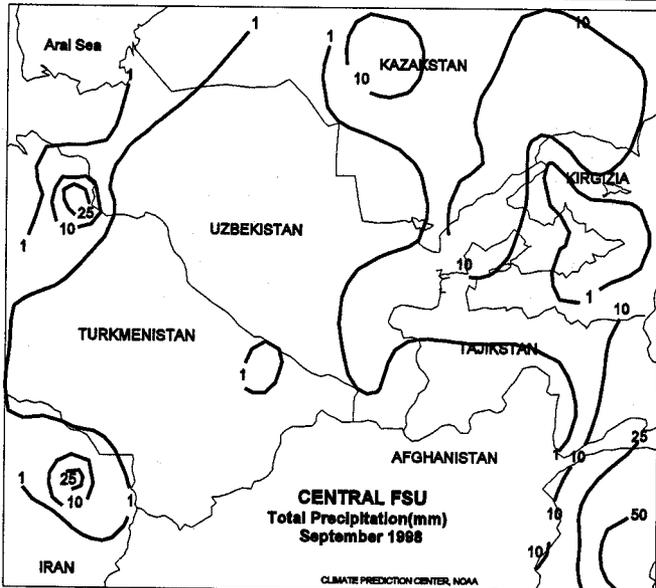
SOUTH AFRICA: Planting was becoming widespread across the corn belt.

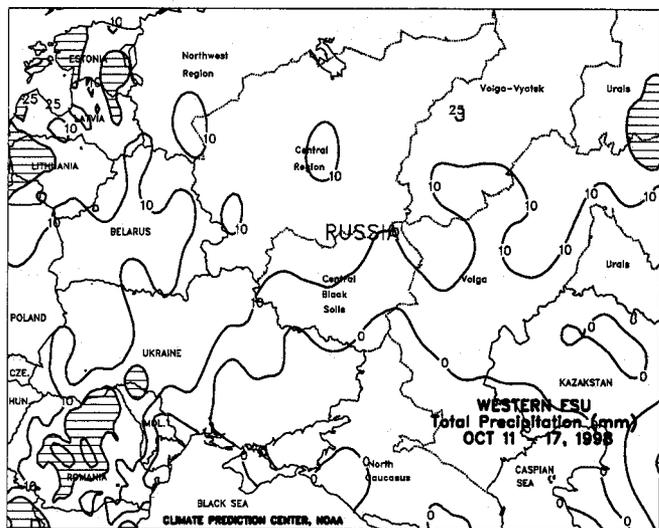
SOUTHEAST ASIA: Typhoon Zeb struck the Philippines at super typhoon strength.

EASTERN ASIA: Rain in the North China Plain improved conditions for germinating wheat.

SOUTH AMERICA: Rain benefited reproductive to filling wheat in central Argentina, but conditions remained too wet in southern Brazil.

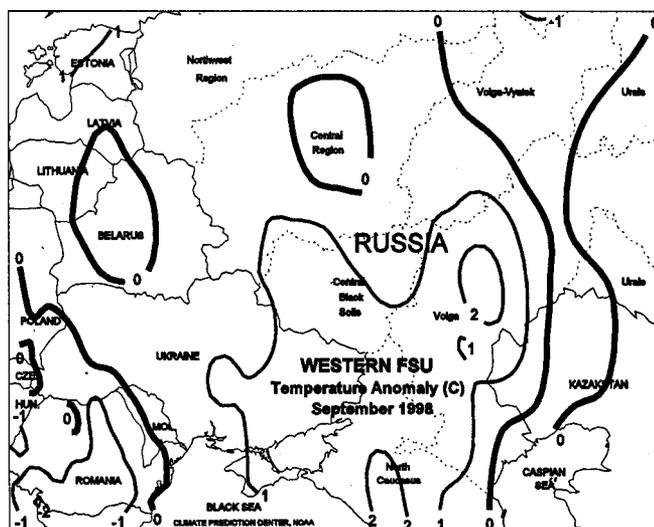
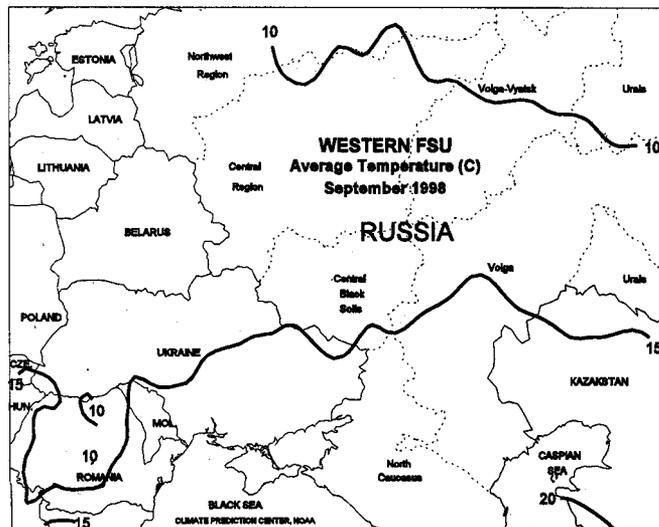
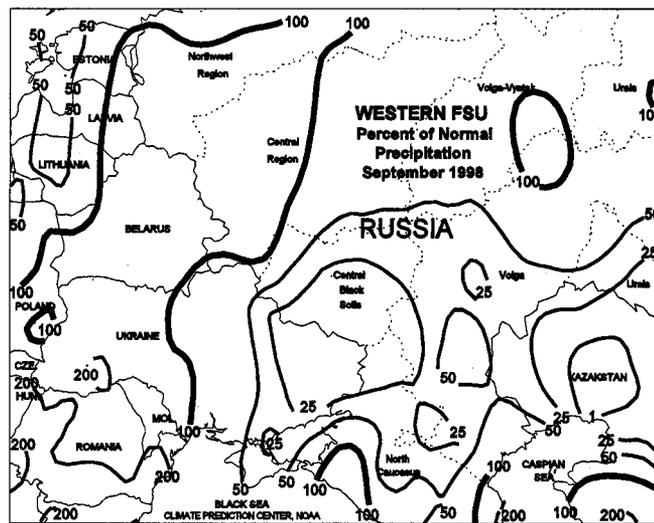
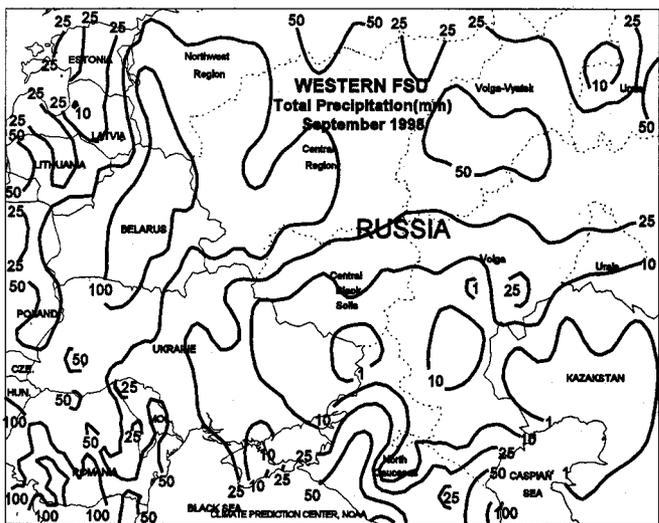
MEXICO: Warm weather and light to moderate rainfall favored corn maturation in the Southern Plateau Corn Belt.

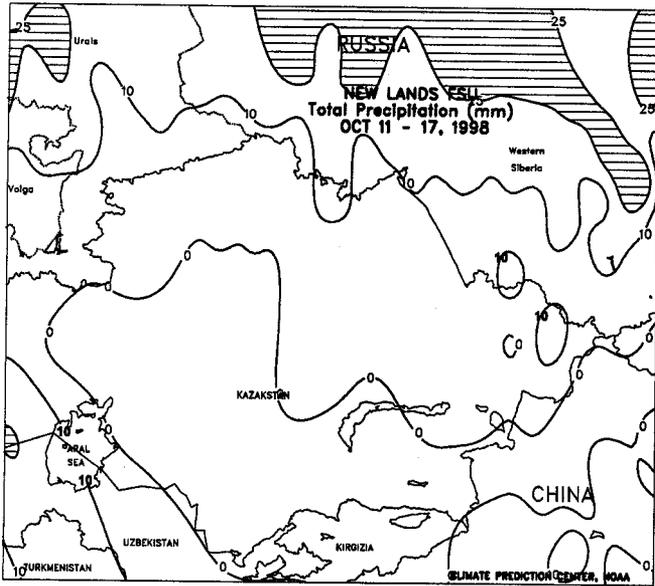




FSU-WESTERN

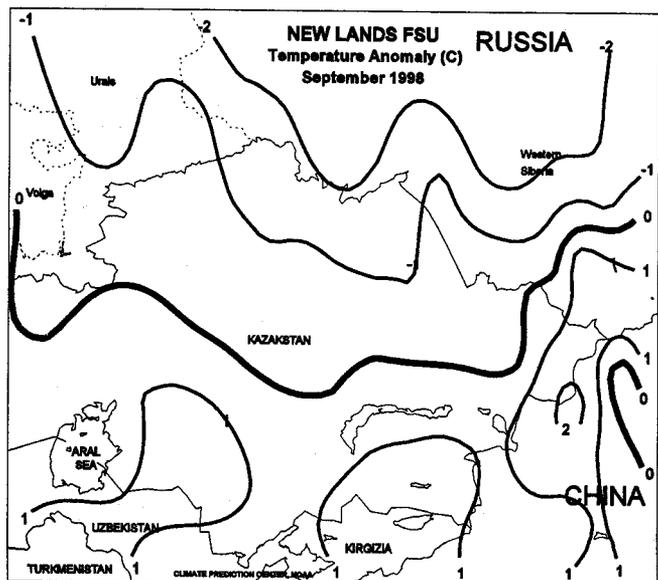
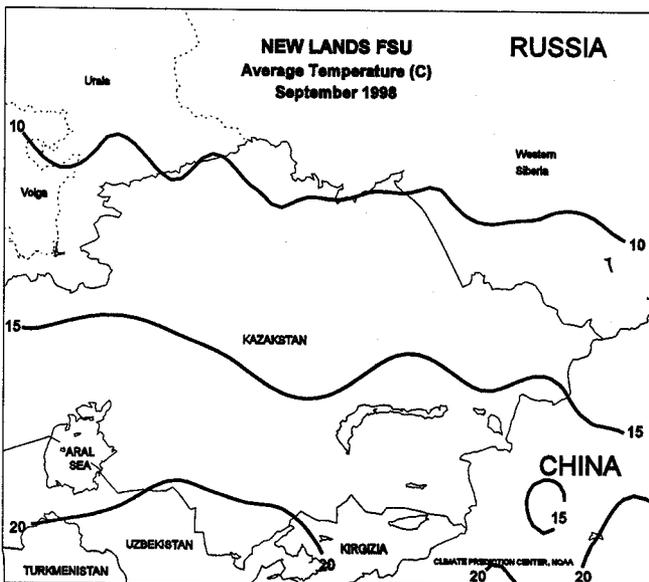
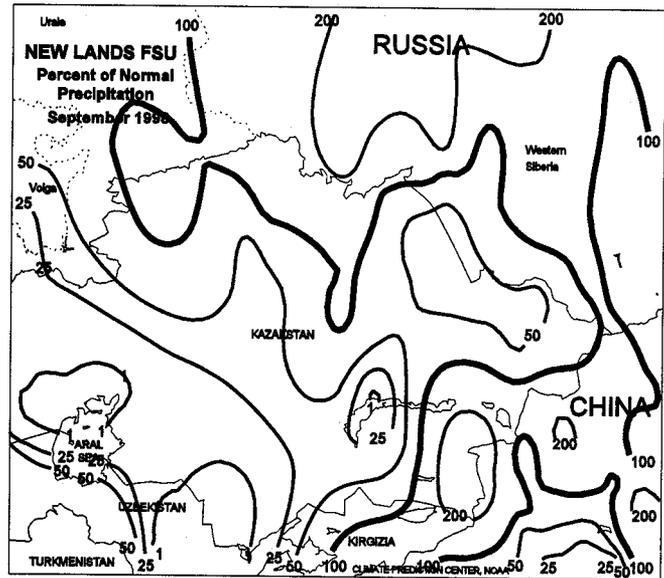
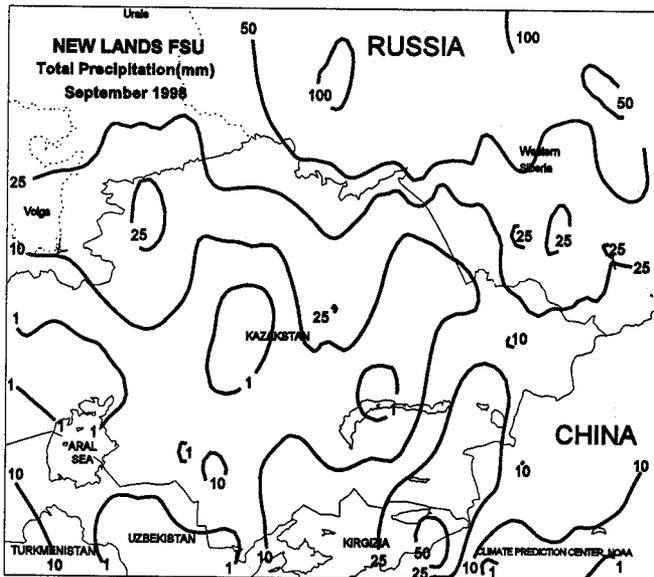
Dry weather persisted in southern and eastern Ukraine, and most of southern Russia (southern Black Soils Region, lower Volga Valley, and the North Caucasus), helping corn, sunflower, and sugar beet harvesting. However, the prolonged dryness in these areas continued to hamper winter wheat emergence and establishment. In addition, weekly temperatures averaged 6 to 10 degrees C above normal, further depleting topsoil moisture. Reports as of October 12 indicated that the harvests of corn, sunflower, and sugar beets in Russia were about 80, 60, and 70 percent complete, respectively. Elsewhere, light to moderate showers (3-42 mm) fell in western Ukraine, Belarus, and the Baltics, causing some delays in summer crop harvesting but maintaining favorable moisture for winter grain development. In September, near- to above-normal precipitation fell in northern Russia, maintaining adequate to excessive moisture conditions for winter grain development. Farther south, drought persisted in southern Russia and eastern Ukraine, helping corn, sunflower, and sugar beet harvesting. However, winter wheat planting likely progressed slowly in these areas as growers waited for rain to improve emergence prospects. In most years, late planting reduces the likelihood that winter wheat will become well established prior to entering dormancy, making the crop more susceptible to potential winterkill. Elsewhere, above-normal precipitation fell in Belarus and western Ukraine, slowing summer crop harvesting but providing abundant moisture for winter grain planting.

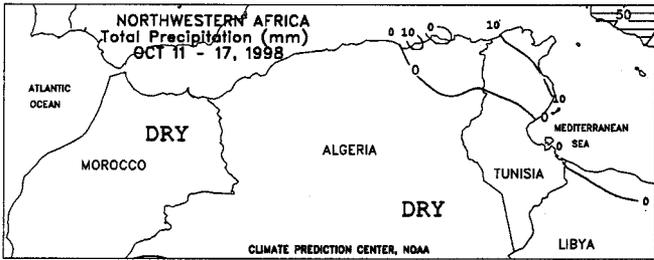




FSU-NEW LANDS

Spring grain harvesting was nearing completion in Russia and was virtually complete in Kazakstan. In Russia, wet weather (10-46 mm) continued to stretch from the northern Urals eastward through Western Siberia into Eastern Siberia, delaying late-season harvest activities. In Kazakstan, several days of dry weather were accompanied by above-normal temperatures, favoring final harvest efforts. In September, cool, showery weather in Russia slowed spring grain harvesting, especially during the last 10 days of the month. In Kazakstan, below-normal precipitation in September allowed rapid spring grain harvesting. In cotton-producing areas of Central Asia, warm, dry weather in September favored boll maturation and helped early cotton harvesting. *(Coverage of the New Lands will be suspended until next year's growing season.)*

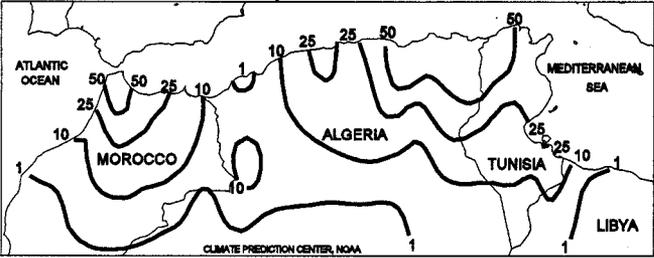




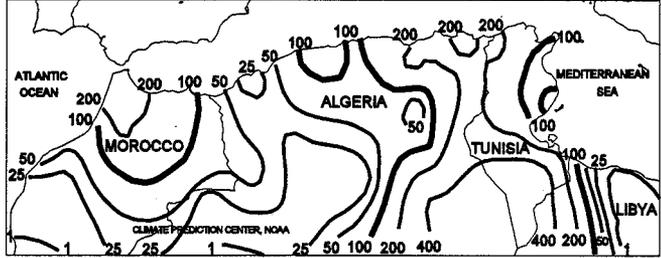
NORTHWESTERN AFRICA

Preparations for winter grain planting were underway over most of the region. Mostly dry weather in Morocco and Algeria favored pre-planting fieldwork. Light showers (around 10 mm) in Tunisia helped to increase topsoil moisture for planting. Winter grain planting can begin as early as late-October if soil moisture is sufficient. Most of the crop, however, is usually planted from mid-November to mid-December, when autumn rains become more consistent.

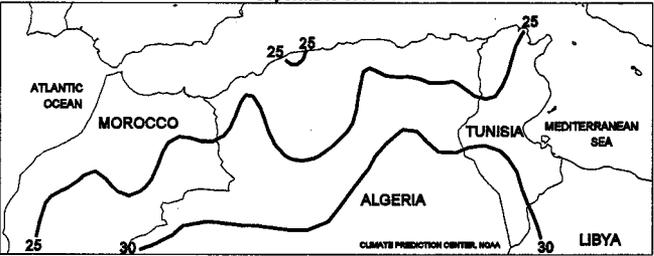
**NORTHWEST AFRICA Total Precipitation (mm)
September 1998**



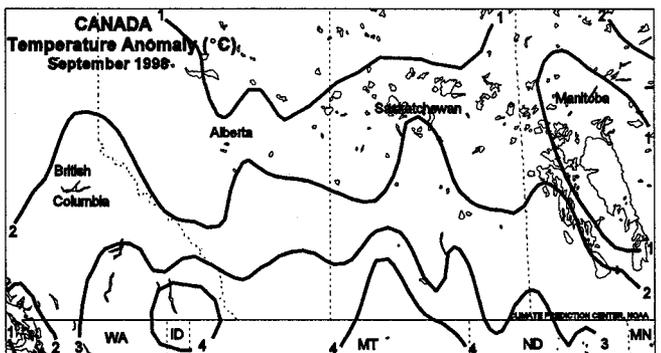
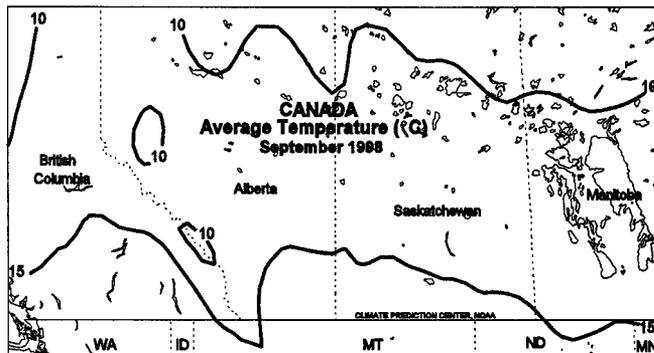
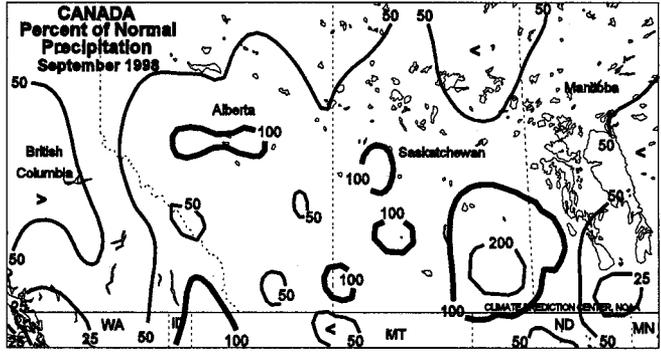
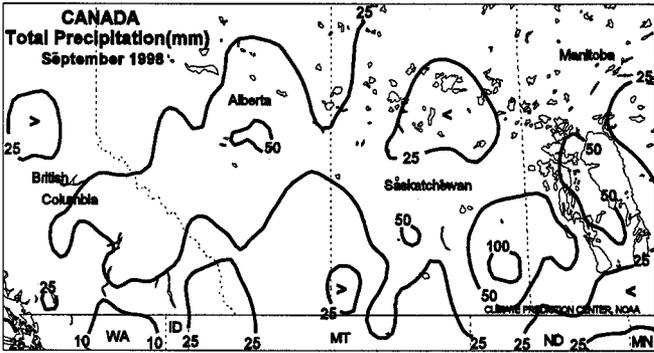
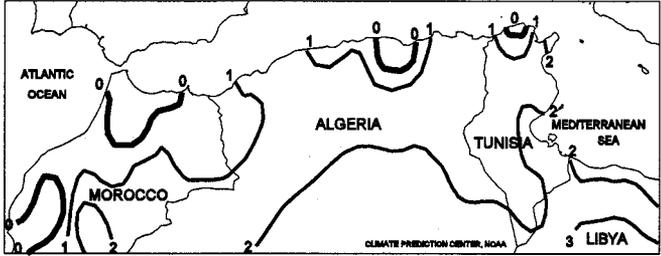
**NORTHWEST AFRICA Percent of Normal Precipitation
September 1998**



**NORTHWEST AFRICA Average Temperature (°C)
September 1998**



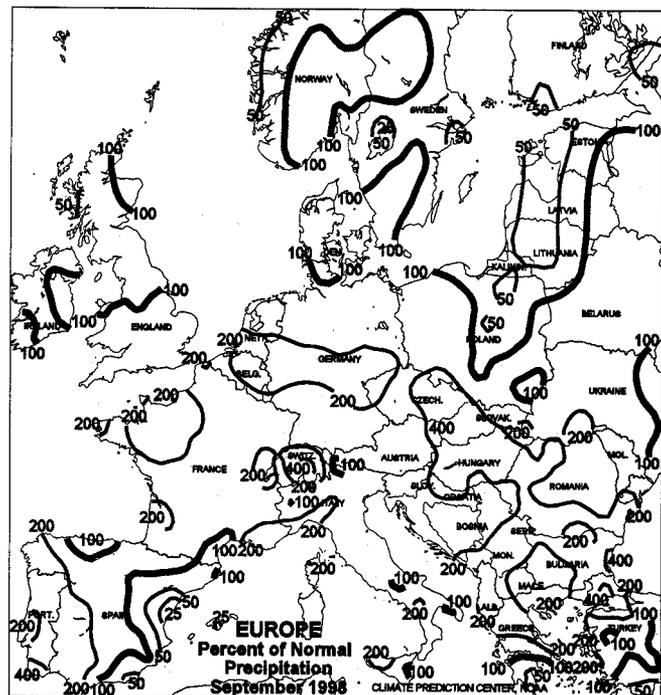
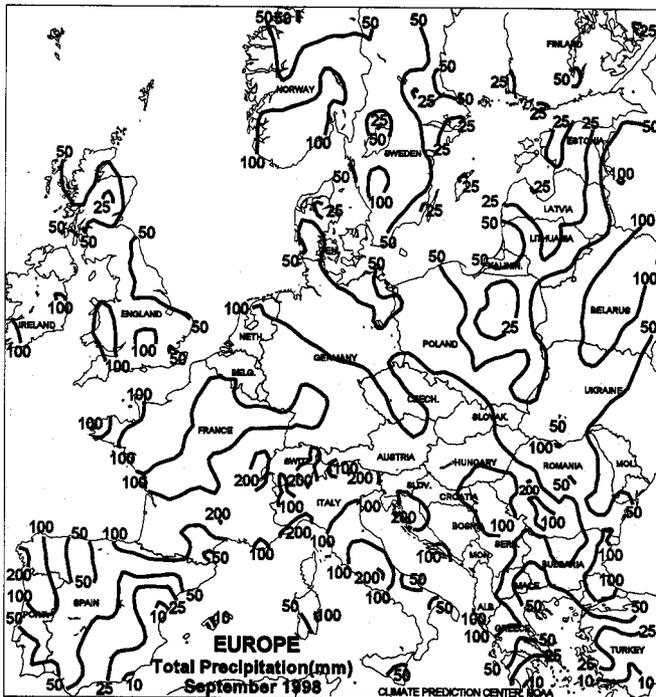
**NORTHWEST AFRICA Temperature Anomaly (°C)
September 1998**

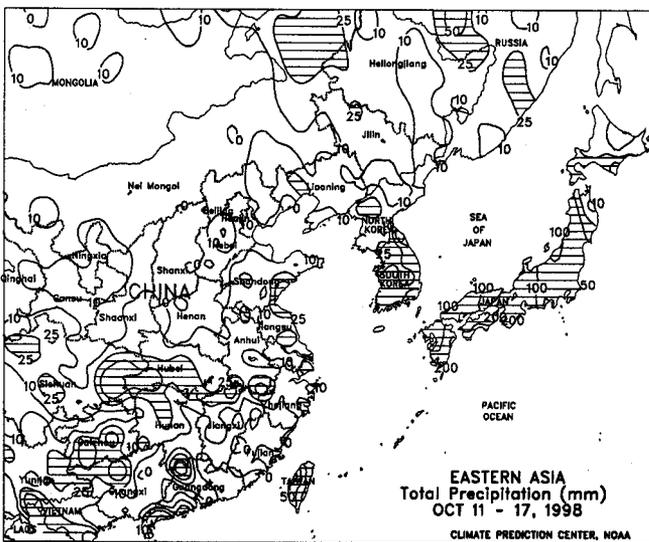
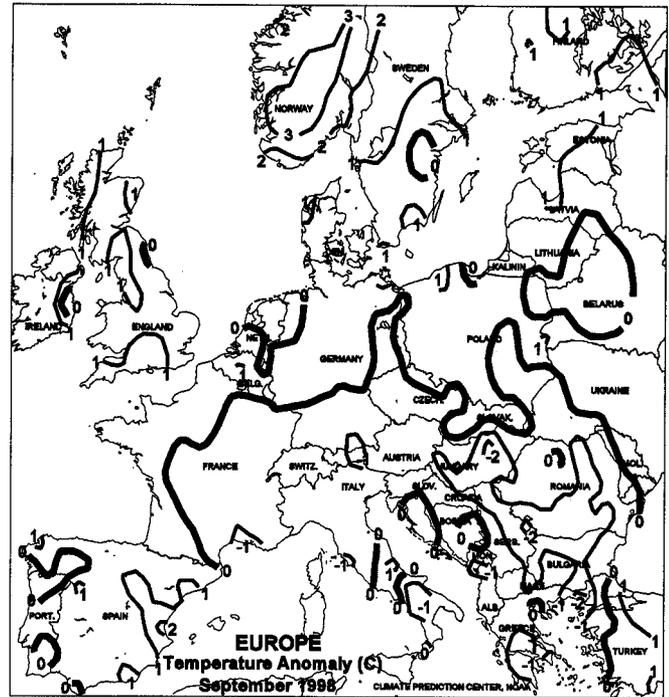




EUROPE

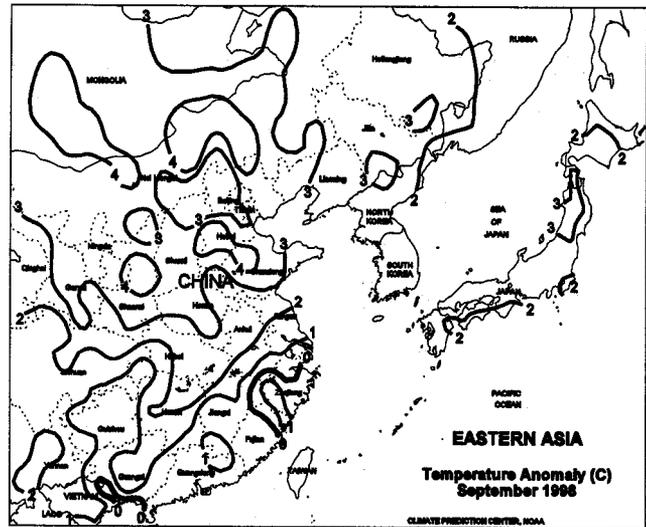
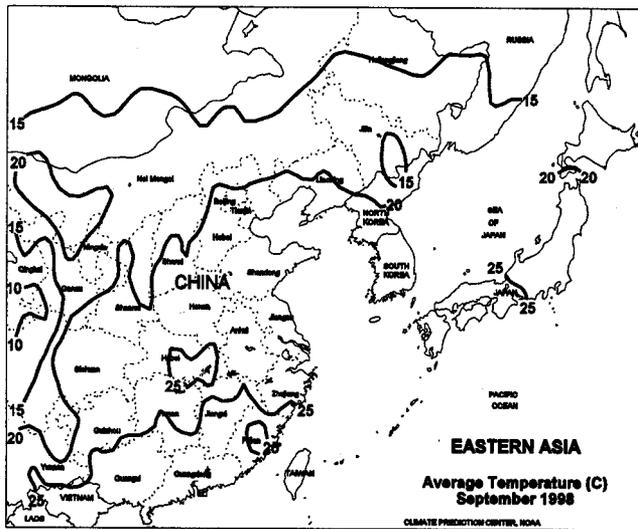
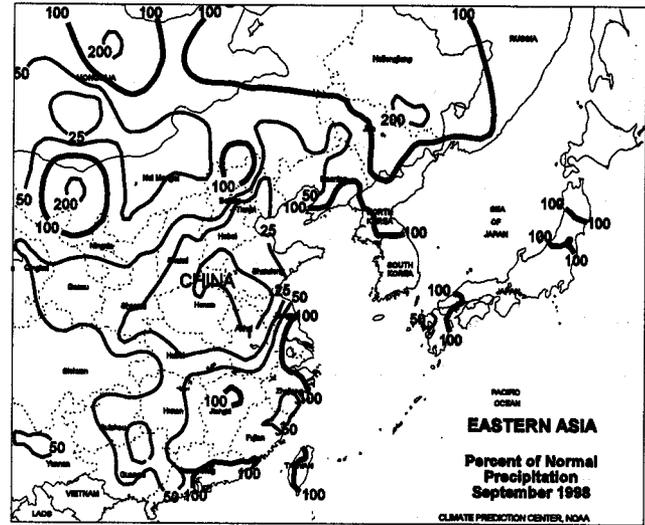
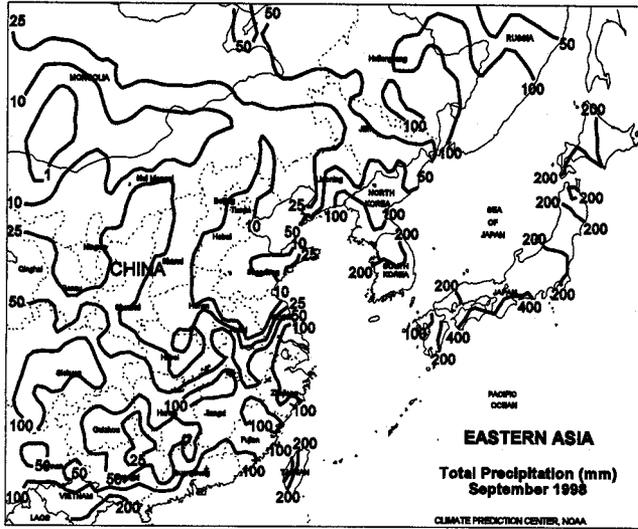
Variable showers (10-37 mm) fell from England and France eastward through the Benelux countries into Germany, slowing summer crop harvesting and winter wheat planting. Reports indicated that winter wheat planting was progressing slowly in England and France due to wet soils. Farther south, dry weather prevailed from the Iberian Peninsula eastward through northern Italy, helping fieldwork. The dry weather in Italy was especially welcomed, following last week's heavy rains. In eastern Europe, light showers (5-10 mm) spread from Poland southward into Hungary, keeping topsoils favorably moist for winter wheat establishment and causing only brief interruptions in fieldwork. Wet weather (15-67 mm) in Romania, Bulgaria, and Serbia, caused further delays in winter wheat planting and corn and sunflower harvesting. However, drier weather spread over these areas at week's end, helping wet soils to dry and improving conditions for fieldwork. In September, periodic showers produced above-normal precipitation in most of Europe, slowing summer crop harvesting and winter grain planting. However, the precipitation provided abundant topsoil moisture for winter grain emergence and establishment. The greatest delays in fieldwork likely occurred in Portugal, western Spain, central Germany, the Czech Republic, Slovakia, Hungary, Serbia, southern Romania, and Bulgaria, where 2 to 4 times the normal amount of rain fell.

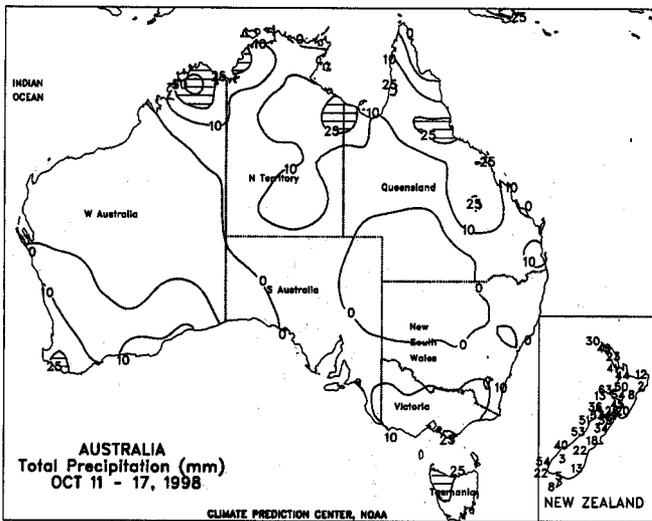




EASTERN ASIA

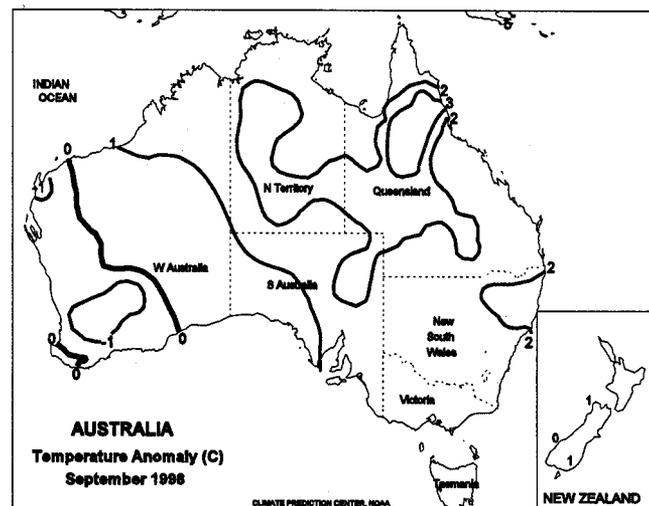
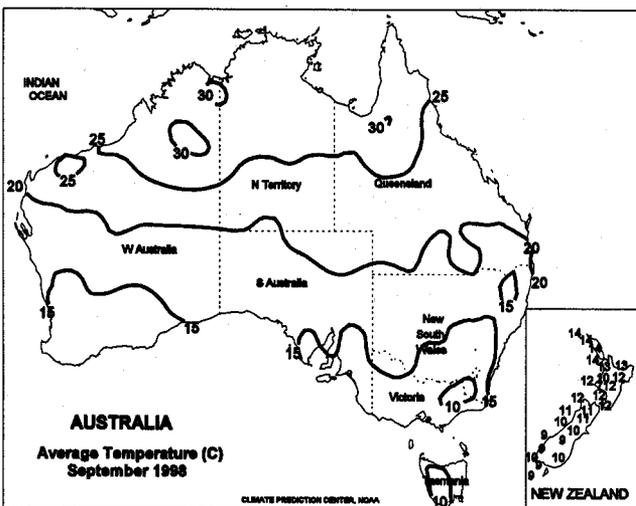
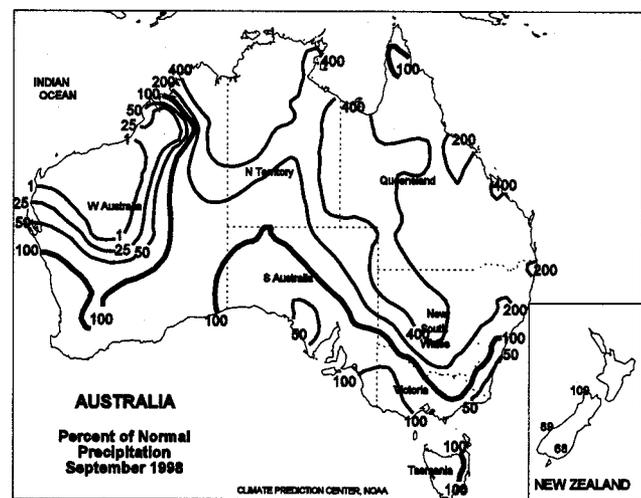
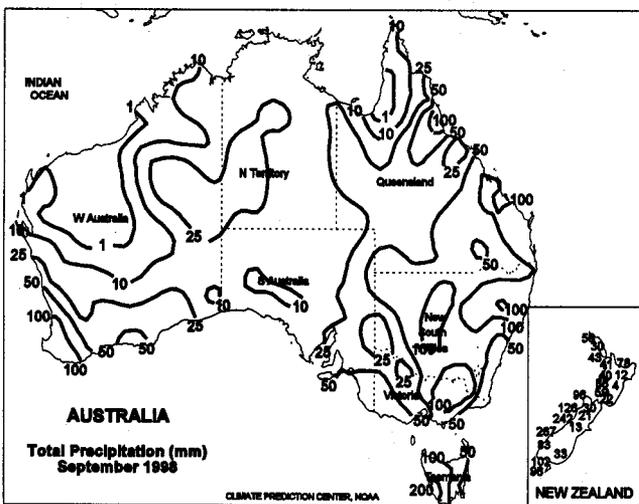
Light to moderate showers (2-38 mm) swept across the North China Plain, increasing topsoil moisture for winter wheat germination. Farther south, heavier rain (25-50 mm or more) continued over the Yangtze Valley and along sections of the south coast, slowing harvests of summer crops including cotton and rice. Warm (temperatures 5-8 degrees C above normal), wet (rainfall 10-25 mm or greater) weather also slowed summer harvests in Manchuria. Elsewhere, Typhoon Zeb brought very heavy rain (100-200 mm or more) to Taiwan as it grazed the island's eastern coast. For much of the week, widespread, locally heavy rain continued to plague rice harvests in Japan and the Koreas. Over the weekend, remnants of Typhoon Zeb inundated rice areas of southern and central Japan, worsening prospects for crop quality and harvests. In September, below-normal rainfall favored summer crop maturation and harvesting in the North China Plain, but rain was needed to moisten topsoils for winter wheat planting. Above-normal rainfall slowed summer crop harvesting in Manchuria, while near-to below-normal rainfall favored summer crop harvesting and late-rice development in southern China. Excessive rains caused flooding and local rice damage in South Korea and Japan.

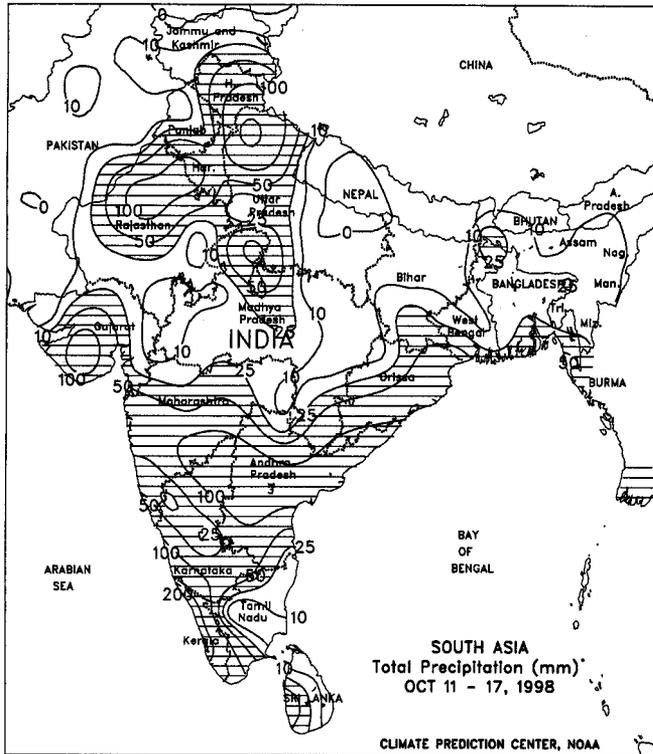




AUSTRALIA

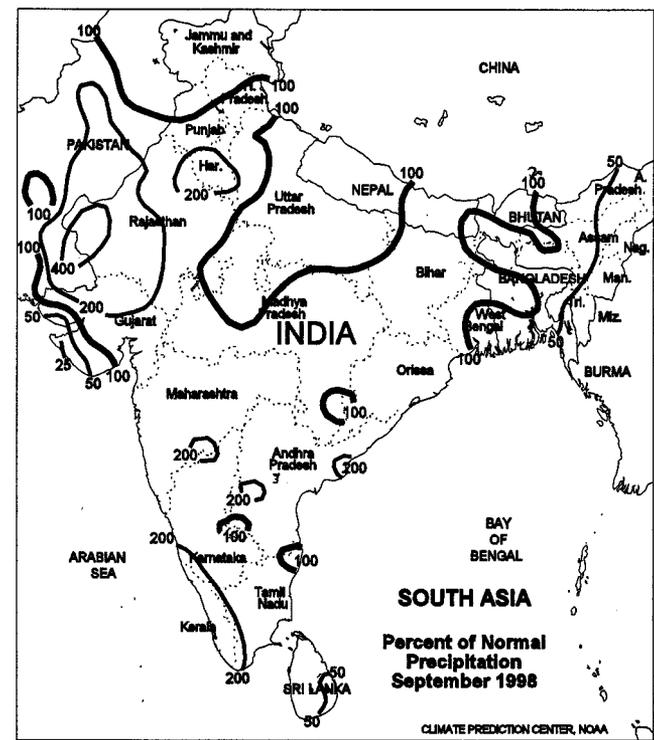
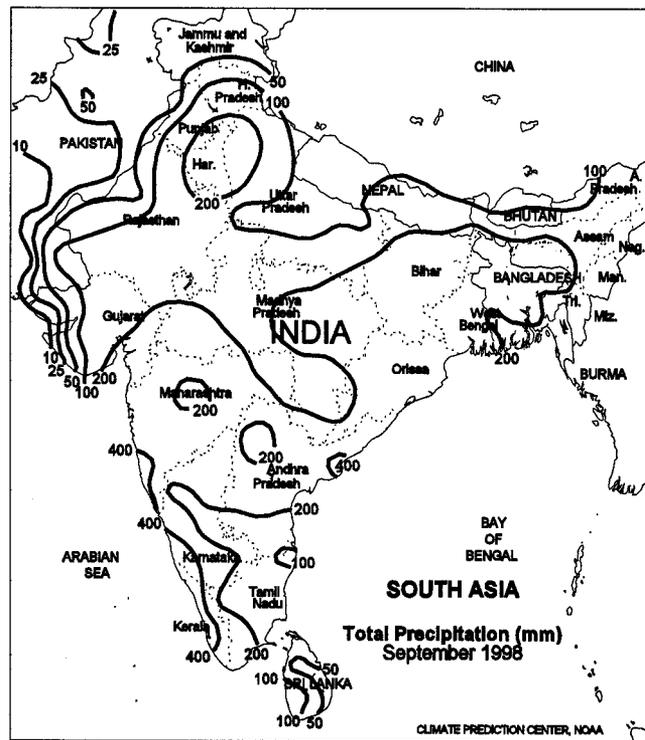
Favorable dryness continued over crop areas of central and northern New South Wales, improving quality prospects of maturing wheat and barley. In addition, the pace of cotton and sorghum planting likely increased. Scattered, mostly light showers (5-28 mm) in southern Queensland's agricultural districts likely had minor, if any, effects on winter grain harvests. Farther south, light showers (15 mm or less) kept topsoils moist for reproductive to filling winter grains from South Australia to southern New South Wales. Mild, mostly dry weather favored reproductive to filling wheat and barley in Western Australia. In New Zealand, widespread, moderate to heavy rain (25-50 mm or more) broke a dry spell throughout important farming regions. During September, rainfall was near to above normal across Australia, although a few dry pockets persisted in South Australia and Victoria. Sections of the east experienced a second consecutive month of rainfall that ranged from 200 to 400 percent of normal, resulting in local flooding that proved to be unfavorable for maturing winter grains. However, pre-season cotton expectations are high due to record irrigation reserves. In the west, reports indicated that a late frost caused significant damage to flowering wheat on September 19 and 25. The extent of damage has yet to be fully determined.

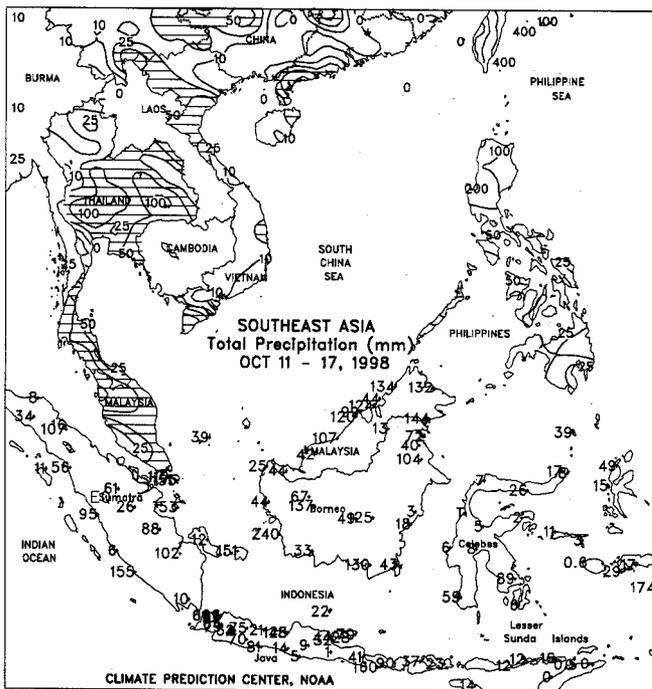
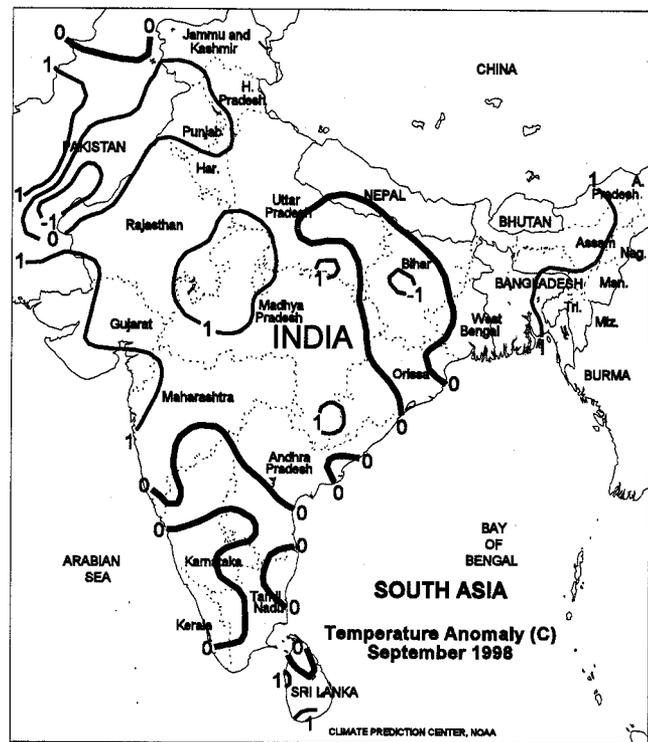
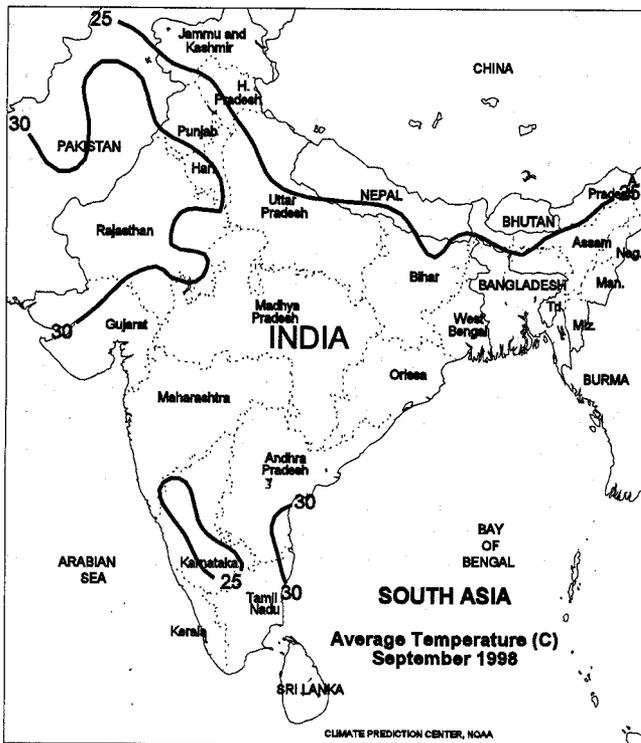




SOUTH ASIA

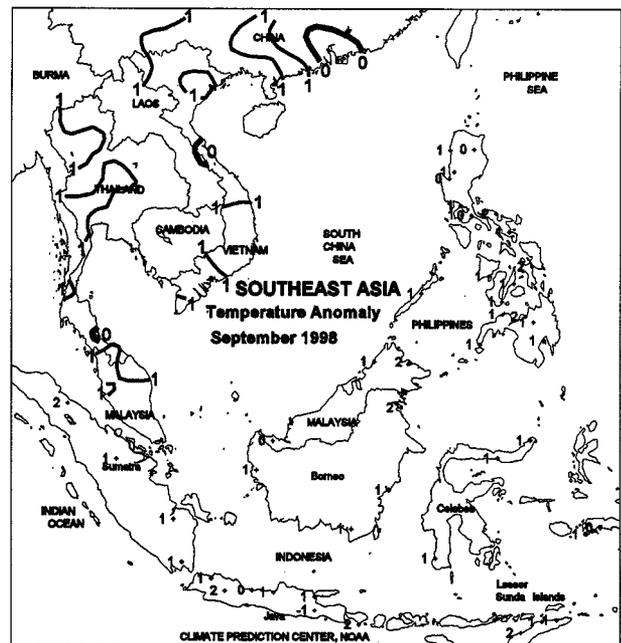
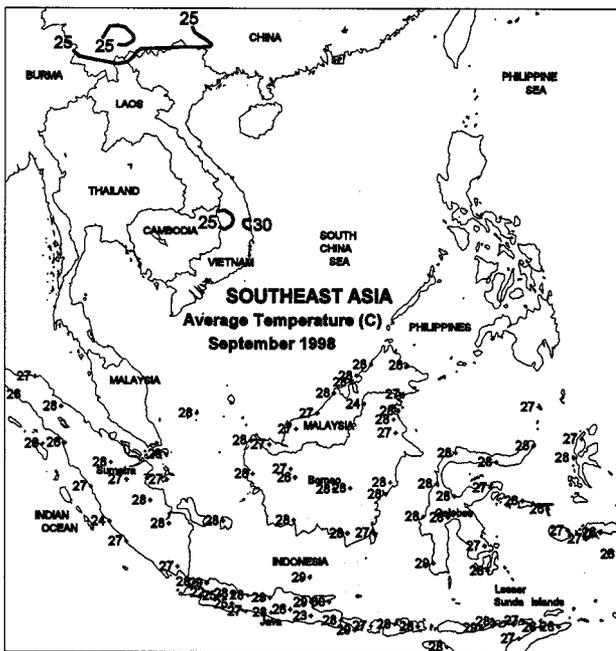
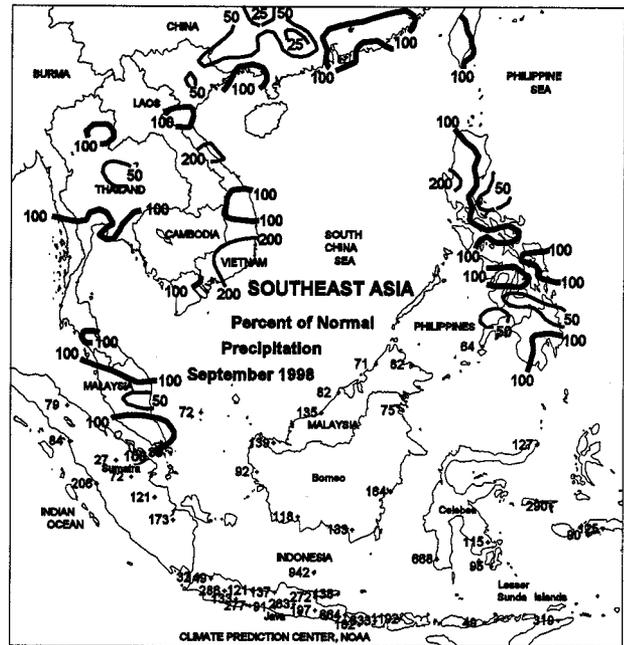
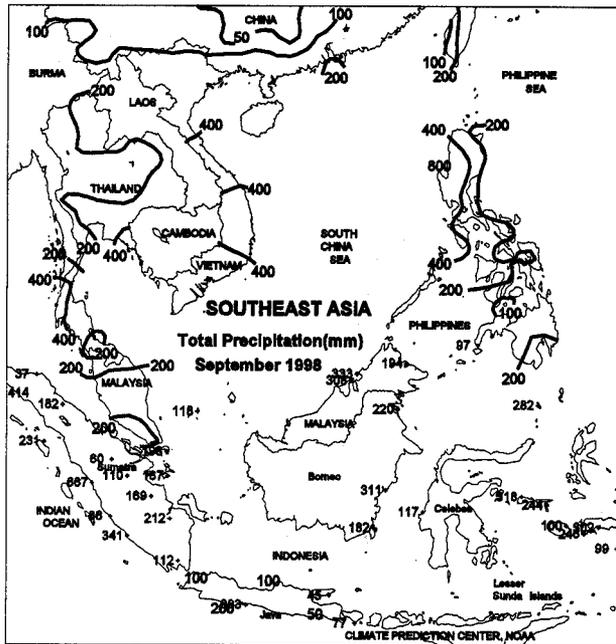
Unseasonable, locally heavy rain hit cotton and rice areas of northwestern India, harming quality of unharvested crops. The rain was due in part to a tropical depression that moved onshore from the Arabian Sea. Widespread, moderate to heavy rain (25-100 mm or more) continued throughout southern India. Conditions have become unfavorably wet for maturing summer grains, oilseeds, and cotton grown in the southern interior. However, moisture will be abundant for secondary cropping once fieldwork can commence. Continued dryness in the east brought further relief to previously flooded rice fields. The seasonable weather favored planting of winter-grown wheat, rice, and oilseeds across northern growing areas. In September, rainfall was near to above normal in most primary crop areas, with the monsoon remaining very active toward the end of the month in the north and west. Heavy showers late in the month were unfavorable for maturing cotton and oilseeds in those areas, although long-term moisture reserves were elevated for winter grains and oilseeds. In the east, seasonal rains declined gradually over flooded rice areas centered around Bangladesh, allowing slow recovery efforts. In contrast, shower activity increased later in the month over the southern interior, initially favoring immature summer crops but eventually becoming excessive.

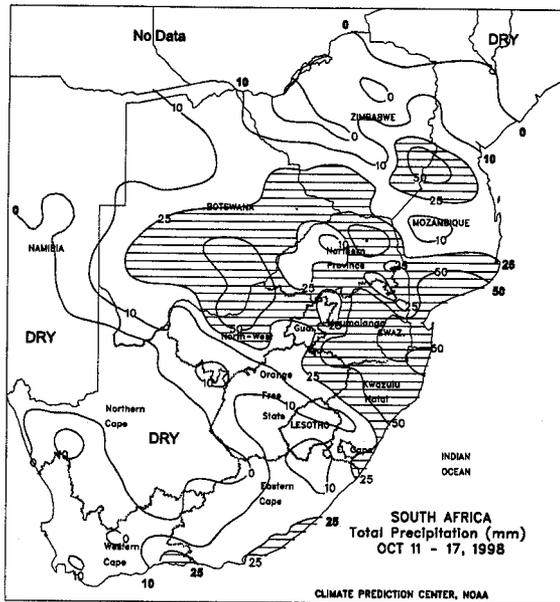




SOUTHEAST ASIA

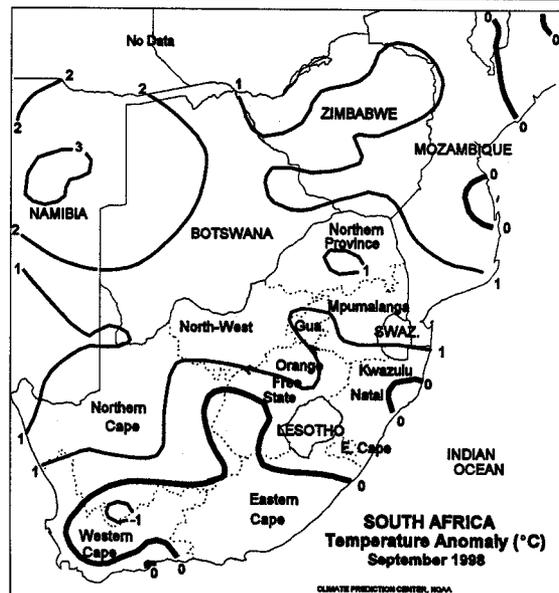
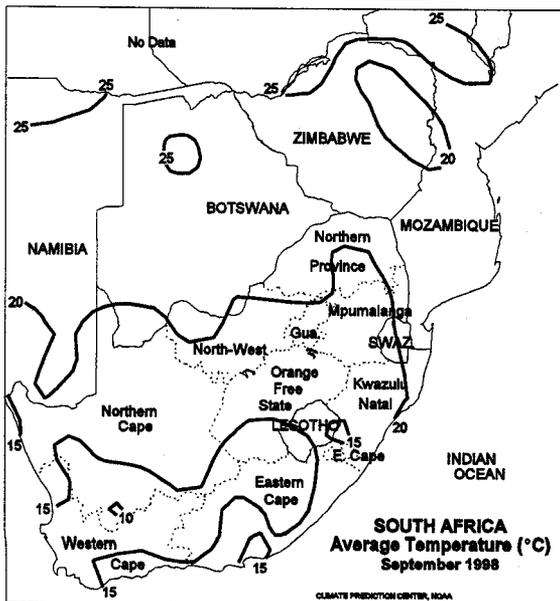
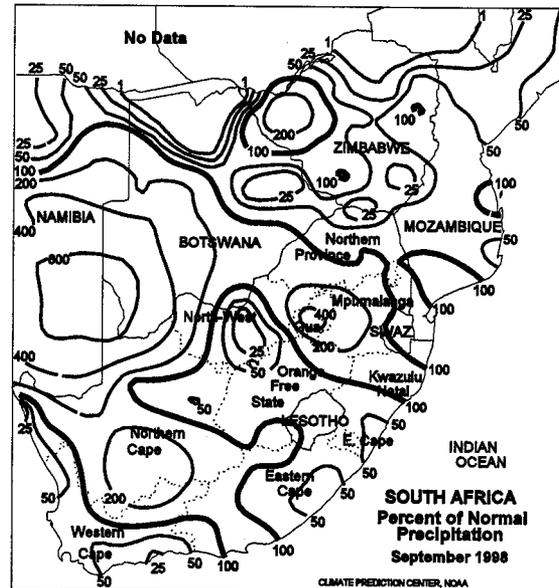
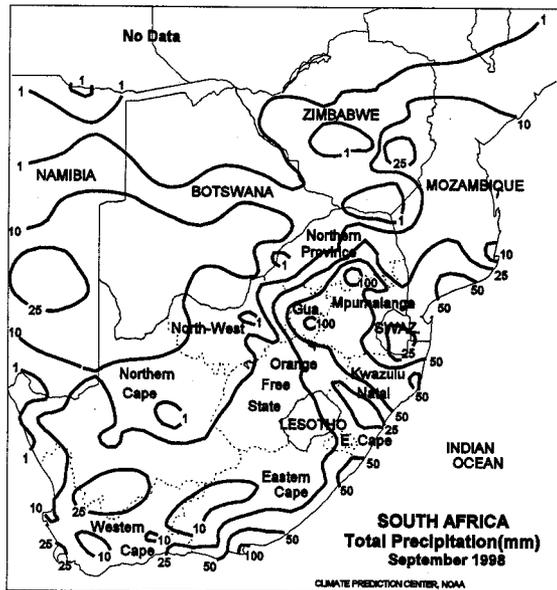
Super Typhoon Zeb struck the northeastern coast of Luzon Island, Philippines, with sustained winds of 160 knots (175 mph). The storm likely caused considerable damage as it crossed the Cagayan Valley, which historically accounts for about 10 percent of the nation's rice. Main-season rice harvest and second-season planting was underway prior to the storm's passage. Inundating upslope rain (100-300 mm or more) fell along Luzon's mountainous western coast, but more moderate showers (25-50 mm) fell in the central and southern islands. In Indochina, unseasonably heavy showers (greater than 50 mm) caused additional problems with the rice harvest in central and northern Thailand. Rainfall was below normal (10-25 mm or more, locally exceeding 50 mm) over much of Vietnam and likely caused no major fieldwork delays. Farther south, significant showers (50-100 mm) finally spread southward from peninsular Thailand into the primary oil palm areas of western Malaysia. Widespread, moderate to heavy rain (25-50 mm or more) also covered eastern Malaysia and Indonesia. Java's main-season rice crop, soon to be planted, will be off to a much better start than last year's drought-delayed crop. During September, drier weather late in the month favored rice maturation and harvesting in Thailand and northern Vietnam. Near-normal September rainfall eased long-term dryness in the Philippines, but slowed rice harvesting. Above-normal September rainfall slowed rice harvesting in central and southern Vietnam. Below-normal rainfall reduced moisture for oil palm in peninsular Malaysia. In Java, above-normal September rainfall increased moisture supplies for filling second-crop rice and corn and the upcoming main-season crop.

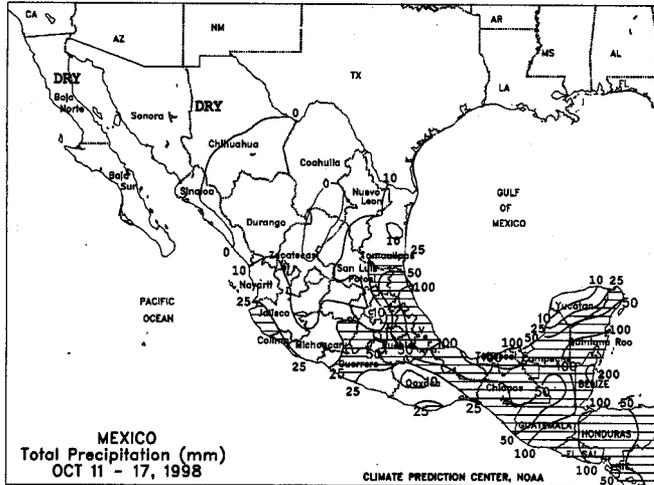




SOUTH AFRICA

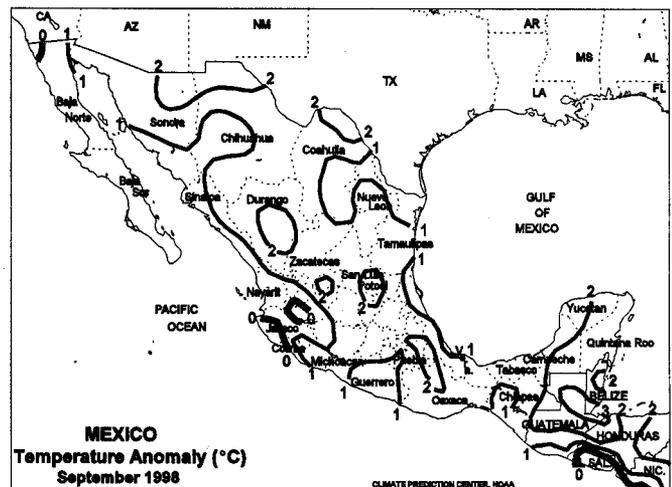
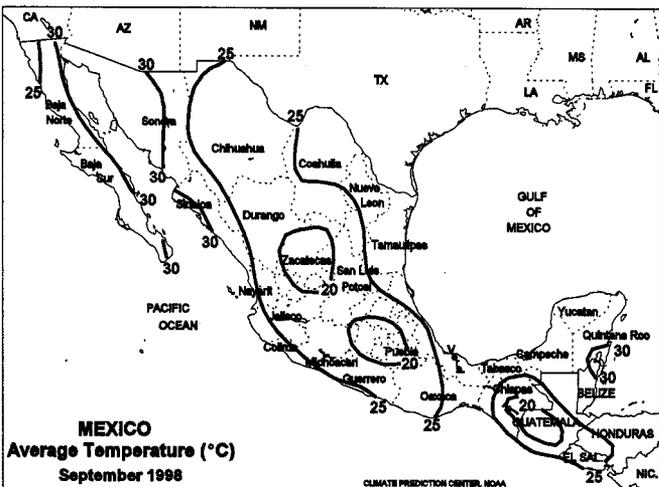
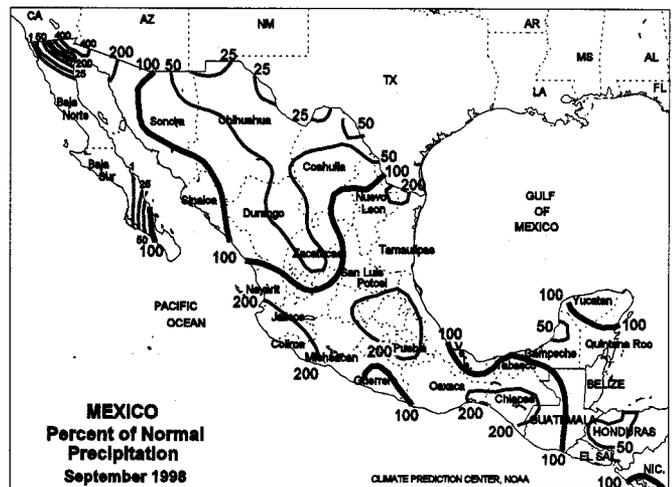
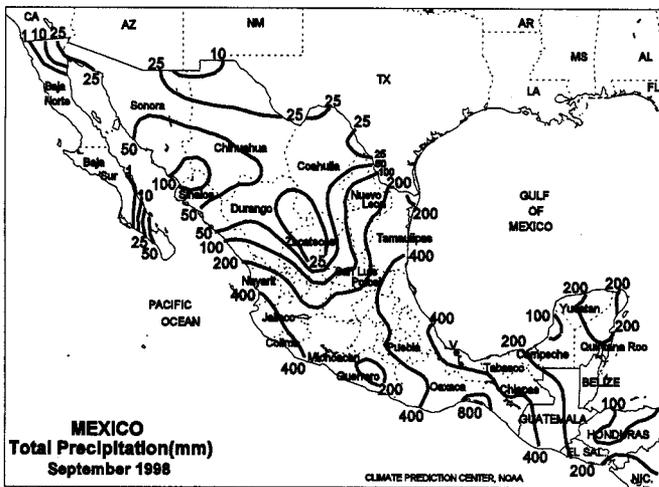
Summer crop planting was underway across the corn belt, with topsoil moisture at generally favorable levels for germination and establishment. Rainfall totaled 25 to 50 mm or more in the east (Gauteng, Mpumalanga, and northwestern Kwazulu-Natal) and 5 to 25 mm in central and western growing areas. Since October 1, rainfall has been above normal in most corn areas, including traditionally drier sections of the west and south. After last season's problems with late planting, farmers will likely take advantage of favorable moisture conditions as soon as possible, in some cases after the current wheat harvest. Elsewhere, beneficial rain (25-50 mm) covered coastal sugarcane areas (Kwazulu-Natal). Light rain (10mm or less) in wheat areas of Western Cape favored maturation. During September, rainfall was near to above normal in the main summer crop areas, with heaviest amounts (25-50 mm or more) recorded from eastern Free State north and eastward. September rainfall was near to below normal in the coastal states (Western Cape, Eastern Cape, and Kwazulu-Natal).

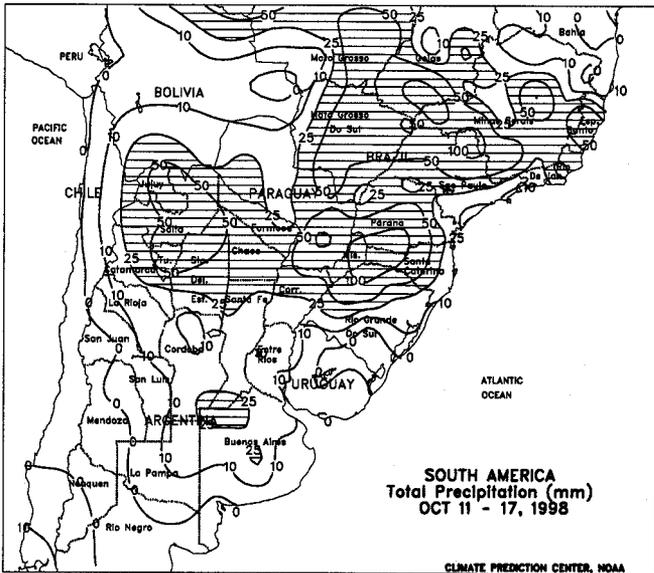




MEXICO

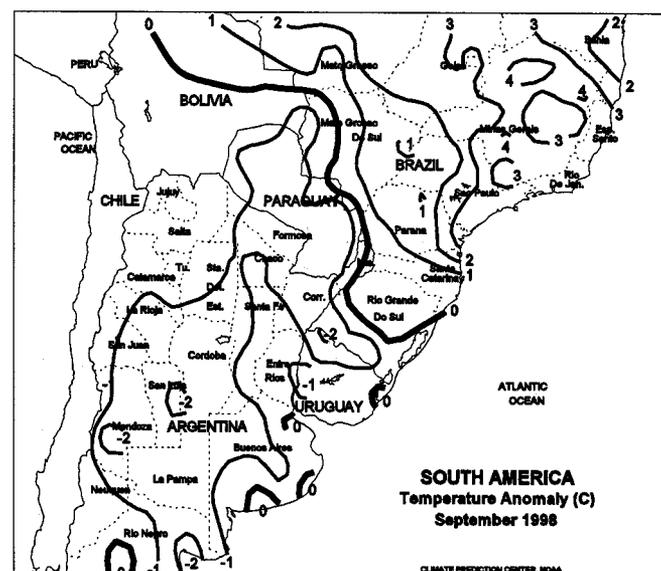
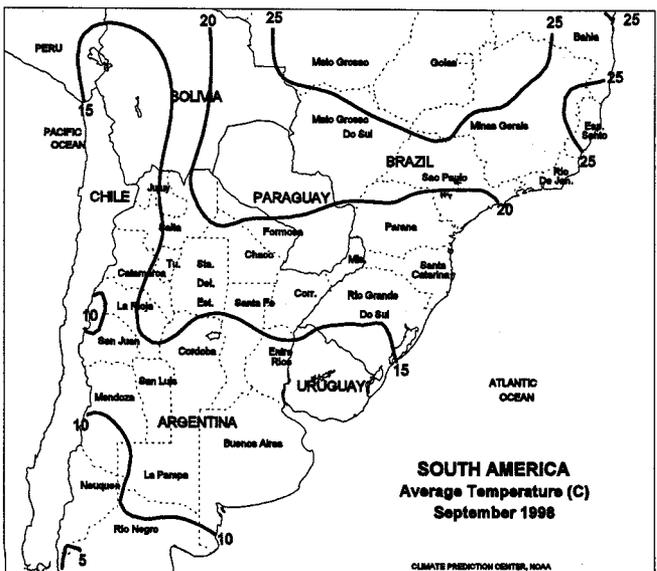
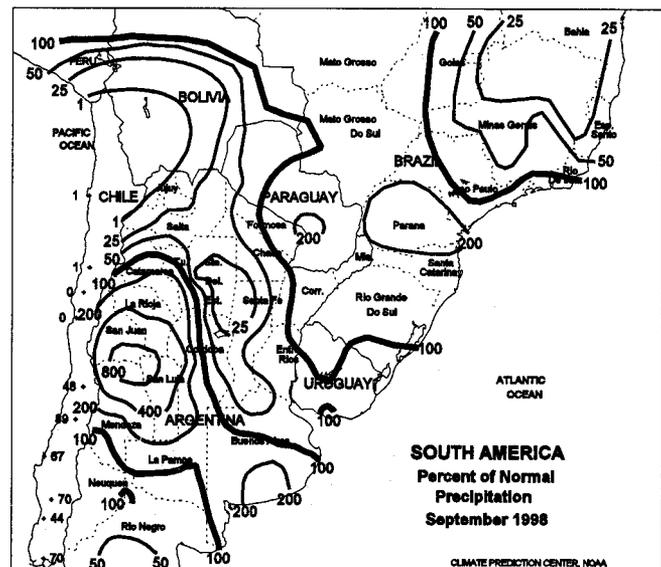
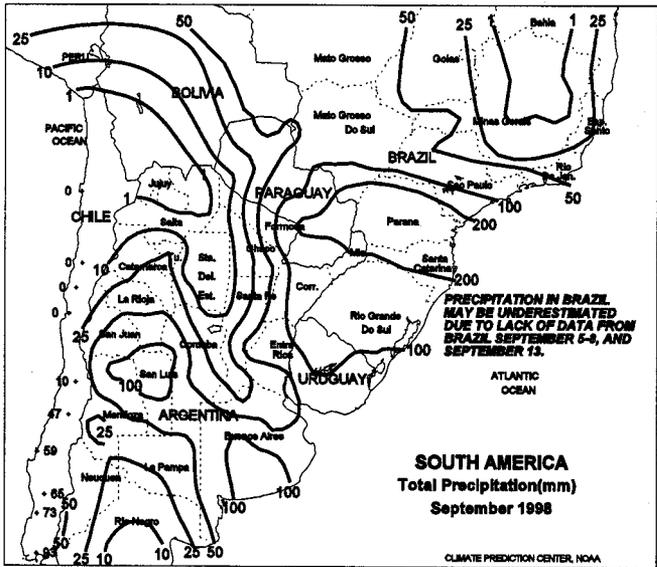
Light to moderate rain (3-60 mm) fell across the Southern Plateau Corn Belt, generally favoring maturing corn. Corn Belt temperatures averaged within 1 degree C of normal. Late in the week, two tropical systems brought scattered showers (less than 50 mm) to coastal areas of Chiapas and Oaxaca in the south (Hurricane Lester) and Jalisco in the west (Hurricane Madeline). Along the eastern coast (Veracruz), heavier showers (50 to 150 mm) returned after a 2-week respite. During September, frequent showers provided adequate to locally surplus moisture for filling corn across the Southern Plateau Corn Belt and in southeastern Mexico. Rainfall totaling more than 200 percent of normal resulted in periodic flooding in several areas, including Veracruz, Chiapas, and near Mexico City. Rainfall ranged from 100 to 200 percent of normal in northeastern Mexico, significantly easing long-term drought, but drought and low reservoir levels persisted in north-central areas. Hurricane Isis struck northern Sinaloa on September 3. The storm caused minor agricultural damage in coastal vegetable areas of northern Sinaloa and southern Sonora, but boosted reservoir levels in northwestern Mexico. Monthly temperatures generally ranged from 1 to 2 degrees C above normal nationwide.





SOUTH AMERICA

Rain (10-25 mm) brought some relief to reproductive winter wheat in central Argentina (northern Buenos Aires and southern Santa Fe). Other major crop areas were mostly dry, although the northwestern fringe of the main summer crop region received heavy rain (25-50 mm or more). Temperatures averaging 1 to 2 degrees C above normal favored winter wheat development and summer crop germination. In southern Brazil, rainfall ranging from 25 to 75 mm or more in the main wheat areas hampered harvest efforts. Corn, soybean, and cotton planting was also slowly progressing. During September, timely late-month rainfall eased stress on vegetative winter wheat in southern Buenos Aires. However, dryness continued to stress wheat farther north. In southern Brazil, above-normal rainfall slowed winter wheat harvesting and reduced wheat quality. The rain, however, increased soil moisture for Brazilian summer crop planting.



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Pasture and Range Crop Condition by Percent Week Ending Oct 18											
	VP	P	F	G	EX		VP	P	F	G	EX
AL	5	24	42	27	2	NH	0	1	46	50	3
AZ	2	8	22	54	14	NJ	0	0	80	20	0
AR	10	23	40	23	4	NM	10	28	38	23	1
CA	0	15	35	50	0	NY	0	13	21	66	0
CO	3	13	34	43	7	NC	13	19	36	31	1
CT	0	23	30	47	0	ND	5	17	43	32	3
DE	0	4	30	66	0	OH	5	13	39	37	6
FL	0	0	60	40	0	OK	11	26	37	26	0
GA	8	19	37	33	3	OR	2	8	40	49	1
ID	0	9	41	41	9	PA	11	20	31	34	4
IL	4	7	30	53	6	RI	0	0	13	66	21
IN	8	22	44	25	1	SC	2	9	35	51	3
IA	2	12	29	43	14	SD	1	8	22	57	12
KS	1	10	31	53	5	TN	10	32	37	21	0
KY	11	28	45	15	1	TX	18	24	29	23	6
LA	5	20	42	30	3	UT	3	11	26	56	4
ME	8	16	47	29	0	VT	0	0	0	38	62
MD	10	21	25	36	8	VA	23	37	26	14	0
MA	0	0	48	52	0	WA	0	25	65	10	0
MI	15	22	29	26	8	WV	2	17	42	36	3
MN	4	21	38	33	4	WI	1	14	33	43	9
MS	8	24	38	27	3	WY	1	5	22	60	12
MO	1	6	31	53	9	ALL	6	17	34	38	5
MT	6	21	45	27	1						
NE	4	12	31	44	9	Prev Wk	7	18	33	37	5
NV	0	0	6	78	16	Prev Yr	4	14	36	41	5

Climate Prediction Center, W/NP52
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