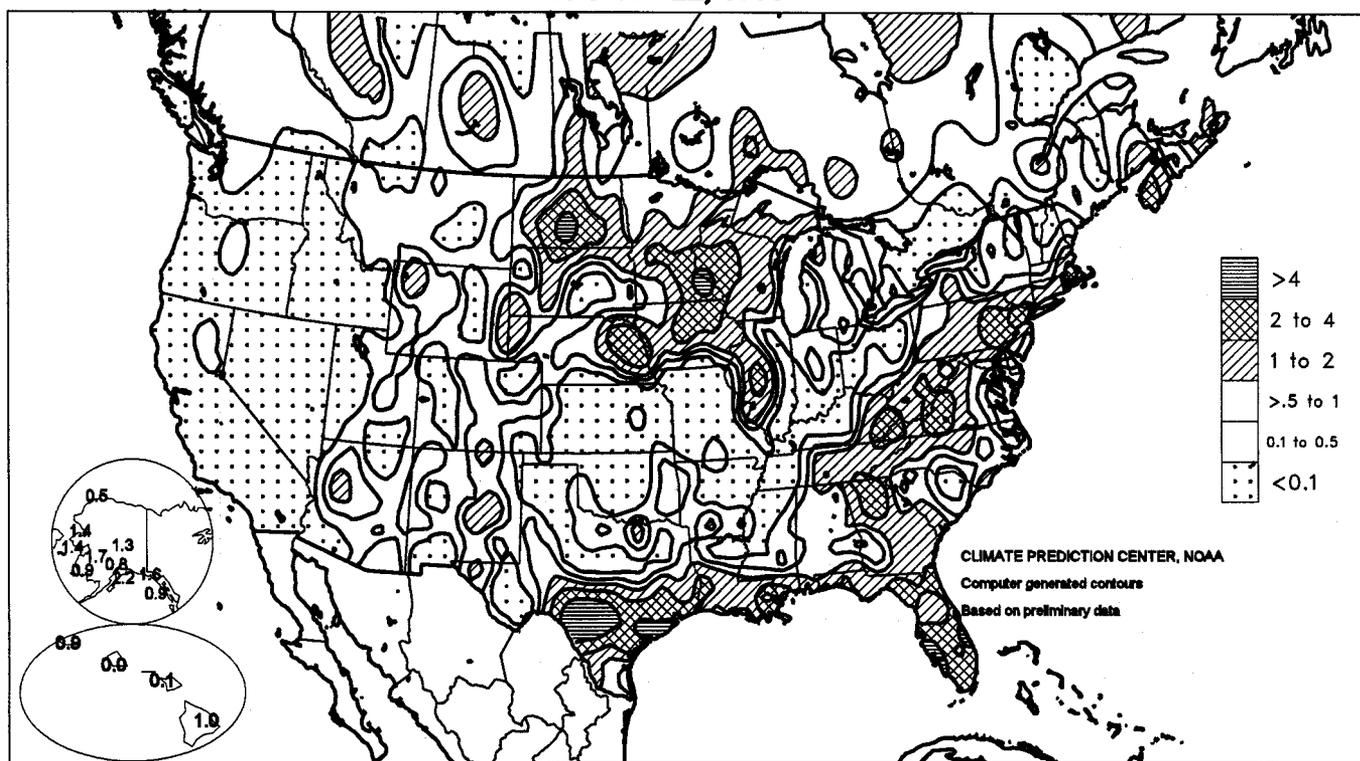


# WEEKLY WEATHER AND CROP BULLETIN

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)**  
**AUG 16 - 22, 1998**



## HIGHLIGHTS

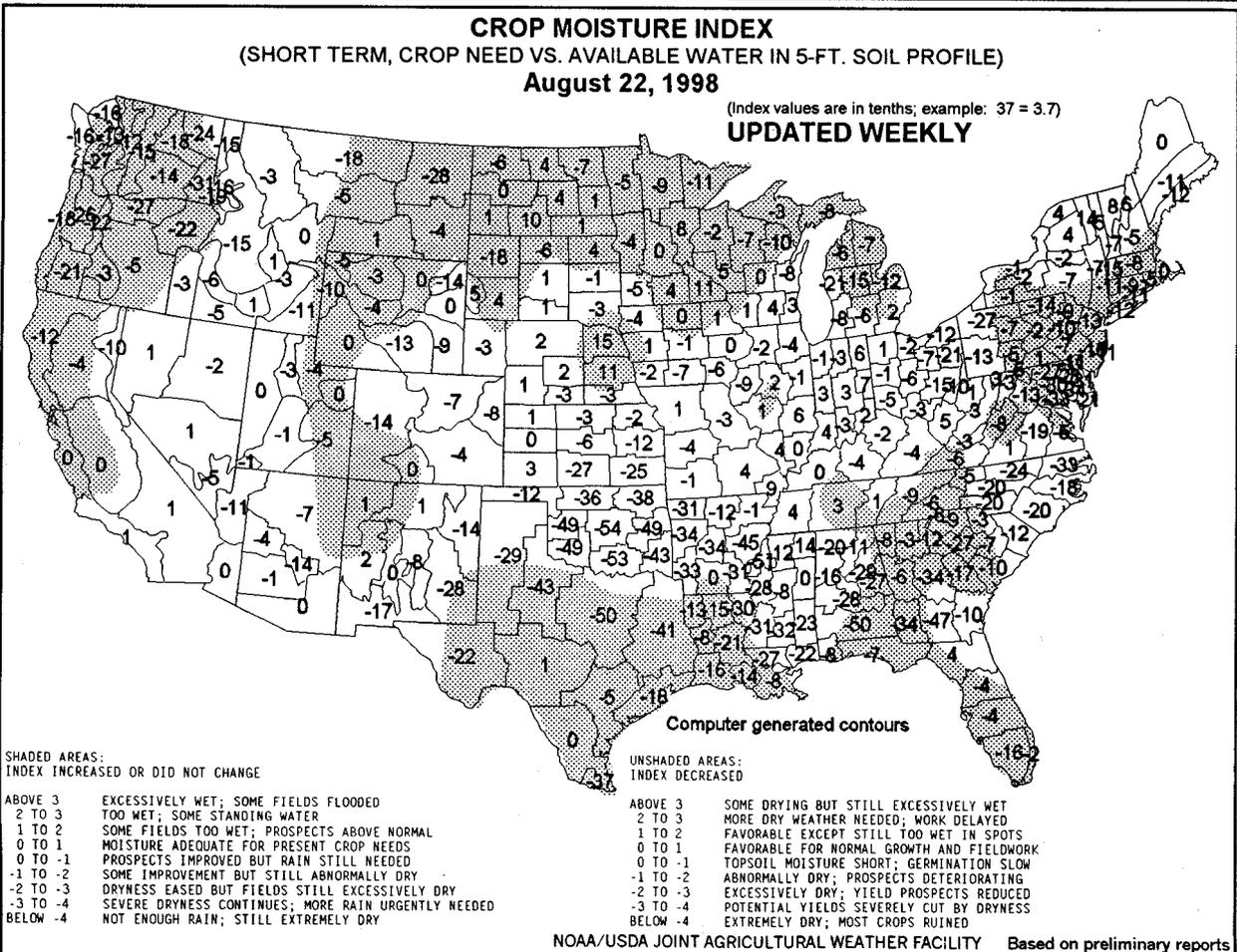
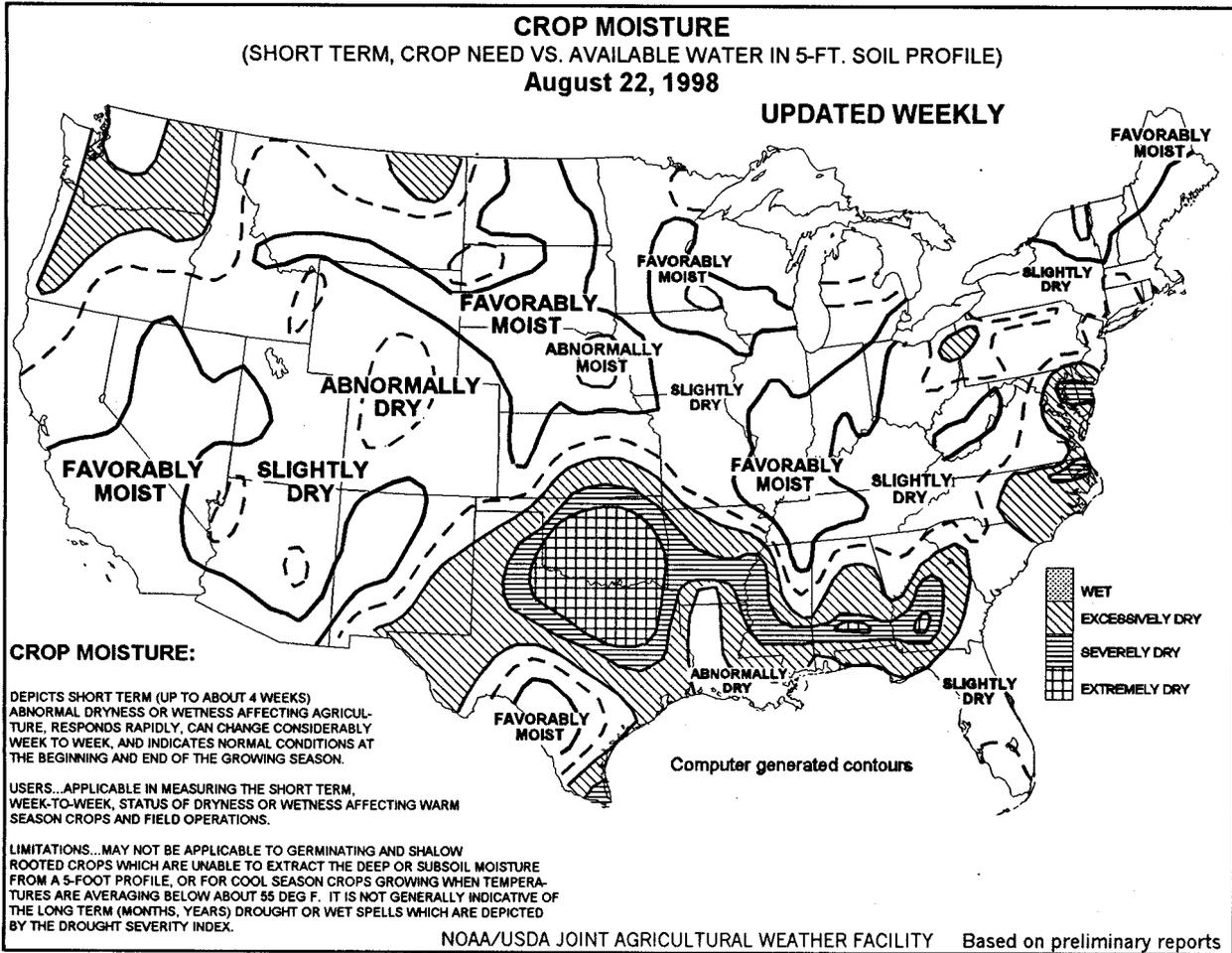
August 16 - 22, 1998

**A**fter a relatively quiet Atlantic hurricane season during June through mid-August (only Tropical Storm Alex that dissipated harmlessly north of Puerto Rico), the tropics suddenly became very active with two named storms by Friday. By week's end, Hurricane Bonnie was in the Atlantic southeast of the Bahamas, while Tropical Storm Charley moved inland into southeastern Texas and dissipated, providing badly needed moisture to drought-stricken coastal regions but generating severe flooding further inland. Elsewhere, scattered beneficial showers fell across the southern portion of the South-Central States' drought area, improving topsoil moisture and pastures. Significant rain, some associated with Charley, also fell along the Gulf Coast and in parts of the Southeast, boosting soil moisture. Very dry weather

*(Continued on page 12)*

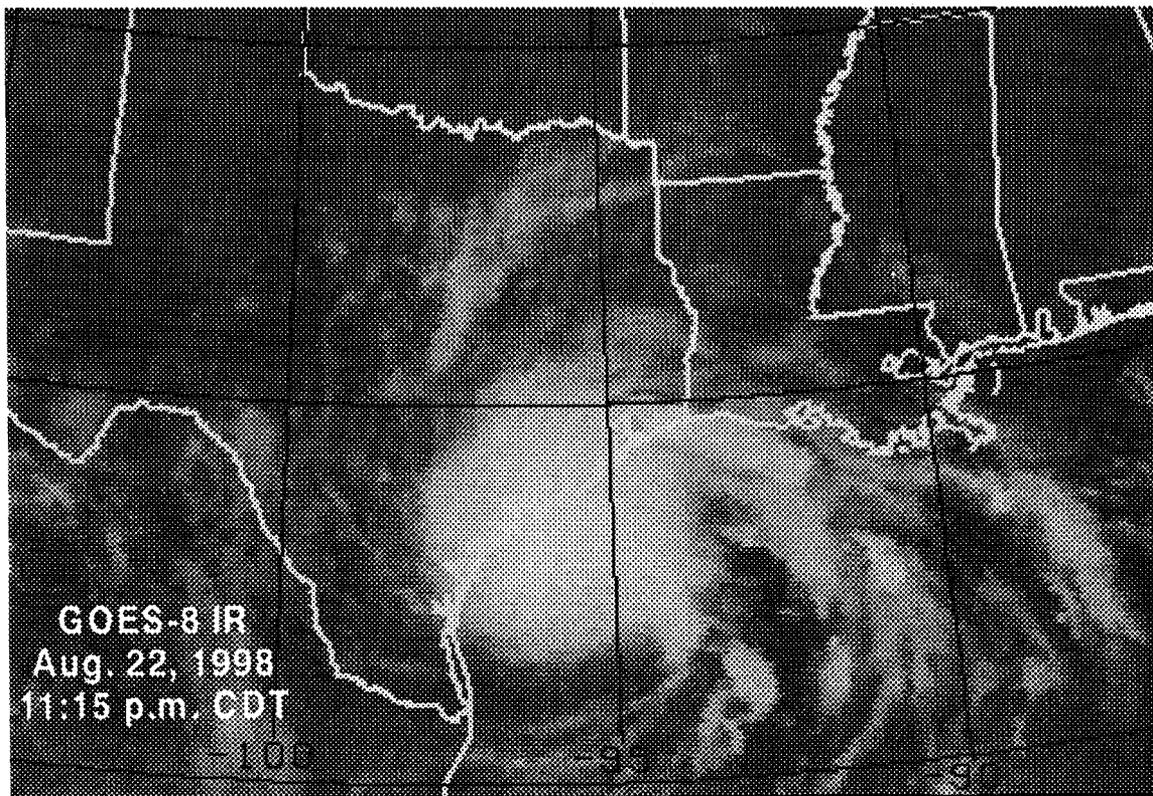
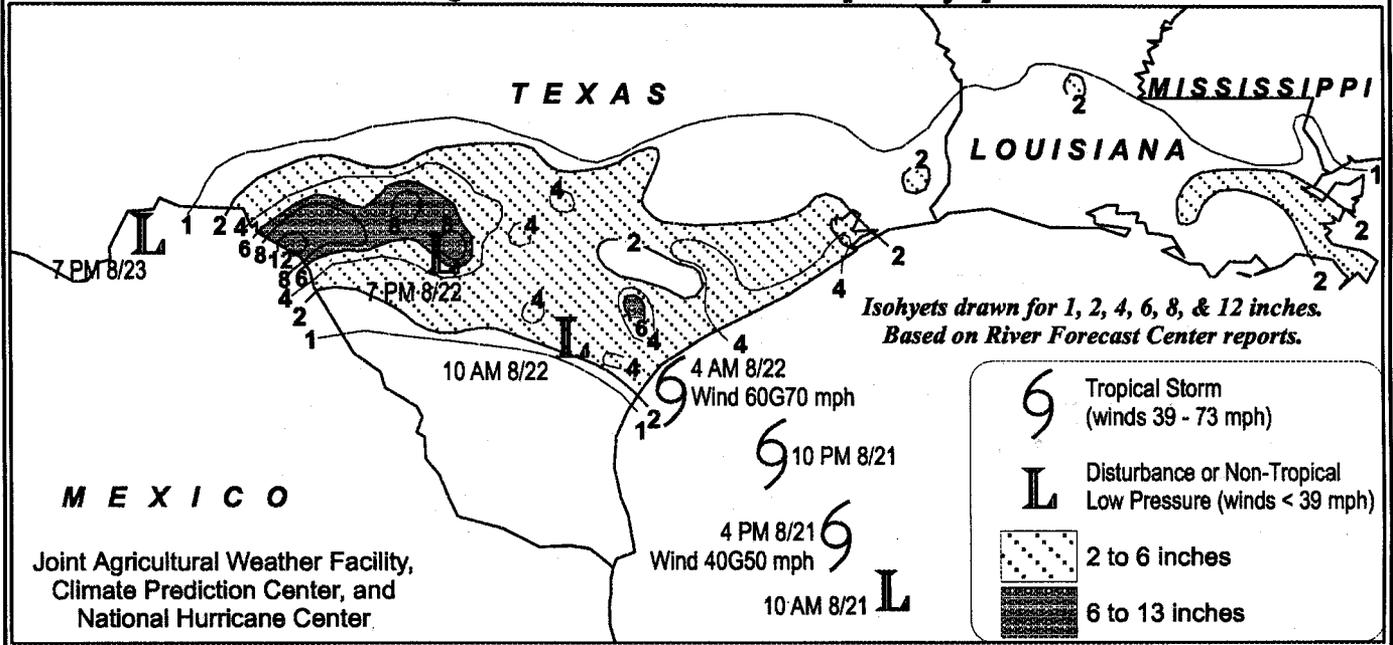
## Contents

Crop Moisture Maps .....	2
Tropical Storm Charley .....	3
Temperature Departure & Extreme Maximum 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
State Agricultural Summaries .....	13
International Weather and Crop Summary .....	20
Subscription Information & Pan Evaporation Map .....	24



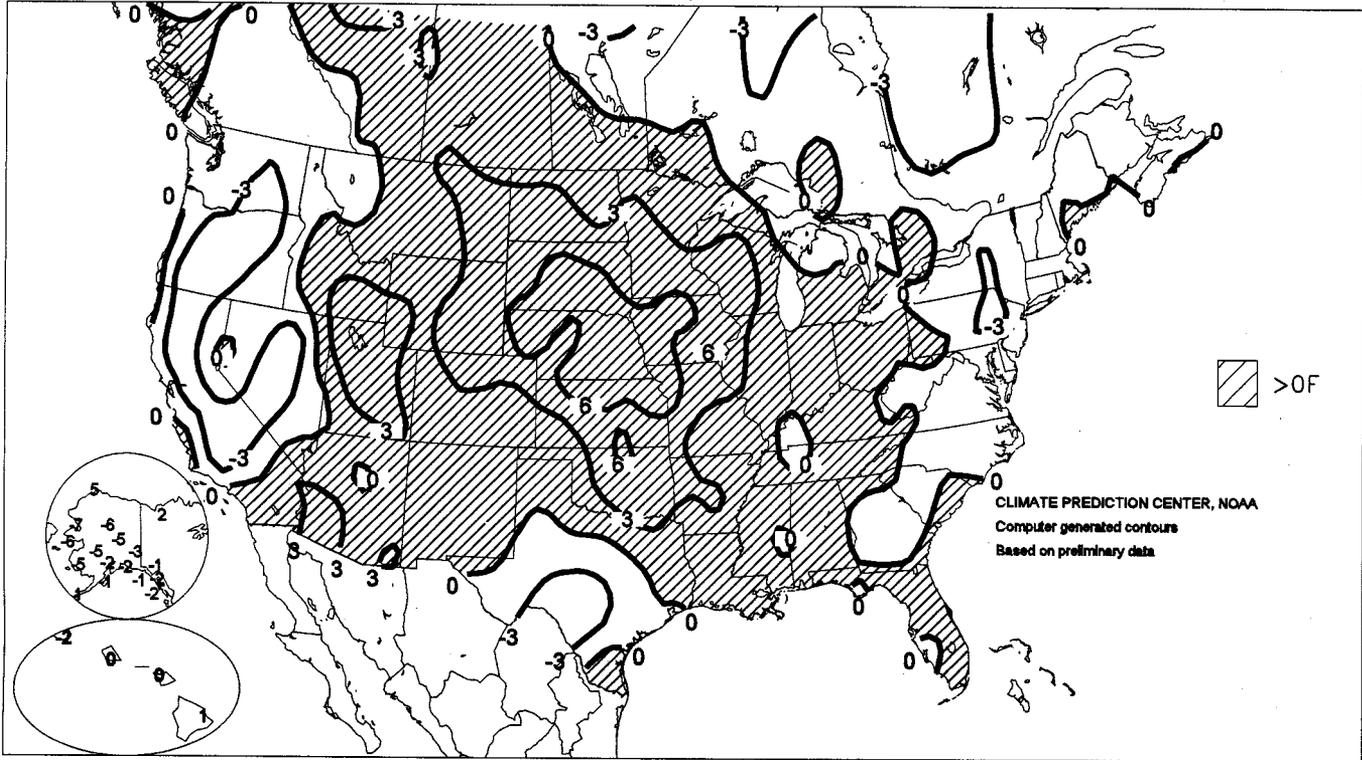
# Tropical Storm Charley

## TOTAL RAINFALL (inches) and PATH OF TROPICAL STORM CHARLEY August 20 - 23, 1998 [4 days]

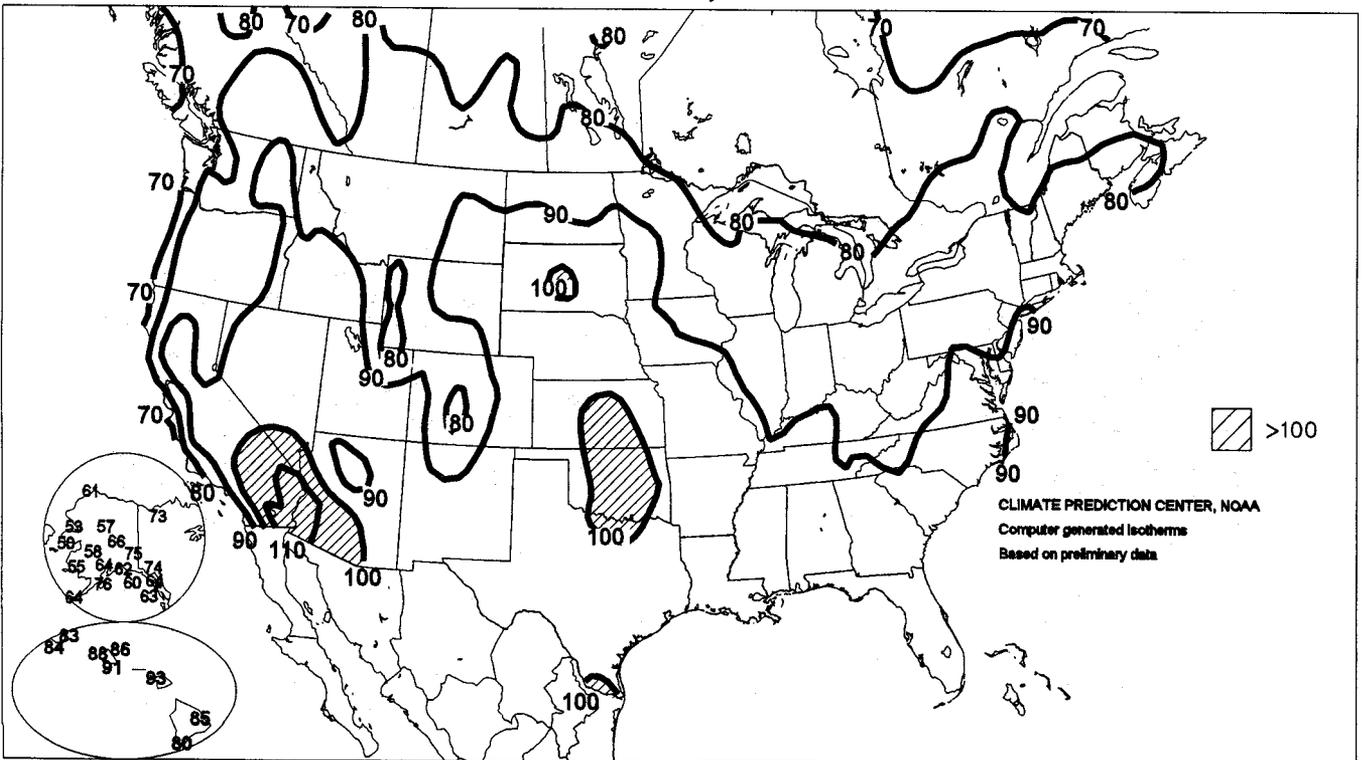


Tropical Storm Charley nears its maximum intensity about 8 hours before the storm center made landfall near Port Aransas, Texas.

**Departure of Average Temperature from Normal (°F)**  
**AUG 16 - 22, 1998**



**Extreme Maximum Temperature (°F)**  
**AUG 16 - 22, 1998**





# National Weather Data for Selected Cities

Weather Data for the Week Ending August 22, 1998

Data Provided by Climate Prediction Center (301-763-8000 EXT. 7511) 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 JAN 1	PCT. NORMAL SINCE JAN 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		
AL BIRMINGHAM	91	71	93	64	81	2	0.03	-0.74	0.02	17.10	148	51.13	137	92	50	6	0	2	0		
HUNTSVILLE	90	69	93	65	80	1	0.11	-0.63	0.10	7.44	85	32.86	86	97	51	5	0	2	0		
MOBILE	91	74	93	72	82	1	1.97	0.40	1.31	14.87	88	53.94	123	98	57	6	0	5	1		
MONTGOMERY	92	71	94	67	81	1	0.58	-0.22	0.58	9.65	82	34.72	95	91	49	6	0	3	1		
AK ANCHORAGE	60	49	64	42	54	-2	0.84	0.27	0.39	5.57	123	7.31	89	89	50	0	0	6	0		
BARROW	47	37	61	31	42	5	0.49	0.27	0.20	1.73	89	2.13	80	94	74	0	1	5	0		
FAIRBANKS	58	46	66	37	51	-5	1.26	0.82	0.68	7.72	184	8.22	118	97	62	0	0	5	1		
JUNEAU	58	49	64	40	53	-2	0.61	-0.82	0.29	10.99	100	23.84	83	99	67	0	0	6	0		
KODIAK	62	47	78	36	54	-1	0.24	-0.96	0.14	16.41	136	64.55	166	88	57	0	0	3	0		
NOME	48	41	50	36	45	-6	1.45	0.82	1.06	8.34	180	15.52	183	97	71	0	0	4	1		
AZ FLAGSTAFF	76	49	78	45	62	-1	0.20	-0.41	0.14	6.45	124	16.56	117	95	41	0	0	4	0		
PHOENIX	104	82	109	79	93	2	0.61	0.39	0.60	3.09	182	8.06	190	58	23	7	0	2	1		
TUCSON	98	74	101	72	86	2	0.48	0.00	0.47	5.74	136	11.15	160	71	27	7	0	2	0		
YUMA	107	84	112	81	96	3	0.00	-0.16	0.00	0.53	71	2.11	123	60	23	7	0	0	0		
AR FORT SMITH	96	73	100	69	85	4	0.33	-0.33	0.33	7.59	90	27.00	103	87	44	7	0	1	0		
LITTLE ROCK	95	73	98	69	84	3	0.00	-0.73	0.00	6.46	68	27.18	85	93	42	7	0	0	0		
CA BAKERSFIELD	92	63	100	57	77	-5	0.00	-0.03	0.00	0.30	167	11.68	299	67	23	4	0	0	0		
EUREKA	64	51	67	49	57	-1	0.00	-0.14	0.00	0.50	50	41.06	194	100	81	0	0	0	0		
FRESNO	92	62	98	57	77	-3	0.00	0.00	0.00	1.93	2757	15.97	230	74	25	5	0	0	0		
LOS ANGELES	78	65	80	63	71	0	0.01	-0.02	0.01	0.09	100	23.84	304	94	58	0	0	1	0		
REDDING	91	60	96	54	75	-4	0.00	-0.11	0.00	1.87	187	47.40	246	73	21	4	0	0	0		
SACRAMENTO	85	58	92	54	70	-5	0.00	-0.02	0.00	0.31	182	23.46	218	92	42	1	0	0	0		
SAN DIEGO	76	67	79	66	72	-1	0.00	-0.03	0.00	0.30	200	14.27	228	85	64	0	0	0	0		
SAN FRANCISCO	89	58	74	55	62	-1	0.00	0.00	0.00	0.03	25	28.58	233	90	63	0	0	0	0		
CO ALAMOSA	81	48	86	41	64	2	0.01	-0.24	0.01	2.61	98	3.75	79	91	26	0	0	1	0		
CO SPRINGS	83	58	88	53	69	1	0.19	-0.49	0.14	8.17	110	13.06	106	88	36	0	0	3	0		
DENVER	89	59	92	55	74	3	0.18	-0.15	0.18	7.99	166	13.41	119	78	24	5	0	1	0		
GRAND JUNCTION	89	63	94	57	76	0	0.68	0.47	0.33	2.49	143	5.74	109	61	19	5	0	3	0		
PUEBLO	82	55	94	51	74	0	0.17	-0.27	0.16	3.75	78	8.68	104	85	24	5	0	2	0		
CT BRIDGEPORT	79	64	84	56	71	-2	0.71	-0.01	0.52	6.83	71	33.20	122	88	52	0	0	3	1		
HARTFORD	79	59	88	48	69	-2	0.89	-0.14	0.41	10.43	110	32.98	119	94	53	0	0	4	0		
DC WASHINGTON	86	66	94	57	76	-2	0.34	-0.64	0.33	6.81	98	30.86	124	83	42	2	0	2	0		
DE WILMINGTON	83	63	88	53	73	-2	2.00	1.26	1.94	9.54	93	29.22	109	93	54	0	0	2	1		
FL DAYTONA BEACH	88	75	93	74	82	1	2.53	1.11	1.71	14.04	89	29.89	99	71	2	0	8	2			
JACKSONVILLE	90	74	94	73	82	1	2.15	0.30	0.83	19.13	114	42.22	124	99	65	3	0	6	2		
KEY WEST	90	79	92	74	85	0	1.44	0.26	0.80	4.68	39	18.97	74	86	65	5	0	5	1		
MIAMI	91	78	92	75	84	2	2.83	1.08	1.41	23.61	117	41.27	115	90	59	7	0	7	2		
ORLANDO	91	78	95	73	84	1	0.94	-0.58	0.42	14.76	76	35.39	106	97	62	4	0	4	0		
PENSACOLA	89	75	92	72	82	0	0.98	-0.68	0.71	13.18	69	40.17	94	95	62	3	0	5	1		
TALLAHASSEE	92	73	94	71	83	1	1.76	0.10	1.02	20.83	98	41.00	88	97	57	7	0	7	1		
TAMPA	92	75	93	74	83	1	1.34	-0.40	0.80	22.32	128	45.31	152	95	63	6	0	5	1		
WEST PALM BEACH	90	77	92	75	84	1	0.97	-0.40	0.50	16.38	89	40.91	112	89	62	5	0	5	1		
GA ATHENS	88	67	92	60	77	-1	0.43	-0.38	0.40	7.04	81	39.65	115	99	63	3	0	3	0		
ATLANTA	85	68	90	63	77	-1	3.29	2.50	1.78	12.13	108	37.72	107	94	58	1	0	4	2		
AUGUSTA	91	65	94	56	78	-2	0.55	-0.47	0.54	7.15	61	36.30	114	100	48	5	0	2	1		
COLUMBUS	90	72	94	68	81	0	0.18	-0.61	0.18	7.70	82	24.96	89	89	50	4	0	1	0		
MACON	90	67	92	61	79	-2	0.29	-0.51	0.20	7.80	74	32.80	104	100	52	4	0	4	0		
SAVANNAH	90	71	93	68	80	-1	0.32	-1.38	0.20	13.74	79	39.78	113	98	61	4	0	2	0		
HI HILO	84	70	85	68	77	1	0.99	-1.10	0.30	11.77	52	31.57	39	93	66	0	0	5	0		
HONOLULU	88	75	89	72	81	0	0.00	-0.08	0.00	0.51	35	2.52	21	80	50	0	0	0	0		
KAHULUI	89	71	93	67	80	0	0.06	-0.05	0.06	0.34	34	2.73	20	86	51	2	0	1	0		
LIHUE	82	73	83	70	78	-2	0.92	0.53	0.36	3.68	73	10.98	44	89	68	0	0	4	0		
ID BOISE	88	58	96	51	72	0	0.00	-0.10	0.00	1.70	119	12.02	159	59	17	3	0	0	0		
LEWISTON	86	58	96	50	71	-3	0.00	-0.19	0.00	3.19	130	11.20	137	57	20	2	0	0	0		
POCATELLO	88	58	94	50	72	4	0.00	-0.18	0.00	1.96	92	9.42	120	70	27	2	0	0	0		
IL CHICAGO/O'HARE	83	63	89	59	73	2	0.00	-0.96	0.00	8.39	81	23.63	103	94	55	0	0	0	0		
MOLINE	84	67	88	62	76	3	1.11	0.17	1.11	12.13	99	31.08	119	97	66	0	0	1	1		
PEORIA	84	67	87	62	75	3	1.39	0.71	0.91	11.86	114	32.33	136	92	61	0	0	2	1		
ROCKFORD	83	62	88	57	72	2	0.15	-0.79	0.14	11.66	101	27.10	114	95	64	0	0	2	0		
SPRINGFIELD	85	64	87	61	75	2	3.09	2.35	3.09	16.70	180	36.18	157	97	57	0	0	1	1		
IN EVANSVILLE	88	64	90	58	76	1	0.04	-0.64	0.01	13.09	134	33.52	116	98	52	3	0	4	0		
FORT WAYNE	83	60	86	51	71	0	0.10	-0.66	0.08	11.97	127	29.63	129	97	58	0	0	2	0		
INDIANAPOLIS	85	64	87	58	75	2	1.10	0.30	1.10	17.50	164	37.70	140	91	48	0	0	1	1		
SOUTH BEND	83	63	87	57	73	3	0.11	-0.72	0.08	9.33	89	25.04	101	95	56	0	0	3	0		
IA BURLINGTON	90	70	93	68	80	8	0.19	-0.68	0.19	10.24	93	30.61	131	90	58	5	0	1	0		
CEDAR RAPIDS	84	66	87	61	75	4	0.88	-0.25	0.58	11.79	102	28.15	124	98	68	0	0	3	1		
DES MOINES	88	71	92	68	79	6															

Weather Data for the Week Ending August 22, 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 JAN 1	PCT. NORMAL SINCE JAN 1	TOTAL IN. SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	80 AND ABOVE	80 AND BELOW	.01 INCH OR MORE		.50 INCH OR MORE	
																		TEMP, °F	PRECIP.		
WICHITA	89	71	102	68	86	6	0.00	-0.69	0.00	5.70	80	16.28	82	80	31	7	0	0	0	0	
KY JACKSON	83	65	88	58	74	0	0.43	-0.42	0.30	12.94	108	40.29	121	84	51	0	0	2	0	0	
LEXINGTON	88	63	91	56	75	0	0.01	-0.85	0.01	19.05	166	41.40	138	95	48	2	0	1	0	0	
LOUISVILLE	88	68	90	61	78	3	0.00	-0.77	0.00	18.70	177	36.82	128	88	48	2	0	0	0	0	
PADUCAH	89	65	91	60	77	0	0.01	-0.70	0.01	22.16	208	42.13	126	89	51	2	0	0	0	0	
LA BATON ROUGE	92	73	95	70	82	1	0.86	-0.47	0.67	9.12	58	39.09	95	98	52	8	0	5	1	0	
LAKE CHARLES	93	75	97	73	84	2	1.18	-0.05	0.54	10.50	76	31.88	93	92	58	6	0	4	1	1	
NEW ORLEANS	90	78	94	75	83	2	2.70	1.30	2.08	18.21	111	52.55	127	94	60	4	0	5	1	1	
SHREVEPORT	94	74	98	71	84	2	0.75	0.23	0.58	8.06	83	28.30	87	94	47	7	0	2	1	1	
ME CARIBOU	72	48	79	43	60	-3	0.17	-0.74	0.10	9.70	99	25.56	115	95	49	0	0	6	0	0	
ME PORTLAND	78	57	84	51	67	0	0.85	0.02	0.64	13.04	152	35.00	131	92	57	0	0	2	1	1	
MD BALTIMORE	85	60	92	49	73	-3	0.32	-0.58	0.32	5.59	55	29.88	112	92	46	3	0	1	0	0	
MA BOSTON	77	62	87	57	70	-2	2.10	1.38	1.52	16.33	199	41.22	158	87	51	0	0	2	2	2	
MA WORCESTER	77	58	84	50	67	-1	0.89	-0.18	0.39	12.48	119	35.26	118	89	51	0	0	2	0	0	
MI ALPENA	75	50	81	40	62	-2	0.09	-0.68	0.08	4.34	52	19.79	108	93	53	0	0	2	0	0	
MI FLINT	82	56	89	41	69	0	0.08	-0.74	0.05	4.28	52	14.78	79	90	45	0	0	0	0	0	
MI HOUGHTON LAKE	80	49	86	34	65	0	0.09	-0.69	0.05	4.02	51	14.55	83	96	50	0	0	2	0	0	
MI LANSING	82	58	87	42	69	0	0.65	-0.10	0.64	7.61	90	21.26	112	95	43	0	0	2	1	1	
MI MARQUETTE	71	50	81	40	60	-2	1.54	0.75	1.54	7.16	83	29.27	140	94	56	0	0	1	1	1	
MI MUSKEGON	81	59	83	50	70	1	0.14	-0.68	0.09	3.28	49	15.28	82	91	54	0	0	2	0	0	
MN DULUTH	72	57	81	54	65	1	0.80	-0.11	0.71	9.17	90	19.10	98	96	61	0	0	2	1	1	
MN INTL FALLS	75	52	81	48	64	0	0.79	0.10	0.31	7.31	75	14.85	91	95	52	0	0	3	0	0	
MN MINNEAPOLIS	82	64	89	60	73	3	2.96	2.14	1.88	15.00	147	27.97	141	93	61	0	0	5	2	2	
MN ROCHESTER	80	64	83	58	72	4	1.37	0.50	0.72	12.23	114	23.94	119	97	70	0	0	4	2	2	
MS ST. CLOUD	82	59	87	55	70	3	1.84	0.93	1.06	10.46	100	18.61	99	95	57	0	0	4	2	2	
MS JACKSON	93	72	95	67	82	1	0.01	-0.82	0.01	11.69	112	38.04	103	94	47	6	0	1	0	0	
MS MERIDIAN	91	70	94	63	80	0	0.44	-0.33	0.24	15.03	132	43.58	113	98	54	6	0	2	0	0	
MS TUPELO	90	71	91	70	81	1	0.01	-0.66	0.01	12.04	117	37.07	100	96	54	6	0	1	0	0	
MO COLUMBIA	90	67	93	61	78	4	0.00	-0.74	0.00	13.06	127	29.93	117	95	55	4	0	0	0	0	
MO KANSAS CITY	91	70	94	64	81	5	0.00	-0.90	0.00	15.87	132	25.06	101	91	57	5	0	0	0	0	
MO SAINT LOUIS	89	69	92	67	79	2	0.90	0.28	0.81	15.40	160	35.46	144	90	47	4	0	3	1	0	
MO SPRINGFIELD	90	68	93	62	79	2	0.00	-0.82	0.00	13.53	131	33.44	125	95	48	3	0	0	0	0	
MT BILLINGS	84	59	88	55	72	1	0.18	-0.06	0.09	6.69	86	11.41	107	84	32	0	0	3	0	0	
MT BUTTE	82	45	87	40	63	3	0.06	-0.24	0.04	5.39	126	12.05	137	92	26	0	0	2	0	0	
MT GLASGOW	86	59	90	58	73	4	0.29	-0.01	0.11	6.17	128	9.78	117	81	28	1	0	4	0	0	
MT GREAT FALLS	84	49	88	41	67	0	0.84	0.48	0.80	8.13	172	13.98	125	75	18	0	0	3	1	0	
MT KALISPELL	80	41	89	33	60	-2	0.03	-0.30	0.03	6.22	145	15.20	140	91	21	0	0	1	0	0	
MT MILES CITY	91	64	96	62	78	5	0.11	-0.14	0.08	6.45	125	9.89	93	88	24	5	0	2	0	0	
MT MISSOULA	83	47	90	41	65	-1	0.53	0.25	0.26	8.10	229	16.33	176	83	19	1	0	4	0	0	
NE GRAND ISLAND	94	68	98	65	81	8	1.10	0.48	1.07	9.07	104	21.54	119	89	43	6	0	3	1	1	
NE LINCOLN	94	71	97	69	82	8	1.02	0.24	1.02	10.87	114	23.89	121	91	48	7	0	1	1	1	
NE NORFOLK	90	69	94	67	79	7	4.30	3.74	2.48	18.87	198	28.21	151	91	58	4	0	3	2	2	
NE NORTH PLATTE	90	63	93	57	76	5	0.52	0.15	0.49	12.49	162	18.06	119	82	44	6	0	3	0	0	
NE OMAHA	91	71	94	69	81	7	2.52	1.79	2.20	19.30	200	34.07	167	93	54	5	0	2	1	1	
NE SCOTTSBLUFF	93	59	98	54	76	5	0.89	0.47	0.33	6.85	124	11.98	101	92	29	6	0	3	0	0	
NE VALENTINE	93	66	98	61	79	7	0.00	-0.49	0.00	12.92	169	18.50	130	93	37	5	0	0	0	0	
NV ELY	86	51	89	44	68	3	0.03	-0.16	0.03	3.27	150	8.52	128	50	14	0	0	1	0	0	
NV LAS VEGAS	103	78	108	75	90	2	0.03	-0.08	0.03	0.72	89	5.08	192	33	13	7	0	1	0	0	
NV RENO	88	53	93	48	70	1	0.00	-0.08	0.00	1.39	148	8.70	181	61	16	2	0	0	0	0	
NH WINNEMUCCA	90	48	94	37	68	-1	0.00	-0.11	0.00	0.96	96	10.31	195	53	16	3	0	0	0	0	
NH CONCORD	80	53	86	43	66	-1	0.25	-0.49	0.17	10.77	122	28.74	118	95	44	0	0	3	0	0	
NJ NEWARK	83	65	90	57	74	-2	2.74	1.87	2.89	10.23	97	36.78	128	86	48	1	0	2	1	1	
NM ALBUQUERQUE	89	67	91	65	78	2	0.32	-0.05	0.31	3.08	97	6.87	123	60	25	5	0	2	0	0	
NY ALBANY	79	57	85	45	68	-1	0.15	-0.65	0.07	10.28	111	28.89	124	94	52	0	0	4	0	0	
NY BINGHAMTON	75	54	84	44	65	-2	0.14	-0.60	0.13	8.90	94	30.18	128	96	56	0	0	2	0	0	
NY BUFFALO	78	60	83	48	69	0	0.63	-0.33	0.63	8.80	92	26.82	115	93	52	0	0	1	1	1	
NY ROCHESTER	78	57	82	47	68	-1	1.58	0.79	1.38	15.21	167	31.12	156	96	53	0	0	2	1	1	
NY SYRACUSE	79	58	86	47	68	0	0.44	-0.36	0.43	9.89	98	25.31	106	89	51	0	0	2	0	0	
NC ASHEVILLE	84	61	87	55	73	1	1.13	0.07	0.84	7.85	95	38.82	122	100	52	0	0	2	1	1	
NC CHARLOTTE	86	64	90	58	75	-3	0.49	-0.34	0.49	10.19	102	30.48	107	96	52	1	0	1	0	0	
NC GREENSBORO	85	63	90	55	74	-1	0.23	-0.63	0.22	14.24	128	39.89	141	96	57	1	0	2	0	0	
NC HATTERAS	83	71	87	62	77	-2	0.00	-1.38	0.00	15.57	116	45.82	132	88	64	0	0	0	0	0	
NC RALEIGH	88	63	92	54	75	-2	3.13	2.22	3.08	12.64	119	40.15	143	96	46	3	0	2	1	1	
NC WILMINGTON	89	69	93	61	79	0	1.33	-0.21	1.31	10.23	53	41.13	108	94	52	4	0	3	1		

Weather Data for the Week Ending August 22, 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 JAN 1	PCT. NORMAL SINCE JAN 1	TOTAL IN, SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP, °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OK TOLEDO	82	60	87	49	71	1	0.82	0.08	0.58	8.59	92	25.28	118	98	57	0	0	4	1
OK YOUNGSTOWN	82	56	86	46	69	1	0.13	-0.81	0.13	7.08	68	25.88	107	95	46	0	0	1	0
OK OKLAHOMA CITY	100	72	102	71	86	5	0.00	-0.60	0.00	3.18	37	19.50	88	79	29	7	0	0	0
OK TULSA	98	74	100	71	86	4	0.00	-0.72	0.00	9.36	97	27.47	106	83	35	7	0	0	0
OR ASTORIA	87	51	89	48	59	-1	0.20	-0.11	0.18	2.25	51	45.45	124	100	68	0	0	3	0
OR BURNS	81	42	84	37	62	-2	0.00	-0.17	0.00	1.37	81	11.82	196	67	15	0	0	0	0
OR EUGENE	80	48	82	43	64	-4	0.00	-0.26	0.00	0.79	30	27.82	103	93	31	0	0	0	0
OR MEDFORD	85	54	89	50	70	-3	0.00	-0.13	0.00	0.67	57	17.96	183	78	27	0	0	0	0
OR PENDLETON	82	56	87	47	69	-3	0.00	-0.13	0.00	1.52	111	9.12	126	84	25	0	0	0	0
OR PORTLAND	77	57	83	51	67	-1	0.00	-0.26	0.00	2.32	82	25.01	125	81	40	0	0	0	0
OR SALEM	78	52	81	49	65	-2	0.00	-0.18	0.00	1.12	47	28.50	134	88	35	0	0	0	0
PA ALLENTOWN	81	57	86	47	69	-3	1.78	0.90	0.94	8.94	82	29.87	107	97	51	0	0	4	2
PA ERIE	77	62	82	51	69	0	0.23	-0.70	0.22	6.92	67	24.07	98	90	61	0	0	2	0
PA MIDDLETOWN	82	62	86	53	72	-2	1.22	0.48	1.20	14.23	146	39.67	151	92	53	0	0	2	1
PA PHILADELPHIA	85	65	90	58	75	0	0.51	-0.34	0.48	7.89	73	25.88	94	89	48	1	0	2	0
PA PITTSBURGH	83	60	88	49	71	1	0.80	0.08	0.69	10.28	105	25.77	104	92	45	0	0	3	1
PA WILKES-BARRE	78	56	86	45	67	-2	1.23	0.52	1.11	8.72	86	26.82	114	95	54	0	0	2	1
PA WILLIAMSPORT	79	57	86	48	68	-2	0.77	0.02	0.40	8.21	76	33.67	128	98	57	0	0	3	0
RI PROVIDENCE	90	61	88	54	70	-1	1.36	0.53	0.71	12.50	137	41.72	148	94	52	0	0	3	2
SC BEAUFORT	90	72	92	69	81	0	0.54	-1.27	0.44	13.02	72	41.53	115	98	80	4	0	2	0
SC CHARLESTON	90	71	93	68	80	0	0.33	-1.30	0.33	14.16	78	46.06	127	95	54	4	0	1	0
SC COLUMBIA	90	67	94	58	79	-1	0.83	-0.75	0.83	10.51	71	36.27	103	93	43	5	0	1	1
SC GREENVILLE	86	66	89	60	76	0	0.21	-0.67	0.21	9.43	77	38.37	111	96	51	0	0	1	0
SD ABERDEEN	85	63	89	55	74	4	0.83	0.36	0.80	10.25	138	19.27	138	94	52	0	0	3	1
SD HURON	90	67	97	62	79	7	0.00	-0.43	0.00	5.47	73	14.86	98	93	52	3	0	0	0
SD RAPID CITY	89	62	95	58	76	5	0.85	0.28	0.24	8.33	132	12.92	101	90	39	3	0	7	0
SD SIOUX FALLS	85	68	91	65	77	6	0.21	-0.44	0.18	9.51	118	20.27	124	97	63	1	0	3	0
TN BRISTOL	85	62	90	57	74	0	1.19	0.50	0.92	10.94	108	34.02	123	99	50	1	0	3	1
TN CHATTANOOGA	88	70	90	67	79	1	0.08	-0.69	0.08	13.44	123	42.48	120	95	54	3	0	1	0
TN KNOXVILLE	87	68	90	64	78	2	0.58	-0.11	0.58	15.73	144	42.72	133	95	52	1	0	1	1
TN MEMPHIS	92	73	94	70	82	1	0.00	-0.77	0.00	13.56	138	41.92	124	93	49	6	0	0	0
TN NASHVILLE	89	69	91	63	79	1	2.64	1.87	2.64	18.50	184	39.91	127	95	49	5	0	1	1
TX ABILENE	94	70	98	69	82	-1	0.08	-0.57	0.08	3.57	52	9.68	63	87	35	6	0	1	0
TX AMARILLO	93	64	96	61	78	2	0.00	-0.74	0.00	1.42	16	8.14	57	80	27	6	0	0	0
TX AUSTIN	93	75	101	74	84	-1	0.83	0.38	0.54	3.56	50	14.07	70	95	54	5	0	4	1
TX BEAUMONT	90	75	94	73	82	0	2.21	1.00	0.61	12.15	83	33.23	94	100	69	4	0	6	3
TX BROWNSVILLE	95	78	99	75	86	2	0.87	0.20	0.79	1.30	21	4.06	29	94	48	6	0	2	1
TX CORPUS CHRISTI	92	77	95	75	85	0	0.57	-0.21	0.39	3.07	39	9.31	53	96	57	5	0	4	0
TX DEL RIO	90	73	94	72	82	-3	2.72	2.39	1.21	4.08	83	5.62	50	97	56	5	0	6	3
TX EL PASO	92	69	95	68	81	1	0.03	-0.33	0.03	2.89	87	3.31	67	72	32	5	0	1	0
TX FORT WORTH	98	77	100	75	87	2	0.02	-0.48	0.02	2.22	33	18.59	85	82	35	7	0	1	0
TX GALVESTON	88	79	92	75	83	0	2.74	1.72	1.47	12.48	109	25.52	101	99	75	4	0	6	2
TX HOUSTON	92	73	96	72	83	1	3.06	2.27	1.19	8.49	78	22.35	78	96	54	5	0	5	3
TX LUBBOCK	87	66	90	63	76	-1	0.12	-0.46	0.08	3.21	47	6.84	56	87	41	1	0	3	0
TX MIDLAND	91	70	95	67	80	0	0.78	0.39	0.75	1.76	40	2.94	33	83	36	5	0	2	1
TX SAN ANGELO	89	69	94	67	79	-3	0.48	0.02	0.42	3.94	86	8.77	73	96	46	3	0	3	0
TX SAN ANTONIO	88	74	96	73	81	-4	3.50	2.91	2.94	6.74	88	16.59	85	94	54	3	0	4	1
TX VICTORIA	92	75	97	73	83	-1	3.01	2.32	2.48	4.64	48	12.48	55	97	57	5	0	3	1
TX WACO	95	76	99	72	85	0	0.09	-0.29	0.04	1.85	29	15.86	79	92	45	6	0	3	0
UT WICHITA FALLS	98	73	101	71	85	2	0.16	-0.43	0.16	6.52	95	16.94	91	81	33	7	0	1	0
UT SALT LAKE CITY	90	68	94	65	79	4	0.13	-0.06	0.05	5.54	236	18.14	172	63	20	5	0	4	0
VT BURLINGTON	75	56	84	45	65	-2	0.41	-0.52	0.17	23.06	230	39.28	182	96	59	0	0	6	0
VA LYNCHBURG	83	59	90	50	71	-3	0.37	-0.42	0.11	10.92	107	40.18	151	93	44	1	0	4	0
VA NORFOLK	86	69	92	60	78	1	0.53	-0.54	0.53	9.48	77	36.15	120	88	51	3	0	1	1
VA RICHMOND	88	64	95	53	76	-1	0.07	-0.90	0.07	7.80	68	35.19	123	92	40	3	0	1	0
VA ROANOKE	84	63	91	53	74	-1	2.08	1.14	2.05	9.08	90	39.29	148	93	47	1	0	2	1
VA WASH/DULLES	87	59	94	47	73	-1	0.09	-0.82	0.09	7.59	74	31.87	122	91	39	3	0	1	0
WA HANFORD	86	60	94	52	73	-1	0.00	-	0.00	0.82	-	4.30	-	55	21	3	0	0	0
WA OLYMPIA	74	48	83	44	61	-2	0.01	-0.29	0.01	1.81	55	26.58	97	96	44	0	0	1	0
WA QUILLAYUTE	70	46	72	41	58	-2	0.11	-0.46	0.09	3.26	44	47.88	82	99	61	0	0	3	0
WA SEATTLE-TACOMA	73	55	81	52	64	-2	0.20	-0.07	0.20	1.78	59	19.18	96	92	49	0	0	1	0
WA SPOKANE	81	52	90	48	66	-2	0.00	-0.17	0.00	1.11	45	9.95	99	84	21	1	0	0	0
WA YAKIMA	81	48	86	41	65	-4	0.00	-0.10	0.00	0.74	77	6.90	151	86	31	0	0	0	0
WV BECKLEY	79	59	85	52	69	0	0.30	-0.43	0.22	12.43	113	38.10	138	100	56	0	0	3	0
WV CHARLESTON	83	62	87	52	72	-2	2.05	1.17	0.81	18.09	157	39.20	138	100	57	0	0	4	3
WV ELKINS	78	55	83	47	67	-1	0.54	-0.44	0.21	18.22	151	37.43	125	100	59	0	0	5	0
WV HUNTINGTON	84	62	88	52	73	-1	1.12	0.28	1.05	13.81	126	35.44	126	100	51	0	0	5	1
WI EAU CLAIRE	82	61	87	58	72	4	1.12	0.10	0.50	8.92	79	24.07	113	94	55	0	0	5	1
WI GREEN BAY	80	58	86	49	69	2	0.49	-0.31	0.27	10.90	122	21.63	118	92	56	0	0	2	0
WI MADISON	81	61	86	53	71	3	0.38	-0.56	0.29	13.43	136	31.24	155	95	66	0	0	2	0
WI MILWAUKEE	79	64	86	58	72	3	0.02	-0.78	0.01	9.30	101	24.93	117	86	61	0	0	2	0
WY CASPER	89	55	92	52	72	4	0.17	0.03	0.08	5.45	170	8.74	97	85	25	2	0	4	0
WY CHEYENNE	86	55	90	52	71	4	0.18	-0.19	0.10	3.80	70	8.30	76	84	28	1	0	2	0
WY LANDER	84	57	90	53	70	2	0.32	0.21	0.12	5.24	199	11.24	122	75	27	1	0	6	0
WY SHERIDAN	86	58	89	50	71	3	0.72	0.53	0.41	5.55	152	9.51	94	90	36	0	0	4	0

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

## National Agricultural Summary

August 17 - 23, 1998

### HIGHLIGHTS

Harvest activities and fall seeding preparations were only temporarily delayed as a tropical storm delivered heavy rains along the western Gulf Coast. For some areas, the rains relieved dry conditions and provided moisture to germinate fall seedings of winter wheat. However, some inland areas of southern Texas experienced severe flooding. Rains helped maintain soil moisture levels and crop development in parts of the eastern Gulf Coast,

along the Appalachians from the Southeast to the northern Atlantic Coast, and the central and western Corn Belt. Above-normal temperatures promoted rapid crop development across most of the mid-section of the country, including the Great Plains, the Corn Belt, the Lower Mississippi Valley, and parts of the Southeast. Below-normal temperatures along the Pacific Coast helped relieve stress caused by earlier excessive heat.

**Corn:** Eighty-two percent of the Nation's corn crop has developed to the dough stage or beyond, more than 1 week ahead of the 5-year average of 61 percent. Corn in the dent stage or beyond nearly doubled, to 39 percent, slightly less than 1 week ahead of normal. Development was aided by above-normal temperatures across the entire Corn Belt and Great Plains. Corn fields in many areas of the central and western Corn Belt also benefited from soaking rains, but some isolated green snap damage and yellowing due to nitrogen deficiency was evident. Some fields in the eastern Corn Belt and central Great Plains were stressed by excessive dryness.

**Soybeans:** Soybeans setting pods advanced to 89 percent, 8 percentage points ahead of the previous week and the 5-year average. Nationally, 2 percent has started dropping leaves, mostly due to advanced progress in the Lower Mississippi Valley. Conditions declined slightly, as some parts of the Corn Belt contended with isolated outbreaks of sudden death syndrome, while other areas battled white mold.

**Cotton:** Ninety-five percent of the crop has reached the boll setting stage, with 27 percent opening bolls. Virtually all cotton fields in the southern Great Plains and Southeast had progressed into the boll setting stage, but the pace lagged slightly behind normal due to late development in California. Bolls opening was slightly more than a week ahead of the

average pace despite late progress in the Southwest. Many areas, from the Mississippi Delta through the Southeast, were battling insect and worm infestations, and boll rot.

**Rice:** Heading progress advanced to 87 percent, behind last year and the 5-year average, but harvest was slightly ahead of normal, at 19 percent. Despite heavy rainfall in some areas, harvest progress continued at a steady pace in the western Gulf Coast, where two-thirds of the crop has been harvested. In northern parts of the Mississippi Delta, harvest was just beginning.

**Small grains:** Oat harvest neared completion almost 2 weeks ahead of normal. Spring wheat and barley harvest reached 79 percent, 3 weeks ahead of the normal pace in many areas from the western Great Lakes to the Pacific Northwest. Field preparations for seeding winter wheat continued in the southern Plains and began in the central Plains.

**Other crops:** Sorghum development was nearly a week ahead of normal, with 93 percent heading and 46 percent turning color. Normally, 87 percent would be heading and 39 percent turning color by this date. Fields in the southern Plains improved as a result of additional rains. Dryland peanuts also benefited from rains in the southern Plains, but insect and disease pressures increased.

# Crop Progress and Condition

Week Ending August 23, 1998

Soybeans Percent Setting Pods				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
AL	75	68	58	61
AR	70	54	59	64
GA	71	70	71	72
IL	86	78	95	84
IN	87	74	90	83
IA	99	95	99	92
KS	97	88	90	78
KY	62	47	46	54
LA	96	91	91	91
MI	98	87	98	81
MN	99	97	96	87
MS	96	94	86	81
MO	77	66	83	69
NE	97	92	97	88
NC	51	37	50	52
OH	96	86	93	86
SC	45	32	45	52
SD	92	82	95	83
TN	69	53	54	60
ALL	89	81	88	81

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

Soybeans Percent Dropping Leaves				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
AL	1	NA	0	0
AR	1	NA	0	2
GA	1	NA	0	2
IL	0	NA	0	0
IN	5	NA	0	0
IA	0	NA	0	0
KS	10	NA	6	3
KY	1	NA	0	1
LA	12	NA	7	6
MI	0	NA	0	0
MN	0	NA	0	0
MS	19	NA	13	8
MO	0	NA	0	0
NE	0	NA	0	0
NC	0	NA	0	0
OH	0	NA	0	0
SC	0	NA	0	0
SD	8	NA	6	5
TN	0	NA	0	0
ALL	2	NA	1	1

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

Corn Percent Dough				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
CO	55	33	45	46
GA	100	100	100	100
IL	83	66	74	73
IN	83	63	77	74
IA	75	50	55	47
KS	97	80	89	81
KY	89	61	77	87
MI	65	41	21	23
MN	95	64	42	38
MO	93	*84	95	80
NE	86	71	81	68
NC	90	84	94	94
OH	75	61	65	69
PA	70	50	54	56
SD	80	61	57	46
TX	97	95	96	95
WI	69	63	42	44
ALL	82	64	66	61

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

Corn Percent Dented				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
CO	0	0	3	6
GA	97	97	97	99
IL	44	22	22	26
IN	35	13	12	19
IA	26	7	11	14
KS	50	38	51	45
KY	65	31	42	56
MI	21	11	0	4
MN	52	16	6	7
MO	69	56	63	51
NE	41	16	18	21
NC	70	66	74	83
OH	20	10	9	15
PA	13	10	18	14
SD	29	17	15	11
TX	92	77	74	81
WI	22	14	4	9
ALL	38	20	20	22

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

Cotton Percent Setting Bolls				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
AL	99	98	91	95
AZ	100	100	100	100
AR	100	100	100	100
CA	50	40	100	100
GA	100	99	100	100
LA	100	100	100	100
MS	100	100	100	100
MO	100	100	100	100
NM	100	100	100	98
NC	94	90	88	95
OK	98	94	91	95
SC	96	89	89	97
TN	100	100	100	100
TX	99	97	96	93
ALL	95	93	97	97

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

Cotton Percent Bolls Opening				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
AL	22	12	8	10
AZ	19	14	55	59
AR	9	5	4	9
CA	1	1	33	18
GA	31	23	4	21
LA	62	35	14	23
MS	53	34	12	26
MO	14	5	11	8
NM	7	4	18	14
NC	13	10	8	11
OK	10	0	1	4
SC	25	10	5	8
TN	10	3	0	6
TX	31	28	19	22
ALL	27	20	15	19

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

Spring Wheat Percent Harvested				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
ID	53	27	39	37
MN	91	78	33	40
MT	74	45	32	34
ND	74	59	33	29
SD	96	86	75	79
ALL	79	61	39	39

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

# Crop Progress and Condition

Week Ending August 23, 1998

Sorghum Percent Headed				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
AR	99	96	97	97
CO	90	88	84	70
IL	79	60	89	83
KS	95	84	95	85
LA	100	100	99	99
MS	100	100	100	99
MO	97	92	99	87
NE	97	91	93	86
NM	35	23	67	58
OK	86	77	75	77
SD	78	61	81	76
TX	96	87	88	93
ALL	93	84	90	87

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

Sorghum Percent Coloring				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
AR	63	51	52	67
CO	8	1	1	6
IL	16	11	14	16
KS	30	21	30	19
LA	99	90	85	85
MS	92	86	85	83
MO	57	41	47	40
NE	20	5	11	15
NM	11	2	1	6
OK	43	11	12	24
SD	33	19	15	16
TX	75	70	67	74
ALL	46	37	40	39

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

Barley Percent Harvested				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
ID	55	35	46	40
MN	97	85	43	53
MT	69	35	32	33
ND	88	76	48	47
SD	97	92	76	88
WA	80	65	75	62
ALL	79	61	47	46

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

Rice Percent Headed				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
AR	90	82	87	90
CA	60	30	99	86
LA	97	97	93	93
MS	92	89	82	89
TX	99	98	95	96
ALL	87	78	91	90

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

Rice Percent Harvested				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
AR	1	0	0	2
CA	0	0	4	1
LA	66	56	50	50
MS	8	0	0	4
TX	64	49	14	41
ALL	19	15	11	14

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

Oats Percent Harvested				
	Aug 23 1998	Prev Week	Prev Year	5-Yr Avg
IA	100	100	100	100
MI	97	92	90	75
MN	97	91	65	73
NE	100	99	100	99
ND	82	73	44	38
OH	100	96	95	97
PA	84	81	84	82
SD	98	90	88	91
WI	99	91	75	71
ALL	94	88	78	75

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

Rice Crop Condition by Percent					
	VP	P	F	G	EX
AR	1	9	29	48	13
CA	0	0	15	85	0
LA	0	3	35	54	8
MS	1	5	33	52	9
TX	0	3	39	48	10
ALL	1	5	29	56	9
Prev Wk	1	4	26	59	10
Prev Yr	0	2	31	53	14

Soybeans Crop Condition by Percent					
	VP	P	F	G	EX
AL	5	8	36	36	15
AR	8	23	36	28	5
GA	21	20	36	21	2
IL	2	7	21	50	20
IN	2	6	22	50	20
IA	3	5	18	48	26
KS	1	4	18	55	22
KY	1	3	22	48	26
LA	10	22	38	26	4
MI	4	14	31	36	15
MN	2	5	24	50	19
MS	5	11	35	40	9
MO	5	13	32	40	10
NE	0	2	18	59	21
NC	3	8	31	51	7
OH	1	4	22	53	20
SC	10	20	46	24	0
SD	0	3	12	54	31
TN	1	8	18	53	20
ALL	3	8	24	46	19
Prev Wk	3	7	23	49	18
Prev Yr	2	8	30	48	12

Corn Crop Condition by Percent					
	VP	P	F	G	EX
CO	1	4	8	48	39
GA	33	26	21	17	3
IL	3	8	26	49	14
IN	2	7	25	51	15
IA	3	6	20	48	23
KS	0	2	14	69	15
KY	1	3	23	50	23
MI	8	22	31	31	8
MN	2	4	19	50	25
MO	2	11	36	39	12
NE	1	3	16	55	25
NC	9	25	36	27	3
OH	2	5	23	51	19
PA	3	7	21	56	13
SD	0	2	8	55	35
TX	6	18	39	34	3
WI	2	6	21	46	25
ALL	3	7	22	46	20
Prev Wk	3	7	22	49	19
Prev Yr	2	8	27	48	15

# Crop Progress and Condition

## Week Ending August 23, 1998

Cotton Crop Condition by Percent					
	VP	P	F	G	EX
AL	7	13	29	48	3
AZ	2	12	44	26	16
AR	1	16	34	38	11
CA	0	0	70	30	0
GA	13	21	33	27	6
LA	12	11	37	38	2
MS	7	7	30	47	9
MO	10	18	28	38	6
NM	0	2	25	48	25
NC	1	3	27	65	4
OK	6	19	33	37	5
SC	12	27	40	21	0
TN	0	7	29	49	15
TX	25	28	25	19	3
ALL	14	18	32	31	5
Prev Wk	14	19	33	29	5
Prev Yr	2	10	28	49	11

Sorghum Crop Condition by Percent					
	VP	P	F	G	EX
AR	3	18	41	36	2
CO	0	1	5	52	42
IL	9	6	29	45	11
KS	1	4	15	63	17
LA	2	21	40	34	3
MS	4	10	41	44	1
MO	1	8	32	45	14
NE	0	1	17	61	21
NM	8	52	33	7	0
OK	8	9	15	68	0
SD	0	2	11	76	11
TX	20	27	33	18	2
ALL	8	13	23	45	11
Prev Wk	8	15	22	44	11
Prev Yr	1	5	24	59	11

Peanuts Crop Condition by Percent					
	VP	P	F	G	EX
AL	4	9	58	28	3
FL	0	0	14	82	4
GA	4	11	39	34	12
NC	0	0	20	70	10
OK	4	16	41	38	1
SC	13	26	56	5	0
TX	7	13	33	39	8
VA	0	10	30	54	6
ALL	4	10	37	41	8
Prev Wk	6	14	34	38	8
Prev Yr	0	7	30	50	13

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

(Continued from front cover)

persisted, however, across most of **northern Texas** and **Oklahoma**. Farther north, hot weather spurred summer crop development on the **central Plains**. Scattered showers in the **Corn Belt** aided filling crops, while warm weather pushed corn and soybeans toward maturity. In the **northern Plains**, showers and thunderstorms aided immature crops but slowed small grain harvesting. In **California** and the **Northwest**, mostly dry, cool weather, accompanied by a gradual warming trend, promoted fieldwork and crop development. Seasonal showers dampened the **Southwest**.

A strong ridge of high pressure over the **central Great Plains** kept the region warm and dry as temperatures averaged up to 8°F above normal and highs reached the triple-digits in **Oklahoma** and **Kansas**. However, few daily records were broken, except for **Hill City, KS**, which reached a record 102°F on Tuesday. In contrast, both coasts observed sub-normal temperatures as persistent upper-air troughs brought a cool northwesterly flow into the regions. During the latter half of the week, an unseasonably strong area of high pressure slipped southeastward out of **Canada** into the **Ohio Valley**, dropping lows to record levels to over two dozen locations in the eastern half of the **Nation**. On Wednesday, readings plunged into the mid-30's°F to lower 40's°F in the **western Great Lakes region** (34°F at **Houghton Lake, MI**), between 45-50°F in the **Ohio Valley** and **mid-Atlantic** on Thursday, and mid-to-upper 50's°F in the **Southeast** on Friday and Saturday. Cool weather (weekly departures of -3°F to -6°F) also covered the **Far West**, snapping 7 consecutive weeks of above-normal temperatures.

In the tropics, Tropical Storm Bonnie formed late Thursday afternoon in the **central Atlantic** and strengthened to a hurricane by early Saturday morning while moving west-northwestward southeast of the **Bahamas**. In the **western Gulf of Mexico**, a depression was upgraded to Tropical Storm Charley by late Friday afternoon (see page 3). As Charley tracked northwestward toward the **southeastern Texas coast**, sustained winds increased to 60 mph, with gusts near hurricane

strength. As Charley made landfall near **Port Aransas, TX** Saturday morning, gusty winds and heavy showers and thunderstorms pelted portions of drought-plagued **south-central Texas**, generating some localized flash flooding. On Saturday, **Victoria, TX** measured a record 2.43 inches of rain, its largest 24-hour amount this year while raising its August total to 3.49 inches. Similarly, **San Antonio** received 2.96 inches on August 22, increasing its monthly rainfall to 5.75 inches. The recent rains have nearly erased **San Antonio's** year-to-date deficit (see page 19).

Earlier in the week, prior to the effects of Charley, August 17-20 rainfall at **Del Rio, TX** (2.01 inches) accounted for 41 percent of their year-to-date total, although January 1-August 20 rainfall in **Del Rio** still remained well below normal (6.09 inches). On Thursday, 0.75 inches of rain dampened **Midland, TX**, their highest total since 0.77 inches fell on December 20, 1997. **Midland's** rain also accounted for more than 25 percent of their year-to-date total. Unfortunately, as Charley slowly tracked westward by week's end, it eventually stalled near **Del Rio** on Sunday, dumping additional copious rains on portions of **south-central Texas** from **Del Rio** eastward to **San Antonio**, generating severe flooding (see page 3).

Across the northern tier of States, the battlezone between cool Canadian air and warm, humid tropical air triggered numerous showers and thunderstorms in the **northern Great Plains** and **upper Midwest**. Late in the week, thunderstorms soaked **Bismarck, ND** with 4.63 inches, establishing a new August rainfall record of 9.19 inches. Farther east on Tuesday, as a strong cold front triggered showers and thunderstorms through the **Northeast** and **mid-Atlantic**, **Rochester, NY** recorded a record 1.38 inches of rain. Summer (June-August) rainfall reached 23.03 inches in **Burlington, VT**, breaking their record of 22.74 inches, set in 1892. Another **Burlington** record from 1892, January-August rainfall of 33.39 inches, was eclipsed earlier this month. **Burlington's** January 1 - August 22 rainfall totaled 39.23 inches.

## 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/oc/waob/jawf>.*

**ALABAMA:** Days suitable for fieldwork 5.8. Topsoil moisture 1% very short, 27% short, 71% adequate, 1% surplus. Corn dented 95%, 94% 1997, 94% avg. Cotton setting bolls 99%, 91% 1997, 95% avg. Soybeans blooming 88%, 84% 1997, 82% avg. Corn 19% very poor, 22% poor, 44% fair, 14% good, 1% excellent. Cotton 7% very poor, 13% poor, 29% fair, 48% good, 3% excellent. Soybean 5% very poor, 8% poor, 36% fair, 36% good, 15% excellent. Livestock 1% very poor, 3%, poor, 37% fair, 55% good, and 4% excellent. Pasture 1% very poor, 7% poor, 52% fair, 38% good, 2% excellent. Corn harvest continued in many areas. Peach harvest concluded in most areas. Weed flushes occurred in soybean, peanut fields.

**ALASKA:** Days suitable for fieldwork 2.0. Rain continued to hamper agricultural activities across the Tanana Valley. Temperatures in the low 20's degrees Fahrenheit were recorded early in the week in parts of the Delta Junction and Kenny Lake areas. Daytime high temperatures ranged mostly in the mid-60's degrees Fahrenheit. Topsoil moisture supplies, 5% short, 95% adequate; 25% short, 70% adequate, 5% surplus. Barley 70% turning color, 30% ripe. Oats 50% turning color, 50% ripe. Wind and rain damage to crops, 95% none, 5% light. Commercial potato crop harvest just beginning. Other vegetable harvests continued.

**ARIZONA:** As of August 23, cotton bolls opening was roughly 2 weeks behind normal. Cotton condition mixed improving in some areas, declining in others. The decline was caused by heat, insect pressure. Alfalfa harvest activity 21% not being harvested, 11% light, 44% moderate, 24% active. Alfalfa 3% poor, 23% fair, 63% good, 11% excellent. Eastern Arizona growers began harvesting apples last week, while Western Arizona groves commenced harvesting lemons. State growers are also busy planting the fall crop of lettuce, vegetables.

**ARKANSAS:** Days suitable for fieldwork 6.7. Soil moisture supplies were 12% very short, 46% short, 41% adequate and 1% surplus. The main farming activities included treating pastures for armyworm problems, harvesting corn, sorghum, hay. Other farm activities included spraying for worms in cotton, irrigating soybeans, draining rice fields in preparation of harvest, fertilizing pastures. Some soybean acreage has been salvaged for hay due to poor growing conditions; in addition, some reports indicate that soybean fields have been disced under due to dry conditions, which have resulted in inadequate stands. Aflatoxin continues to be a problem for corn producers in some counties. Above-normal levels of nitrates have been found in hay because of lower-than-normal precipitation levels. Silage yields have also been lower than normal due to higher-than-normal temperatures. Corn 11% very poor, 21% poor, 32% fair, 34% good, 2% excellent. Alfalfa 1% very poor, 17% poor, 54% fair, 28% good. Other hay 6% very poor, 23% poor, 45% fair, 26% good. Range, pasture feed 11% very poor, 25% poor, 41% fair, 22% good, 1% excellent.

**CALIFORNIA:** Field activities progressed normally under favorable conditions, but most crop development was still considerably later than normal. Wheat grain harvest was ongoing in a few late fields in the San Joaquin Valley. Small grain stubble was burned or baled for straw. Harvest of corn for silage gained momentum. Corn grain harvest continued in early-planted single crop fields, while later seeded fields were maturing rapidly. Some corn fields were treated for mites. Rice was growing well in the Sacramento and San Joaquin Valleys, with head development underway in many fields. Cotton was setting bolls in the San Joaquin Valley, but was still blooming in the Sacramento Valley. Desert area cotton fields were sprayed for whitefly and treated with

growth regulators to aid boll opening. Cotton growers were actively spraying for aphids and mites in most growing areas. Seed alfalfa harvest was active in the San Joaquin Valley. Blackeye bean fields were drying for harvest. Sugarbeet harvest activity increased in the central counties, while immature fields were sprayed for insects. Alfalfa and sudangrass were cut for hay. Desert area alfalfa fields were treated for caterpillars and lygus. San Joaquin Valley Flame Seedless, Red Globe, Thompson Seedless grapes were actively harvested for fresh consumption. Growers were concerned with berry cracking and premature bunch rot. Some of the damaged fruit may go to wine production. Harvest of wine grapes was also active in the San Joaquin Valley. Some grape growers treated vineyards to control powdery mildew and mites. San Joaquin Valley stone fruit growers were picking nectarines, plums and freestone peaches. Growers were concerned about wind scarring, hail marks, and split pits. Bartlett pear harvest continued in the Sacramento-San Joaquin area. Picking of Asian pears was active in the San Joaquin Valley. Clingstone peach harvesting continued. Gala variety apples were harvested. Fresno County Black Mission, Calimyrna figs were harvested for fresh consumption, and the orchard floors were being prepared for the dry fig crop. A few almond growers began harvest; others prepared orchards for harvest by clearing between the trees. Harvests of grapefruit, Valencia oranges and south coast lemons remained active. Fresh market and processing tomatoes were being harvested throughout the San Joaquin and Sacramento Valleys. San Joaquin Valley strawberry growers were setting plants for the fall season. Cauliflower sets were being planted and spinach ground was being prepared. Honeydew, cantaloupe, and watermelon harvests continued in the San Joaquin and Sacramento Valleys. San Joaquin Valley pumpkins were blooming and setting fruit. Other vegetables harvested in the San Joaquin Valley included bell peppers, eggplant, garlic, sweet corn, various herbs, cucumbers, beets, turnips, squash, and exotic vegetables. Fall melons were being planted, while ground was being prepared for the planting of other fall vegetables in the Imperial Valley. Insect pressure remained high in both the San Joaquin and Sacramento Valleys. Native pasture, rangeland good to fair across the State. In the northern region, higher elevation feed was abundant, but drying rapidly. At lower elevations, rangeland, native pastures depleted; supplemental feeding was necessary in some areas. Fire hazards high to extreme. Lower temperatures provided relief to livestock suffering heat stress. Fresno County sheep grazed early-harvest melon fields. Bees continued to pollinate late-season melons.

**COLORADO:** Days suitable for fieldwork 5.8. Topsoil moisture 3% very short, 14% short, 77% adequate, 6% surplus. Subsoil 4% very short, 15% short, 76% adequate 5% surplus. Higher temperatures, with less frequent afternoon thunderstorms, prevailed throughout the week. Most crops continue to develop favorably. Spring barley 98% turning color, 97% 1997, 91% avg.; 58% harvested, 48% 1997, 50% avg. August 25, 1998. Oats 93% turning color, 94% 1997, 91% avg.; 57% harvested, 86% 1997, 64% avg. Dry onions 29% harvested, 18% 1997, 24% avg.; 1% very poor, 3% poor, 8% fair, 68% good, 20% excellent. Sugar beets 1% poor, 10% fair, 69% good, 20% excellent. Summer potatoes 19% harvested, 27% 1997, 33% avg.; 1% very poor, 1% poor, 5% fair, 80% good, 13% excellent. Fall potatoes 4% poor, 13% fair, 37% good, 46% excellent. Dry beans 99% flowered, 100% 1997, 92% avg.; 2% cut, 3% 1997, 2% avg.; 2% poor, 15% fair, 50% good, 33% excellent. Alfalfa 96% 2nd cutting, 90% 1997, 86% avg.; 23% 3rd cutting, 24% 1997, 20% avg.; 1% very poor, 4% poor, 21% fair, 57% good, 17% excellent. Spring wheat 82% turning color, 89% 1997, 92% avg.; 31% harvested, 29% 1997, 46% avg.; 6% poor, 17% fair, 47% good, 30% excellent. Pasture, range feed fair to good.

**DELAWARE:** Days suitable for field work 6.5. Topsoil 7% very short, 33% short, 60% adequate. Subsoil 2% very short, 42% short, 56% adequate. Soybeans 64% bloomed, 55% 1997, 76% avg.; 47% setting pods, 39% 1997, 47% avg.; 6% turned, 4% 1997, 1% avg.; 12% poor, 34% fair, 51% good, 3% excellent. Apples 21% harvested, 36% 1997, 25% avg.; 5% fair, 94% good, 1% excellent. Peaches 72% harvested, 70% 1997, 78% avg.; 10% fair, 89% good, 1% excellent. Sorghum 64% headed, 50% 1997, 76% avg.; 14% turning color, 11% 1997, 6% avg.; 16% poor, 55% fair, 29% good. Sweet corn 62% harvested, 77% 1997, 85% avg. Watermelons 59% harvested, 65% 1997, 72% avg. Cucumbers 73% harvested, 81% 1997, 82% avg. Cantaloupe 75% harvested, 76% 1997, 81% avg. Snap beans 63% harvested, 64% 1997, 77% avg. Lima beans 38% harvested, 27% 1997, 33% avg. Tomatoes 63% harvested, 59% 1997, 69% avg. Potatoes 78% harvested, 89% 1997, 77% avg. Field corn 80% dough, 54% 1997, 72% avg.; 45% dent, 37% 1997, 43% avg.; 18% mature, 4% 1997, 8% avg.; 21% harvested for silage, 11% 1997, 17% avg.; 13% very poor, 20% poor, 39% fair, 25% good, 3% excellent. Alfalfa 91% third cutting harvested, 85% 1997, 87% avg.; 23% fourth cutting, 16% 1997, 10% avg. Other hay 70% third cutting, 60% 1997, 54% avg.; 25% fourth cutting, 11% 1997, 4% avg. Hay supplies 32% short, 68% adequate. Pasture 27% poor, 32% fair, 41% good. Activities: Showers received on August 17 in most areas of State, however, continued irrigation of field corn.

**FLORIDA:** Topsoil moisture throughout State mostly adequate, with scattered areas surplus moisture. Haying delayed by wet weather. Tobacco harvest virtually complete. Tobacco marketing active. White mold becoming extremely bad, some peanut fields. Tomato spotted wilt virus showing up in peanut fields. Heavy armyworm infestation continues to plague peanuts, hay fields, pastures. Bollworm infestations high in some non-Bt cotton fields. Soybeans, sugarcane, good condition. Peanut condition: fair 14%, good 82%, excellent 4%. Ground preparation for fall vegetable planting continued between showers as growers kept eye on movement of Hurricane Bonnie. Gadsden County--tomatoes good condition, with most plants at first string. Oxford--fall vegetable planting started. East coast--producers planted limited acreage of eggplant; pepper transplanting continued, wet ground delayed some activity after mid-week; tomato planting underway; recent pepper, tomato plantings in mostly good condition, some resets due to heat damage. Palmetto-Ruskin--tomato plant growth fair to good, planting slowing seasonally; workers starting to stake tomatoes; eggplant fair to good; watermelon planting gained momentum, condition fair to good; cherry, plum tomato planting increasing, both fair to good; pumpkin planting finished, growth fair to good; cantaloupes fair to good. Southwest--pepper planting gained momentum, fair to good; tomato planting slow, young plants fair to good. Plum, cherry tomato planting began, both fair to good. Dade County--very small squash acreage planted, most growers to start about September 1; okra harvesting slowed due to low market, recent heavy rain knocked some blooms off, recovery expected, some acreage cut to delay harvesting, make second crop; snap bean planting expected to start late August; tomato planting expected to begin late September. Typical summer weather in citrus areas with rains, thunderstorms. Isolated dry areas for a few days. Tropical weather has provided near ideal conditions for production of new growth, declining trees being removed, in a few groves young trees are being reset, fruit sizes vary depending on grove care. Caretakers are cutting cover crops, spraying, fertilizing, removing dead trees, replanting new trees in some groves. Pasture feed: fair 30%, good 70%. Condition of cattle: fair 35%, good 65%. Armyworm infestations still problem in Panhandle, northern, central counties. Armyworms caused substantial damage to pastures, hayfields. Southwest, some pastures overgrown. Fall calving active. Pastures look good, grass growth good. Statewide, cattle, calves in fair to good.

**GEORGIA:** Days suitable for fieldwork 5.3. Soil moisture 4% very short, 24% short, 64% adequate, 8% surplus. Corn 94% mature, 90% 1997, 94% avg.; 51% harvested for grain, 31% 1997, 35% avg. Hay 6% very poor, 20% poor, 36% fair, 35% good, 3% excellent. Sorghum 8% very poor, 22% poor, 41% fair, 27% good, 2% excellent; 13%

harvested for grain, 6% 1997, 9% avg. Soybeans 95% blooming, 95% 1997, 93% avg. Tobacco 5% very poor, 13% poor, 48% fair, 31% good, 3% excellent; 69% harvested, 91% 1997, 87% avg. Watermelons 99% harvested, 97% 1997, 98% avg. Apples 10% fair, 80% good, 10% excellent; 13% harvested, 19% 1997, 18% avg. Peaches 99% harvested, 100% 1997, 99% avg. Pecans 12% very poor, 36% poor, 33% fair, 18% good, 1% excellent. Most crop conditions held steady. Corn harvest very active, progress is slightly behind last year and the 5-year avg. Fall armyworms continue plaguing peanuts, cotton, soybeans, hay fields, pasture. Producers are still spraying insecticides to most major crops. Other activities included planting fall vegetables, irrigating cotton and peanuts, spraying fungicides to pecans, preparing land for harvest.

**HAWAII:** Weather conditions were fair for agriculture. Days were generally sunny, with increased shower activity over the weekend. Banana harvesting will remain at a moderate to heavy level. Orchard conditions were mostly good. Papaya harvesting increased seasonally. Crop mostly fair. Head cabbage harvesting remained active. Warm temperatures and periodic rains have affected production, but not significantly.

**IDAHO:** Days suitable for fieldwork 6.7. Topsoil moisture 3% surplus, 46% adequate, 46% short, 5% very short. Extreme heat in July and August affecting yield and quality of cereal grains. Temperatures cool down. Alfalfa hay second cutting 91%, 1997 89%, avg. 84%; third cutting 28%, 1997 22%, avg. 19%. Irrigation supply 31% excellent, 58% good, 11% fair. Mint harvested 73%, 1997 60%, avg. 82%. Lentils harvested 43%, 1997 19%, avg. 33%. Dry Peas harvested 81%, 1997 52%, avg. 50%. Dry Beans harvested 2%, 1997 4%, avg. 5%. Oats harvested 40%, 1997 42%, avg. 40%. Onions harvested 7%, 1997 9%, avg. 7%. Hops harvested 2%, 1997 1%, avg. 11%. Peaches harvested 26%, 1997 71%, avg. 50%. Prunes and Plums harvested 6%, 1997 8%, avg. 15%. Potato vines dead/killed 7%, 1997 8%, avg. 16%. Sweet corn harvested 27%, 1997 22%, avg. 26%. Barley turning color 98%. Winter wheat harvested 84%, 1997 58%, avg. 62%. Activities: monitoring insect infestation, applying fungicides to combat late blight, irrigating, harvesting cereal grains, hay, mint, lentils, dry peas, oats, onions, hops, sweet corn and peaches.

**ILLINOIS:** Days suitable for fieldwork 6.0. Topsoil moisture 2% very short, 19% short, 74% adequate, 5% surplus. Statewide, soybean fields are contending with outbreaks of sudden death syndrome, but it is too early to evaluate any yield loss. Despite the recent setback to the soybean crop, corn, soybeans remains fair. The recent warm, dry weather continues to push the maturing of the corn crop. Farming activities included baling hay, hauling grain, preparing equipment for harvest, livestock care. Corn mature 3%, 1% avg. Soybeans blooming 94%, 100% 1997, 97% avg. Soybeans turning yellow 1%, 1% 1997, 2% avg. Alfalfa 3rd cutting 59%, 40% 1997, 43% avg.

**INDIANA:** Days suitable for fieldwork 6.8. Topsoil 1% very short, 23% short, 73% adequate, 3% surplus. Subsoil 1% very short, 13% short, 83% adequate, 3% surplus. Crop conditions declined for the first time since mid-July. Although both crops are still in good condition, corn is beginning to show the results of spring nitrogen leeching, soybeans are suffering from increasing reports of sudden death syndrome. Dry soils are also stressing crops in many areas. Progress remains ahead of avg. for both crops. Range, pasture 1% very poor, 6% poor, 31% fair, 49% good, 13% excellent. Activities: cutting alfalfa, spraying crops, mowing lots, roadsides, caring for livestock, preparing equipment for fall harvest.

**IOWA:** Days suitable for fieldwork 5.4. Topsoil very short 5%, short 21%, adequate 68%, surplus 6%. Subsoil moisture very short 2%, short 20%, adequate 74%, surplus 4%. Iowa's crops maturing quickly due to hot, humid weather. Corn is beginning to turn color in some areas. Green snap damage evident in areas; some fields are being cut for fodder. The southern third is reporting yellowing of corn due to

nitrogen deficiency. Hay harvest slowed by rain and heavy dew. The 1998 row crops: Corn milk stage 96%, 93% 1997, 82% avg.; dough stage 75%, 55% 1997, 47% avg.; corn 3% very poor, 6% poor, 20% fair, 48% good, 23% excellent. Soybeans setting pods 99%, 99% 1997, 92% avg. Soybean 3% very poor, 5% poor, 18% fair, 48% good, 26% excellent. Third-crop alfalfa harvested 35%, 28% 1997, 25% avg. Second-crop clover harvested 92%, 83% 1997, 75% avg. All hay 2% very poor, 7% poor, 24% fair, 49% good, 18% excellent. Pasture 3% very poor, 11% poor, 31% fair, 41% good, 14% excellent.

**KANSAS:** Days suitable for fieldwork 6.6. Topsoil 7% very short, 43% short, and 50% adequate. Subsoil 5% very short, 25% short, 69% adequate, 1% surplus. Fall crop good to excellent. Corn mature 13%, 7% 1997, 7% avg. Sorghum mature 4%, 2% 1997, 1% avg. Sunflowers bloom 98%, 61% 1997, NA avg. Ray flowers dry 37%, NA 1997, NA avg. Bracts yellow 16%, NA 1997, NA avg. Sunflowers 1% poor, 18% fair, 70% good, 11% excellent. Third-cutting alfalfa hay 98%, 89% 1997, 90% avg.; fourth-cutting 35%, 21% 1997, 18% avg. Major field activities were cutting hay, harvesting silage, working stubble, cultivating, and fertilizing. Pasture conditions 1% very poor, 5% poor, 32% fair, 55% good and 7% excellent. Pasture conditions declining due to lack of moisture. Stock water supplies 1% very short, 12% short, 86% adequate, 1% surplus.

**KENTUCKY:** Days suitable for fieldwork 5.7. Topsoil moisture 9% very short, 33% short, 56% adequate, 2% surplus. Subsoil moisture 4% very short, 27% short, 64% adequate, 5% surplus. Slightly above-normal temperatures. Scattered showers midweek for eastern counties, rest of Kentucky dry. Late-planted crops need rain, especially tobacco and soybeans. Recent dry weather holding blue mold and black shank on tobacco in check. Tobacco condition variable; most early set expected to have high yields. Burley tobacco cut 29%, 14% 1997, 20% avg. Dark tobacco cut 38%, 16% 1997, 32% avg. Tobacco 2% very poor, 9% poor, 29% fair, 46% good, 14% excellent. Hay 7% poor, 28% fair, 50% good, 15% excellent. Pastures 2% very poor, 5% poor, 30% fair, 50% good, 13% excellent.

**LOUISIANA:** Days suitable for fieldwork 5.6. Soil moisture 13% very short, 30% short, 48% adequate, 9% surplus. Corn 75% harvested, 60% 1997, 53% avg. Cotton: Boll rot and insect pressure increased in some cotton fields. Hay 56% final cutting, 78% 1997, 65% avg. Peaches 99% harvested, 100% 1997, 99% avg. Rice 87% ripe, 63% 1997, 68% avg. Rice harvest progressed well, with much of the straw still being baled. Sorghum 77% ripe, 55% 1997, 53% avg.; 33% harvested, 14% 1997, 20% avg. Sorghum harvest continued. Soybeans 100% blooming, 100% 1997, 97% avg., 26% turning color, 19% 1997, 13% avg. Producers were spraying early-maturing soybeans for insects. Sugarcane 3% very poor, 8% poor, 29% fair, 41% good, 19% excellent; 7% planted, 14% 1997, 10% avg. Sweetpotatoes 5% very poor, 10% poor, 39% fair, 45% good, 1% excellent; 5% harvested, 14% 1997, 11% avg. Livestock 5% very poor, 14% poor, 38% fair, 39% good, 4% excellent. Vegetables 14% very poor, 27% poor, 35% fair, 23% good, 1% excellent. Pastures: Pastures continue to suffer from armyworm infestations, but rain showers improved other conditions.

**MARYLAND:** Days suitable for fieldwork 6.3. Topsoil moisture 14% very short, 38% short, 47% adequate, 1% surplus. Subsoil moisture 15% very short, 37% short, 48% adequate. Field corn 7% very poor, 14% poor, 33% fair, 40% good, 6% excellent; 63% dough, 52% 1997, 63% avg.; 38% dent, 22% 1997, 32% avg.; 18% mature, 4% 1997, 5% avg.; 21% harvested for silage, 5% 1997, 6% avg. Soybeans 7% very poor, 14% poor, 28% fair, 37% good, 14% excellent; 93% bloomed, 91% 1997, 86% avg.; 74% setting pods, 68% 1997, 61% avg. Sorghum 5% very poor, 9% poor, 26% fair, 49% good, 11% excellent; 16% turned, 3% avg. Tobacco 10% very poor, 27% poor, 43% fair, 20% good; 92% bloomed, 96% 1997, 93% avg.; 85% topped, 77% 1997, 75% avg.; 42% harvested, 34% 1997, 36% avg. Sweet corn 81% harvested, 79% 1997, 78% avg. Snap beans 77% harvested, 62%

1997, 81% avg. Lima beans 27% harvested, 4% 1997, 20% avg. Cucumbers 88% harvested, 80% 1997, 84% avg. Pasture 8% very poor, 31% poor, 36% fair, 22% good, 3% excellent. Cantaloupe 87% harvested, 86% 1997, 85% avg. Watermelons 79% harvested, 71% 1997, 78% avg. Tomatoes 83% harvested, 73% 1997, 72% avg. Apples 12% fair, 76% good, 12% excellent; 14% harvested, 15% 1997, 12% avg. Peaches 2% fair, 84% good, 14% excellent; 85% harvested, 66% 1997, 73% avg. Other hay 92% 2nd cutting harvested, 88% 1997, 89% avg.; 53% 3rd cutting, 25% 1997, 33% avg.; 11% 4th cutting, 3% 1997, 4% avg. Alfalfa hay 78% 3rd cutting, 69% 1997, 78% avg.; 28% 4th cutting, 15% 1997, 12% avg. Hay supplies 3% very short, 23% short, 64% adequate, 10% surplus. Activities: continued harvesting of tobacco, vegetable and fruit crops; start-up of harvesting of grain corn.

**MICHIGAN:** Days suitable for fieldwork 6.0. Topsoil moisture 28% very short, 41% short, 31% adequate. Subsoil moisture 37% very short, 39% short, 24% adequate. Hay 3rd cutting 43%, 22% 1997, 20% avg. Corn, milk 95%, 70% 1997, 74% avg. Drybeans setting pods 96%, 97% 1997, 85% avg. Dry beans turning leaves 48%, 21% 1997, 17% avg. Soybeans turning leaves 7%, 1% 1997, 4% avg. Most areas less than 1 inch of rain, topsoil and subsoil moisture still dry. Continued dry weather affected yield potential in many areas. Much corn in dryer parts of central and Thumb areas will not recover, even if more rain arrives. Drier weather favorable for spider mites in many soybean fields over the State. Double-cropped soybeans doing well in the south, where more rain has fallen. Dry weather caused disappointing yields on third-cutting alfalfa in most areas. Sugarbeets still stressed for moisture, but dry weather kept fungus *Cercospora* leafspot in check. Dry beans turning with no regrowth seen. Harvest of potato variety Atlantics progressed slowly. Carrot, celery, cucumber harvests continued, with good yields and quality. Good size was reported on onion harvest. Snap bean harvest in full swing with some white mold some fields. Zucchini harvest active, with some disease problems. Pepper harvest continued. Sweet corn harvest more than 70 percent complete in the Grand Rapids area. Tomato harvest complete on most early fresh market fields. Blueberry harvest neared completion. Size of Elliott berries reduced by dry conditions. Redskin peaches picked southwest. Bartlett pear harvest underway. Macintosh and Gala apple harvests will start this week. Niagara grape harvest slated for September 1, 2 weeks earlier than normal.

**MINNESOTA:** Days suitable for fieldwork 4.8. Topsoil moisture 10% very short, 26% short, 59% adequate, 5% surplus. Soybeans 5% turning yellow, 2% 1997, 3% avg. Sweet corn 69% harvested, 38% 1997, 36% avg. Stubble plowed 32%, 19% 1997, 13% avg. Pasture feed 9% very poor, 19% poor, 29% fair, 38% good, 5% excellent. Sugarbeets 1% very poor, 4% poor, 17% fair, 61% good, 17% excellent. Sunflowers 2% very poor, 9% poor, 25% fair, 56% good, 8% excellent. Dry beans 2% very poor, 8% poor, 64% fair, 23% good, 3% excellent. The State's corn crop continues to develop slightly over 2 weeks ahead of normal. White mold is starting to show up in southern areas of the State, where more rainfall has been received.

**MISSISSIPPI:** Days suitable for fieldwork 6.3. Soil moisture 10% very short, 28% short, 58% adequate, 4% surplus. Corn 98% dent, 93% 1997, 92% avg.; 88% mature, 64% 1997, 62% avg.; 52% harvested, 13% 1997, 16% avg.; 82% silage harvested 69% 1997, 66% avg.; 16% very poor, 25% poor, 30% fair, 26% good, 3% excellent. Cotton 53% open bolls, 12% 1997, 26% avg.; 7% very poor, 7% poor, 30% fair, 47% good, 9% excellent. Rice 92% heading, 82% 1997, 89% avg.; 30% mature, 15% 1997, 28% avg.; 8% harvested, NA 1997, 4% avg.; 1% very poor, 5% poor, 33% fair, 52% good, 9% excellent. Sorghum 92% turning color, 85% 1997, 83% avg.; 53% mature, 30% 1997, 45% avg.; 58% silage harvested, NA 1997, 33% avg.; 4% very poor, 10% poor, 41% fair, 44% good, 1% excellent. Soybeans 96% setting pods, 86% 1997, 81% avg.; 40% turning color, 21% 1997, 19% avg.; 19% shedding leaves, 13% 1997, 8% avg.; 5% very poor, 11% poor, 35% fair, 40% good, 9% excellent. Sweetpotatoes 6% harvested, 2% 1997, 9% avg.; 2% very poor, 5% poor, 17% fair, 76% good. Peanuts 1% poor, 27% fair, 44% good, 28% excellent. Hay 80% harvested (warm

season) 81% 1997, 83% avg.; 3% very poor, 12% poor, 37% fair, 40% good, 8% excellent. Cattle 1% very poor, 7% poor, 26% fair, 53% good, 13% excellent. Pasture 2% very poor, 12% poor, 40% fair, 39% good, 7% excellent. Activities: Hot, dry weather conditions continue to rapidly push row crops toward maturity. Corn harvest is well ahead of normal.

**MISSOURI:** Days suitable for fieldwork 6.6. Topsoil moisture declined to 2% very short, 36% percent short, 60% adequate, 2% surplus. The most notable shortages exist in the northeast, southwest, with over 55% short, followed by northwest, north-central at 45% short. Row crops are becoming short of moisture as above avg. temperatures with limited rainfall prevailed. Crop fair to good, but crops in the driest areas are showing stress. Tobacco harvesting is underway in the northwest. Aflatoxin and mold are showing up in corn from some southeast areas, where hot, dry weather had prevailed during July, followed by wet weather in early August. Lowest soybean condition is in the southwest at 66% poor, due to worm and insect damage. Cotton crop had been hindered by excess moisture and now shows damage from insects and boll rot. Corn mature 24%, 12% 1997, 12% avg. Third-crop alfalfa cut 81%, 68% 1997, 61% avg. Rainfall for the past week avg 0.05 in., ranging from none in the north-central, northeast, southwest districts to 0.20 in. the east-central. Pasture 1% very poor, 5% poor, 33% fair, 53% good, 8% excellent.

**MONTANA:** Days suitable for fieldwork 6.7. Topsoil 17% very short, 54% short, 29% adequate. Subsoil 25% very short, 47% short, 28% adequate. Conditions were hot and dry with no areas of the State receiving any significant amounts of moisture. Winter wheat ripe 98%, 94% 1997, 92% avg. Winter wheat harvested 93%, 74% 1997, 64% avg. Spring wheat ripe 90%, 74% 1997, 64% avg. Spring wheat condition 5% very poor, 12% poor, 39% fair, 39% good, 5% excellent. Barley ripe 92%, 65% 1997, 63% avg. Condition of barley 8% very poor, 19% poor, 43% fair, 28% good, 2% excellent. Oats ripe 87%, 74% 1997, 64% avg. Oats harvested 65%, 32% fair, 43% good, 10% excellent. Corn harvested for silage 1%, 4% 1997, 2% avg. Dry beans harvested 11% 1997, 4% avg. Second-cutting alfalfa 65%, 53% 1997, 57% avg. First-cutting of other hay 92% 1997, 87% avg. Range, pasture mostly fair.

**NEBRASKA:** Days suitable for fieldwork 6.1. Topsoil moisture 2% very short, 25% short, 69% adequate, 4% surplus. Subsoil moisture 2% very short, 23% short, 73% adequate, 2% surplus. Corn 1% very poor, 3% poor, 16% fair, 55% good and 25% excellent; irrigated corn 81% good or excellent; dryland corn 78% good or excellent; dough 86%, 81% last year, 68% avg.; dent 41%, 18% last year, 21% avg. Seed corn harvest to begin around Labor Day. Soybean 2% poor, 18% fair, 59% good, 21% excellent; podding occurring on nearly all acreage. Bean leaf beetles continue to be a concern in some fields. Sorghum 1% poor, 17% fair, 61% good, 21% excellent; nearly all acreage heading; coloring 20%, 11% last year, 15% avg. Dry beans 1% very poor, 9% poor, 34% fair, 44% good and 12% excellent; podded 84%, 97% last year and 95% avg.; rust becoming a concern in Panhandle counties. Alfalfa 1% very poor, 5% poor, 22% fair, 61% good, 11% excellent; 3rd cutting 69%, 47% last year, 49% avg. Pasture 1% very poor, 7% poor, 21% fair, 62% good, 9% excellent. Temperatures stressed livestock in confined areas. Producer activities; preparation for wheat seeding, moving grain, hay harvest and machinery maintenance.

**NEVADA:** Cooler weather was seen in the north, with normal to slightly below normal temperatures reported. The southern part of the State continued to see above-normal temperatures. Harvest activities continued with 2nd cutting of alfalfa hay nearing completion in the north and 3rd cutting continuing. Harvesting of small grains was nearly completed in the Fallon and Yerington areas and continued in Lovelock. Northern corn fields remained good. Harvest of garlic for seed use continued. Onion harvest remained steady. Potatoes good. Pasture and range continue to dry out from high temperatures and lack of precipitation. Cattle movement, calf marketing continued. Main farm, ranch activities: haying, grain harvest, onion harvest, garlic harvest, irrigating, cattle marketing, weed and pest control.

**NEW ENGLAND:** Days suitable for fieldwork 6.5. Topsoil moisture 6% very short, 31% short, 58% adequate, 5% surplus. Subsoil moisture 5% very short, 29% short, 62% adequate, 4% surplus. Pasture feed 1% very poor, 13% poor, 45% fair, 30% good, 11% excellent. Maine potatoes <5% harvested, <5% 1997, <5% avg.; good to fair. Massachusetts potatoes 60% harvested, 40% 1997, 30% avg.; good. Rhode Island potatoes 15% harvested, 25% 1997, 15% avg.; good. Oats in Maine 25% harvested, <5% 1997, 25% avg.; good to fair. Barley in Maine 35% harvested, 5% 1997; good to fair. Field corn good to fair. Sweet corn 60% harvested, 60% 1997, 60% avg.; good to fair. Shade Tobacco 100% harvested, 95% 1997, 80% avg.; good to fair. Broadleaf tobacco 80% harvested, 80% 1997, 75% avg.; good to fair. First-cut hay 99% harvested, 99% 1997, 99% avg.; good to fair. Second-cut hay 70% harvested, 65% 1997, 70% avg.; good. Third-cut hay 25% harvested, 25% 1997, 20% avg.; good to excellent. Apples 10% harvested, 10% 1997, 10% avg., size avg.; good to fair. Peaches 70% harvested, 45% 1997, 50% avg., size avg.; good. Pears 10% harvested, 5% 1997, 10% avg., size avg.; good. Cranberries size avg., good to excellent. Highbush blueberries 90% harvested, 70% 1997, 80% avg.; size avg.; good. Wild blueberries 80% harvested, 75% 1997, 70% avg.; size avg.; fair. Many reports state the need for moisture. Major farm activities included: harvesting a variety of mid-season vegetables, fall potatoes, blueberries, and broadleaf tobacco; irrigating, spreading manure; 2nd and 3rd cutting of hay continues. Shade tobacco harvest is complete.

**NEW JERSEY:** Days suitable for fieldwork 7. Last week's rain was beneficial, but the ground continues to be very dry. Field crops are in dire need of water. Irrigation has been a must. Farmers are spraying for disease and pests, harvesting vegetables and fruits, irrigating, cutting hay and planting fall vegetables. Feed requirements are average. The irrigation water supply is short to adequate. Good volume of tomatoes, sweet corn, peppers, all beans, all squash and eggplant. Moderate volume of watermelon, cabbage, beets, cantaloupe, pickles and leeks. Light supply of cabbage, herbs, okra, parsley, spinach, turnips and leafy greens. Fruits and berries are continuing to size well. Peach harvest is near peak. Autumn glo, Blake, jersey glo and cresthaven varieties are prominent. Peach color, size, and taste are good. Apples are coloring and sizing well. The need for rain is critical for soybeans and corn. Hay cutting is slowing down since the lack of rain has prevented the hay from growing back quickly. Pastures poor to fair.

**NEW MEXICO:** Days suitable for fieldwork to 6.4. Topsoil moisture remained steady, at 14% very short, 39% short, 46% adequate, 1% surplus. Weekly ratings indicate that the recent precipitation was having a positive effect on the cotton crop. Corn was 86% in the dough stage last week, 74% 1997; 4% poor, 35% fair, 51% good, 10% excellent. The condition of the sorghum crop was still improving last week, as the crop continued to head and color. The 4th cutting of alfalfa moved to 72% complete, 55% 1997; 5th cutting 22% complete, 7% 1997; 6% poor, 37% fair, 45% good, 12% excellent. Green chile harvest continued, progressing slowly across the State; 16% harvested, 22% 1997; 4% poor, 21% fair, 64% good, 11% excellent. Onion harvest was almost completed, with 98% of the crop in; good to excellent. Lettuce producers finished planting last week. Apples, pecans remained good. Pecan drop 3% below avg., 96% avg., 1% heavy. Cattle fair to good, while sheep remained fair. Range and pasture feed continued to show improvement last week.

**NEW YORK:** Days suitable for fieldwork 5.7. Soil moisture 12% very short, 17% short and 71% adequate. Corn 20% fair, 60% good, 20% excellent. Silage harvest underway. Second-cutting alfalfa 92% finished, 93% 1997, 90% avg. Third-cutting alfalfa 35% finished, 29% 1997, 34% avg. Oats 84% harvested, 77% 1997, 75% avg. Potato harvest underway. Apples 2 weeks ahead. Early varieties being harvested. Vegetable harvest in full swing. Recent rain put crops in good condition. Excellent growing weather.

**North Carolina:** Days suitable for fieldwork 6.1. Dry conditions persist, with another week of below-normal precipitation and typical high temperatures. Conditions remain dry for much of the State and crops still need a soaking rain to boost yields, especially in tobacco, cotton, and soybeans. Conditions may be favorable for rainfall in the upcoming week; unfortunately, farmers will be watching with nervous anticipation as Hurricane Bonnie stirs in the Atlantic. Soil moisture 12% very short, 39% short, 47% adequate and 2% surplus. Activities for the week included: pest control in all crops; harvesting and irrigating tobacco; harvesting corn and truck crops; cutting hay and tending livestock

**NORTH DAKOTA:** Days suitable for fieldwork 5. Soil moisture supplies were replenished, though remain drier than avg. Topsoil moisture 8% very short, 28% short, 62% adequate, 2% surplus. Subsoil 7% very short, 31% short, 60% adequate, 2% surplus. Despite the rain, small grain harvesting continued at a pace about 2 weeks ahead of average. Durum wheat 96% turning, 90% 1997, 76% avg; 39% combined, 18% 1997, 13% avg. Canola 87% swathed, 56% 1997; 42% combined, 11% 1997. Corn for grain 50% denting, 15% 1997, 15% avg. Dry edible beans 87% lower leaves yellowing, 61% 1997, 48% avg; 59% mature leaves dropping, 25% 1997, 19% avg. Flaxseed 95% turning, 87% 1997, 65% avg; 29% combined, 10% 1997, 3% avg. Potatoes 34% vines killed, 6% 1997, 16% avg. Soybeans 82% fully podded, 86% 1997, 73% avg; 18% lower leaves yellowing, 13% 1997, 18% avg. Sunflower 39% ray flowers dried/dropped, 27% 1997, 24% avg. Nearly all late-season crops showed some degree of improvement in condition, except flaxseed and dry edible beans. Emerged crop condition: corn for grain 2% very poor, 6% poor, 23% fair, 48% good, 21% excellent; corn for silage 1% very poor, 8% poor, 30% fair, 51% good, 10% excellent; dry edible beans 2% very poor, 12% poor, 31% fair, 43% good, 12% excellent; flaxseed 2% very poor, 6% poor, 23% fair, 56% good, 13% excellent; potatoes, 2% poor, 12% fair, 52% good, 34% excellent; soybeans 3% very poor, 19% poor, 29% fair, 44% good, 5% excellent; sugarbeets 2% very poor, 3% poor, 12% fair, 51% good, 32% excellent; sunflower 1% very poor, 6% poor, 26% fair, 54% good, 13% excellent. Stockwater supplies 1% very short, 8% short, 87% adequate, 4% surplus. Hay 71% of normal.

**OHIO:** Days suitable for fieldwork was 6.5 days. Topsoil moisture 13% very short, 32% short, 53% adequate, 2% surplus. Corn dough 75%, 65% 1997, 69% avg. Corn dented 20%, 9% 1997, 15% avg. Soybeans setting pods 1 day ahead of last year, 7 days avg. Oats 100% harvested, 95% 1997, 98% avg. Alfalfa hay 63% 3rd cutting, 29% 1997, 36% avg. Alfalfa hay 9% 4th cutting. Other hay 90% 2nd cutting, 84% 1997, 86% avg. Other hay 27% 3rd cutting, 11% 1997, 14% avg. Tobacco 56% topped, 51% 1997. Tobacco 12% cut, 4% 1997. Summer apples 79% harvested, 35% 1997, 45% avg. Peaches 80% harvested. Hay 3% very poor, 12% poor, 24% fair, 50% good, 11% excellent. Farm activities for the State include making hay; hauling hay to auction; spreading lime, manure; tilling, mowing wheat stubble; repairing, prepping machinery; moving, marketing 1997, 1998 grain; buying wheat seed; installing tile, sod waterways; bushhogging weeds, mowing fence rows; scouting for insects in corn, soybeans; topping, cutting tobacco; seeding summer forages; harvesting tomatoes, carrots, potatoes, peppers, snap beans; irrigating vegetables; chopping silage; prepping livestock for county fairs; vaccinating cattle; building greenhouses. The following weed pressures were reported: broadleaves; foxtail; giant, common ragweed; lambsquarters; sourdock; pigweed; Canadian thistle; Johnsongrass; ironweed; velvetleaf; volunteer corn; shattercane. Reported insects were leafhoppers in alfalfa; Japanese beetles, fall armyworm, earworm, European corn borer in corn; grasshoppers; bean leaf beetles; aphids. Reported diseases were phytophthora, white mold in soybeans; mildew, molds; grey leaf spot in corn; blight on tomatoes, pumpkins, gourds; needle scale in Christmas trees; blue mold in tobacco. Some vegetables in the northwest district are poor due to excess moisture. Reporters throughout most of the State, however, report good conditions of fruit and vegetables. A Portage County reporter mentioned irrigation of vegetables as the northeast part of the State is short on rain. Reports of pasture conditions in the northwestern, north-central districts are mostly good to

excellent. However, lack of rainfall in other parts of the State has slowed or stopped pasture, grass production. A Perry County reporter mentioned rotating cattle to reduce stress from over grazed pastures. Cooler nights have alleviated some of the stress livestock have felt during hot days. Poor pasture, humidity, mosquitoes, face flies are factors contributing to discomfort of livestock.

**OKLAHOMA:** Days suitable for fieldwork 6.4. Topsoil 38% very short, 37% short, 25% adequate. Subsoil 24% very short, 45% short, 31% adequate. Wheat plowed 93%, 95% 1997, 97% avg.; seedbed prepared 33%, 46% 1997, 47% avg.; Oats plowed 86%, 96% 1997, 99% avg.; seedbed prepared 25%, 38% 1997, 21% avg.; Corn 6% very poor, 6% poor, 5% fair, 83% good; mature 24%, 13% 1997, 20% avg.; harvested 8%, 2% 1997, 4% avg.; Sorghum mature 4%, 3% 1997, 8% avg.; Soybeans 13% very poor, 29% poor, 38% fair, 20% good; flowering 92%, 96% 1997, 87% avg.; setting pods 74%, 86% 1997, 65% avg; mature 7%, 5% 1997, 10% avg.; Peanuts setting pods 96%, 94% 1997, 90% avg.; mature 3%, 3% avg.; Alfalfa Hay 11% very poor, 20% poor, 33% fair, 32% good, 4% excellent; 3rd cutting 85%, 90% 1997, 92% avg.; 4th cutting 21%, 20% 1997, 31% avg.; Other Hay 1st cutting 93%, 96% 1997, 98% avg.; 2nd cutting 7%, 21% 1997, 70% avg.; Livestock 3% very poor, 13% poor, 28% fair, 55% good, 1% excellent. Prices for feeder cattle down \$.50 per cwt. from the preceding week.

**OREGON:** Days suitable for fieldwork 6.9. Topsoil 20% very short, 39% short, 41% adequate. Subsoil 15% very short, 27% short, 58% adequate. Barley harvested 49%, 65% 1997, 60% average. Winter wheat harvested 55%, 88% 1997, 90% average. Spring wheat 40% harvested. Range & pasture condition 1% very poor, 1% poor, 15% fair, 68% good, 15% excellent. Activities: Grain harvest continued on eastside with good yields. Fires kept farmers on their toes. Northeast reported some grain fields rust affected & mint distilling underway with good yields. Sugar beets reported good in Klamath Basin & early third cutting of alfalfa hay started. Grain harvest underway on westside as well, baled hay in fields. Mint harvest started. Willamette Valley reported field corn forming ears, hops, oats being harvested, red clover nearing swathing stage. Summer maintenance, irrigation continue to be major nursery activity. The Far West Nursery Show in Portland is the coming weekend & most firms were making plans to attend the show. In the Willamette Valley, harvest of sweet corn, tomatoes, green beans, table beets, melons were in full swing, in good supply. Onions were developing well. Willamette Valley reported green bean harvest finished. Potatoes continued to look good on eastside. Malheur County reported potatoes 50% turned, onion harvest started. Bartlett pear harvest started in Mid-Columbia. Galas apple picking started. Graven stein apple harvest underway in Willamette Valley. Early peach harvest underway. Evergreen blackberry picking continued while blueberries were winding down. Hazelnut blanks were dropping. Livestock condition remains mostly good. Willamette Valley pastures poor to fair, as the hot, dry weather continued pasture dry up. Some supplemental reeding was reported. Range and pasture in southern Oregon very dry with high fire danger. Fire danger also high across the eastside. Most rangeland is very dry. Some preconditioning of calves was reported in Northeast.

**PENNSYLVANIA:** Days suitable for fieldwork 5.3. Soil moisture 23% very short, 38% short, 39% adequate. Ensilage corn harvested 2% harvested, 7% 1997, 3% avg. Soybean 1% very poor, 5% poor, 14% fair, 65% good, 15% excellent. Oats 84% complete, 84% 1997, 82% avg. Tobacco 45%, 8% 1997, 21% avg. Potato harvested 10% complete, 18% 1997, 20% avg. Alfalfa 3rd cutting 60% complete, 56% 1997, 50% avg. Alfalfa 4th cutting 20% complete, 17% 1997, 10% avg. Timothy clover 2nd cutting 75% complete, 64% 1997, 68% avg. Quality of hay made 3% very poor, 7% poor, 16% fair, 56% good, 18% excellent. Apple harvest 27% complete, 18% 1997, 17% avg. Peach harvest 85% complete, 55% 1997, 59% avg. Fall plowing 14% complete, 22% 1997, 16% avg. Activities: cutting hay and haylage; harvesting fruit; machinery maintenance; fixing fences; hauling manure; and caring for livestock.

**SOUTH CAROLINA:** Days suitable for fieldwork 6.2. Soil moisture 6% very short, 28% short, 66% adequate. Apples 18%, harvested 15% 1997, 13% avg.; 47% poor, 24% fair, 29% good. Cantaloupes 100% harvested, 100% 1997, 95% avg. Corn 100% doughed, 100% 1997, 100% avg.; 96% mature, 90% 1997, 89% avg.; 54% harvested, 36% 1997, 31% avg.; 36% very poor, 29% poor, 28% fair, 7% good. Grapes 17% fair, 71% good, 12% excellent. Hay 88% cut, 94% 1997, 68% avg.; 10% very poor, 20% poor, 43% fair, 26% good, 1% excellent. Livestock 7% poor, 33% fair, 59% good, 1% excellent. Pasture 8% very poor, 22% poor, 31% fair, 38% good, 1% excellent. Peaches 97% harvested, 95% 1997, 94% avg. Peanuts 13% very poor, 26% poor, 56% fair, 5% good. Sorghum 88% headed, 90% 1997, NA avg.; 75% turned color, 79% 1997, NA avg.; 50% matured, 41% 1997, NA avg.; 25% harvested, 13% 1997, NA avg.; 21% very poor, 18% poor, 30% fair, 31% good. Sweetpotatoes 13% fair, 87% good. Tobacco 73% harvested, 76% 1997, 70% avg.; stalks destroyed 24%, 36% 1997, 19% avg.; 5% very poor, 13% poor, 42% fair, 39% good, 1% excellent.

**South Dakota:** Days suitable for fieldwork, 5.6. Topsoil 5% very short, 21% short, 70% adequate, 4% surplus. Subsoil 1% very short, 16% short, 76% adequate, 7% surplus. Dry weather spurred small grain harvest. Oats 98% harvested, 88% 1997, 91% avg. Flaxseed 95% ripe, 80% 1997, 54% avg. Flaxseed 68% harvested, 13% 1997, 12% avg. Soybeans blooming 97%, 100% 1997, 95% avg. Soybeans 8% dropping leaves, 6% 1997, 5% avg. Corn 11% mature, 3% 1997, 1% avg. Sunflower 1% poor, 14% fair, 67% good, 18% excellent; 91% blooming, 91% 1997, 93% avg.; 37% flower dry, 30% 1997, 35% avg.; 35% bracts yellow, 14% 1997, 17% avg.; 7% mature, 1% avg. Alfalfa 6% poor, 26% fair, 53% good, 15% excellent. Alfalfa 90% cut twice, 83% 1997, 81% avg. Alfalfa 36% cut three times, NA for 1997 and avg. Other hay 88% harvested, 94% 1997, 83% avg. Livestock 1% poor, 7% fair, 70% good, 22% excellent. Stock water supplies 2% very short, 7% short, 81% adequate, 10% surplus.

**TENNESSEE:** Days suitable for fieldwork 6.0. Topsoil 1% very short, 11% short, 82% adequate, 6% surplus. Subsoil 1% very short, 8% short, 84% adequate, 7% surplus. Corn 96% dough, 92% 1997, 94% avg.; 80% dent, 69% 1997, 72% avg.; 25% mature, 23% 1997, 25% avg.; silage 40% harvested, 33% 1997, 35% avg.; 4% very poor, 9% poor, 21% fair, 49% good, 17% excellent. Tobacco 80% topped, 68% 1997, 80% avg.; burley 25% harvested, 23% 1997, 26% avg.; dark-air 30% harvested, 32% 1997, 33% avg.; dark-fire 30% harvested, 30% 1997, 30% avg.; 2% very poor, 10% poor, 28% fair, 50% good, 10% excellent. Pastures 4% poor, 23% fair, 58% good, 15% excellent. Corn harvest of early varieties and/or early planted fields began in the West last week. Sucker control was the other major tobacco field activity that took place. The apple crop was reported in good condition in the extreme eastern corner as of Sunday.

**TEXAS:** Unstable air mass, tropical storm provided most areas State with at least scattered rain, many Central, Southern areas receiving heavy rains causing isolated flooding. The rainfall met with mixed reaction as cotton farmers trying get crop out, while livestock producers welcomed rain hopes of improving pastures, hay prospects. Cooler temperatures benefitted livestock, crops in Plains. Livestock prices improved some areas. **Crops:** Small Grains: Land preparation should increase many other areas with recent planting began. Land preparation should increase many other areas with recent rain. Wheat 1% planted, 1% avg. Corn: Fields continued mature Plains where silage harvest underway. A few fields for grain harvested with majority activity begin within a week or two. More fields bal, plowed under Low Plains. Harvest winding down Blacklands where scattered showers slowed progress at times. 69% mature, 52% 1997, 56% avg. 52% harvested, 33% 1997, 46% avg. Cotton: Bolls continued open Plains where plants on irrigated fields loaded up. Dryland fields received some benefit from rain, however most fields remained stressed for more moisture. Bolls continued open Low Plains where fields stressed. Rain, rain showers hurt cotton left for harvest Blacklands, Central most harvest completed along Upper Coast, Coastal Bend, however final harvest operations slowed by we conditions. Harvest active Rio Grande Valley, neared

completion. Rain caused only minor delays final activity. 15% harvested, 6% 1997, 10% avg. Grain Sorghum: Fields in Plains showed improvement with recent rains. Early fields turning color. Harvest continued between showers in Low Plains. Yields have only been fair. Peanuts: Dryland fields in Plains improved with recent rains, however there has been increase in insect activity, disease pressures. Irrigation needs relieved by rain. Rain in South Central areas improved prospects. 54% mature, 50% 1997, 61% avg. 51% harvested, 41% 1997, 54% avg. Rice: Harvest continued along Upper Coast between showers. Some fields early enough for 2nd cutting. Soybeans: Fields in High Plains look good with producers continuing watering activity. Harvest continue as conditions allowed Northern Blacklands where yield prospects poor. Rain along Upper Coast slowed harvest part week. Other Crops: Sunflowers 3% harvested, 9% 1997, 2% avg.

**Commercial Vegetables, Fruit and Pecans:** Rio Grande Valley, land preparations continued as conditions allowed. San Antonio-Winter Garden, rain improved soil moisture conditions as producers begin land preparations. East, some fall planting underway, however scattered showers slowed progress. A few fields sweetpotatoes harvested between rain showers. High Plains, harvest activity winding down most fields. Trans Pecos, chilies continued to show good progress. Pecans: Recent rain been good for trees, however crop too far gone most areas for much benefit to nuts. Weevil, shuckdown activity increased with spraying underway.

**Range and Livestock:** Conditions improved many Central, Southern areas with recent rain. Armyworms, grasshoppers continued damage grass some areas. Parts of State remain dry, however. Sales at auctions some areas slowed with recent improvement pastures, price also improved. Supplemental feeding remained active most areas.

**UTAH:** Days suitable for fieldwork 7. Topsoil 1% very short, 29% short, 70% adequate. Subsoil 1% very short, 27% short, 72% adequate. Pasture and range 13% poor, 21% fair, 62% good, 4% excellent. Irrigation water supplies 1% very short, 21% short, 78% adequate. Stock water supplies 20% short, 80% adequate. Spring wheat harvested 88% Winter wheat harvested 95%, 86% 1997, 86% average. Barley harvested for grain 82%, 77% 1997, 76% average. Oats harvested for hay or silage 95%, harvested for grain 75%. Corn: silked 95%; dough stage 36%. Alfalfa hay 3rd cutting 42%, 24% 1997, 27% avg. Other hay cut 93%. Tart cherries picked 99%. Peaches picked 27%. Pears picked 20%. Small grain good statewide, spring planted barley with shrunk heads in Cache, third crop alfalfa growing well.

**VIRGINIA:** Days suitable for fieldwork 6.0. Topsoil 23% very short, 39% short, 38% adequate. Subsoil 22% very short, 45% short, 33% adequate. Corn 97% silked, 94% 1997, 97% avg.; 67% dough, 61% 1997, 71% avg.; 44% dent, 34% 1997, 46% avg.; 23% mature, 13% 1997, 23% avg.; 14% harvested for silage, 12% 1997, 10% avg.; 7% very poor, 22% poor, 38% fair, 31% good, 2% excellent. Cotton 100% setting bolls, 100% 1997, 100% avg.; 12% bolls opening, 20% 1997, 17% avg.; 14% poor, 30% fair, 49% good, 7% excellent. Soybeans 82% blooming, 74% 1997, 79% avg.; 58% setting pods, 49% 1997, 54% avg.; 6% very poor, 27% poor, 36% fair, 29% good, 2% excellent. Flue-cured tobacco 25% harvested, 22% 1997, 33% avg.; 7% very poor, 10% poor, 28% fair, 33% good, 22% excellent. Dark fire cured tobacco 28% harvested; 4% very poor, 10% poor, 39% fair, 37% good, 10% excellent. Burley tobacco 4% harvested, 6% 1997, 6% avg.; 13% poor, 27% fair, 50% good, 10% excellent. Sun tobacco 6% harvested, 26% 1997, 26% avg.; 7% poor, 84% fair, 9% good. Summer potatoes 99% harvested, 100% 1997, 100% avg. Summer Apples 90% harvested, 67% 1997, 67% avg.; 8% very poor, 5% poor, 20% fair, 61% good, 6% excellent. Peaches 75% harvested, 68% 1997, 73% avg. Pasture 12% very poor, 35% poor, 28% fair, 25% good. Alfalfa 4% very poor, 15% poor, 41% fair, 36% good, 4% excellent. Other hay 6% very poor, 28% poor, 36% fair, 29% good, 1% excellent. Moisture levels in some areas of the Commonwealth are again beginning to dry out. The rain showers received over the past few weeks were too little and too scattered to help improve conditions in most crops. Corn progress continues to be a little behind historic levels due to dry conditions over the past weeks. Some corn producers have been forced to chop their

grain corn for silage as the grain yields were expected to be disappointing. For the most part soybeans continued to progress at historic levels, while some isolated producers report their crops are drying in the fields. Corn and soybean producers are reporting concern with ear worms. Cotton and peanut producers are facing slightly diminished conditions since last week due to the hot, dry weather. A few peanut producers are reporting problems with spider mites due to prolonged dry conditions. Apple harvest remained ahead of schedule this past week. Activities for the week included fruit and vegetable harvesting, preparing land for fall vegetables, second cutting of hay, topping and spraying tobacco, tobacco harvesting, scouting and spraying cotton, selling cattle, as well as, other general fieldwork.

**WASHINGTON:** Days suitable for fieldwork 6.8. Topsoil 11% very short, 61% short; 28% adequate; subsoil 2% very short, 45% short, 53% adequate. Spring wheat 80% harvested, 71% 1997, 61% avg. Potatoes 17% harvested, 22% 1997, 18% avg. Potatoes, 10% fair, 90% good. Winter wheat harvest was completed in some areas and was nearing completion across the State. Spring wheat and barley harvests progressed well with continued warm, dry conditions. Yellow mustard harvest neared completion, potato and mint harvests continued, and safflower started to mature. Hay and other roughage supplies, 70% adequate, 30% surplus. Range and pasture, 8% very poor, 25% poor, 47% fair, 15% good, 5% excellent. Cooler weather aided fruit development in central areas. Bartlett pear harvest continued at higher elevations, Gala apple harvest also progressed. Blueberry and blackberry harvests continued in western areas. Vegetable harvests continued and was at its peak in some areas. Sweet corn growers were irrigating around the clock to maintain fields. Cut flower harvesting continued.

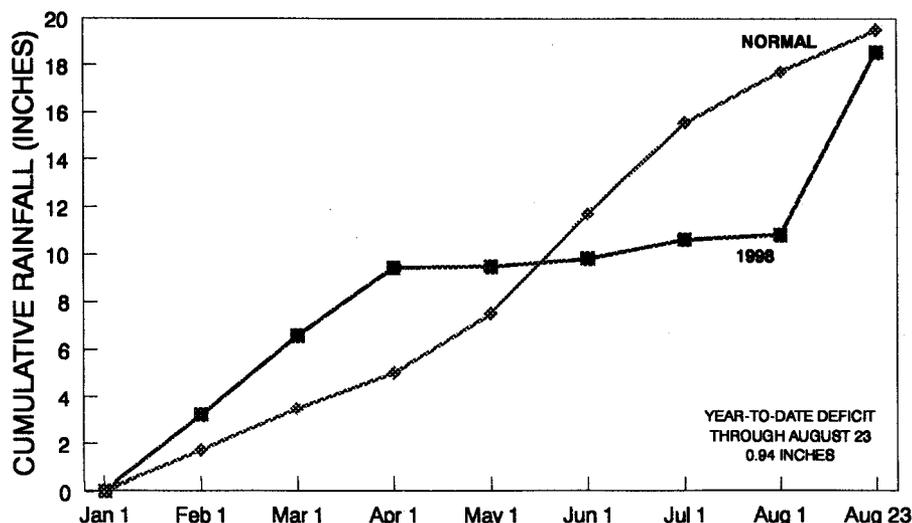
**WEST VIRGINIA:** Days suitable for fieldwork 6.4. Topsoil 1% very short, 50% short, 49% adequate. Wheat harvested 96%, 100% 1997, 94% 5-yr avg. Apple 33% fair, 59% good, 8% excellent. Peach 16% poor, 66% fair, 18% good. Hay 7% poor, 38% fair, 51% good, 4% excellent; Hay 2nd cut 49%, 47% 1997, 47% avg. Corn 5% poor, 44% fair, 47% good, 4% excellent; Corn silked 69%, 78% 1997, 78% avg.;

Corn doughing 20%, 14% 1997, 32% avg. Oats 10% poor, 50% fair, 40% good; Oats harvested 64%, 51% 1997, 69% avg. Soybean 1% poor, 50% fair, 49% good; Soybeans 55% bloomed, 93% 1997, 81% avg.; 27% podding, 60% 1997. Tobacco 3% poor, 30% fair, 63% good, 4% excellent; topped 15%, 53% 1997, 54% avg. Cattle 26% fair, 66% good, 8% excellent. Sheep 37% fair, 60% good, 3% excellent.

**WISCONSIN:** Days suitable for fieldwork 5.2. Soil moisture 5% very short, 22% short, 66% adequate, and 7% surplus. Soybeans setting pods: 88%, 86% 1997. Soybeans leaves turning: 8%, 2% 1997, 2% avg. Soybean 1% very poor, 4% poor, 15% fair, 51% good, 29% excellent. Statewide, third crop hay harvest was up to 57% complete, making it a busy week for many farmers. A reporter in Chippewa County noted small yields, but in Dunn and Jefferson Counties, the third crop was reportedly good in quality. Fourth crop hay continued to progress; an Iowa County reporter described the fourth crop as the best he had ever seen. The Wisconsin corn crop was reportedly coming along well. In Waupaca County, a reporter described some corn fields on the light soils as poor due to the July dry spell. The percent of soybeans setting pods was up to 88% across the State, and in Dodge County, the plants were reportedly tall, thick, and lush in appearance. In Waushara County, a reporter expected potato harvest to take place during the 1st two weeks of September. Pasture feed conditions: 4% very poor, 9% poor, 36% fair, 42% good, 9% excellent.

**WYOMING:** Days suitable for fieldwork 5.9. Topsoil 40% short, 60% adequate. Winter wheat harvested 97%, 96% 1997, 92% avg. Barley mature 90%, 87% 1997, 85% avg.; harvested 61%, 60% 1997, 62% avg. Oats mature 88%, 84% 1997, 71% avg.; harvested 52%, 40% 1997, 37% avg. Spring wheat mature 94%, 95% 1997, 74% avg.; harvested 56%, 35% 1997, 39% avg. Corn dough 56%, 88% 1997, 46% avg. Dry beans setting pod 95%, 97% 1997, 94% avg.; turning color 26%, 49% 1997, 43% avg. Alfalfa 2nd cutting 61%, 60% 1997, 59% avg. Other hay cut 87%, 82% 1997, 85% avg. Range and pasture 1% very poor, 8% poor, 29% fair, 58% good, 4% excellent. Irrigation water supplies 20% short, 76% adequate, 4% surplus. Scattered showers were keeping topsoil adequate.

**SAN ANTONIO, TEXAS**  
1998 CUMULATIVE RAINFALL VS. NORMAL



# International Weather and Crop Summary

August 16 - 22, 1998

## HIGHLIGHTS

**FSU-WESTERN:** Continued dry weather in eastern Ukraine and southern Russia caused further reductions in prospects for filling corn, sunflowers, and sugar beets but favored rapid small grain harvesting.

**FSU-NEW LANDS:** Dry weather in Kazakstan helped spring grain harvesting, while light showers favored immature spring grains farther north in Russia.

**EUROPE:** Several days of dry weather allowed rapid small grain harvesting in England, France, and Germany, while continued hot, dry weather in Romania and Bulgaria reduced prospects for filling corn and sunflowers.

**AUSTRALIA:** Rain returned to winter grain areas of the southeast.

**CANADA:** Showers hampered spring grain and oilseed harvesting in Saskatchewan and Manitoba.

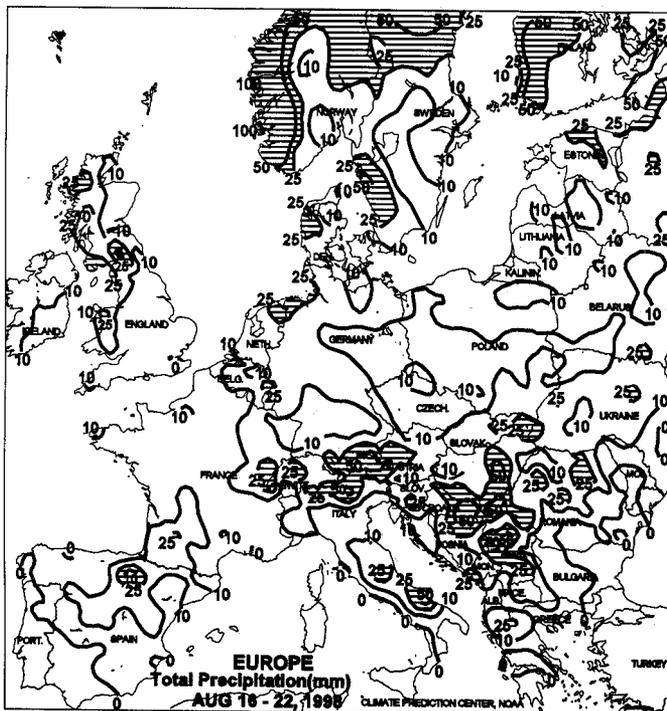
**SOUTH ASIA:** Monsoon activity shifted to the south and east, giving northern India's cotton and rice crops a chance to dry.

**SOUTHEAST ASIA:** Widespread showers covered Vietnam and Thailand, boosting moisture reserves for rice and sugarcane.

**EASTERN ASIA:** Scattered showers slowed flood recovery in the Yangtze Valley, and heavier showers slowed early maturing cotton in the North China Plain.

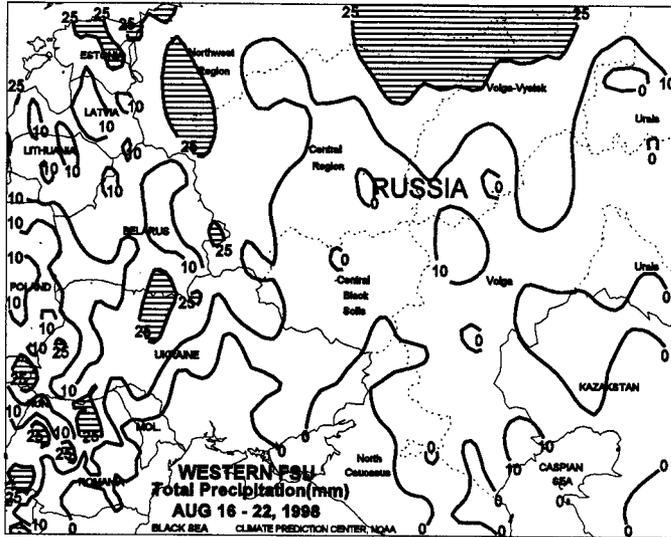
**SOUTH AMERICA:** Winter wheat planting was nearly completed in central Argentina, while showers slowed early winter wheat harvesting in southern Brazil.

**MEXICO:** Rain brought some relief to northeastern Mexico, but more is needed.



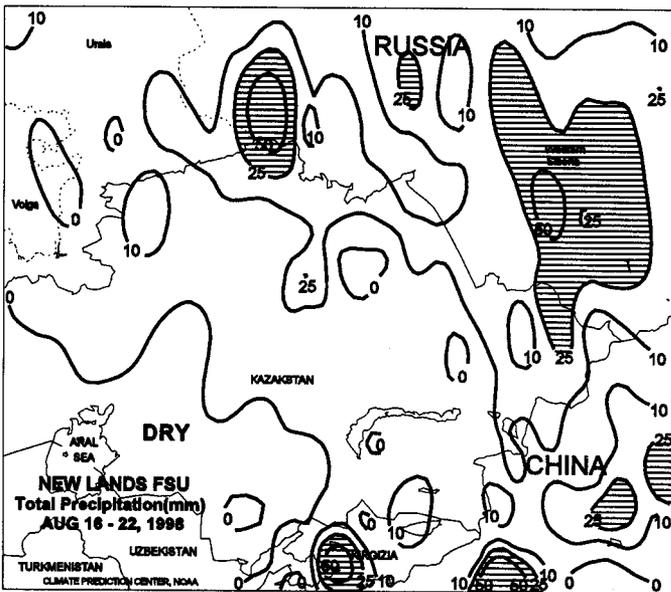
## EUROPE

Dry weather prevailed in England, northern France, and southern Germany, favoring rapid small grain harvesting. Light showers (10-25 mm) in northern Germany caused only temporary interruptions in harvest activities. Scattered showers (6-26 mm) in southern France and northern Italy eased stress on corn and sunflowers in the filling stage. Farther east, light, scattered showers (6-15 mm) fell from Poland, southward through the Czech Republic, causing only brief delays in harvesting. Unfavorably hot, dry weather continued in southern Romania and Bulgaria, causing further reductions in prospects for corn and sunflowers in the filling stage. Weekly temperatures averaged 2 to 4 degrees C above normal in southern Europe and near normal in the north.



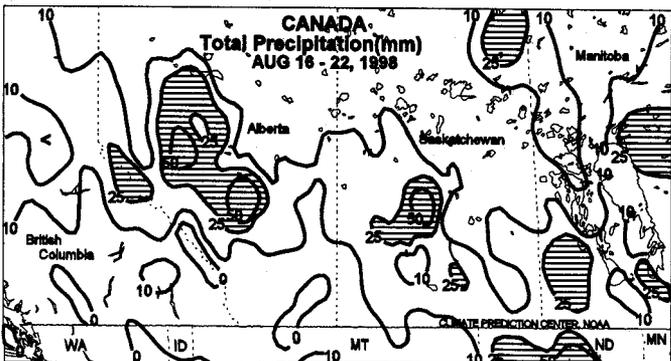
**FSU-WESTERN**

In Russia, winter and spring grain harvesting was well underway in the north, and was virtually complete in southern areas. Scattered showers (5-15 mm) fell in northern Russia, causing only brief delays in spring grain harvesting. Furthermore, land preparations for winter grain planting were likely underway in northern Russia, where the optimum time for planting crops is late August. Topsoil moisture was sufficient in northern Russia for crop emergence and early establishment. In southern Russia, adverse dryness continued in the southern portion of the Black Soils Region, the lower Volga Valley, and the North Caucasus, causing a further reduction in prospects for sunflowers, corn, and sugar beets in the filling stage. Showers are needed in these areas to boost topsoil moisture for winter grain planting, which typically occurs in September. In Ukraine, showers (10-29 mm) fell in the west and north, while unfavorably dry conditions continued in southern and eastern areas, further reducing prospects for filling corn and sunflowers. Reports as of August 19 indicated that the harvest of small grains and pulses, excluding corn, was about 90 percent completed in Ukraine. The winter wheat harvest was virtually complete. Elsewhere, light showers (8-25 mm) fell in Belarus and the Baltics, causing only brief delays in small grain harvesting. Weekly temperatures averaged near normal in Ukraine and southern Russia and 1 to 2 degrees C below normal in northern Russia.



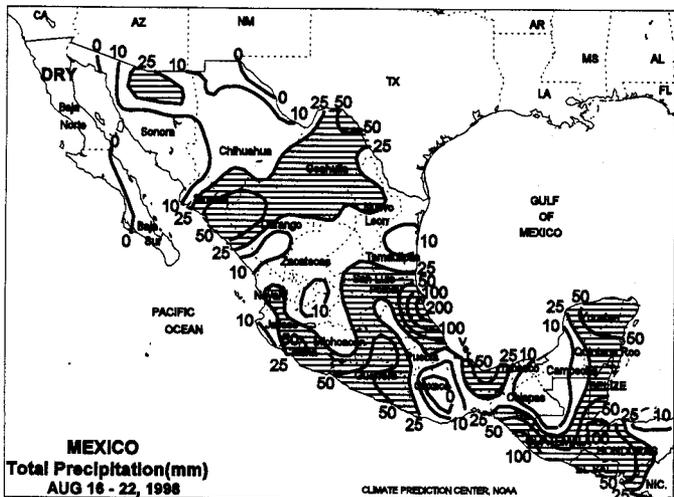
**FSU-NEW LANDS**

In Kazakstan, dry weather favored spring grain harvesting, which likely advanced into principal grain-producing areas in the north. In Russia, spring grain harvest was underway in the southern Urals, helped by mostly dry weather. Farther north, light to moderate showers (10-50 mm) in Western Siberia and Eastern Siberia favored immature spring grains. Weekly temperatures averaged near normal in most areas of Kazakstan and Russia. In cotton-producing areas of Central Asia, cotton harvesting was just beginning in Uzbekistan. Dry weather and near-normal temperatures favored boll maturation in most areas.



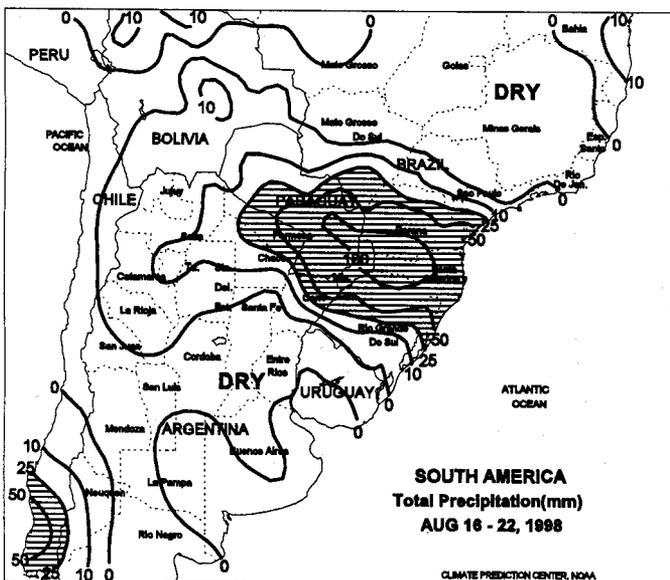
**CANADA**

Late-week rain (5-25 mm or more) hampered spring grain and oilseed harvesting in Saskatchewan and Manitoba. Locally heavy rain (50 mm or greater) in sections of Manitoba may have resulted in some lodging. The dampness also raised concern for crop quality. In northern growing areas, most notably in the northwestern Prairies, the moisture came too late to significantly improve crop prospects. Prairie grains and oilseeds are ahead of schedule and not in danger of damage from the first autumn freeze, which typically arrives by early September. In eastern Canada, drier weather continued across Ontario and Quebec, although seasonable temperatures limited moisture demands of immature corn and soybeans.



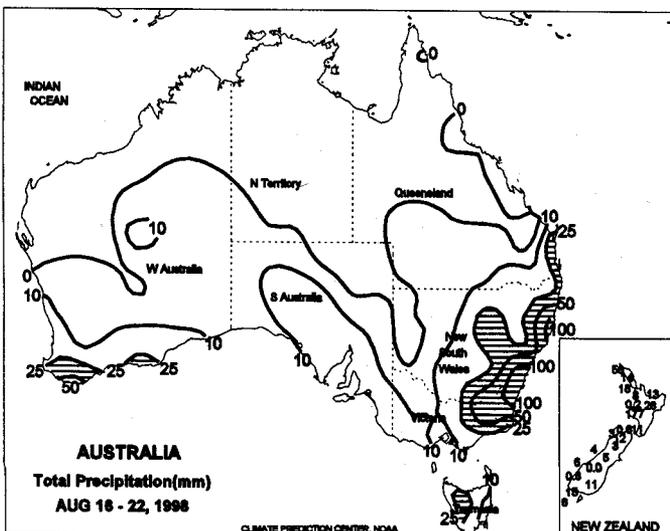
**MEXICO**

Seasonal showers (15-60 mm) continued to provide adequate moisture for corn development across Southern Plateau Corn Belt. Light rain (5-25 mm) brought some relief to northeastern Mexico, but more rain is still needed. Some of the moisture was associated with Tropical Storm Charlie, which hit the central Texas coast on August 22. Moderate rain (30-60 mm) favored pastures and increased reservoir levels in north-central Mexico. Temperatures averaged 1 to 2 degrees C above normal across the northeast and central Mexico.



**SOUTH AMERICA**

In southern Brazil, moderate rain (20-80 mm) slowed winter wheat maturation and early harvesting in northern Parana and Mato Grosso do Sul. In eastern Rio Grande do Sul and Santa Catarina, variable rain (10-100 mm) maintained adequate to abundant soil moisture levels for vegetative to reproductive winter wheat. Dry weather returned to the coffee and citrus regions of northern Sao Paulo and southeastern Minas Gerais, aiding harvesting. In central Argentina, dry weather aided winter wheat planting. According to reports as of August 14, Argentine cotton and corn crops were 91 and 99 percent harvested, respectively. Last year at this time, cotton and corn crops were 100 percent harvested. Winter wheat planting was 88 percent complete, compared with 82 percent last year. Planting intentions have been reached in central Argentina (Cordoba, Santa Fe, and La Pampa). In Buenos Aires, 82 percent of the wheat crop has been planted.

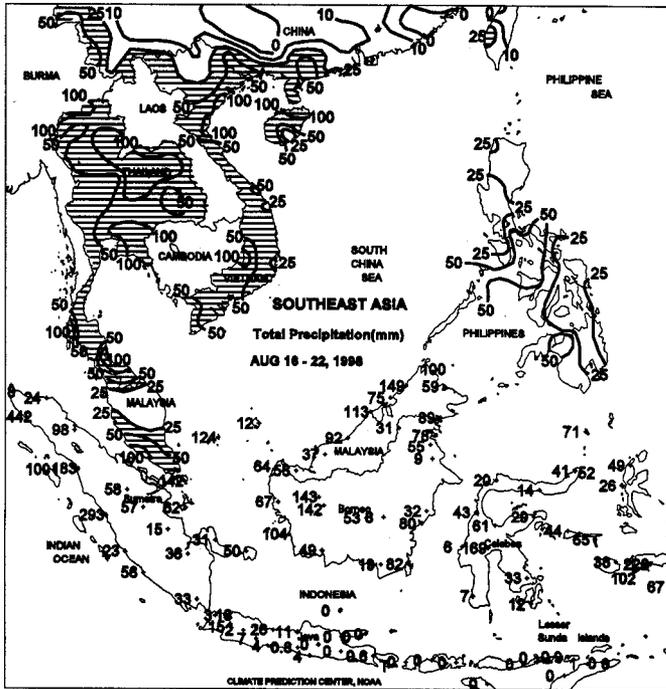


**AUSTRALIA**

Light to moderate showers (5-25 mm or more) moistened topsoils in the southeastern winter grain belt (South Australia to southern New South Wales). Rain increased elsewhere in New South Wales, renewing a pattern of unfavorable wetness for vegetative wheat and barley, but Queensland remained mostly dry. Out west, light to moderate rain (5-25 mm or more, heaviest toward the southern coast) continued in Western Australia's main agricultural zones. In New Zealand, cool, mostly dry weather dominated the primary pasture areas.

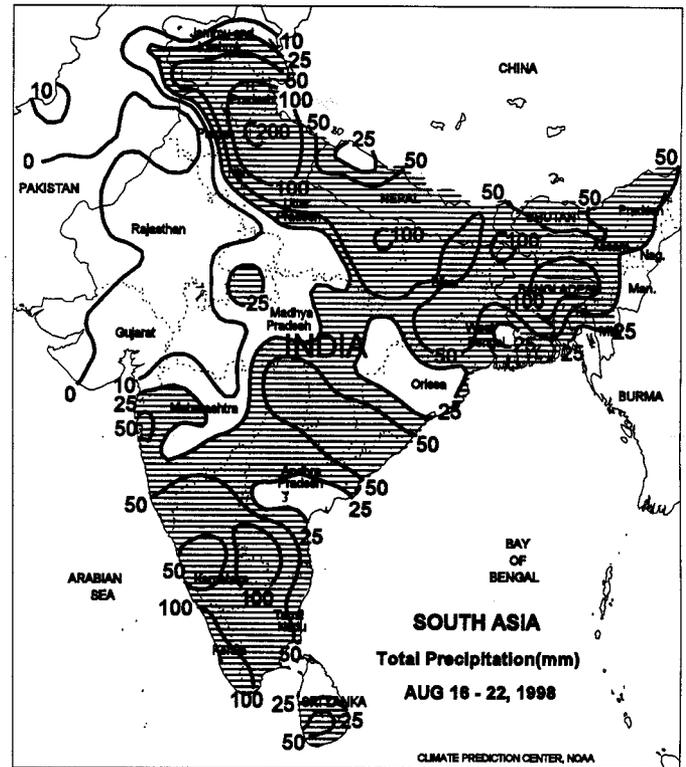
**SOUTHEAST ASIA**

Widespread showers (30-125 mm) covered Thailand and Vietnam, boosting moisture for rice and sugarcane. Variable showers (10-50 mm) provided some dryness relief across the Philippines, but more is needed to eliminate long-term moisture deficits. Showers (20-100 mm) maintained moisture supplies for oil palm across peninsular Malaysia. Seasonal showers (less than 15 mm) prevailed across Java, where adequate moisture supplies exist.



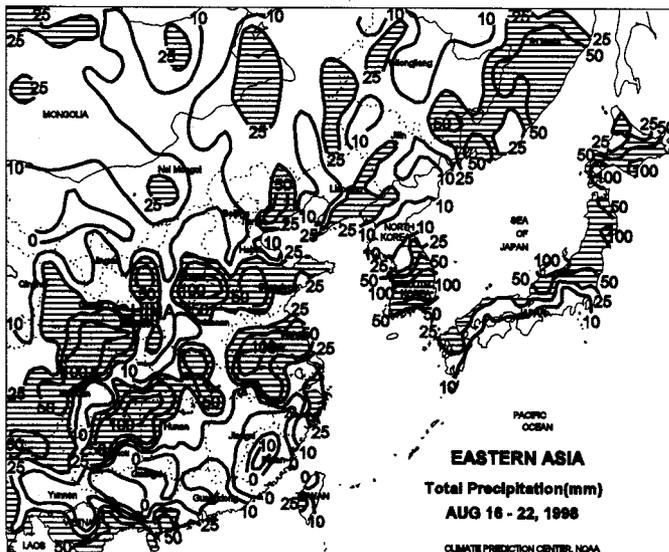
**SOUTH ASIA**

Monsoon activity shifted toward southern and eastern sections of the region. As a result, warmer, drier weather developed over the northwest (Gujarat to western Uttar Pradesh, westward through Pakistan). The reduction in rainfall was welcomed in cotton and rice areas of north-central India, but more rain was needed to ensure normal development of groundnuts in Gujarat. Moderate to heavy rain (25-50 mm or more, locally exceeding 100 mm) in sections of eastern India and Bangladesh exacerbated flooding of rice and other summer crops. In India's southern interior, moderate to heavy rain (25-50 mm or more, locally exceeding 100 mm) increased moisture for coarse grains, oilseeds, and cotton, especially in sections of Karnataka and southern Andhra Pradesh that have been trending dry recently.



**EASTERN ASIA**

Scattered showers (25-100 mm) slowed recovery efforts and caused some additional flooding across the Yangtze Valley. Drier, sunnier weather (less than 20 mm) prevailed across southern China, aiding rice. Temperatures averaged 2 to 4 degrees above normal across the region. In the North China Plain, moderate to heavy showers (40-100 mm) favored filling corn and soybeans but slowed early-maturing cotton. In Manchuria, moderate rains (10-40 mm) hindered flood recovery efforts, but maintained favorable moisture for filling corn and soybeans. Heavy showers (75-190 mm) caused flooding across southern South Korea. Light rain (less than 15 mm) fell across northern South Korea, easing flooding. In Japan, moderate rain (40-90 mm, with isolated amounts greater than 100 mm) fell across northern Honshu and Hokkaido.

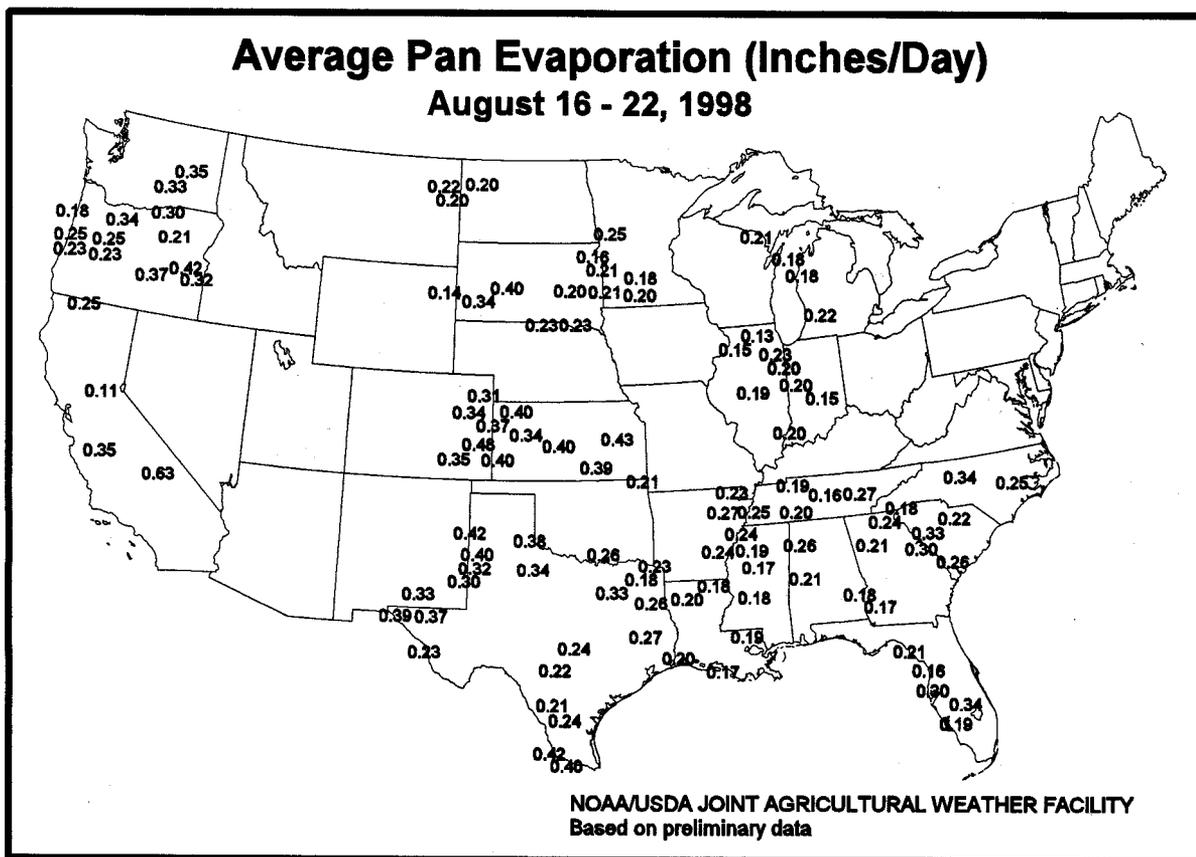


The *Weekly Weather and Crop Bulletin* (ISSN 0043-1974) is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the *Weekly Weather Chronicle*. It is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

Annual subscriptions: domestic first class \$45, foreign \$55 (in U.S. funds by international money order or check drawn on U.S. bank) payable to U.S. Department of Commerce, NOAA. POSTMASTER: Send address changes to: Climate Prediction Center, W/NP52, Attn: *Weekly Weather and Crop Bulletin*, Route 605, WWBG, 5200 Auth Road, Camp Springs, MD 20746-4304. Order subscriptions from the office and address listed above. First-class postage paid at Washington, DC, and other mailing offices. Correspondence to the meteorologists should be directed to: *Weekly Weather and Crop Bulletin*, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, DC 20250. Internet URL: <http://www.usda.gov/oce/waob/jawf>; E-mail address: [wcb@jawfsrv.wwb.noaa.gov](mailto:wcb@jawfsrv.wwb.noaa.gov)

**U.S. DEPARTMENT OF COMMERCE**  
 National Oceanic and Atmospheric Administration  
 National Weather Service/Climate Prediction Center  
 Managing Editor ..... *David Miskus*  
 Meteorologists ..... *Jeff Savadel and Brian Morris*  
 Special Requests ..... (202) 720-7917  
 Subscriptions ..... *John Kopman* (301) 763-8227, ext. 7534  
 fax: (301) 763-8125

**U.S. DEPARTMENT OF AGRICULTURE**  
 Economic Research Service  
 E.R.S. Editor ..... *Sharon Lee*  
 National Agricultural Statistics Service  
 Agricultural Statistician ..... *Mark E. Miller* (202) 720-7621  
 State Summaries Editor ..... *Klara Greene* (202) 720-8033  
 World Agricultural Outlook Board  
 International Editor ..... *Tom Puterbaugh*  
 U.S. Editor ..... *Brad Rippey* (202) 720-2397  
 Agricultural Weather Analysts ..... *Ray Motha*  
 ..... *Mark Brusberg and Bob Stefanski*  
 Secretary ..... *Teresa Davis* (202) 720-9807



Climate Prediction Center, W/NP52  
 Attn: *Weekly Weather & Crop Bulletin*  
 NOAA/NWS/NCEP  
 4700 Silver Hill Road  
 Stop 9910  
 Washington, DC 20233-9910

**WEEKLY NEWS BULLETIN**  
**FIRST CLASS**

FIRST CLASS MAIL  
 POSTAGE & FEES PAID  
 NOAA  
 PERMIT NO. G-19

OFFICIAL BUSINESS  
 PENALTY FOR PRIVATE USE, \$300