WEEKLY WEATHER AND CROP BULLETIN

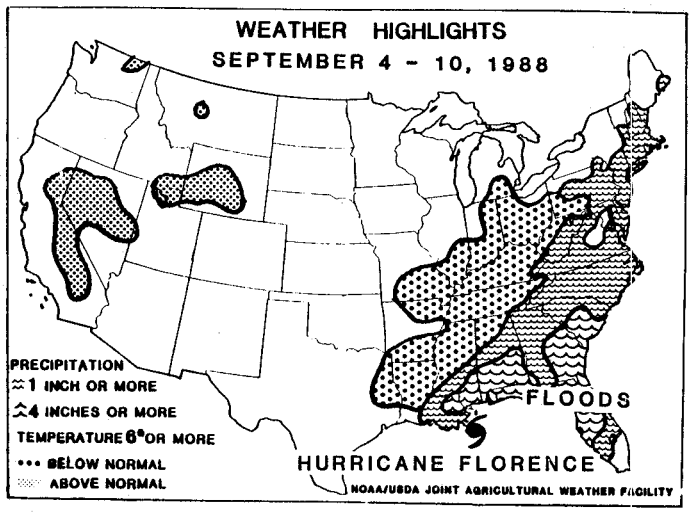
U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration, National Weather Service

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

Volume 75, No. 37 | Washington, D.C. | Sept. 13, 1988

National Weather Summary

September 4-10, 1988



HIGHLIGHTS: Heavy rain which drenched the Southeast and mid-Atlantic Coast, resulted from a stalled frontal system. Extensive flooding occurred across northern Florida. Hurricane Florence slammed into the Delta at the end of the week. Smoke from forest fires in the northern Rockies obscured skies over the north-central United States. Severe heat remained in California.

SUNDAY...Hot weather continued over California and the Pacific Northwest. A dozen locations set high temperature records. A cold front and remnants of a tropical disturbance contributed to drenching rains over the central gulf and Atlantic Coast States. Smoke from forest fires in Yellowstone, invaded Oregon and Washington.

MONDAY...Much of the Nation enjoyed a pleasant Labor Day. Rain was limited to the Eastern seaboard as soaking rain remained along the southern Atlantic coast. Temperatures again soared in the hundreds in California, while cool air settled into the northern and central portions of the country. Skies continued to be smoky over Wyoming, Montana, and Idaho due to forest fires.

TUESDAY...A stalled frontal system caused torrential rain and flooding across northern Florida. A high pressure system over the middle Mississippi Valley was responsible for clear cool weather from New England to the Great Plains. Thirty cities had record low temperatures for this date. Smoke from forest fires spread across the northern Rockies.

WEDNESDAY...Showers and thunderstorms continued along the stationary front over Florida. Cool, clear air remained over the northeast quarter of the Nation as 50 cities had record lows. A cold front raced across the northern Plains, producing little rain but causing high winds. Smoke from forest fires in the West was observed as far east as Chicago. Tropical Storm Florence developed in the south-central Gulf of Mexico.

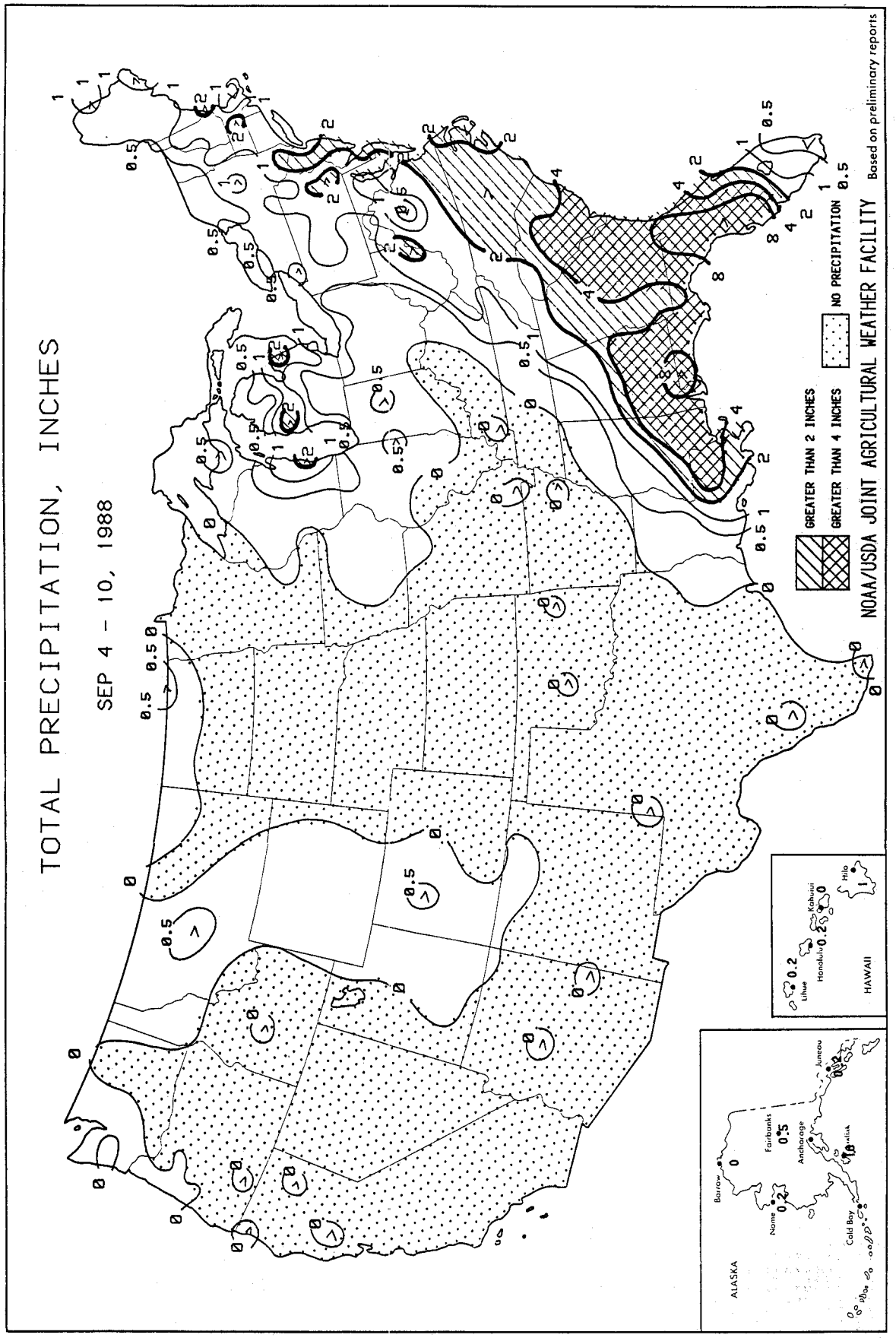
THURSDAY...The frontal system across Florida shifted northward, extending the rain into Georgia and the Carolinas. The cold front sped into the upper Mississippi Valley but produced no rain due to a lack of moisture. A veil of smoke covered much of the northwestern and north-central portions of the country. Tropical Storm Florence drifted to the north and intensified.

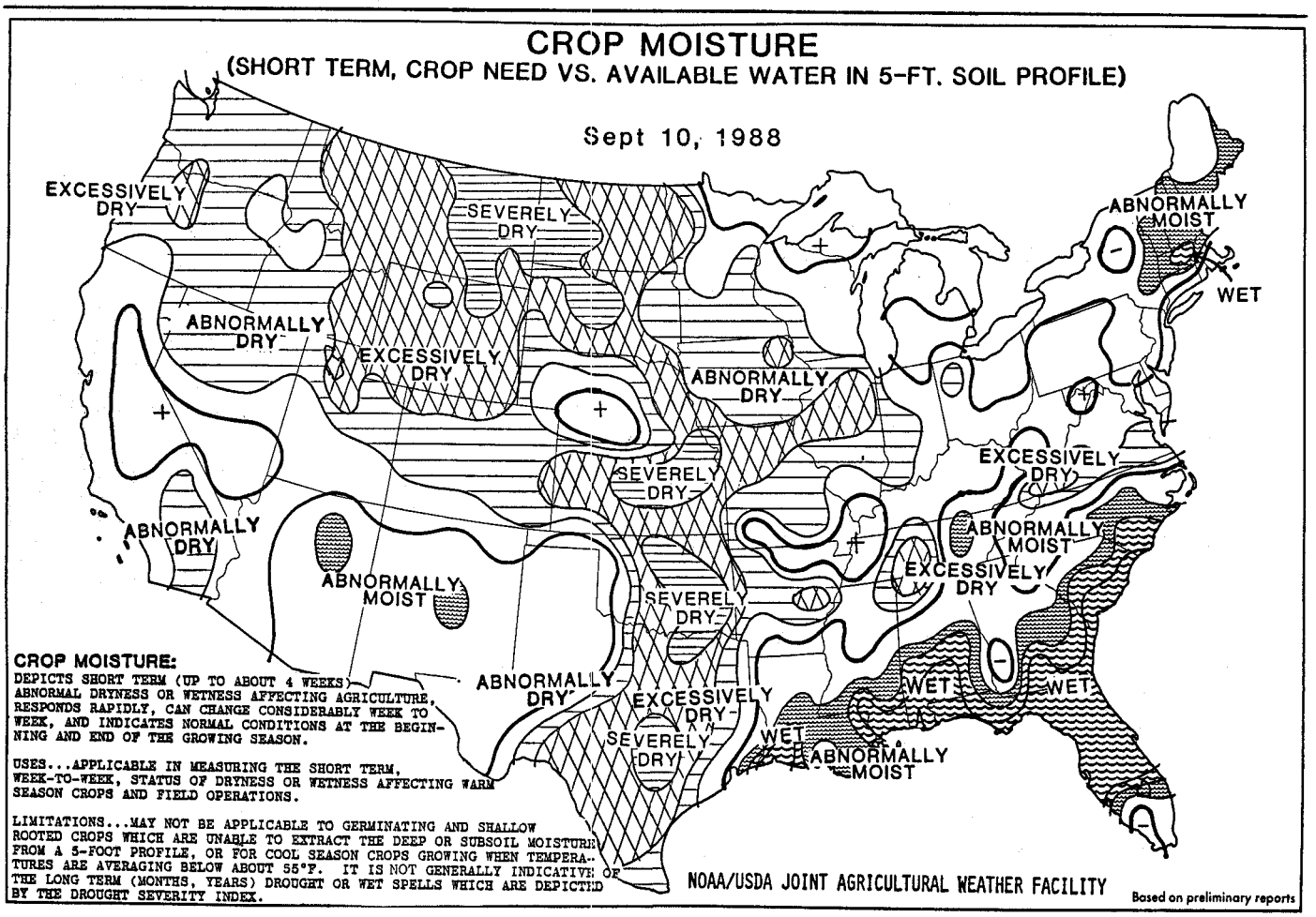
FRIDAY...Hurricane Florence steamed north into the Louisiana coast. Showers and thunderstorms developed along the stationary front extending from the central gulf coast to the mid-Atlantic coast. Scattered thunderstorms continued over Florida. Hazy sunshine remained across the Plains and middle Mississippi Valley.

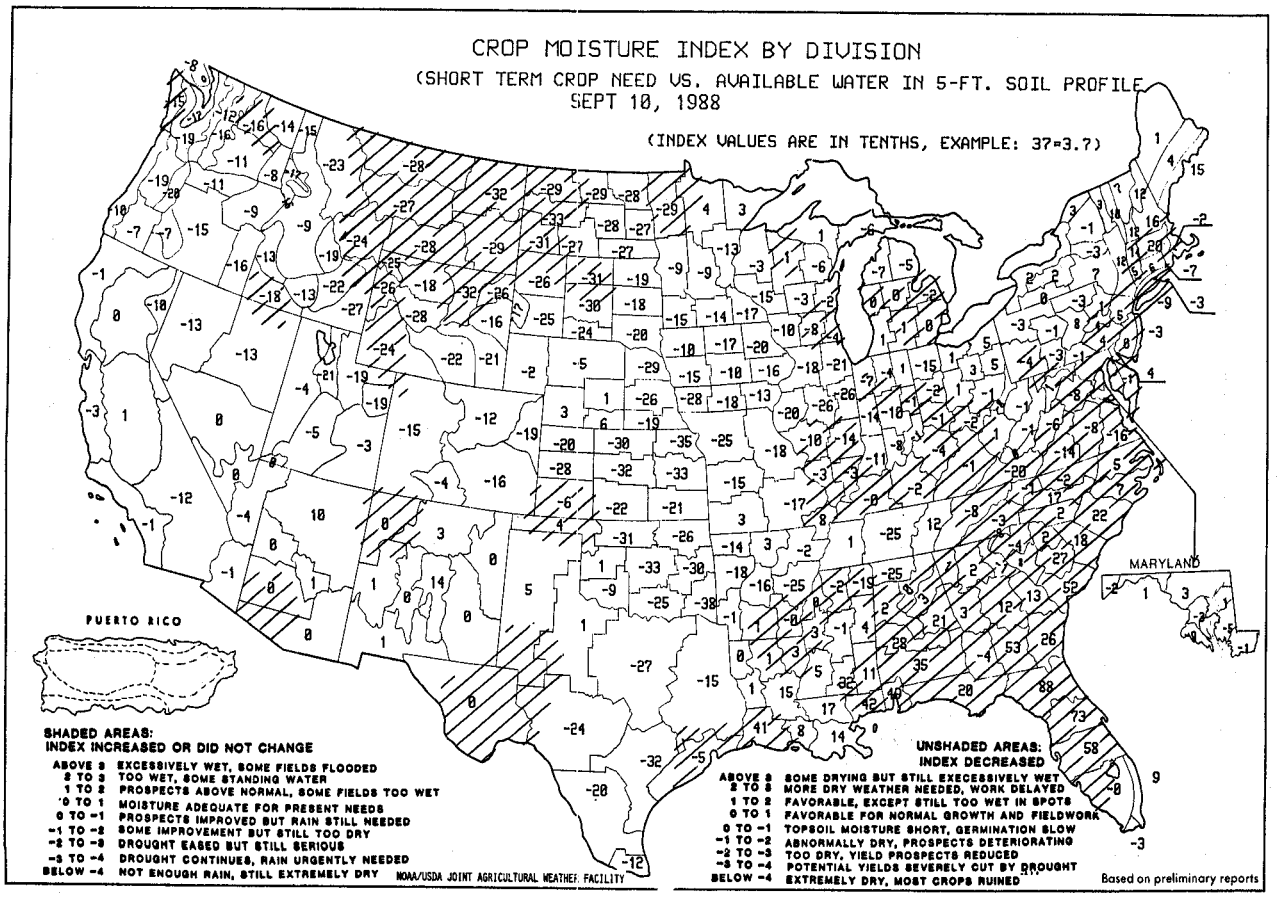
SATURDAY...Hurricane Florence dissipated as it moved inland. Showers and thunderstorms continued to develop in the Delta as the remnants drifted to the northeast. Another hurricane, Gilbert, caused heavy rain in Puerto Rico and the Dominican Republic. A cold front pushed across the northern Rockies and brought snow to Montana.

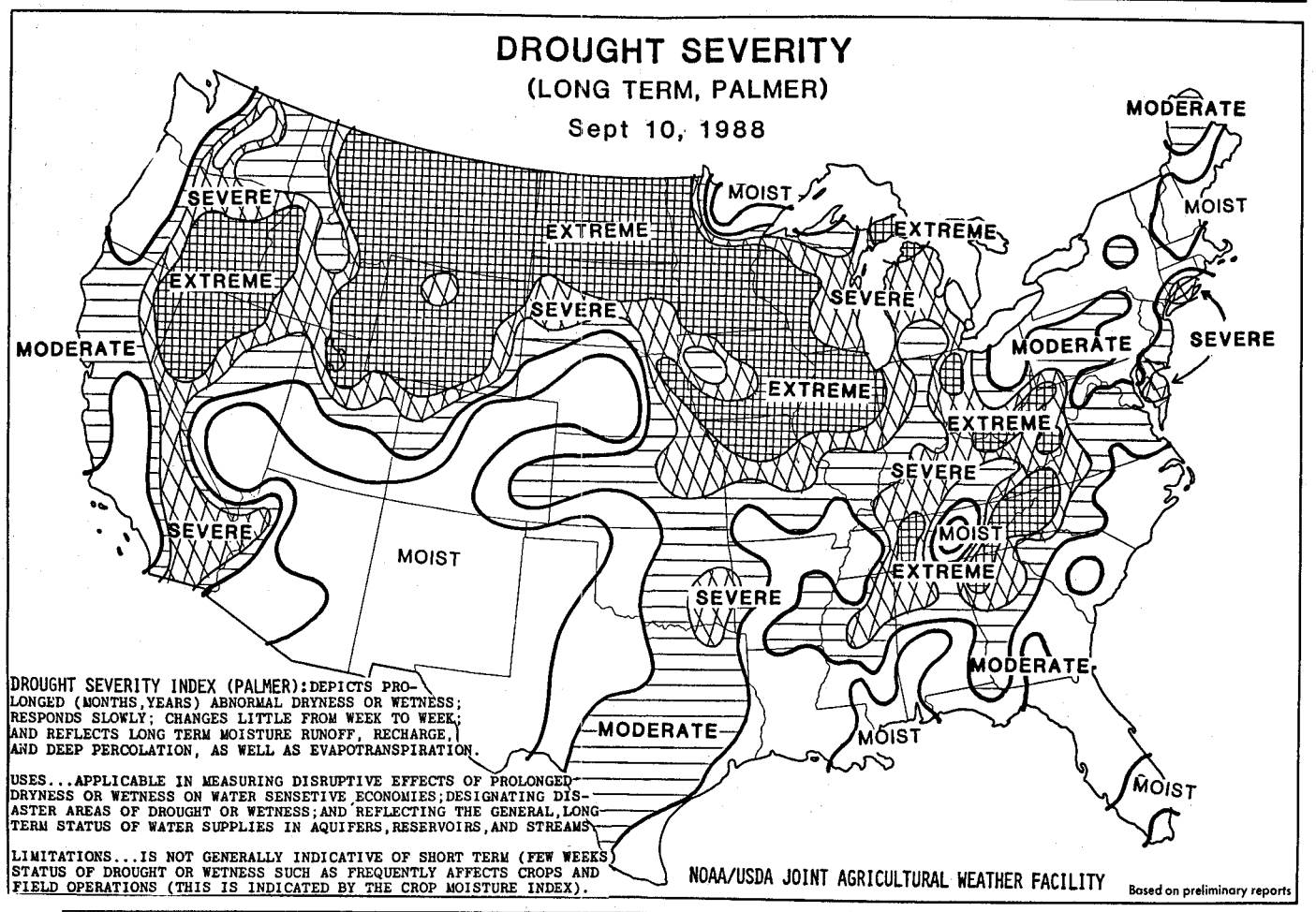
Contents

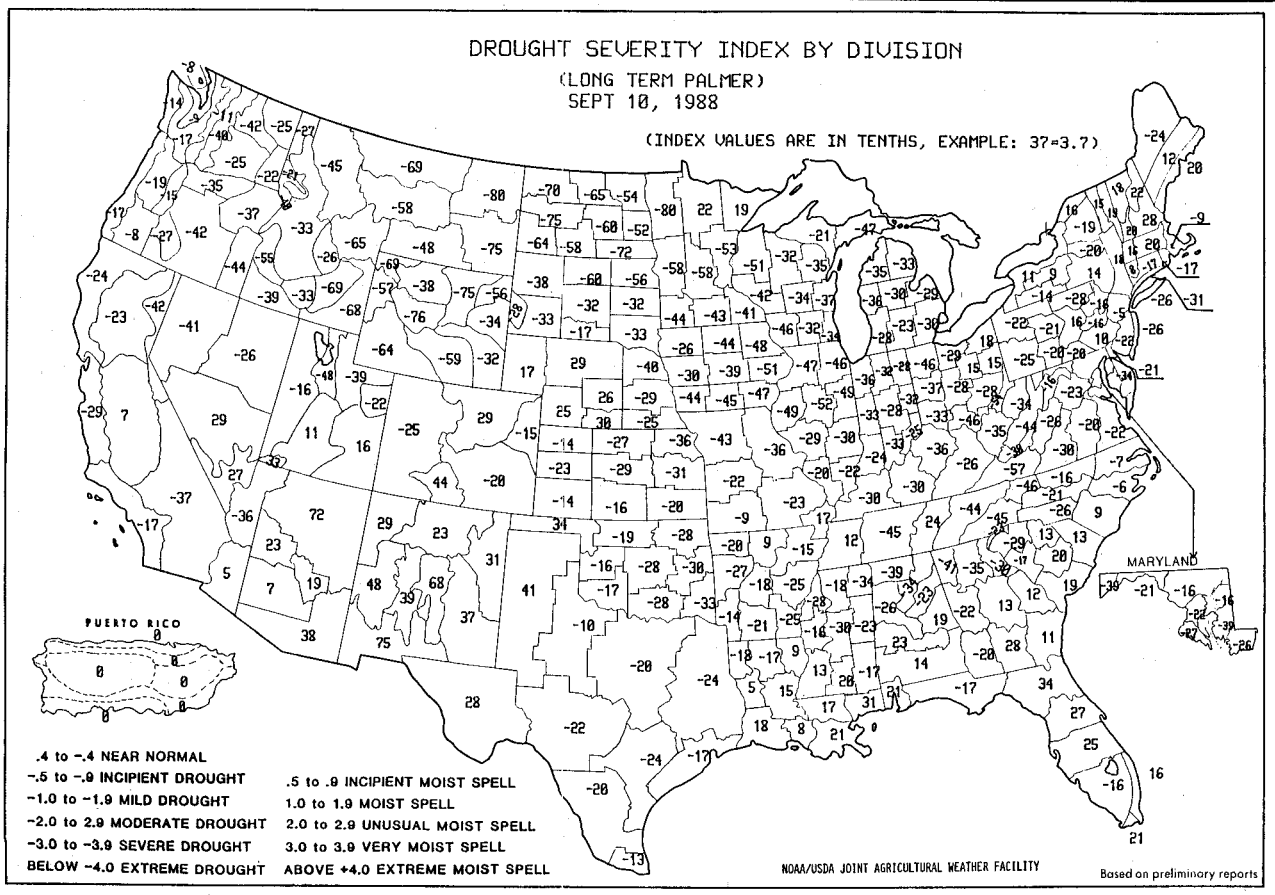
	Page
National Weather Summary	1
Total Precipitation	2
Crop Moisture & Crop Moisture Index	3
Drought Severity & Drought Severity Index	4
Precipitation Needed to End Drought & Extreme Maximum Temperature	5
Average Temperature & Departure	6
Total Growing Degree Days and Departure	7
Hurricanes in the Gulf and Caribbean	8
National Weather Data for Selected Cities	9
Cooling Degree Days Table	12
Summer Weather Review	13
Summer Precipitation & Percent of Normal	14
Summer Average Temperature & Departure	15
National Agricultural Summary	16
State Summaries of Weather and Agriculture	17
Crop Progress & Condition Tables	23
International Weather and Crop Summary	25
Subscription and Mailing Permit Information	28

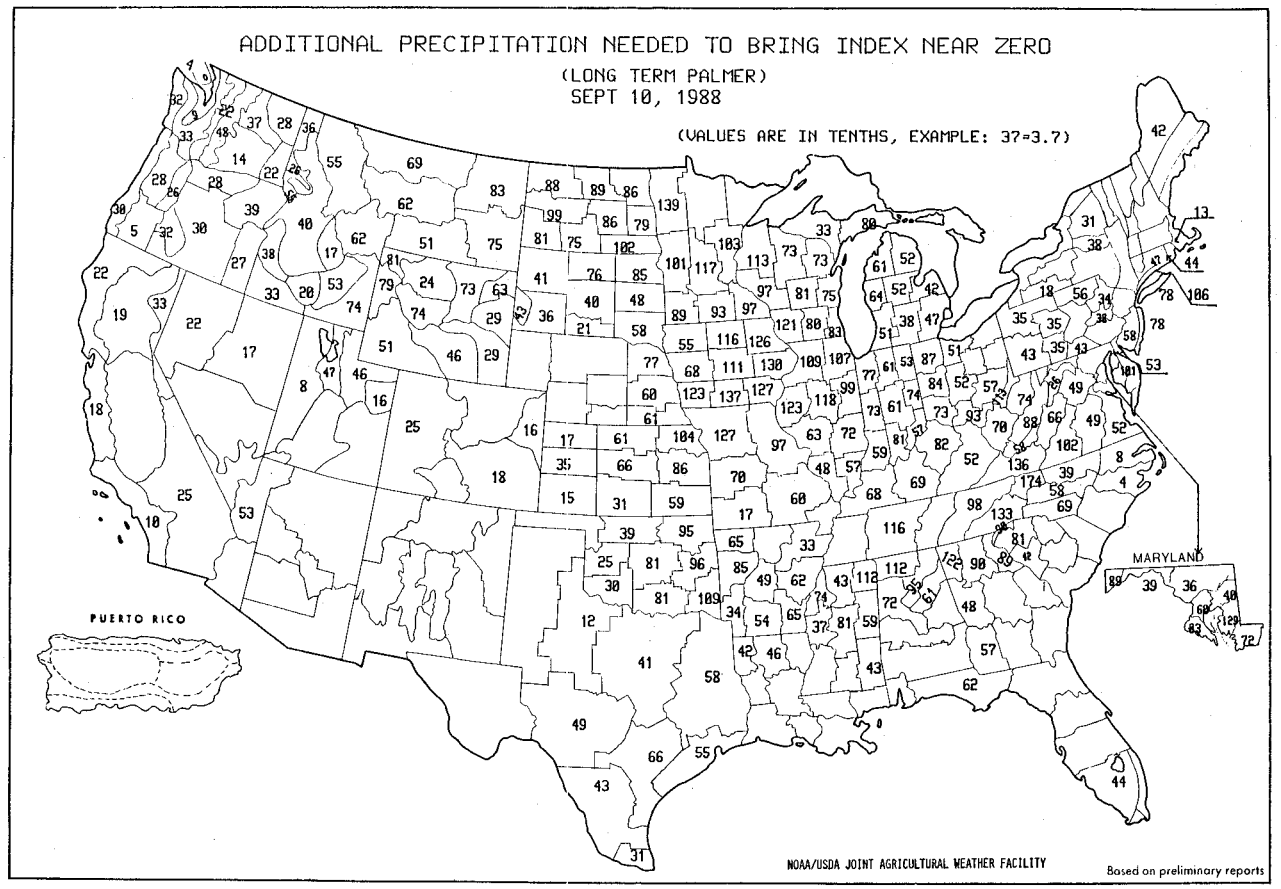

TOTAL PRECIPITATION, INCHES
SEP 4 - 10, 1988
GREATER THAN 2 INCHES
GREATER THAN 4 INCHES
NO PRECIPITATION
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports
ALASKA
Barrow
Nome
Fairbanks
Anchorage
Juneau
Cold Bay
HAWAII
Lihue
Honolulu
Kahului
Hilo

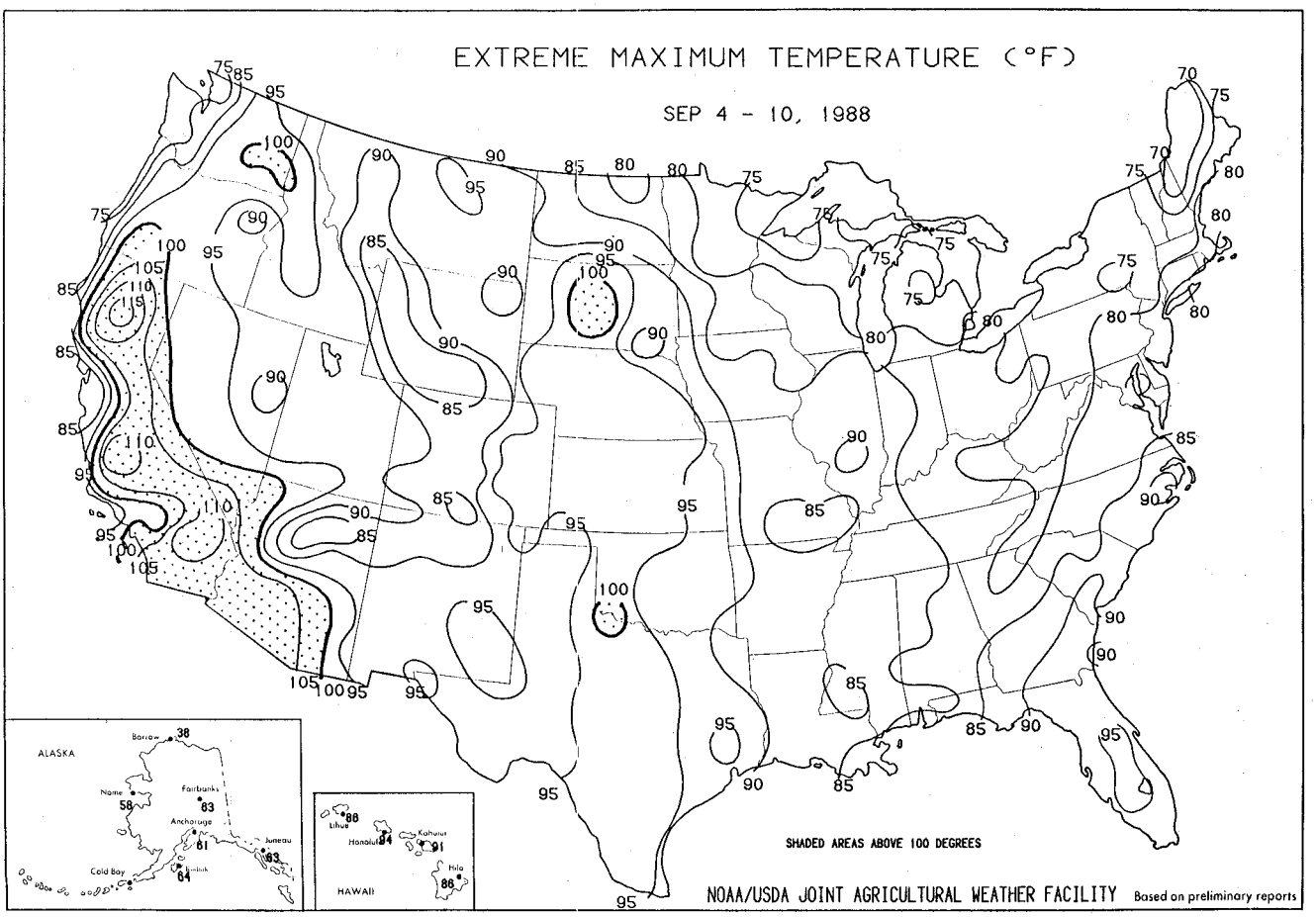

CROP MOISTURE
(SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)
Sept 10, 1988
EXCESSIVELY DRY
SEVERELY DRY
ABNORMALLY DRY
EXCESSIVELY DRY
ABNORMALLY DRY
SEVERELY DRY
ABNORMALLY DRY
ABNORMALLY MOIST
ABNORMALLY MOIST
WET
EXCESSIVELY DRY
ABNORMALLY MOIST
EXCESSIVELY DRY
SEVERELY DRY
ABNORMALLY DRY
EXCESSIVELY DRY
SEVERELY DRY
WET
WET
WET
ABNORMALLY MOIST
CROP MOISTURE:
DEPICTS SHORT TERM (UP TO ABOUT 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE, RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK, AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.
USES...APPLICABLE IN MEASURING THE SHORT TERM, WEEK-TO-WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS.
LIMITATIONS...MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 5-FOOT PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55°F. IT IS NOT GENERALLY INDICATIVE OF THE LONG TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

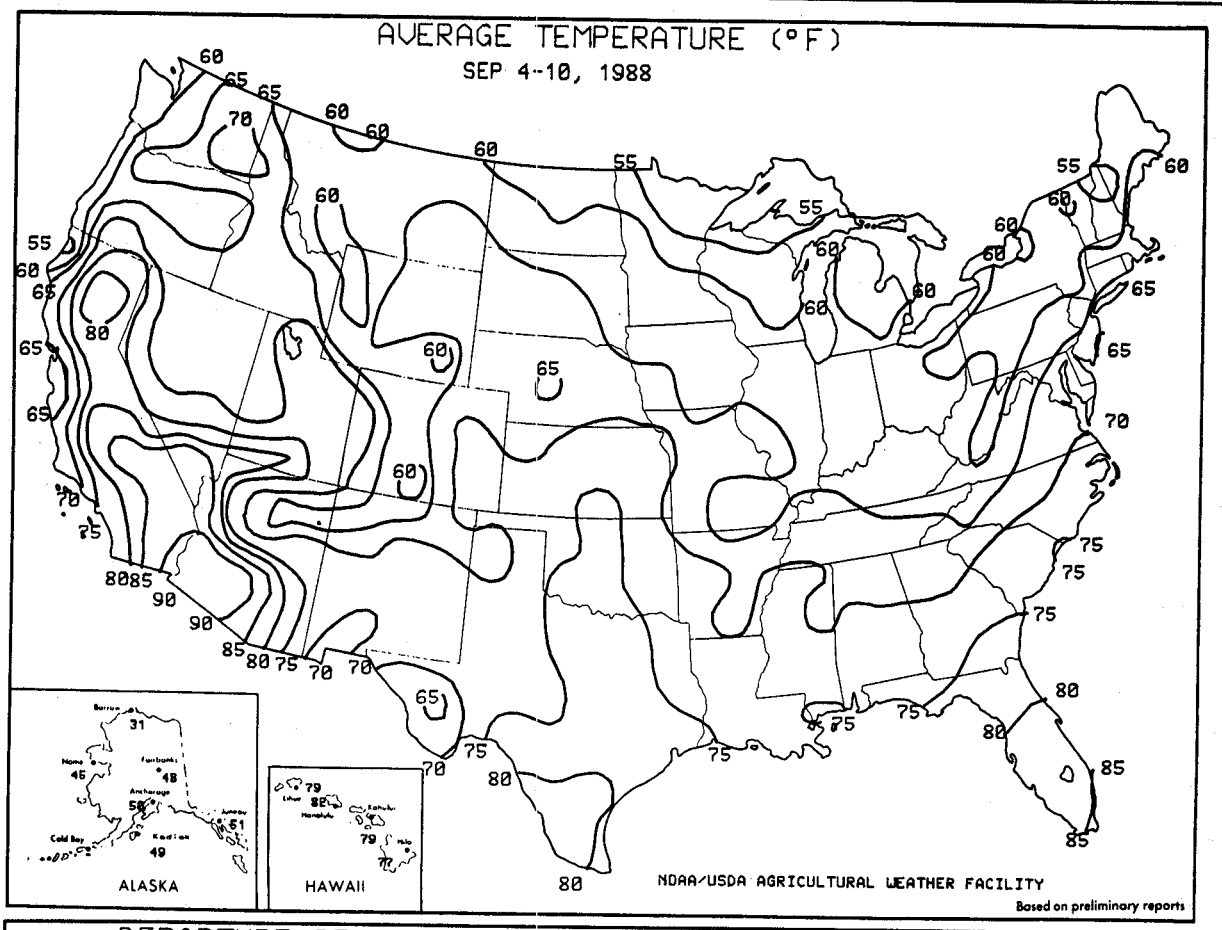

CROP MOISTURE INDEX BY DIVISION
(SHORT TERM CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE
SEPT 10, 1988
(INDEX VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)
MARYLAND
PUERTO RICO
SHADED AREAS:
INDEX INCREASED OR DID NOT CHANGE
ABOVE 3 EXCESSIVELY WET, SOME FIELDS FLOODED
2 TO 3 TOO WET, SOME STANDING WATER
1 TO 2 PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET
0 TO 1 MOISTURE ADEQUATE FOR PRESENT NEEDS
0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED
-1 TO -2 SOME IMPROVEMENT BUT STILL TOO DRY
-2 TO -3 DROUGHT EASED BUT STILL SERIOUS
-3 TO -4 DROUGHT CONTINUES, RAIN URGENTLY NEEDED
BELOW -4 NOT ENOUGH RAIN, STILL EXTREMELY DRY
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
UNSHADED AREAS:
INDEX DECREASED
ABOVE 3 SOME DRYING BUT STILL EXCESSIVELY WET
2 TO 3 MORE DRY WEATHER NEEDED, WORK DELAYED
1 TO 2 FAVORABLE, EXCEPT STILL TOO WET IN SPOTS
0 TO 1 FAVORABLE FOR NORMAL GROWTH AND FIELDWORK
0 TO -1 TOPSOIL MOISTURE SHORT, GERMINATION SLOW
-1 TO -2 ABNORMALLY DRY, PROSPECTS DETERIORATING
-2 TO -3 TOO DRY, YIELD PROSPECTS REDUCED
-3 TO -4 POTENTIAL YIELDS SEVERELY CUT BY DROUGHT
BELOW -4 EXTREMELY DRY, MOST CROPS RUINED
Based on preliminary reports

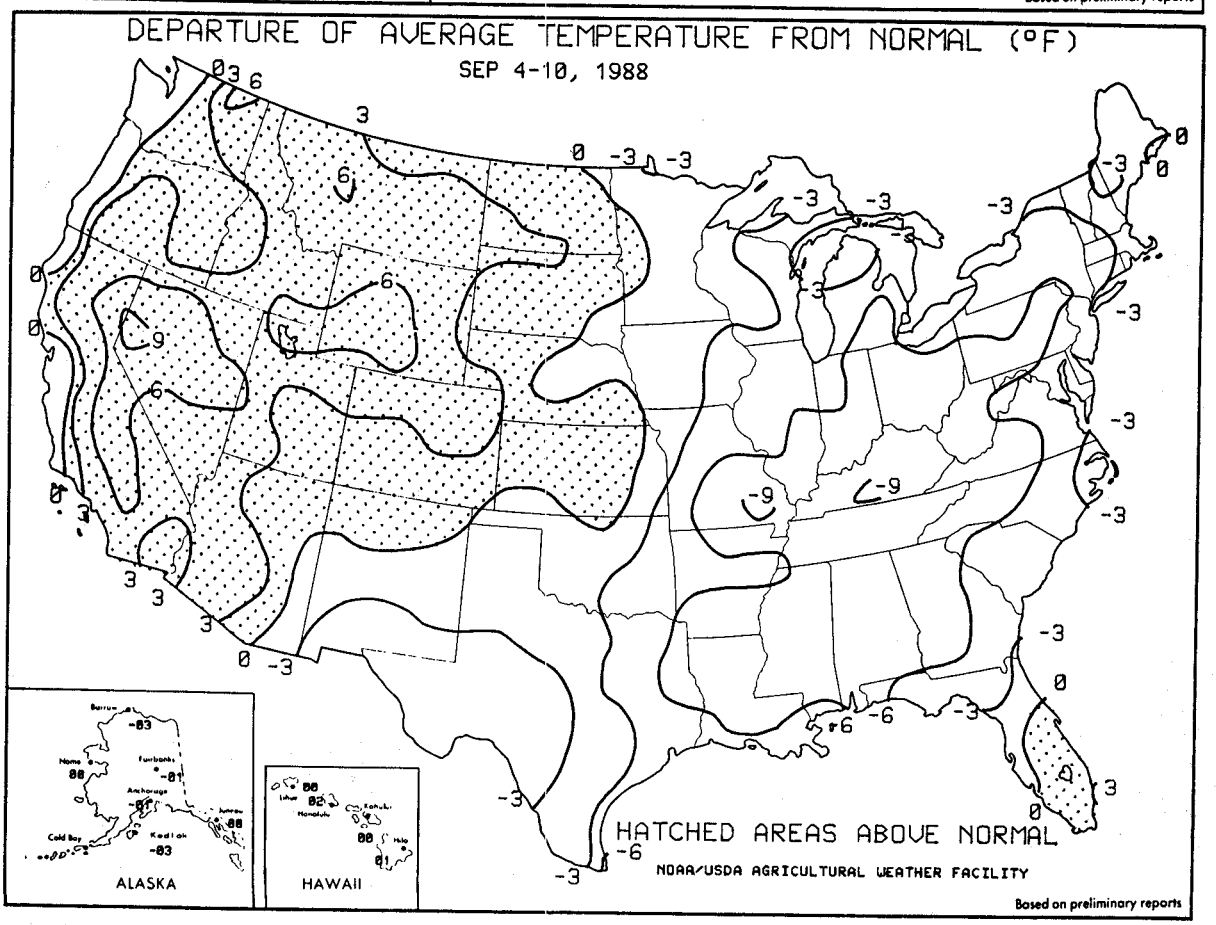

DROUGHT SEVERITY
(LONG TERM, PALMER)
Sept 10, 1988
MODERATE
MOIST
SEVERE
EXTREME
MOIST
EXTREME
EXTREME
SEVERE
SEVERE
MODERATE
MODERATE
SEVERE
EXTREME
EXTREME
SEVERE
SEVERE
MOIST
MOIST
EXTREME
SEVERE
MODERATE
MODERATE
MOIST
MOIST
DROUGHT SEVERITY INDEX (PALMER): DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS; RESPONDS SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION, AS WELL AS EVAPOTRANSPIRATION.
USES...APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSETIVE ECONOMIES; DESIGNATING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL, LONG TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS, AND STREAMS
LIMITATIONS...IS NOT GENERALLY INDICATIVE OF SHORT TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

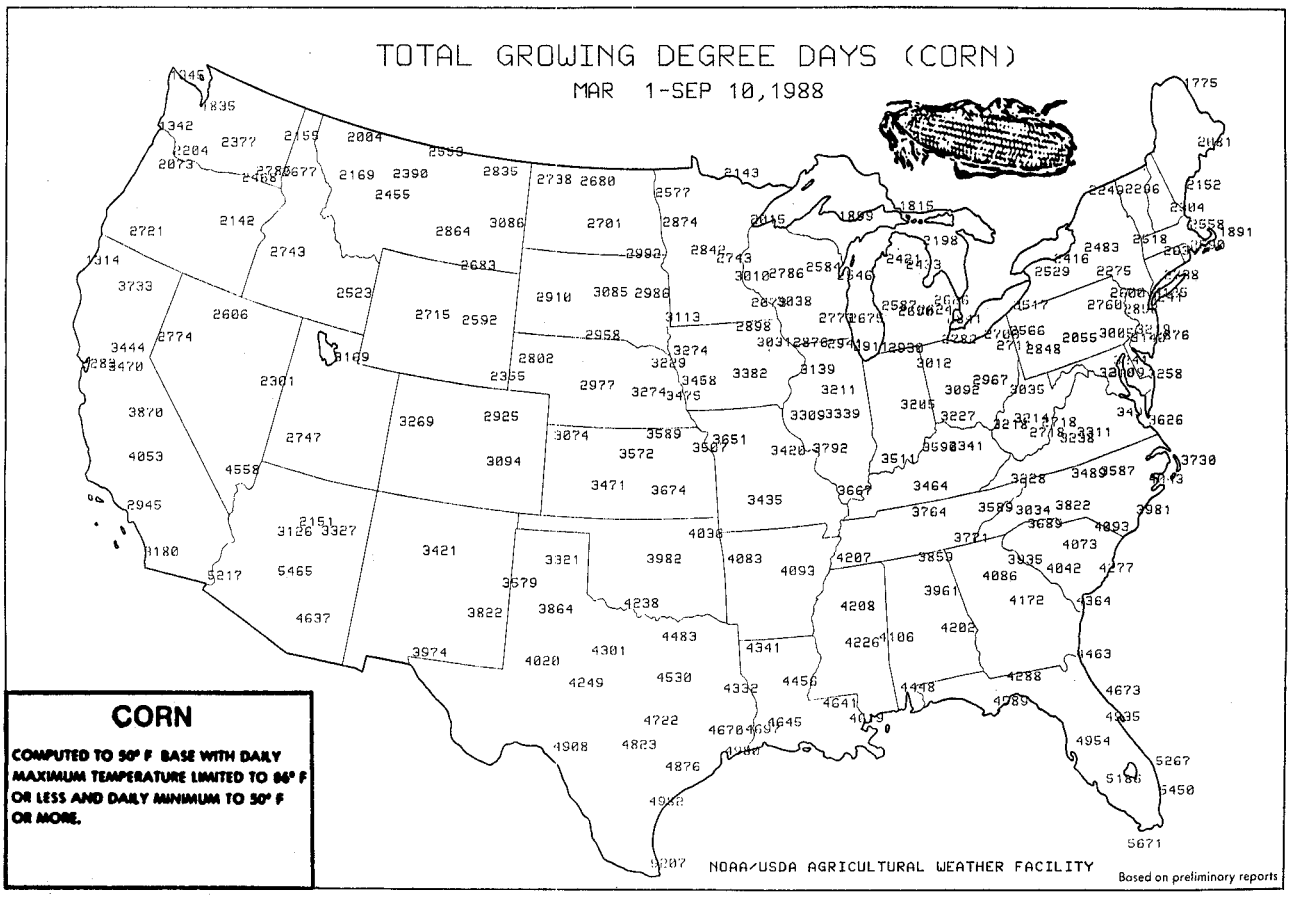

DROUGHT SEVERITY INDEX BY DIVISION
(LONG TERM PALMER)
SEPT 10, 1988
(INDEX VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)
PUERTO RICO
MARYLAND
.4 to -.4 NEAR NORMAL
-.5 to -.9 INCIPIENT DROUGHT
-1.0 to -1.9 MILD DROUGHT
-2.0 to 2.9 MODERATE DROUGHT
-3.0 to -3.9 SEVERE DROUGHT
BELOW -4.0 EXTREME DROUGHT
.5 to .9 INCIPIENT MOIST SPELL
1.0 to 1.9 MOIST SPELL
2.0 to 2.9 UNUSUAL MOIST SPELL
3.0 to 3.9 VERY MOIST SPELL
ABOVE +4.0 EXTREME MOIST SPELL
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

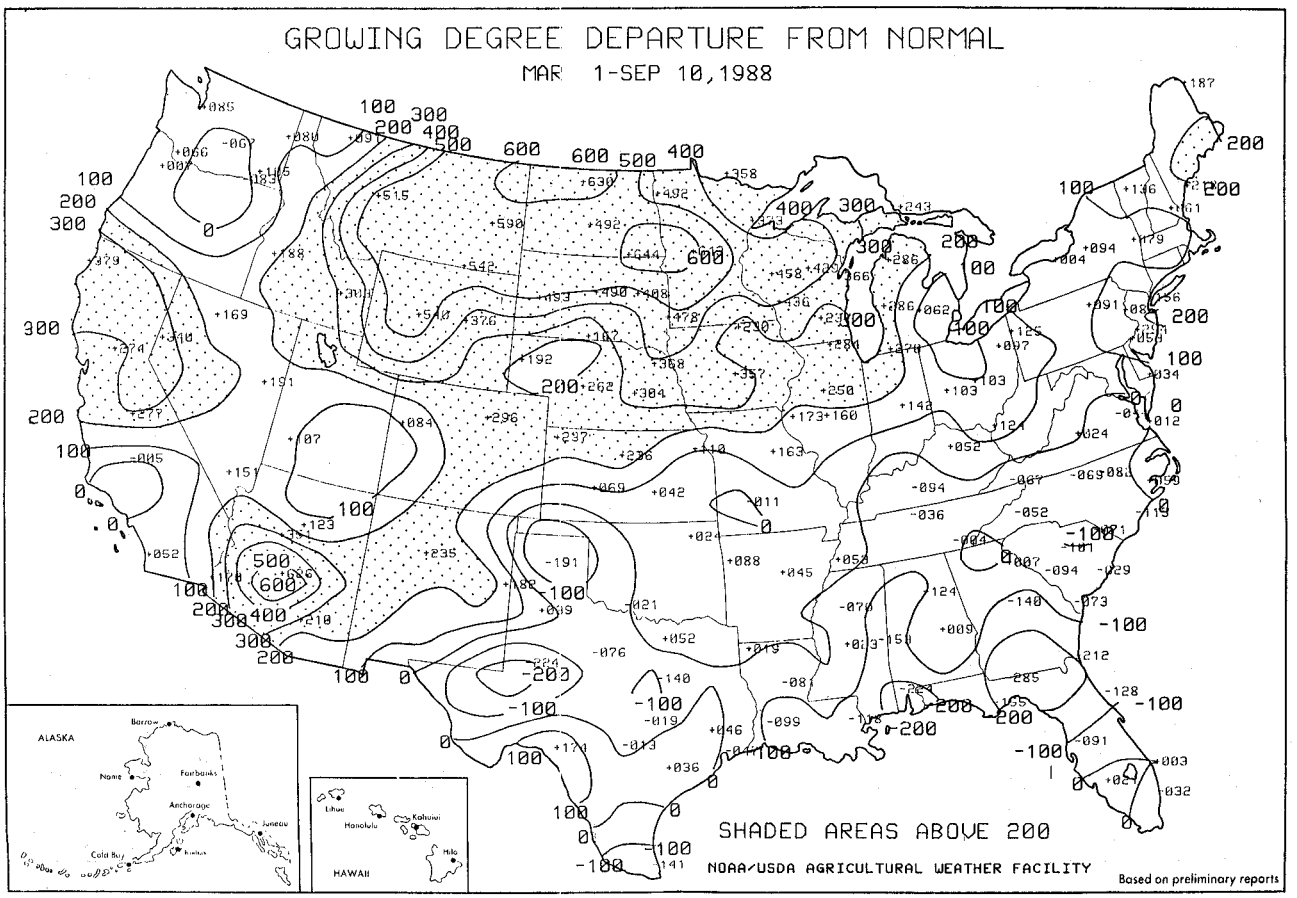

ADDITIONAL PRECIPITATION NEEDED TO BRING INDEX NEAR ZERO
(LONG TERM PALMER)
SEPT 10, 1988
(VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)
PUERTO RICO
MARYLAND
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

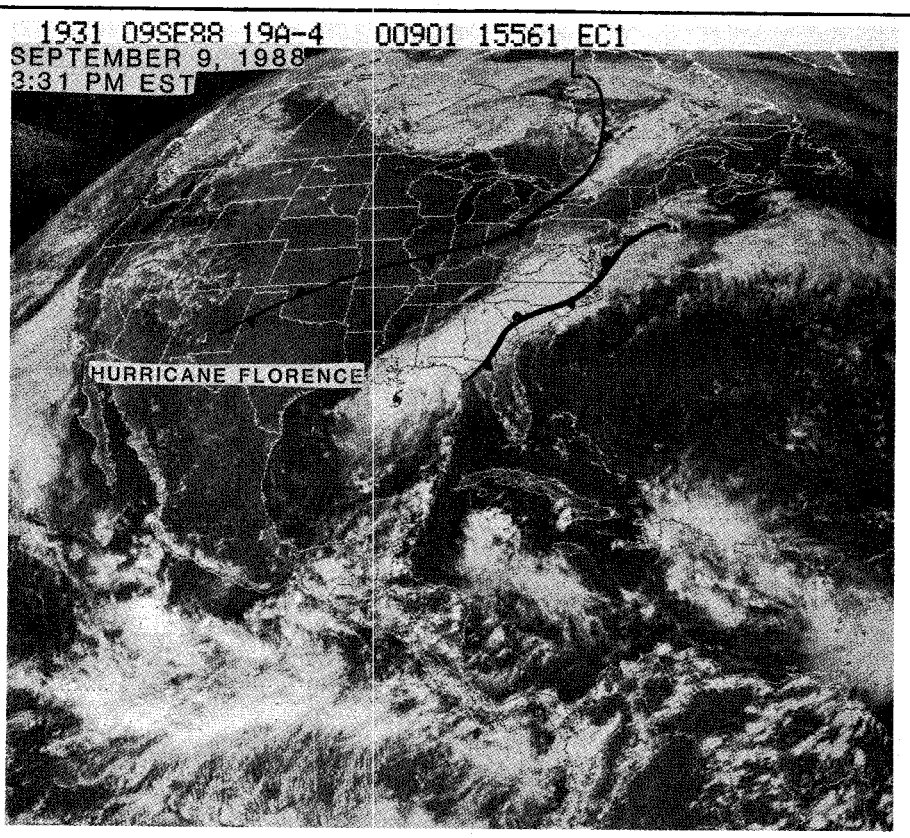

EXTREME MAXIMUM TEMPERATURE (°F)
SEP 4 - 10, 1988
ALASKA
Barrow
Nome
Fairbanks
Anchorage
Juneau
Cold Bay
Bethel
HAWAII
Lihue
Honolulu
Kahului
Hilo
SHADED AREAS ABOVE 100 DEGREES
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


AVERAGE TEMPERATURE (°F)
SEP 4-10, 1988
ALASKA
HAWAII
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

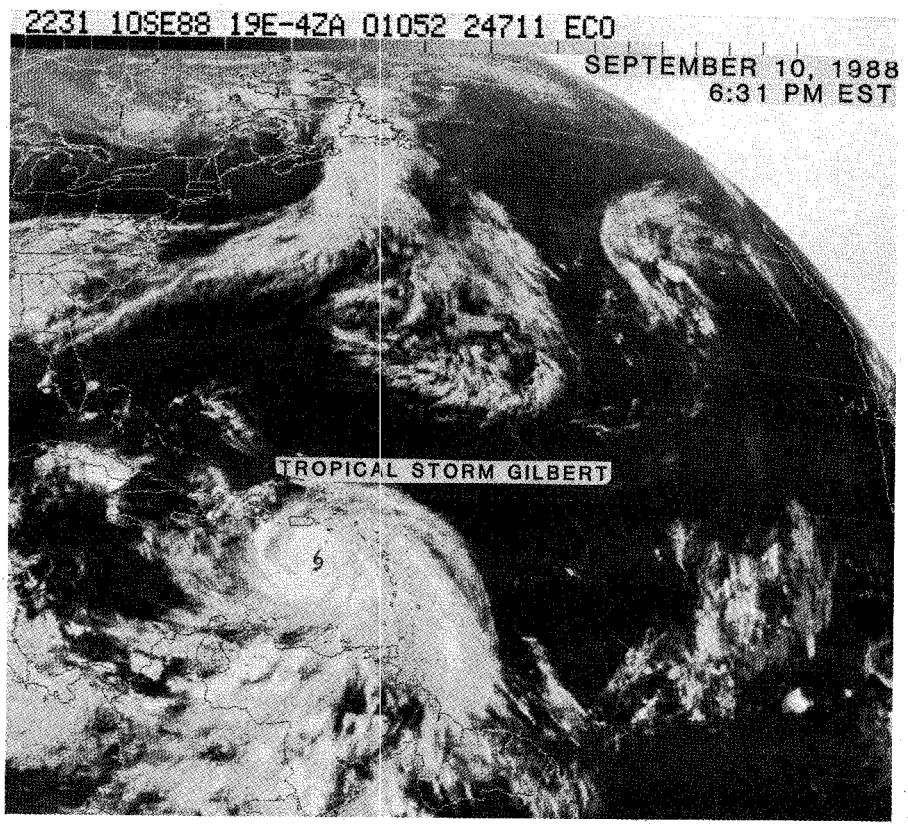

DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
SEP 4-10, 1988
HATCHED AREAS ABOVE NORMAL
ALASKA
HAWAII
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


TOTAL GROWING DEGREE DAYS (CORN)
MAR 1-SEP 10,1988
CORN
COMPUTED TO 50° F BASE WITH DAILY MAXIMUM TEMPERATURE LIMITED TO 86° F OR LESS AND DAILY MINIMUM TO 50° F OR MORE.
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


GROWING DEGREE DEPARTURE FROM NORMAL
MAR 1-SEP 10,1988
ALASKA
Barrow
Nome
Fairbanks
Anchorage
Juneau
Cold Bay
Kodiak
HAWAII
Lihue
Honolulu
Kahului
Hilo
SHADED AREAS ABOVE 200
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports



Hurricane Florence strikes the central Gulf coast with 75 m.p.h. winds. A stationary frontal system brings soaking rain to the eastern seaboard.



Tropical Storm Gilbert moves westward toward Jamica. Gilbert intensified to hurricane strength the following day with 110 m.p.h. winds.

National Weather Data for Selected Cities

Weather Data for the Week Ending September 10, 1988

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	78	59	83	50	69	-8	1.4	.4	1.1	2.3	153	24.0	59	95	58	0	0	2	1
MOBILE	80	64	85	52	72	-8	5.3	3.6	2.8	6.2	256	48.4	99	95	61	0	0	3	2
MONTGOMERY	80	63	84	55	71	-7	5.4	4.3	3.4	5.9	366	45.8	127	95	60	0	0	3	2
AK ANCHORAGE	58	43	61	36	50	-1	.2	-.4	.2	.3	36	7.8	82	90	53	0	0	1	0
BARROW	34	28	38	25	31	-3	T	-.2	T	T	0	2.7	83	98	84	0	7	0	0
FAIRBANKS	58	38	63	32	48	-1	.5	.2	.2	.8	179	8.3	109	91	50	0	1	3	0
JUNEAU	57	45	63	40	51	0	.8	-.6	.6	1.4	73	32.7	105	98	63	0	0	3	1
KODIAK	58	40	64	36	49	-3	1.6	.2	.8	2.1	108	50.9	133	98	66	0	0	5	2
NOME	52	38	58	31	45	0	.2	-.4	.2	.2	19	9.9	95	90	59	0	1	2	0
AZ PHOENIX	104	81	108	76	92	6	0	-.2	0	0	0	3.9	85	35	14	7	0	0	0
PRESCOTT	85	54	88	50	70	3	.1	-.3	.1	.1	14	12.8	92	65	22	0	0	1	0
TUCSON	97	69	104	64	83	1	0	-.4	0	.8	157	8.8	111	52	17	6	0	0	0
YUMA	105	80	109	78	93	3	T	-.1	T	T	0	2.3	150	50	16	7	0	0	0
AR FORT SMITH	88	58	93	54	73	-3	0	-.7	0	1.3	120	21.9	78	91	32	3	0	0	0
LITTLE ROCK	83	59	88	53	71	-5	T	-1.0	T	.1	6	27.0	77	61	35	0	0	0	0
CA BAKERSFIELD	101	69	109	59	85	6	0	0	0	0	0	3.0	78	61	21	7	0	0	0
EUREKA	60	51	64	46	55	-2	0	-.2	0	0	0	15.9	70	96	78	0	0	0	0
FRESNO	100	67	107	60	84	8	0	0	0	0	0	5.5	79	71	20	7	0	0	0
LOS ANGELES	81	65	102	62	73	3	0	0	0	0	0	4.6	55	87	53	2	0	0	0
REDDING	103	61	115	55	82	4	0	-.2	0	0	0	16.9	66	61	13	7	0	0	0
SACRAMENTO	95	58	108	52	77	4	0	0	0	0	0	6.9	64	78	20	5	0	0	0
SAN DIEGO	84	68	107	66	76	5	0	0	0	0	0	6.7	102	89	52	2	0	0	0
SAN FRANCISCO	71	53	77	51	62	-2	0	0	0	0	0	7.3	59	94	55	0	0	0	0
CO DENVER	88	52	94	46	70	5	T	-.3	T	T	2	12.5	104	57	20	3	0	1	0
GRAND JUNCTION	88	58	93	56	73	3	T	-.2	T	T	8	5.9	110	37	11	4	0	1	0
PUEBLO	92	50	98	43	71	2	0	-.2	0	.5	135	9.3	106	63	13	5	0	0	0
CT BRIDGEPORT	75	58	82	48	66	-2	1.0	.2	.9	1.0	91	25.1	88	86	51	0	0	3	1
HARTFORD	75	49	82	40	62	-4	1.6	.6	1.5	1.6	117	28.0	93	94	49	0	0	2	1
DC WASHINGTON	77	60	83	51	68	-5	1.0	.2	.9	1.0	83	22.5	80	93	51	0	0	3	1
FL APALACHICOLA	84	70	89	65	77	-3	6.9	4.7	3.3	10.1	322	56.1	139	95	70	0	0	4	3
DAYTONA BEACH	87	74	93	73	80	0	3.6	1.9	1.7	3.9	167	29.1	83	99	70	2	0	5	2
JACKSONVILLE	84	73	93	70	79	-2	8.0	6.4	3.5	11.9	502	48.5	122	98	68	3	0	6	3
KEY WEST	90	81	91	78	85	1	.1	-1.4	.1	.3	14	31.6	125	85	66	4	0	1	0
MIAMI	91	79	93	74	85	3	.2	-1.7	.1	.4	14	39.5	97	86	59	7	0	5	0
ORLANDO	90	77	96	75	83	1	4.4	2.8	1.7	4.5	197	41.5	107	89	63	3	0	5	3
TALLAHASSEE	82	68	90	60	75	-5	3.3	1.6	1.2	3.4	141	40.2	81	97	68	1	0	4	3
TAMPA	85	74	93	73	80	-2	9.1	7.4	2.9	10.6	448	41.7	114	97	73	3	0	6	4
WEST PALM BEACH	91	78	94	75	85	2	.5	-1.6	.3	.8	26	54.6	136	91	58	6	0	3	0
GA ATLANTA	75	62	80	57	68	-7	2.8	2.1	2.3	4.1	375	32.5	90	94	64	0	0	3	1
AUGUSTA	81	64	88	58	73	-4	4.7	3.8	2.0	4.9	382	32.4	97	96	57	0	0	4	3
MACON	79	63	86	59	71	-7	4.7	3.9	1.8	4.9	413	34.7	101	99	62	0	0	5	4
SAVANNAH	81	68	91	62	75	-4	5.2	3.9	1.8	7.4	378	40.8	102	100	67	1	0	5	4
HI HILO	85	69	86	67	77	1	.9	-.6	.6	1.0	44	82.2	95	91	63	0	0	4	1
HONOLULU	91	74	94	70	82	2	.2	.1	.2	.2	114	7.5	52	81	47	5	0	2	0
KAHULUI	88	69	91	67	79	0	T	-.1	T	T	0	12.9	105	86	54	1	0	0	0
LIHUE	85	74	86	70	79	0	T	-.4	T	T	5	25.3	94	89	65	0	0	1	0
ID BOISE	84	51	95	42	68	2	0	-.1	0	0	0	6.9	89	51	16	2	0	0	0
LEWISTON	86	57	100	46	71	5	.2	0	.2	.2	71	7.0	80	53	18	3	0	1	0
POCATELLO	86	48	92	44	67	5	0	-.1	0	0	0	4.6	61	49	13	4	0	0	0
IL CHICAGO	75	49	86	43	62	-5	.1	-.9	.1	.2	12	15.9	63	76	29	0	0	1	0
MOLINE	77	49	86	40	63	-4	T	-.9	T	T	3	16.8	60	92	35	0	0	1	0
PEORIA	78	49	89	41	64	-5	.1	-.8	.1	.1	10	12.0	46	86	32	0	0	1	0
QUINCY	79	51	88	45	65	-4	0	-1.0	0	0	0	12.1	43	84	31	0	0	0	0
ROCKFORD	76	47	85	39	61	-5	.8	-.1	.8	.8	60	15.1	56	95	35	0	0	1	1
SPRINGFIELD	79	50	89	40	64	-6	T	-.8	T	T	0	13.2	52	89	32	0	0	0	0
IN EVANSVILLE	77	51	85	43	64	-8	0	-.7	0	.4	42	24.1	79	95	45	0	0	0	0
FORT WAYNE	74	49	82	44	61	-6	T	-.6	T	.5	56	23.4	92	94	42	0	0	2	0
INDIANAPOLIS	76	50	86	42	63	-6	.1	-.6	.1	.4	45	20.6	72	93	41	0	0	1	0
SOUTH BEND	72	50	81	45	61	-6	.5	-.3	.4	1.7	155	20.7	76	90	41	0	0	2	0
IA DES MOINES	79	50	87	42	65	-3	T	-.8	T	.1	12	14.5	60	83	33	0	0	1	0
SIOUX CITY	80	48	92	41	64	-2	0	-.6	0	T	2	15.4	75	80	32	1	0	0	0
WATERLOO	78	44	85	35	61	-3	T	-.8	T	.1	5	13.7	53	91	33	0	0	1	0
KS CONCORDIA	87	55	97	49	71	1	0	-.8	0	0	0	12.3	57	71	23	3	0	0	0
DODGE CITY	89	55	98	49	72	0	0	-.5	0	.7	100	12.1	72	71	22	4	0	0	0
GOODLAND	88	51	99	43	69	2	0	-.4	0	0	0	17.8	133	65	20	3	0	0	0
TOPEKA	87	55	95	41	71	0	0	-.8	0	0	0	15.5	61	77	28	2	0	0	0
WICHITA	90	60	97	53	75	1	0	-.8	0	T	0	14.3	67	73	27	4	0	0	0
KY BOWLING GREEN	76	51	84	43	63	-10	0	-.8	0	1.9	169	25.0	70	98	48	0	0	0	0
LEXINGTON	73	53	79	45	63	-8	T	-.8	T	3.4	284	26.0	76	88	48	0	0	0	0
LOUISVILLE	77	54	84	46	65	-7	0	-.8	0	.6	53	25.9	82	91	42	0	0	0	0
LA ALEXANDRIA	83	61	86	54	72	-7	.3	-.5	.2	2.6	241	32.1	83	84	42	0	0	2	0
BATON ROUGE	83	63	85	56	73	-7	4.5	3.4	3.7	5.6	348	58.3	140	92	53	0	0	3	2
LAKE CHARLES	85	63	87	56	74	-6	.4	-1.0	.4	6.7	335	46.9	125	93	46	0	0	2	0
NEW ORLEANS	82	70	84	65	76	-4	2.2	.7	1.2	3.6	168	63.5	144	87	58	0	0	3	2

Based on 1951-80 normals

CORRECTION: Vol. 75, No. 35, Aug. 30, 1988, and No. 36, Sept. 7, 1988

Total Precipitation and PCT. Normal June 1 should have been Sept. 1.

Weather Data for the Week Ending September 10, 1988

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	85	60	89	51	72	-7	T	-.7	T	.6	54	20.7	66	94	38	0	0	1	0
ME CARIBOU	66	45	73	38	55	-1	1.2	.3	.6	1.3	106	22.0	89	98	53	0	0	2	2
PORTLAND	72	49	80	43	60	-1	1.1	.4	1.1	1.1	105	29.7	105	96	51	0	0	2	1
MD BALTIMORE	76	56	82	48	66	-5	.9	0	.7	.9	69	23.8	79	95	52	0	0	4	1
SALISBURY	77	57	81	47	67	-4	2.0	1.0	.9	2.0	138	34.6	106	96	55	0	0	5	1
MA BOSTON	75	56	83	51	66	-1	.9	.1	.9	.9	78	25.2	85	89	49	0	0	2	1
CHATHAM	71	56	78	51	63	-1	.8	-.1	.5	.8	63	24.0	77	86	65	0	0	2	1
MI ALPENA	69	45	76	39	57	-3	.2	-.6	.2	.4	32	17.8	86	96	48	0	0	2	0
DETROIT	72	50	79	44	61	-5	.8	.3	.8	1.0	126	14.4	64	91	43	0	0	1	1
FLINT	70	46	78	39	58	-6	.3	-.3	.3	.4	48	16.0	76	92	46	0	0	1	0
GRAND RAPIDS	71	48	78	40	59	-5	.3	-.5	.3	1.7	155	18.5	79	93	44	0	0	1	0
HOUGHTON LAKE	67	47	73	36	57	-2	.4	-.3	.4	.9	90	16.7	84	87	49	0	0	1	0
LANSING	70	46	78	39	58	-6	.4	-.3	.4	1.9	176	18.4	87	95	46	0	0	2	0
MARQUETTE	64	41	73	37	53	-4	.9	0	.7	1.8	135	24.0	92	97	51	0	0	3	1
MUSKEGON	69	50	76	44	60	-4	.5	-.2	.5	1.5	148	17.5	82	92	49	0	0	2	1
SAULT ST. MARIE	66	41	73	35	54	-3	.3	-.6	.2	.6	45	18.6	84	98	51	0	0	3	0
MN ALEXANDRIA	71	49	79	43	60	0	0	-.6	0	.6	71	16.8	86	77	35	0	0	0	0
DULUTH	67	41	74	34	54	-2	0	-.8	0	1.1	95	21.5	96	92	39	0	0	0	0
INT'L FALLS	67	40	76	34	54	-2	T	-.8	T	.1	10	17.9	98	96	37	0	0	1	0
MINNEAPOLIS	76	49	82	43	62	-1	.1	-.5	.1	.7	72	12.6	61	82	32	0	0	1	0
ROCHESTER	75	45	82	37	60	-2	T	-.8	T	.4	34	13.6	63	84	35	0	0	0	0
MS GREENWOOD	82	59	88	48	70	-7	.4	-.3	.4	1.9	177	19.1	50	90	45	0	0	1	0
JACKSON	83	59	87	55	71	-7	.5	-.4	.3	1.5	118	26.6	70	97	46	0	0	2	0
MERIDIAN	81	58	84	48	70	-8	4.7	3.9	4.3	5.7	469	34.0	86	98	54	0	0	3	1
MO CAPE GIRARDEAU	78	53	84	46	66	—	0	-.9	0	4.3	321	23.3	72	96	44	0	0	0	0
COLUMBIA	80	50	89	41	65	-6	T	-.9	T	T	0	19.2	71	88	34	0	0	0	0
KANSAS CITY	84	56	92	43	70	-3	0	-1.0	0	0	0	12.7	47	75	30	2	0	0	0
SAINT LOUIS	80	56	88	49	68	-4	0	-.6	0	T	0	20.2	81	81	37	0	0	0	0
SPRINGFIELD	78	53	85	46	65	-7	0	-1.0	0	T	1	32.9	117	90	43	0	0	0	0
MT BILLINGS	82	50	93	44	66	4	T	-.3	T	T	3	6.1	54	53	15	1	0	1	0
GLASGOW	78	48	94	41	63	2	T	-.2	T	T	12	5.9	65	58	18	1	0	1	0
GREAT FALLS	80	48	90	37	64	4	.5	.3	.5	.5	146	8.1	67	56	17	1	0	1	1
HAVRE	80	42	95	32	61	1	T	-.3	T	T	0	3.8	40	65	17	2	1	0	0
HELENA	82	48	92	38	65	7	.8	.6	.8	.8	261	7.1	77	57	16	3	0	1	1
KALISPELL	78	44	91	30	61	4	.2	0	.2	.2	60	9.3	82	78	21	2	1	1	0
MILES CITY	82	50	93	42	66	3	T	-.3	T	T	0	2.4	21	54	16	1	0	0	0
MISSOULA	81	46	94	38	63	5	T	-.2	T	T	3	8.7	90	63	20	2	0	1	0
NE GRAND ISLAND	84	51	97	42	67	0	0	-.6	0	T	1	16.9	89	81	25	2	0	0	0
LINCOLN	85	52	97	43	68	0	0	-.7	0	T	2	10.5	48	75	26	1	0	0	0
NORFOLK	83	48	97	40	65	-1	0	-.5	0	.7	86	17.9	91	82	28	1	0	0	0
NORTH PLATTE	83	44	97	37	64	-1	0	-.4	0	0	0	16.8	103	92	29	1	0	0	0
OMAHA	82	55	94	48	68	0	0	-.9	0	.4	31	15.4	64	69	35	1	0	0	0
SCOTTSBLUFF	86	45	97	43	66	1	T	-.3	T	T	0	13.4	111	80	17	2	0	0	0
VALENTINE	84	47	99	34	66	2	T	-.4	T	T	0	17.4	119	66	20	2	0	0	0
NV ELY	87	45	89	41	66	7	T	-.2	T	T	0	6.0	92	52	14	0	0	0	0
LAS VEGAS	102	74	105	73	88	5	0	-.1	0	T	0	2.2	77	31	12	7	0	0	0
RENO	94	50	100	46	72	10	0	-.1	0	0	0	2.4	49	49	9	6	0	0	0
WINNEMUCCA	94	45	98	38	69	7	0	-.1	0	0	0	4.3	80	32	9	6	0	0	0
NH CONCORD	72	46	79	36	59	-3	1.0	.3	1.0	1.0	97	25.4	104	99	48	0	0	1	1
NJ ATLANTIC CITY	76	53	81	43	64	-5	2.1	1.4	1.9	2.1	194	24.5	82	97	58	0	0	4	1
NM ALBUQUERQUE	86	57	91	53	72	0	0	-.2	0	.7	239	10.7	187	53	17	2	0	0	0
CLOVIS	85	56	90	51	71	-1	0	-.5	0	.8	115	17.5	134	71	21	1	0	0	0
ROSWELL	90	55	99	51	72	-1	0	-.4	0	.1	8	11.7	150	70	17	4	0	0	0
NY ALBANY	72	47	79	38	60	-4	.6	-.1	.6	.6	58	21.7	88	100	50	0	0	2	1
BINGHAMTON	66	46	74	39	56	-6	1.1	.3	1.1	1.1	98	26.0	101	97	53	0	0	2	1
BUFFALO	71	52	77	45	62	-3	.6	-.2	.6	1.1	88	26.0	102	87	48	0	0	2	1
NEW YORK	76	61	83	53	68	-3	1.4	.6	1.4	1.4	117	27.3	92	81	43	0	0	1	1
ROCHESTER	70	48	78	42	59	-5	.6	0	.6	.6	69	18.5	84	98	54	0	0	2	1
SYRACUSE	71	50	78	43	60	-4	.5	-.3	.4	.5	41	23.6	87	93	50	0	0	4	0
NC ASHEVILLE	71	55	78	42	63	-6	1.2	.2	.9	2.0	147	17.8	55	99	65	0	0	3	1
CHARLOTTE	76	61	81	54	69	-6	2.8	1.9	1.9	3.6	291	25.6	81	91	62	0	0	3	2
GREENSBORO	73	58	83	49	66	-7	2.2	1.3	1.4	2.3	182	25.5	82	97	62	0	0	2	2
HATTERAS	81	68	87	65	75	-2	1.4	0	.8	2.1	103	33.9	89	96	70	0	0	5	1
NEW BERN	81	67	91	60	74	-2	1.9	.4	.8	2.0	96	42.0	106	94	64	1	0	5	1
RALEIGH	77	59	83	52	68	-5	3.3	2.5	1.6	3.4	281	26.0	84	94	58	0	0	3	3
WILMINGTON	81	66	88	57	73	-4	2.1	.6	.7	2.2	104	51.8	128	97	68	0	0	5	3
ND BISMARCK	79	41	86	33	60	0	T	-.4	T	T	0	8.2	65	73	21	0	0	0	0
FARGO	76	48	83	43	62	1	0	-.5	0	T	0	8.6	55	67	26	0	0	0	0
GRAND FORKS	74	41	81	32	58	-1	T	-.5	T	T	0	9.0	62	68	24	0	2	0	0
WILLISTON	76	43	90	38	60	0	.1	-.2	.1	.1	23	7.6	70	74	20	1	0	1	0
OH AKRON-CANTON	70	49	78	42	60	-7	.3	-.4	.2	4.1	389	24.0	91	95	54	0	0	2	0
CINCINNATI	75	51	82	41	63	-7	0	-.7	0	1.7	169	29.2	99	92	44	0	0	0	0
CLEVELAND	72	52	82	47	62	-5	.5	-.2	.3	1.5	142	19.7	77	93	49	0	0	2	0
COLUMBUS	73	48	81	40	60	-8	T	-.7	T	2.3	225	27.6	98	96	44	0	0	1	0

Weather Data for the Week Ending September 10, 1988

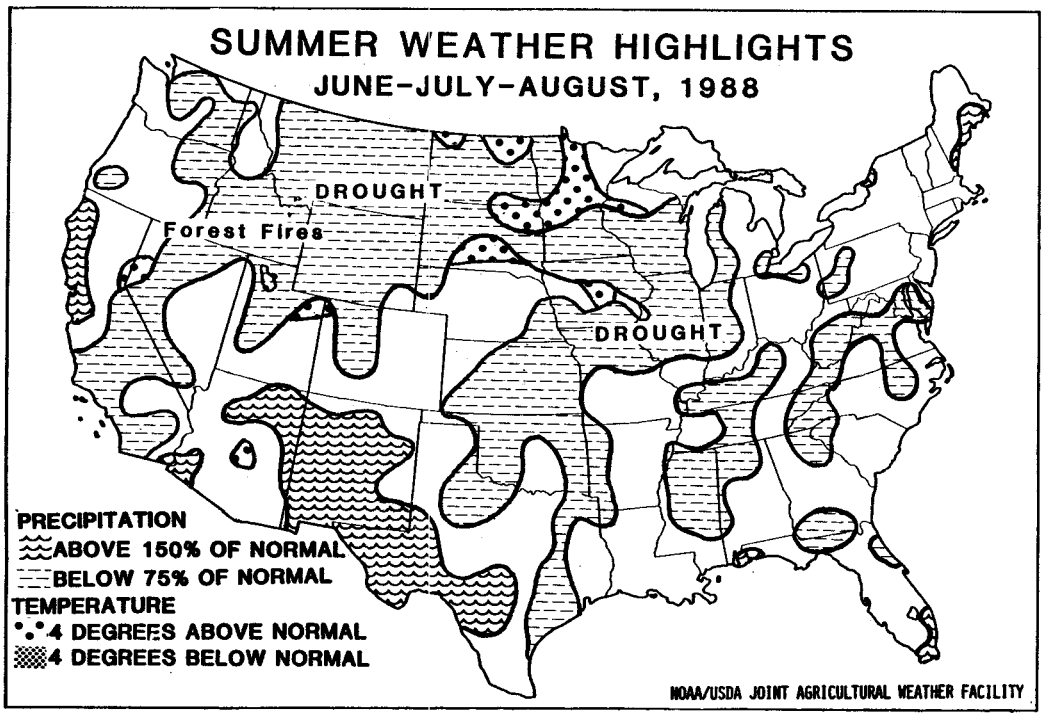
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
																TEMPERATURE °F		PRECIPITATION	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	74	50	82	42	62	-7	.1	-.5	.1	1.5	169	21.4	83	91	43	0	0	1	0
TOLEDO	73	47	81	38	60	-6	.5	-.1	.5	.8	90	17.0	74	92	44	0	0	2	0
YOUNGSTOWN	70	47	79	40	58	-6	.2	-.5	.2	1.7	157	22.2	82	97	51	0	0	1	0
OK OKLAHOMA CITY	89	61	93	56	75	-1	0	-.8	0	.2	16	21.1	91	75	30	3	0	0	0
TULSA	85	60	90	54	73	-4	0	-1.0	0	.3	23	20.6	73	79	34	1	0	0	0
OR ASTORIA	64	51	67	40	57	-2	T	-.6	T	T	4	31.4	80	94	64	0	0	1	0
BURNS	84	41	93	33	63	1	0	-.1	0	0	0	4.9	77	50	12	2	0	0	0
MEDFORD	93	53	103	47	73	6	0	-.1	0	0	0	6.8	62	75	17	6	0	0	0
PENDLETON	83	55	97	47	69	3	0	-.1	0	0	0	7.3	96	47	18	2	0	0	0
PORTLAND	77	55	84	48	66	2	0	-.3	0	0	0	19.5	91	87	37	0	0	0	0
SALEM	81	47	88	38	64	0	0	-.3	0	0	0	18.8	82	88	32	0	0	0	0
PA ALLENTOWN	73	51	81	42	62	-5	1.9	.9	1.9	1.9	130	29.9	96	98	50	0	0	1	1
ERIE	70	54	78	48	62	-3	.9	0	.7	1.3	96	23.1	86	87	52	0	0	2	1
HARRISBURG	75	52	82	45	63	-6	1.0	.2	.9	1.2	96	26.3	95	95	47	0	0	2	1
PHILADELPHIA	77	57	83	48	67	-4	2.0	1.1	1.4	2.0	162	29.5	100	92	52	0	0	2	2
PITTSBURGH	72	49	82	41	60	-6	.6	-.1	.6	1.0	100	19.4	71	96	49	0	0	2	1
SCRANTON	70	50	79	43	60	-6	.8	0	.8	.8	71	24.0	98	92	49	0	0	2	1
RI PROVIDENCE	74	53	82	47	64	-2	1.7	.8	1.6	1.7	138	27.3	89	95	53	0	0	2	1
SC CHARLESTON	80	67	90	60	74	-4	6.4	5.1	2.4	7.0	384	37.4	93	98	68	1	0	6	5
COLUMBIA	82	65	89	59	73	-4	4.4	3.3	2.3	4.6	290	34.4	90	96	56	0	0	4	2
FLORENCE	80	65	87	57	73	-4	2.4	1.3	1.7	2.7	186	30.1	88	96	61	0	0	4	1
GREENVILLE	76	61	81	51	68	-6	1.7	.6	1.2	2.8	176	26.9	72	97	66	0	0	3	1
SD ABERDEEN	80	47	93	37	64	2	0	-.4	0	0	0	11.5	78	68	23	1	0	0	0
HURON	82	47	94	38	64	1	0	-.3	0	0	0	13.8	92	76	24	1	0	0	0
RAPID CITY	83	49	93	45	66	2	0	-.3	0	0	0	8.3	61	58	19	1	0	0	0
SIOUX FALLS	79	47	91	40	63	-1	0	-.7	0	T	0	12.3	65	81	30	1	0	0	0
TN CHATTANOOGA	78	58	84	53	68	-7	1.7	.6	1.5	2.5	172	29.4	78	96	55	0	0	2	1
KNOXVILLE	76	57	82	54	67	-7	1.0	.3	1.0	1.6	157	23.3	68	97	58	0	0	2	1
MEMPHIS	82	59	87	50	71	-6	0	-.9	0	1.5	115	26.9	71	85	42	0	0	0	0
NASHVILLE	80	56	85	49	68	-7	T	-.9	T	.4	32	18.4	52	94	45	0	0	1	0
TX ABILENE	91	61	96	52	76	-3	0	-.7	0	.2	22	12.9	76	64	20	5	0	0	0
AMARILLO	85	54	91	49	70	-2	0	-.5	0	1.1	173	21.6	139	81	25	3	0	0	0
AUSTIN	93	66	96	62	80	-2	0	-.8	0	T	0	15.7	73	75	26	6	0	0	0
BEAUMONT	88	64	92	58	76	-5	.2	-1.1	.2	5.6	298	36.8	94	92	43	1	0	1	0
BROWNSVILLE	88	66	91	63	77	-6	.2	-1.0	.2	1.3	79	14.9	95	97	49	1	0	1	0
CORPUS CHRISTI	91	67	95	64	79	-4	0	-1.6	0	.7	32	10.0	47	89	36	4	0	0	0
DEL RIO	92	65	95	60	79	-4	0	-.6	0	0	0	10.3	88	61	22	5	0	0	0
EL PASO	87	56	96	52	72	-5	0	-.3	0	.5	98	8.7	163	84	23	3	0	0	0
FORT WORTH	91	64	95	60	77	-3	0	-.8	0	1.4	133	16.0	73	76	30	5	0	0	0
GALVESTON	85	72	90	70	78	-3	0	-1.5	0	6.0	284	31.8	116	79	41	1	0	0	0
HOUSTON	92	61	96	58	77	-4	0	-1.2	0	.2	11	19.0	60	89	29	7	0	0	0
LUBBOCK	87	56	93	52	72	-2	0	-.5	0	1.2	177	11.2	83	79	24	3	0	0	0
MIDLAND	87	55	94	53	71	-5	0	-.5	0	3.7	542	16.4	169	86	24	4	0	0	0
SAN ANGELO	91	57	96	52	74	-4	0	-.7	0	.3	33	10.4	84	79	21	5	0	0	0
SAN ANTONIO	93	62	97	58	78	-3	0	-.9	0	T	1	16.9	85	80	29	7	0	0	0
VICTORIA	94	64	97	61	79	-3	0	-1.5	0	T	2	10.0	40	88	26	7	0	0	0
WACO	94	61	98	54	77	-4	0	-.7	0	T	4	14.5	67	77	26	6	0	0	0
WICHITA FALLS	91	61	97	57	76	-3	0	-.8	0	1.0	90	15.1	79	81	25	5	0	0	0
UT BLANDING	85	52	90	48	69	3	.3	.1	.3	.3	110	8.6	114	64	22	1	0	1	0
CEDAR CITY	89	55	91	50	72	6	T	-.2	T	T	0	10.2	139	51	15	3	0	0	0
SALT LAKE CITY	90	58	94	53	74	6	T	-.2	T	T	0	6.4	59	44	14	5	0	0	0
VT BURLINGTON	71	51	79	43	61	0	.2	-.5	.2	.2	21	18.0	76	88	46	0	0	2	0
VA NORFOLK	78	67	89	64	72	-2	1.6	.5	.9	1.6	101	31.0	94	91	55	0	0	5	1
RICHMOND	76	59	83	48	67	-5	1.7	.8	1.2	1.7	135	29.4	94	97	54	0	0	4	1
ROANOKE	72	54	83	42	63	-7	1.2	.5	.8	1.4	129	23.4	83	99	63	0	0	3	1
WA QUILLAYUTE	65	48	68	37	56	-2	.4	-.8	.4	.4	25	57.9	95	97	61	0	0	2	0
SEATTLE-TACOMA	71	52	79	45	61	0	.1	-.3	.1	.1	11	17.1	79	96	47	0	0	1	0
SPOKANE	80	51	96	40	66	3	.3	.2	.3	.3	133	9.0	86	61	21	2	0	1	0
YAKIMA	84	47	98	39	66	2	0	-.1	0	0	0	3.5	72	75	24	2	0	0	0
WV BECKLEY	67	49	76	38	58	-7	1.9	1.0	1.9	2.1	169	23.0	73	97	59	0	0	2	1
CHARLESTON	73	52	79	45	63	-7	.6	-.1	.4	1.2	106	19.6	62	96	50	0	0	2	0
HUNTINGTON	74	51	80	41	62	-9	.4	-.3	.3	1.7	159	24.6	80	99	52	0	0	2	0
PARKERSBURG	73	50	82	40	61	-9	.4	-.3	.4	1.3	128	21.5	76	99	50	0	0	2	0
WI GREEN BAY	71	45	78	38	58	-3	1.3	.5	1.3	1.5	138	14.2	69	94	42	0	0	1	1
LACROSSE	77	48	86	41	62	-2	0	-.9	0	.1	9	16.5	71	92	36	0	0	0	0
MADISON	74	46	84	35	60	-3	.4	-.4	.4	.8	74	15.3	66	91	40	0	0	1	0
MILWAUKEE	71	51	79	42	61	-4	1.2	.5	1.2	1.6	166	17.6	77	85	42	0	0	1	1
WAUSAU	71	44	79	34	57	-3	T	-1.0	T	.1	8	13.7	57	90	36	0	0	1	0
WY CASPER	85	47	91	42	66	5	.1	-.1	.1	.1	52	4.8	55	48	10	2	0	1	0
CHEYENNE	83	49	88	42	66	6	T	-.3	T	T	0	13.1	118	54	16	0	0	0	0
LANDER	85	53	89	49	69	8	.1	0	.1	.1	61	6.0	61	38	10	0	0	1	0
SHERIDAN	83	47	92	41	65	5	T	-.3	T	T	3	7.5	65	53	17	1	0	1	0
PR SAN JUAN	87	76	91	70	82	0	3.2	1.8	1.8	3.4	168	44.4	128	89	70	1	0	4	3

Cooling Degree Days Summary

CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
ASSESSMENT AND INFORMATION SERVICES CENTER-NESDIS-NOAA

LAST DATE OF DATA COLLECTION PERIOD IS 9-10-1988
ACCUMULATIONS ARE FROM JANUARY 1
** = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

STATE CITY	CALL	WEEK TOTAL	WEEK DEV FROM NORM	WEEK DEV FROM L YR	CUM TOTAL	CUM DEV FROM NORM	CUM DEV FROM L YR	CUM DEV FROM NORM PRCT	CUM DEV FROM L YR PRCT
AL BIRMINGHAM	BHM	32	-49	-55	1581	-90	-249	-5	-14
AL MOBILE	MOB	47	-59	-51	1969	-226	-142	-10	-7
AL MONTGOMERY	MGM	49	-49	-48	1774	-194	-319	-10	-15
AK ANCHORAGE	ANC	0	0	0	0	0	-2	**	**
AK BARROW	BRW	0	0	0	0	0	0	**	**
AK FAIRBANKS	FAI	0	0	0	124	68	34	**	**
AK JUNEAU	JNU	0	0	0	0	0	-6	**	**
AK KODIAK	ADQ	0	0	0	0	0	-8	**	**
AK NOME	OME	0	0	0	0	0	-2	**	**
AZ FLAGSTAFF	FLG	2	2	2	136	10	79	8	139
AZ PHOENIX	PHX	190	38	26	3953	859	60	28	2
AZ PRESCOTT	PRC	36	15	14	872	291	132	50	18
AZ TUCSON	TUS	127	7	23	2808	454	149	19	6
AZ WINSLOW	INW	54	6	24	1139	14	114	1	11
AZ YUMA	YUM	193	21	19	3571	153	-228	4	-6
AR FORT SMITH	FSM	58	-23	-36	1960	209	-19	12	-1
AR LITTLE ROCK	1M1	43	-40	-58	1795	-25	-327	-1	-15
CA BAKERSFIELD	BFL	150	50	81	1993	0	169	0	9
CA EUREKA	EKA	0	0	0	0	0	-3	**	**
CA FRESNO	FAT	133	57	69	1866	334	104	22	6
CA LOS ANGELES	LAX	57	20	29	451	-54	158	-11	54
CA SACRAMENTO	SAC	83	27	46	1356	325	297	32	28
CA SAN DIEGO	SAN	80	32	37	581	-32	179	-5	45
CA SAN FRANCISCO	SFO	1	-6	-5	132	80	41	**	**
CA STOCKTON	SCK	89	20	56	1262	16	172	1	16
CO DENVER	DEN	38	15	33	893	247	179	38	25
CO GRAND JUNCTION	GJT	65	24	46	1360	228	418	20	44
CO PUEBLO	PUB	41	1	28	1055	76	145	8	16
CT BRIDGEPORT	BDR	19	-10	-18	899	197	132	28	17
CT HARTFORD	BDL	5	-14	-28	819	172	122	27	18
DE WILMINGTON	ILG	24	-15	-22	1176	231	14	24	1
DC WASHINGTON	DCA	31	-31	-35	1490	176	-85	13	-5
FL APALACHICOLA	AQQ	89	-19	-16	1963	-148	-229	-7	-10
FL DAYTONA BEACH	DAB	111	2	-2	2104	-124	-61	-6	-3
FL FORT MEYER	FMY	124	1	-6	2848	80	-40	3	-1
FL JACKSONVILLE	JAX	97	-8	-18	2008	-44	-150	-2	-7
FL KEY WEST	EYW	143	17	8	3215	-221	-149	-6	-4
FL MIAMI	MIA	140	18	4	3082	87	-105	3	-3
FL ORLANDO	MCO	127	8	-4	2425	-187	-184	-7	-7
FL TALLAHASSEE	TLH	68	-37	-29	1812	-260	-258	-13	-12
FL TAMPA	TPA	106	-13	-15	2442	-123	-102	-5	-4
FL WEST PALM BEACH	PBI	139	20	10	2802	45	-88	2	-3
GA ATLANTA	ATL	28	-45	-50	1683	193	-189	13	-10
GA AUGUSTA	AGS	55	-29	-52	2144	426	-243	25	-10
GA MACON	MCN	45	-49	-40	1780	-157	-322	-8	-15
GA SAVANNAH	SAV	69	-26	-34	1927	-26	-295	-1	-13
HI HILO-HAWAII	ITO	86	9	-7	2308	168	-14	8	-1
HI HONOLULU-OAHU	HNL	126	14	-12	3440	420	263	14	8
HI KAHULUI-MAUI	OGG	103	5	-4	2775	147	314	6	13
HI LIHUE-KAUAI	LIH	103	5	-9	2909	349	442	14	18
ID BOISE	BOI	31	5	8	867	162	110	23	15
ID LEWISTON	LWS	55	23	6	847	142	47	20	6
ID POCATELLO	PIH	22	8	22	612	177	277	41	83
IL CHICAGO	ORD	10	-14	-34	1097	396	69	56	7
IL MOLINE	MLI	11	-12	-22	1182	324	-67	38	-5
IL PEORIA	PIA	15	-12	-29	1246	352	0	39	0
IL QUINCY	UIN	20	-17	-18	1247	206	-76	20	-6
IL ROCKFORD	RFD	5	-14	-19	1035	349	58	51	6
IL SPRINGFIELD	SPI	17	-20	-42	1285	211	-102	20	-7
IN EVANSVILLE	EVV	11	-41	-66	1361	83	-161	6	-11
IN FORT WAYNE	FWA	8	-20	-30	1066	337	101	46	10
IN INDIANAPOLIS	IND	11	-23	-49	1194	275	80	30	7
IN SOUTH BEND	SBN	4	-17	-34	1068	397	54	59	5
IA DES MOINES	DSM	17	-12	-20	1345	382	171	40	15
IA DUBUQUE	DBQ	5	-5	-11	965	398	150	70	18
IA SIOUX CITY	SUX	9	-18	-17	1241	344	165	38	15
IA WATERLOO	ALO	8	-8	-17	1108	461	120	71	12
KS CONCORDIA	CNK	43	-4	-11	1573	322	116	26	8
KS DODGE CITY	DDC	51	-3	5	1484	112	288	8	24
KS GOODLAND	GLD	29	-2	8	1129	238	180	27	19
KS TOPEKA	TOP	46	-4	0	1355	76	-54	6	-4
KS WICHITA	ICT	68	5	14	1709	154	152	10	10
KY BOWLING GREEN	BWG	9	-48	-48	1224	-93	-171	-7	-12
KY LEXINGTON	LEX	12	-36	-55	1272	196	-105	18	-8
KY LOUISVILLE	SDF	18	-35	-62	1440	202	-100	16	-6
LA ALEXANDRIA	AEX	54	-48	-53	2203	49	-184	2	-8
LA BATON ROUGE	BTR	58	-46	-52	2149	-27	-92	-1	-4
LA LAKE CHARLES	LCH	67	-38	-47	2109	-98	-193	-4	-8
LA NEW ORLEANS	MSY	79	-28	-34	2044	-197	-260	-9	-11
LA SHREVEPORT	SHV	52	-49	-57	2018	-89	-185	-4	-8
ME CARIBOU	CAR	0	0	-6	304	157	122	107	67
ME PORTLAND	PWM	1	-5	-12	534	280	228	110	75
MD BALTIMORE	BWI	23	-23	-24	1286	228	3	22	0
MD SALISBURY	SBY	28	-17	-34	1206	207	-22	21	-2
MA BOSTON	BOS	14	-9	-24	863	205	286	31	50
MA CHATHAM	CHH	5	-9	0	348	107	159	44	84
MI ALPENA	APN	0	0	-10	515	335	74	186	17
MI DETROIT	DTW	7	-12	-27	979	396	26	68	3
MI FLINT	FNT	0	-12	-27	805	368	-52	84	-6
MI GRAND RAPIDS	GRR	1	-14	-21	821	272	5	50	1
MI HOUGHTON LAKE	HTL	0	-4	-10	618	332	48	116	8
MI LANSING	LAN	0	-13	-29	799	286	-35	56	-4
MI MARQUETTE	MQT	0	0	-9	354	202	52	133	17
MI MUSKEGON	MKG	0	-8	-15	712	274	27	63	4
MI SAULT ST MARIE	SSM	0	0	-2	266	126	37	90	16
MN ALEXANDRIA	AXN	1	-7	-3	948	494	245	109	35
MN DULUTH	DLH	0	0	-3	384	234	125	156	48
MN INT'L FALLS	INL	0	0	0	414	199	118	93	40
MN MINNEAPOLIS	MSP	2	-11	-20	1118	475	237	74	27
MN ROCHESTER	RST	0	-6	-17	800	331	122	71	18
MN SAINT CLOUD	STC	0	-7	-10	847	450	231	113	38
MS GREENWOOD	GWO	38	-51	-64	1845	-118	-295	-6	-14
MS JACKSON	JAN	42	-54	-56	1916	-79	-175	-4	-8
MS MERIDIAN	MEI	36	-57	-50	1687	-202	-272	-11	-14
MO CAPE GIRARDEAU	CGI	22	-37	-57	1494	36	-257	2	-15
MO COLUMBIA	COU	21	-27	-30	1314	143	-86	12	-6
MO KANSAS CITY	MCI	41	-4	-6	1596	350	100	28	7
MO SAINT LOUIS	STL	29	-25	-39	1686	346	-17	26	-1
MO SPRINGFIELD	SGF	20	-35	-32	1225	-39	-256	-3	-17
MT BILLINGS	BIL	20	3	20	1029	493	500	92	95
MT GLASGOW	GGW	18	4	18	949	496	480	109	102
MT GREAT FALLS	GTF	19	5	19	533	164	224	44	72
MT HAVRE	HVR	15	1	15	574	164	266	40	86
MT HELENA	HLN	18	7	18	560	272	314	94	128
MT KALISPELL	FCA	12	8	12	212	43	62	25	41
MT MILES CITY	MLS	19	-5	19	1259	509	566	68	82
MT MISSOULA	MSO	19	12	19	333	113	139	51	72
NE GRAND ISLAND	GRI	20	-10	-12	1201	215	73	22	6
NE LINCOLN	LNK	29	-3	-7	1410	337	138	31	11
NE NORFOLK	OFK	17	-10	-10	1175	277	112	31	11
NE NORTH PLATTE	LBF	9	-14	-2	930	177	105	24	13
NE OMAHA	ON4	28	-5	-7	1349	237	151	21	13
NE SCOTTSBLUFF	BFF	13	-12	13	876	178	203	26	30
NE VALENTINE	VTN	12	-10	6	1092	356	258	48	31
NV ELY	ELY	8	3	8	262	72	149	38	132
NV LAS VEGAS	LAS	162	36	34	2795	163	53	6	2
NV RENO	RNO	49	38	32	840	495	294	143	54
NV WINNEMUCCA	WMC	27	13	24	741	241	220	48	42
NH CONCORD	CON	3	-1	-17	596	251	177	73	42
NJ ATLANTIC CITY	ACY	19	-11	-28	999	236	61	31	7
NM ALBUQUERQUE	ABQ	48	2	19	1007	-183	166	-15	20
NM CLOVIS	CVS	43	2	-3	1157	52	-89	5	-7
NM ROSWELL	ROW	55	-13	-10	1491	-209	32	-12	2
NY ALBANY	ALB	2	-12	-21	729	247	107	51	17
NY BINGHAMTON	BGM	1	-6	-6	595	277	137	87	30
NY BUFFALO	BUF	8	-6	-15	701	240	-5	52	-1
NY NEW YORK	LGA	27	-14	-23	1217	243	114	25	10
NY ROCHESTER	ROC	3	-13	-17	659	149	48	29	8
NY SYRACUSE	SYR	3	-12	-14	699	212	46	44	7
NC ASHEVILLE	AVL	6	-30	-30	775	-4	-181	-1	-19
NC CAPE HATTERAS	HAT	76	-2	-19	1395	62	-153	5	-10
NC CHARLOTTE	CLT	27	-40	-40	1490	76	-319	5	-18
NC GREENSBORO	GSO	16	-37	-46	1230	6	-278	0	-18
NC NEW BERN	EWN	63	-15	-45	1664	103	-243	7	-13
NC RALEIGH DURHAM	RDU	26	-34	-54	1327	41	-261	3	-16
NC WILMINGTON	ILM	57	-27	-42	1557	-116	-304	-7	-16
ND BISMARCK	BIS	2	-11	2	862	390	337	83	64
ND FARGO	FAR	6	-2	3	995	523	304	111	44
ND GRAND FORKS	GFK	3	-4	3	709	291	191	70	37
ND WILLISTON	ISN	2	-9	1	890	454	438	104	97
OH AKRON-CANTON	CAK	2	-22	-18	841	256	50	44	6
OH CLEVELAND	CLE	8	-14	-14	884	311	35	54	4
OH COLUMBUS	CMH	6	-26	-51	987	189	-121	24	-11
OH CINCINNATI	CVG	11	-29	-51	1165	207	-40	22	-3
OH DAYTON	DAY	11	-23	-44	1127	253	82	29	8
OH TOLEDO	TOL	6	-15	-24	896	311	12	53	1
OH YOUNGSTOWN	YNG	2	-17	-6	698	235	-11	51	-2
OK OKLAHOMA CITY	OKC	72	-5	-5	1815	103	-23	6	-1
OK TULSA	TUL	60	-22	-24	1896	76	-140	4	-7
OR ASTORIA	AST	0	0	0	16	-5	2	**	**
OR BURNS	4BW	14	3	11	285	-53	82	-16	40
OR MEDFORD	MFR	60	28	37	870	265	61	44	8
OR PENDLETON	PDT	40	12	-7	609	-78	-23	-11	-4
OR PORTLAND	PDX	16	2	-18	370	60	-99	19	-21
OR SALEM	SLE	9	-1	-4	244	17	-45	7	-16
PA ALLENTOWN	ABE	7	-18	-22	951	238	110	33	13
PA ERIE	ERI	5	-9	-17	723	352	-41	95	-5
PA HARRISBURG	CXY	11	-27	-13	1074	132	26	14	2
PA PHILADELPHIA	PHL	25	-18	-28	1273	267	17	27	1
PA PITTSBURGH	PIT	5	-18	-21	923	321	7	53	1
PA SCRANTON	AVP	3	-15	-12	768	230	146	43	23
RI PROVIDENCE	PVD	10	-7	-22	804	251	181	45	29
SC CHARLESTON	CHS	62	-27	-37	1822	39	-289	2	-14
SC COLUMBIA	CAE	60	-27	-21	1760	-47	-308	-3	-15
SC FLORENCE	FLO	53	-32	-29	1731	-32	-232	-2	-12
SC GREENVILLE	GSP	26	-39	-29	1383	7	-258	1	-16
SD ABERDEEN	ABR	6	-9	0	1083	500	331	86	44
SD HURON	HON	8	-11	-1	1079	359	223	50	26
SD RAPID CITY	RAP	10	-13	6	1035	402	344	64	50
SD SIOUX FALLS	FSD	8	-9	-20	1194	463	260	63	28
TN CHATTANOOGA	CHA	25	-45	-55	1453	22	-312	2	-18
TN KNOXVILLE	TYS	22	-42	-43	1323	3	-197	0	-13
TN MEMPHIS	MEM	40	-42	-72	1931	92	-269	5	-12
TN NASHVILLE	BNA	26	-44	-61	1619	127	-168	9	-9
TX ABILENE	ABI	81	-13	-1	1978	-168	42	-8	2
TX AMARILLO	AMA	41	-9	10	1084	-225	-5	-17	0
TX AUSTIN	AUS	105	-10	-11	2454	7	65	0	3
TX BROWNSVILLE	BRO	86	-38	63	1344	-1607	587	-54	78
TX CORPUS CHRISTI	CRP	99	-27	-25	2622	-214	118	-8	5
TX DEL RIO	DRT	101	-21	-9	2543	-222	312	-8	14
TX EL PASO	ELP	48	-32	-30	1604	-295	-24	-16	-1
TX FORT WORTH	DFW	90	-22	-17	2300	-156	8	-6	0
TX GALVESTON	GLS	93	-22	-35	2337	-7	-149	0	-6
TX HOUSTON	IAH	84	-23	-38	2336	61	-141	3	-6
TX LUBBOCK	LBB	52	-8	-6	1570	38	32	2	2
TX MIDLAND ODESSA	MAF	53	-28	-23	1601	-296	-24	-16	-1
TX BEAUMONT	BPT	77	-35	-37	2234	-97	-123	-4	-5
TX SAN ANGELO	SJT	68	-29	-11	1877	-383	140	-17	8
TX SAN ANTONIO	SAT	93	-22	-18	2542	43	160	2	7
TX VICTORIA	VCT	101	-16	-23	2560	-24	45	-1	2
TX WACO	ACT	93	-23	-14	2408	-66	21	-3	1
TX WICHITA FALLS	SPS	83	-15	-1	2139	-60	101	-3	5
UT BLANDING	4BL	35	16	31	793	189	222	31	39
UT CEDAR CITY	CDC	48	24	38	784	135	193	21	33
UT SALT LAKE CITY	SLC	64	31	36	1359	423	336	45	33
VT BURLINGTON	BTV	2	-4	-19	628	251	130	67	26
VA LYNCHBURG	LYH	16	-27	-21	1132	136	-68	14	-6
VA NORFOLK	ORF	51	-16	-40	1459	147	-205	11	-12
VA RICHMOND	RIC	31	-25	-45	1365	143	-135	12	-9
VA ROANOKE	ROA	15	-26	-31	1083	78	-260	8	-19
WA COLVILLE	63S	26	14	6	360	55	-93	18	-21
WA QUILLAYUTE	UIL	0	-3	0	38	1	22	**	**
WA SEATTLE-TACOMA	SEA	1	-6	-9	181	8	-13	5	-7
WA SPOKANE	GEG	32	15	16	446	46	67	11	18
WA WALLA WALLA	ALW	49	15	-19	898	76	-58	9	-6
WA YAKIMA	YKM	19	5	-8	391	-76	-86	-16	-18
WV BECKLEY	BKW	2	-16	2	1030	587	501	133	95
WV CHARLESTON	CRW	12	-29	-28	1143	220	-110	24	-9
WV HUNTINGTON	HTS	10	-36	-46	1123	104	-152	10	-12
WV PARKERSBURG	PKB	10	-31	-28	1022	92	-141	10	-12
WI GREEN BAY	GRB	0	-4	-13	765	384	119	101	18
WI LACROSSE	LSE	5	-9	-21	1131	466	159	70	16
WI MADISON	MSN	2	-3	-13	869	413	113	91	15
WI MILWAUKEE	MKE	6	-5	-13	970	512	102	112	12
WI WAUSAU	AUW	0	-3	-8	734	371	98	102	15
WY CASPER	CPR	13	-2	13	728	287	316	65	77
WY CHEYENNE	CYS	14	7	14	446	148	154	50	53
WY LANDER	LND	32	18	32	829	408	414	97	100
WY SHERIDAN	SHR	11	-2	11	846	438	515	107	156



Fall Weather Review

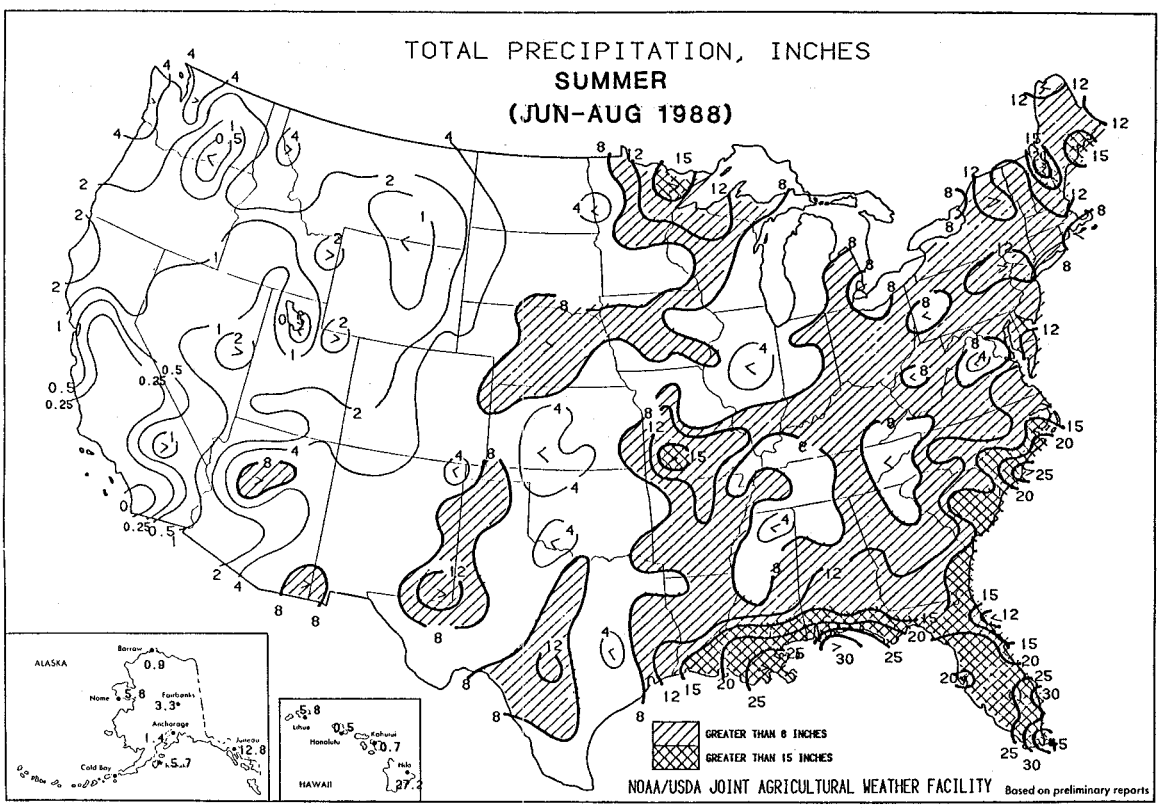
(JUNE - AUGUST 1988)

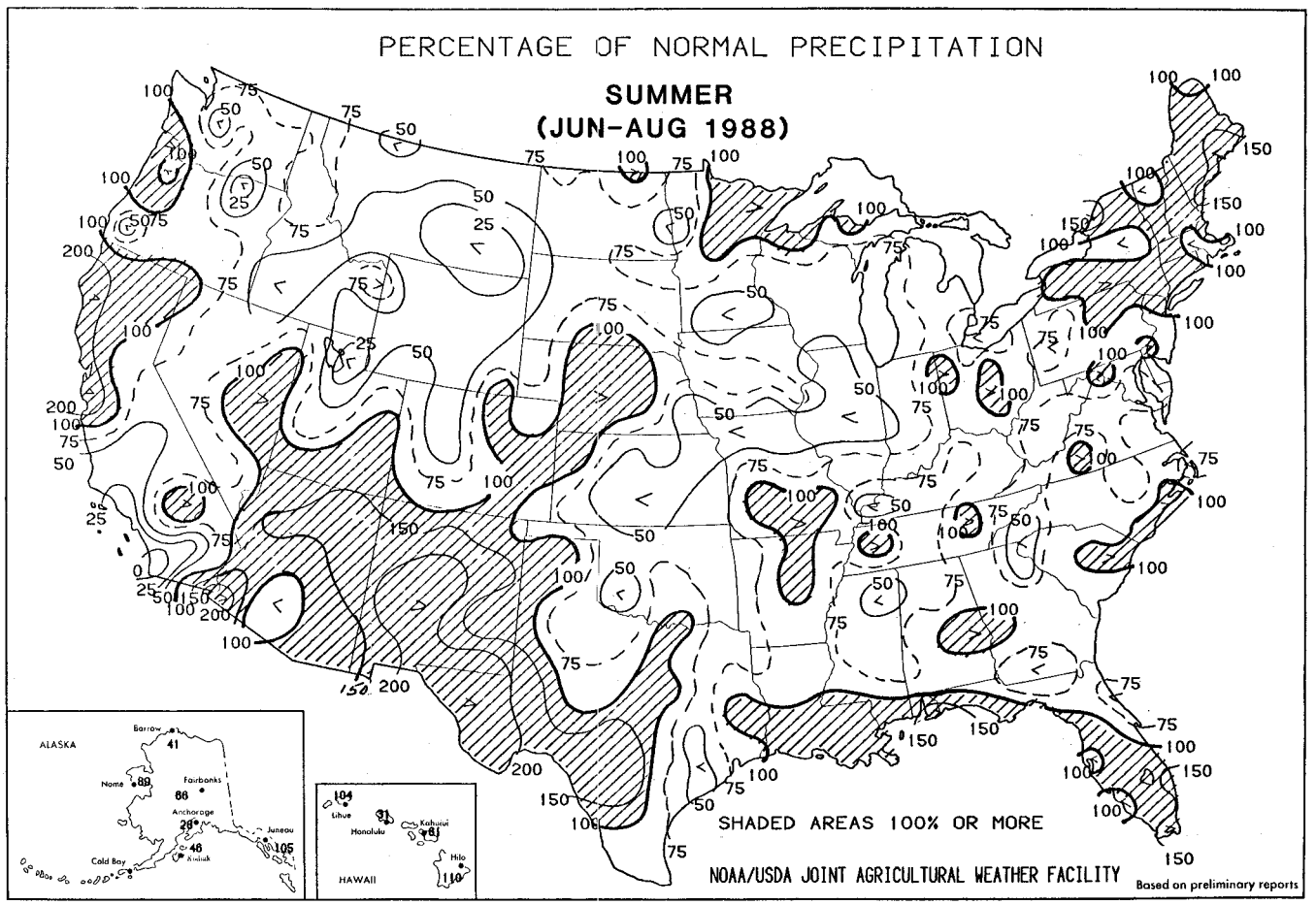
HIGHLIGHTS: The 1988 summer was one of the hottest and driest on record in the United States. The heat was abnormally severe across the northern half of the Nation as numberous high temperature records were broken. Extreme drought covered the crop areas and forest land in the West, northern Rockies, northern Plains, Corn Belt, and Tennessee Valley. At summer's end, a series of frontal systems brought cooler air and rain to the eastern half of the country, but the Northwest remained hot and dry as smoke from forest fires obscured skies.

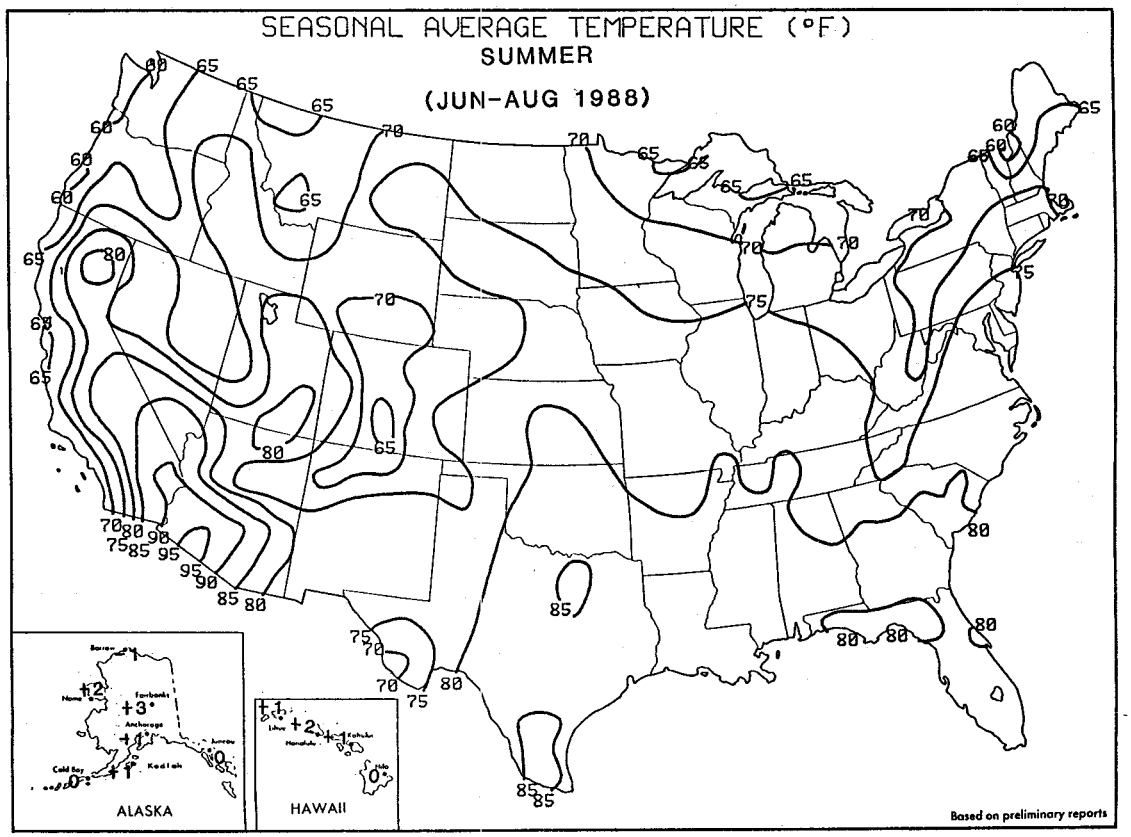
JUNE...June of 1988 was the hottest June in more than 50 years in the northern Plains, and one of the driest ever in much of the eastern half of the country. Monthly temperatures were above normal across more than two-thirds of the country, with only the eastern seaboard, Gulf States, and some areas in the West measuring below-normal readings. Moderate-to-heavy rainfall eased drought conditions in the Plains States, but hot, dry weather worsened drought conditions in the Mississippi and Ohio Valleys. Above-normal rainfall was mainly limited to Texas, New Mexico, Florida, the west coast, and scattered areas along the Gulf and east coasts.

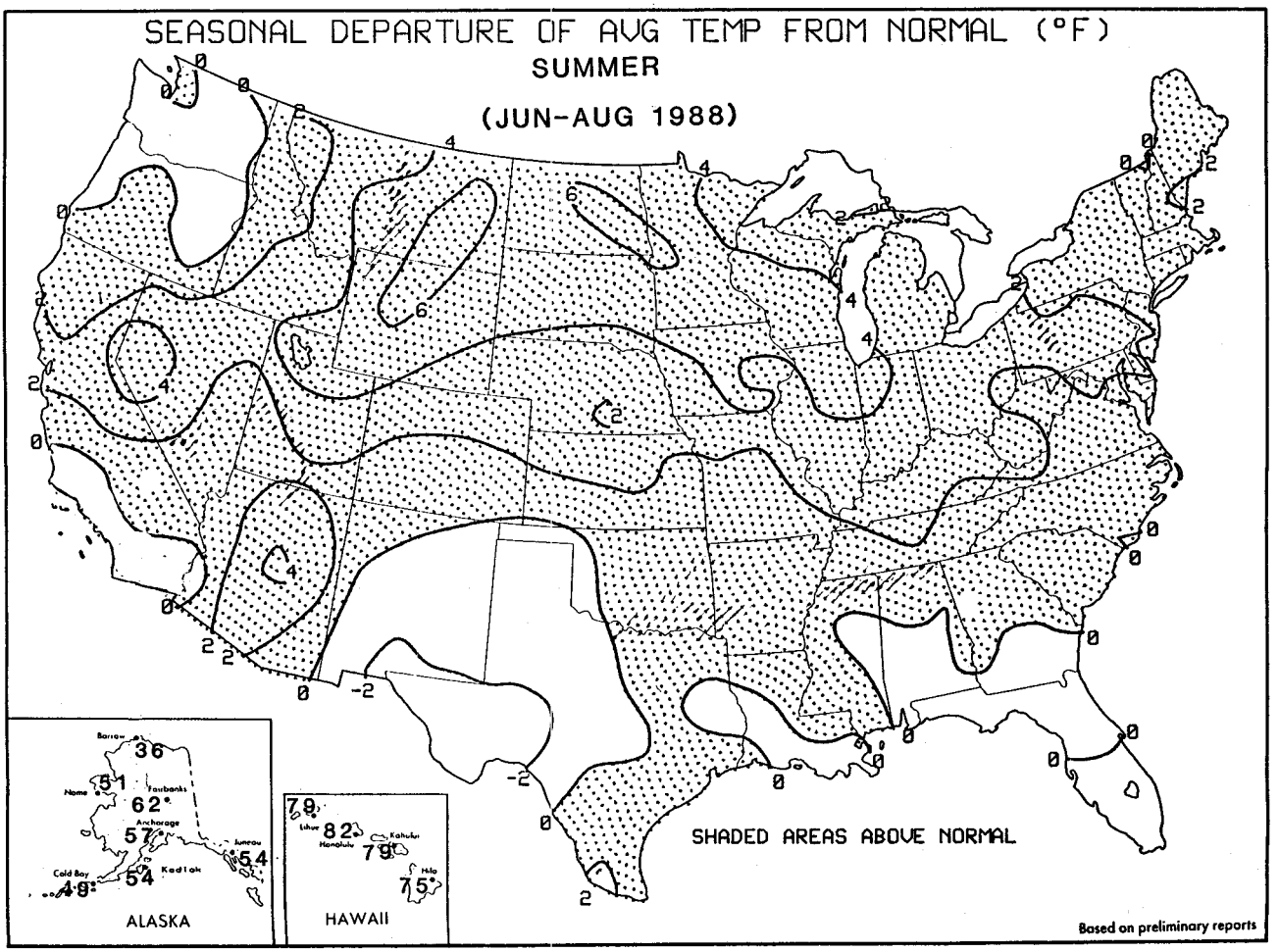
JULY...A series of slow moving frontal systems triggered scattered showers and thunderstorms and eased long-term dryness over much of the Eastern half of the Nation. Drought still plagued much of northern and central Great Plains and Mississippi Valley, however. Hot, humid weather prevailed over most of the country. The heat was abnormally severe across the northeastern and north-central States and over much of the West. The high temperatures in the West contributed to the unusual number of forest fires.

AUGUST...Hot, humid conditions gripped the eastern two-thirds of the Nation during the first half of the month. Several stations in the East set records for having the highest number of days of 90 degrees or over for the 1988 summer. Frontal systems brought cooler weather and beneficial rain in the latter part of the month. Record heat and dry weather predominated the western third of the country, contributing to the continuing forest fires in the Northwest.


TOTAL PRECIPITATION, INCHES
SUMMER
(JUN-AUG 1988)
GREATER THAN 8 INCHES
GREATER THAN 15 INCHES
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports
ALASKA
HAWAII


PERCENTAGE OF NORMAL PRECIPITATION
SUMMER
(JUN-AUG 1988)
SHADED AREAS 100% OR MORE
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports
ALASKA
HAWAII


SEASONAL AVERAGE TEMPERATURE (°F)
SUMMER
(JUN-AUG 1988)
ALASKA
HAWAII
Based on preliminary reports


SEASONAL DEPARTURE OF AVG TEMP FROM NORMAL (°F)
SUMMER
(JUN-AUG 1988)
SHADED AREAS ABOVE NORMAL
ALASKA
HAWAII
Based on preliminary reports

National Agricultural Summary

September 5-11, 1988

HIGHLIGHTS: Continued lack of rain and above-normal temperatures pushed row crop development ahead of normal in the central and northern Great Plains. Soil moisture was mostly short to adequate except in the East where it was adequate. The East had 4 to 5 days suitable for fieldwork and other parts had 6 to 7.

Winter wheat seeding was 11 percent (%) finished, 4 percentage points behind 1987 but 1 point ahead of the 5-year average. Dry soil conditions delayed seeding in many areas. Ninety-four percent of the corn crop was in the dent stage, 9 points ahead of average. Corn was 64% mature, 6 points behind 1987 but 22 points ahead of normal. Crop maturity was most advanced in the Plains States. Corn harvest was 8% finished, 2 points ahead of the average. Ninety-seven percent of the soybean acreage was setting pods, 1 point behind 1987 but equal the average. Thirty-five percent of the acreage was dropping leaves, 12 points ahead of normal. Eighty percent of the sorghum acreage was turning color, 10 points ahead of normal. Sorghum was 41% mature, 8 points ahead of the average. Harvest was 21% complete, 3 points behind 1987 and 1 point behind the average. Forty-four percent of the cotton acreage was opening bolls, 12 points behind 1987 but equal the average. Excessive rain caused problems in the Florida citrus area.

SMALL GRAINS: Winter wheat seeding continued behind normal in most of the Plains States. Growers in many areas were waiting for rain. Nebraska's winter wheat seeding was 20% finished, 6 points behind 1987 and 11 points behind normal. Two percent of the crop was emerged, 6 points behind 1987 and 4 points behind normal. South Dakota's winter wheat seeding was 17% complete, 20 points behind the average. In Colorado, 26% of the crop was seeded, 9 points ahead of the average. Spring grain harvest was nearly complete in all areas.

CORN: Corn was mostly poor to fair. Corn continued to mature ahead of schedule in the Plains States. In Iowa, 95% of the crop was mature, 47 points ahead of normal. Minnesota's crop was 83% mature, 57 points ahead of the average. Harvest in these areas was near normal. Kansas's harvest was 20% finished, 15 points ahead of normal. In North Carolina, harvest was 15% finished, 10 points behind the average. Corn borers damaged some corn in eastern Nebraska where harvest was 7% complete, 6 points ahead of normal.

SOYBEANS: Soybeans were mostly fair. The crop was nearly finished setting pods except in the South. Soybeans in the Plains States continued to develop ahead of normal. In Minnesota, 92% of the acreage was dropping leaves, 63 points ahead of normal. Acreage dropping leaves was over 30 points ahead of normal in Iowa, Nebraska, and South Dakota. Percent of acreage dropping leaves was slightly behind normal in the South. Insect problems continued in Ohio and Louisiana. Harvest has begun in many areas. Harvest in Texas was 22% finished, 7 points ahead of 1987 and 14 points ahead of the average.

SORGHUM: Sorghum was mostly fair to good. Crop maturity was ahead of normal in the Plains States but behind normal in the South. Nebraska's crop was 50% mature, 36 points ahead of the average. In South Dakota, 42% of the crop was mature, 26 points ahead of normal. Mississippi's crop was 59% mature, 29 points behind normal. Crop harvest was near normal except in the South where it was behind. Harvest in Louisiana was 42% finished, 35 points behind the average. Arkansas's harvest was 27 points behind the 52% average. In Texas, harvest was 60% finished, 2 points ahead of normal.

COTTON: Cotton was mostly good to fair. In Alabama, 71% of the acreage was opening bolls, 22 points ahead of the average. In South Carolina, 39% of the acreage was opening bolls, 20 points behind normal. Texas harvest was 15% finished, 3 points ahead of the average. Cooler temperatures slowed crop development. Dryland fields continued under stress from lack of rain. In southern California, harvest began in some early fields. In western Arizona, harvest continued and growers in the south-central area were preparing for harvest. Excessive moisture was causing some boll rot in Louisiana.

OTHER FIELD CROPS: Rice harvest was 30% complete, 8 points behind normal. Cool nights slowed maturity in Arkansas. Harvest in California was becoming more active. Harvest was nearly complete in Texas.

Peanut harvest continued in the Southeast and Texas. The crop was mostly good.

Flue-cured and burley tobacco harvests continued behind normal. Crop condition was mostly good. Rain slowed harvest progress in Kentucky.

FRUITS AND NUTS: In Florida, all citrus areas remained wet. Caretakers were digging drainage ditches and pumping excess water where possible. Standing water caused some young trees to wilt in the west coast area. The citrus crop was sizing well in Texas. Pecans began to open in the southern areas. Pecan trees continued to drop nuts from lack of rain. Citrus groves were in good condition in Arizona. Grapefruit was sizing well and maturing satisfactorily. Lemon harvest continued in the west. Almond harvest continued in California. Walnut growers continued harvest preparations. Grape and raisin harvests were active. Some harvested vineyards were fertilized and irrigated.

VEGETABLES: Heavy rains caused considerable flooding in Florida's west-central vegetable producing area. Some replanting will be necessary. Rain slowed planting progress in other areas. Most vegetable crops were fair to good. Light harvest of Zellwood sweet corn continued. Vegetable harvest continued with good yields in the Texas High Plains. Ground preparation progressed well in the Rio Grande Valley. Lettuce, cauliflower, and broccoli plantings continued in Arizona. Melon harvest continued in the central areas. Emergence and stand establishment of early-fall vegetable planting progressed normally. In California, vegetable harvest continued. Insects damaged broccoli and tomatoes in some areas.

PASTURES AND LIVESTOCK: Pasture condition was mostly poor to fair. Conditions improved in most eastern areas. Livestock was mostly fair to good.

State Summaries of Weather and Agriculture

These summaries 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.

ALABAMA: Rainfall totals mostly over 2.00 in. north; 2.00 to 5.00 in. south; over 10.00 in. isolated areas extreme south. Temperatures 4 to 7° below normal.

Days suitable for fieldwork 4.5. Soil moisture 8% very short, 26% short, 53% adequate, 13% surplus. Continued wet, cool weather slowed most field activities; helped improve crop, pasture conditions. Soybeans 94% blooming, 99% 1987, 99% avg.; 83% setting pods, 90% 1987, 93% avg.; 19% turning yellow, 29% 1987, 23% avg.; 9% dropping leaves, 16% 1987, 10% avg.; 2% very poor, 8% poor, 24% fair, 64% good, 2% excellent. Corn 94% mature, 100% 1987, 98% avg.; 60% harvested, 63% 1987, 61% avg. Cotton 71% bolls opened, 61% 1987, 49% avg.; 9% harvested, 8% 1987, 2% avg.; 26% poor, 54% fair, 20% good. Sorghum 34% harvested, 34% 1987, 36% avg.; 13% poor, 36% fair, 51% good. Peanuts 5% dug, 10% 1987, 13% avg.; 2% combined, 6% 1987, 7% avg.; 11% fair, 61% good, 28% excellent. Winter wheat 7% seeded, 3% 1987, 1% avg. Livestock, pastures mostly fair to good. Feed supplies from pastures 4% very short, 43% short, 49% adequate, 4% surplus. Hay, roughage supplies 3% very short, 63% short, 34% adequate. Primary activities: Harvesting corn, sorghum, peanuts, cotton, summer vegetables; defoliating cotton; preparing land for winter grazing, small grains; fertilizing pastures; applying fungicides to peanuts; building, monitoring catfish ponds; general care of livestock, poultry.

ALASKA: Seasonal, mostly dry cool days improved harvesting conditions. Killing frost occurred most of Tanana Valley, higher elevations elsewhere Railbelt area; most of Matanuska Valley, several areas of Kenai Peninsula yet to experience an end to growing season. Precipitation totals 0.78 in. Kenny Lake to trace Clearwater.

Days suitable for haying, harvest of small grains 4.0. Topsoil, subsoil moisture adequate. Second crop hay 65% harvested, slightly above 1987. Barley for grain 90% harvested, 65% 1987. Commercial potatoes 60% harvested, 20% 1987; under very adverse harvest weather. Vegetable harvest winding down.

ARIZONA: Continued to dry out with variable cloudiness, breezy conditions 4th. Sunny skies, dry air 5th through 7th. Increased moisture 8th, 9th; isolated thunderstorms central mountains, north. Early morning, 10th, showers, few thunderstorms west, north central. Evening showers, 10th, White Mountains, southeast; amounts up to 0.20 in. Temperatures varied from 2° below to 5° above normal.

Cotton crop continued normal progress; 86% opening bolls. Early fields picked twice, west. Growers south central areas reduced irrigation, anticipating defoliation, harvest. Weed, insect infestations remained moderate; some spraying south central. Crop 90% good, 10% excellent. Curing conditions for alfalfa improved; warmer, drier weather. Weed infestations increased with seasonal progress. Hay, roughage supplies 13% short, 74% adequate, 13% surplus. Lemon harvest continued west. Grapefruit sizing, maturing satisfactorily. Citrus groves good. Asparagus harvest, packing expected later week. Planting, irrigation fall lettuce, cauliflower, broccoli continued. Emergence, stand establishment earlier fall vegetable plantings progressed normally. Melons still harvested central areas. Apple harvest, packing remained active east. Fall vegetable plantings underway, progressed normally.

ARKANSAS: Cooler weather slightly hindered crop maturity. Light rainfall mainly southern portion end of week. Temperature extremes 42°; 95°. Rainfall totals none to 0.99 in.

Days suitable for fieldwork 7.0. Soil moisture supplies improved slightly 70% short, 30% adequate. Harvest continued for corn, cotton, rice, sorghum. Corn 70% harvested, 84% 1987, 78% avg. Cotton 2% harvested, 13% 1987, 5% avg. Soybeans 95% blooming, 100% 1987, 97% avg.; 10% yellowing, 23% 1987, 15% avg. Rice 52% ripe, 81% 1987, 54% avg.; cool nights hindered maturity. Other farming activities included: Applications of insecticides, defoliants, desiccants; preparing land for wheat seedings; draining rice fields; cutting hay, silage; grape , watermelon, apple harvest. Few watermelons harvested. Hay, roughage supplies 4% very short, 82% short, 14% adequate. Pasture, range 7% very poor, 26% poor, 50% fair, 17% good. Stockwater supplies 49% short, 51% adequate. Livestock good.

CALIFORNIA: Strong, high pressure, temperatures well above normal. By 7th and 8th, temperatures cooled towards normal.

Nearly ideal weather, good progress harvest, other field activities. Rice harvest increased, more areas began. Many fields drained. Cotton harvest earliest fields southern areas, defoliation active. Central valley, final irrigation, defoliation preparations. Dry bean, sugarbeet, sunflower, corn silage, sudan, alfalfa harvests good progress. Central valley alfalfa hay some hot weather color bleaching. Disease, insect controls as needed. Apples harvested, maggot still problem north. Asian pear harvest continued. Avocados developing normally, harvest expected soon. Barhee date harvest well underway, delget noors harvest next. Figs harvested San Joaquin Valley. Table grape harvest active. Varieties harvested flame seedless, thompson seedless, ruby seedless, red globe, queen, italia, Christmas rose, rose ito, ribiers. Raisin harvest continued, Fresno County trays 75% to 100%. Wine grape varieties grenache, barbara, alicante bouchet, valdepenas, muscat of Alexandria hauled to wineries, packed as juice grapes shipped east. Some harvested vineyards fertilized, irrigated. Olives sizing up. Stone fruit harvest remained active, diminished pace. Nectarine varieties harvested tasty free, autumn grand, fairlane, flamekist. Peach varieties packed fairtime, carnival, belmont, parade. Persimmons showing color; hot nights, delaying coloring process. Plums harvested, packed angie, angeleno, friar, casselman, president, roysum. Pomegranate harvest accelerated, early foothill, granada varieties, while wonderful variety began to color. Prune harvest continued. Almond harvesting continued full swing. Some harvesting pistachios Labor Day weekend; harvest full swing by mid-September. Walnut growers continued gear up for harvest. Valencia oranges picked, shipped moderate volume. New crop navel oranges progressed normally. Western Riverside County grapefruit harvest winding down. Desert lemons picking began few orchards. Statewide, warm temperatures affected melons, tomatoes, lettuce. Larvae damaged broccoli, tomatoes, Westside. Worms, mites bothered tomatoes, delta. Harvested broccoli, cauliflower, carrots, celery, lettuce Salinas, Santa Maria; melons Westside, Sacramento Valley;

sweetpotatoes Merced-Atwater, Livingston; red potatoes Riverside; fresh tomatoes Merced-Atwater; processing tomatoes delta, Westside. Planted broccoli, cauliflower, carrots southern area. Growing fall melons, Imperial; fall tomatoes, Sacramento Valley, lower Westside; lettuce lower Westside. Livestock good. Some cattle moved off summer ranges, northern counties. Movement to market continued active. Non-irrigated pasture, rangeland conditions dry. Supplemental feeding continued most areas. Water supplies short most areas, adequate northern counties. Hay and roughage supplies 15% short, 85% adequate.

COLORADO: Almost no measurable precipitation through 9th. Moist air began moving over State 10th but most rain 11th as cold front moved through. Precipitation none to 1.58 in. Temperature 2 to 4° below normal eastern area, 2 to 4° above normal western slope.

Days suitable for fieldwork 6.5. Soil moisture 27% very short, 60% short, 13% adequate. Hay, roughage supplies 19% short, 81% adequate. Corn 98% dough, 80% dented, 35% mature, 29% harvested. Dry beans cut 56%, 27% threshed. Barley 96% harvested. Oats 83% harvested. Dry onion 26% harvested. Fall potatoes 76% harvested. Summer potatoes 48% harvested. Winter wheat 26% planted, 10% emerged. Livestock mostly fair to good. Ranges, pastures fair to good.

FLORIDA: Active cold front moved into west central area, 5th, became stationary. Copious rain vicinity of front until it drifted northwestward. By 10th, front over extreme western Panhandle with influence of Hurricane Florence. Weak ridge of high pressure remained over south, providing typical summertime weather that spread northward as front moved northwest. Rainfall amounts heaviest along west coast, 10.00 to 15.00 in. with some totals over 20.00 in. South area received 1.00 in. or less; north received 8.00 to 10.00 in. with 2.00 to 4.00 in. along east coast. Temperatures 5 to 8° below normal, north; central around 3° below; south slightly above normal. Soil moisture adequate to surplus. Flooding common, west central, other scattered areas. Wet weather slowed haymaking. Corn, peanut harvest active where field conditions permitted. Soybeans, sugarcane, cotton good progress. Pasture continued to improve, Panhandle, as rainfall became more general. Few areas Panhandle need more time for recovery from earlier dry conditions. Grazing good to excellent elsewhere except some west central areas where cattle moved away from overflowing streams, low lying areas under water. Hay, roughage supplies 31% short, 69% adequate. Cattle, calves continued generally good to excellent. Citrus groves wet all areas, some standing water. Rainfall amounts varied 1.00 to 10.00 in. plus. Caretakers ditching, pumping excess water where possible. Some young tree groves, west coast area, wilted due to standing water. Heavy rains caused considerable flooding west central vegetable producing area. Some replanting expected. Lesser rainfall amounts slowed planting, other areas. Most crops fair to good. Light harvest Zellwood sweet corn continued.

GEORGIA: Totals 0.33 to 1.00 in. north, 2.00 to 4.00 in. east, 1.00 to 2.00 in. elsewhere. Numerous totals 4.00 in. range. Rain at least 3 days. Temperatures 4 to 6° below normal except extreme south, several degrees below normal. Extremes 50° Clayton, 92° several locations.

Days suitable for fieldwork 3.3. Soil moisture 8% short, 63% adequate, 29% surplus. Cotton harvest began, some boll rot, insect damage heavy. Sorghum harvest behind average. Peanuts 4% dug, 22% 1987, 27% avg.; 2% threshed, 10% 1987, 15% avg.; harvest delayed by wet soils, white mold increased. Insects increased in soybeans. Tobacco harvest neared completion. Rye, other small grains 2% planted. Apples 57% harvested, near average. Aphids increased in pecans. Pasture, hay much improved, fair to good. Cattle fair to good. Hogs mostly good.

HAWAII: Fair weather. Sunny, dry conditions forced heavy irrigation. Water restrictions implemented in 1 major vegetable growing area. Rainfall light most of week. Thundershowers brought locally heavy showers to western part of State late week. Brief, but heavy showers also developed over weekend in parts. Temperatures low 70s to mid-90s. Winds variable 5 to 20 mph. Rainfall none to 2.50 in.

Days suitable for fieldwork 7.0. Chinese cabbage production moderate. Head cabbage good, output moderate. Cucumber production moderate. Snap bean production light. Papaya harvesting fluctuating, decline expected to start soon. Banana production of Cavendish varieties seasonally heavy. Tomato production light, increased. Watermelon production above 1987.

IDAHO: Temperatures above normal. Cooling trend toward end of week. Precipitation below normal.

Days suitable for fieldwork 7.0. Soil moisture 43% very short, 43% short, 14% adequate. Irrigation water supplies poor to fair. Potatoes 4% harvested, 13% 1987, 9% avg. Spring grain harvesting nearly complete. Winter wheat 4% planted, 10% avg. Lack of soil moisture may delay planting. Onions 36% harvested, 26% 1987, 36% avg. Sugarbeet harvesting underway. Dry beans 33% harvested. Processing sweet corn 90% harvested. Peach harvest wrapping up. Plums 68% harvested. Apple harvest underway. Hops over 60% harvested. Third cutting alfalfa hay 38% harvested. Ranges poor to fair. Hay, roughage supplies adequate. Livestock good. Movement from summer ranges continued.

ILLINOIS: Temperature lows 2 to 6° below normal. Temperature highs 1 to 2° above normal north, 3 to 6° below normal south. Precipitation little if any most areas. Few locations south 1.00 in. or more, Carbondale 4.00 in.

Days suitable for fieldwork 6.5. Soil moisture 97% short, 3% adequate. Soybeans 70% turning yellow, 80% 1987, 65% avg.; 4% harvested, 11% 1987, 4% avg. Alfalfa 3rd crop cut 94%, 88% 1987, 91% avg.; 2% very poor, 14% poor, 57% fair, 26% good, 1% excellent. Hay, roughage supplies 10% very short, 63% short, 25% adequate, 2% surplus. Pasture 16% very poor, 47% poor, 33% fair, 4% good.

INDIANA: Temperatures 4 to 6° below normal south; near normal north. Lows upper 40s to low 50s, highs mid 70s to upper 80s. Precipitation trace to less than 0.50 in.

Days suitable for fieldwork 5.9. Topsoil moisture 50% short, 50% adequate. Subsoil moisture 89% short, 11% adequate. Corn, soybean, pasture condition improved. Pastures 4% very poor, 34% poor, 54% fair, 8% good. Soybeans 72% turning yellow, 88% 1987, 70% avg. Wheatland 38% plowed, 34% 1987, 30% avg. Tobacco 38% harvested, 87% 1987, 51% avg. Hay, roughage 5% very short, 41% short, 54% adequate. Livestock water supplies 1% very short, 20% short, 79% adequate. Cool weather slowed growing degree days.

IOWA: Temperatures 4° above normal southwest to 3° below normal east; extremes 34°; 94°. No rainfall excepting amounts less than 0.10 in. extreme northwest.

Days suitable for fieldwork 6.8. Topsoil moisture 90% short, 10% adequate; subsoil moisture 98% short, 2% adequate. Soybeans 90% leaves

turning, 76% 1987, 61% avg. Livestock mostly good with cool, dry weather. Some feeder cattle brought back to pastures left empty all summer. Some producers remained short on water. Pasture 37% very poor, 35% poor, 23% fair, 5% good.

KANSAS: Temperatures low to mid 70s; 1° below normal southeast to 6° above normal northwest. Precipitation 0.25 to 1.50 in. southwest, none elsewhere.

Days suitable for fieldwork 6.5. Topsoil moisture 94% short, 6% adequate. Subsoil moisture 80% short, 20% adequate. Fall crop development ahead normal. Corn harvest ahead 1987 and average, sorghum harvest on schedule. Wheat seeding underway but surface moisture very short most areas. Hay, roughage supplies 8% very short, 45% short, 47% adequate. Pasture continued to decline, more herd culling seen.

KENTUCKY: Cool dry weather. Temperatures 4 to 6° below normal. Lows 50s, highs 70s. Cooler first of week, warmed 80s weekend. Light precipitation 5th, 11th, 0.25 in. or less.

Days suitable for fieldwork 4.7. Soil moisture 3% very short, 50% short, 46% adequate, 1% surplus. Rain slowed tobacco, early corn harvest. Pastures, hay, late soybeans improved slightly from additional moisture. Burley tobacco 62% cut, dark 68%. Tobacco being housed mostly good or better, minimal house burn. Hay, roughage 8% very short, 62% short, 30% adequate. Pastures 6% very poor, 8% poor, 55% fair, 28% good, 3% excellent.

LOUISIANA: Temperatures 6 to 9° below normal. Temperature extremes 46°; 89°. Rainfall 0.05 to 2.73 in.

Days suitable for fieldwork 4.6. Soil moisture 3% very short, 16% short, 49% adequate, 32% surplus. Corn 75% harvested. Cotton 4% harvested. Some boll rot due to excessive moisture. Rice 100% headed; 79% ripe. Soybeans 99% blooming; 11% turning color. Harvest underway, less than 1%. Spraying for loopers, aerial blight. Sweetpotatoes good; 35% harvested below normal. Sugarcane good; 24% planted below normal due to wet conditions. Livestock feed from pastures 90%. Hay final cutting 41%. Hay, roughage supplies 1% very short, 53% short, 43% adequate, 3% surplus. Livestock good. Pastures, pecans fair to good. Vegetables fair. Main activities: Fertilizing pastures, hay; harvesting corn, cotton, hay, rice, sorghum, sweetpotatoes, vegetables; preparing winter pastures, fall gardens; planting sugarcane. Northern areas spraying pastures for army worms.

MARYLAND & DELAWARE: MARYLAND: Precipitation 1.12 in.; temperature 66°, normal 70°. Temperature extremes 35°; 85°.

Days suitable for fieldwork 5.2. Topsoil moisture 90% adequate, 10% surplus. Subsoil moisture 20% short, 80% adequate. Hay supplies 30% short, 70% adequate. Corn 10% poor, 70% fair, 20% good; 90% dough, 97% avg.; 70% dent, 85% avg.; 25% mature, 40% avg.; 5% harvested, 10% avg. Corn silage 50% harvested, 55% avg. Soybeans 30% fair, 70% good; 99% bloomed, 99% avg.; 85% podded, 95% avg.; 10% turning, 25% avg. Tobacco 100% good; 95% topped, 100% avg.; 70% harvested, 65% avg. Alfalfa 3rd cutting 90%, 95% avg. Apples, peaches 60% fair, 40% good. Peaches 90% harvested, 95% avg. Apples 30% harvested, 35% avg.

DELAWARE: Precipitation 1.23 in.; temperature 66°, normal 71°. Temperature extremes 43°; 84°.

Days suitable for fieldwork 5.3. Topsoil moisture 100% adequate. Subsoil moisture 100% adequate. Hay supplies 100% adequate. Corn 100% fair; 98% dough, 98% avg.; 90% dent, 90% avg.; 30% mature, 55% avg.; 5% harvested, 10% avg. Corn silage 60% harvested, 60%. Soybeans 100% good; 95% podded, 95% avg.; 5% turning, 30% avg. Alfalfa 4th cutting 55%, 55% avg. Apples, peaches 100% good. Peaches 95% harvested, 98% avg. Apples 30% harvested, 30% avg.

MICHIGAN: Temperatures 1 to 5° below normal. Temperature extremes 32°; 81°. Precipitation 0.01 to 2.83 in.

Days suitable for fieldwork 5.5. Soil moisture 35% short, 65% adequate. Corn 65% dent, 97% 1987, 70% avg.; 10% mature, 45% 1987, 20% avg.; 10% very poor, 25% poor, 40% fair, 23% good, 2% excellent. Soybeans 45% turning, 95% 1987, 70% avg.; 10% shedding, 40% 1987, 20% avg.; 5% very poor, 15% poor, 35% fair, 35% good, 10% excellent. Dry beans 65% turning, 85% 1987, 90% avg.; 30% shedding, 65% 1987, 60% avg.; 2% very poor, 18% poor, 50% fair, 25% good, 5% excellent. Winter wheat none planted, 2% 1987, 1% avg. Pastures supplying 35% feed supply. Hay, roughage supplies 15% very short, 60% short, 25% adequate. Major activities: Corn silage harvesting, hay harvesting, dry bean harvesting, fruit, vegetable harvesting, fall tillage.

MINNESOTA: Temperatures none to 2° above normal. Temperature extremes 31°; 92°. Precipitation none to 0.19 in. Greatest weekly total 0.45 in.

Days suitable for fieldwork 6.3. Topsoil moisture 31% very short, 54% short, 15% adequate. Corn 83% mature, 72% 1987, 26% avg.; 6% combined, 1% 1987, none avg.; 50% cut for silage, 49% 1987, 17% avg.; 29% moisture content, 23% 1987; 18% very poor, 42% poor, 36% fair, 4% good. Soybeans 92% shedding leaves, 82% 1987, 29% avg.; 45% mature, 30% 1987., 7% avg.; 7% combined, 3% 1987, 1% avg.; 17% moisture content, 12% 1987; 10% very poor, 34% poor, 48% fair, 8% good. Dry edible beans 41% harvested, 55% 1987, 28% avg. Potatoes 32% harvested, 31% 1987, 21% avg. Sweet corn 98% harvested for processing, 98% 1987, 82% avg. Flax 59% harvested, 86% 1987, 55% avg. Sunflowers 1% harvested, 1% 1987, none avg. Winter wheat 72% seeded, 77% 1987, 53% avg. Rye 75% seeded, 77% 1987, 52% avg. Stubble plowed 66% , 68% 1987, 63% avg. Hay supplies 15% very short, 52% short, 32% adequate, 1% surplus. Livestock feed now obtained from pastures 30%.

MISSISSIPPI: Hurricane Florence brought rainfall to southern counties. Northern counties mostly dry. Temperatures below normal. Extremes 42°; 89°.

Days suitable for fieldwork 4.9, 6.3 1987, 5.7 avg. Soil moisture improved 5% very short, 20% short, 65% adequate, 5% surplus, 5% excessive. Corn fair; 31% harvested, 64% 1987, 47% avg. Sorghum fair; 27% harvested, 73% 1987, 45% avg. Cotton fair to good; 75% open bolls, 91% 1987, 71% avg.; 4% harvested, 9% 1987, 7% avg. Rice good to fair; 13% harvested, 38% 1987, 30% avg. Soybeans fair; 1% harvested, 1% 1987. Hay 81% harvested, 86% 1987, 85% avg. Corn, sorghum silage harvest behind 1987 and average. Peanuts, sweetpotato harvest near average. Wheat 6% planted, 5% 1987. Livestock good. Pasture good. Pecans fair. Hay, roughage supplies 50% short, 50% adequate. Activities: Harvesting corn, hay, silage, rice and defoliating cotton.

MISSOURI: Temperatures 3° below normal northwest to 11° below normal Bootheel. Rainfall 1.25 in. Bootheel, virtually none elsewhere.

Days suitable for fieldwork 6.5 Topsoil moisture 77% short, 21% adequate, 2% surplus; southeast, south central only areas with majority adequate. Corn harvest varies 7% central to 41% southeast. Supply of hay, roughage 23% very short, 60% short, 17% adequate. Stockwater supplies 20% critically short, 49% short, 31% adequate, some water being

hauled. Pastures 21% very poor, 31% poor, 37% fair, 11% good. Cattle feed requirements being supplied by pasture 63%.

MONTANA: Week started hot, dry, windy; ended cool, wet. Temperatures 3 to 7° above normal. Dry until 10th, winter storm, rain, snow west, south. East remained dry.

Days suitable for fieldwork 6.7. Topsoil moisture 99% short, 1% adequate. Subsoil moisture 97% short, 3% adequate. Spring grains 95% harvested. Corn silage 59% harvested, 6% 1987, 9% avg. Dry beans 40% harvested, 9% 1987, 14% avg. Potato, sugarbeet harvest to start 1 to 2 weeks. Range, pasture feed 62% very poor, 28% poor, 9% fair, 1% good. Cattle, calves moved from summer range 61%, 7% 1987, 22% avg. Sheep, lambs moved from summer range 66%, 7% 1987, 25% avg. Hay, roughage supplies 36% very short, 36% short, 25% adequate, 3% surplus. Second cutting alfalfa 93% harvested, 85% 1987, 85% avg.

NEBRASKA: Temperatures near normal across State. Little or no precipitation occurred throughout. Extremes 34°; 99°.

Days suitable for fieldwork 6.9. Topsoil moisture 94% short, 6% adequate. Subsoil moisture 75% short, 25% adequate. Row crop harvesting started, ahead of 1987 and average. Harvesting for grain 7% corn, 3% soybeans, 4% sorghum. Corn borer, silk rot damage eastern corn. Soybean leaf beetle damage southeast, east. Alfalfa 4% very poor, 23% poor, 49% fair, 24% good. Alfalfa 3rd cut 95%, 90% 1987, 83% avg. Some alfalfa being cut 4th time. Winter wheat 2% emerged, 8% 1987, 6% avg. Pasture, range feed supplies 14% very short, 39% short, 47% adequate. Hay, roughage supplies 3% very short, 33% short, 60% adequate, 4% surplus.

NEVADA: Temperatures remained at or near record levels most of period. First cool air this season end of week dropped temperatures all areas. Only trace amounts precipitation. Temperature extremes 26°; 105°.

Digging potato crop gaining momentum main producing areas. Alfalfa seed combining excellent progress due lack of rain. Small grain harvesting about done. Garlic digging finished early again. Alfalfa hay baling continued. Wild hay harvest completed earlier than usual. Ranges continued to deteriorate. Hay, roughage supplies 33% short, 60% adequate, 7% surplus.

NEW ENGLAND: Precipitation 1.00 to 1.50 in. southern Maine, southern New Hampshire, southern Vermont, Massachusetts, Connecticut, Rhode Island; 0.50 to 1.00 in. remainder. Temperatures mid 50s near Canadian border; mid 60s southern coast. Temperatures near normal.

Days suitable for fieldwork 6.0. Fieldwork 1.0 days ahead. Soil moisture 5% short, 95% adequate. Pastures 100% adequate. Hay, roughage 19% short, 81% adequate. Feed obtained from pastures 34%. Maine potatoes 5% harvested, 17% 1987, 7% avg.; good. Connecticut River Valley potatoes 22% dug, 27% 1987, 33% avg.; fair. Rhode Island potatoes 60% harvested, 46% 1987, 54% avg.; good. Maine oats fair. Field corn 15% harvested, 14% 1987, 9% avg.; fair to good. Sweet corn 88% picked, 83% 1987, 83% avg.; fair to good. Outdoor tobacco 98% harvested; fair to good. Shade tobacco 98% harvested; good. Second crop hay 90% cut, 88% 1987, 91% avg.; fair to good. Third crop hay 61% cut, 44% 1987, 53% avg.; good. Apples 9% picked, 15% 1987, 13% avg.; good; size medium; color fair to good. Blueberry harvest neared completion. Cranberry harvest began; average size. Major farm activities: Harvesting vegetables, fruits, corn silage, hay.

NEW JERSEY: Temperatures below normal. Extremes 36°; 85°. Rainfall none north, 0.14 in. central, 0.16 in. south. Heaviest 24-hour total 0.49 in. on 5th, 6th. Estimated soil moisture percent field capacity 89% north, 78% central, 86% south. Four inch soil temperatures 61° north, 64° central, 65° south.

Fall crop growth good under favorable weather conditions. Harvest summer crops continued to decline. Fall variety apple harvest increased. Peach harvest clean-up stage. Irish potato digging active. Sweetpotato harvest advanced. Corn silage making active. Corn for grain continued maturing. Soybeans remained pod setting stage. Fourth cutting hay well advanced. Alfalfa seeding continued. Seeding fall sown grain, cover crops increased. Hay, roughage supplies 35% short, 65% adequate.

NEW MEXICO: Temperatures high 90s many locations to low 30s mountain areas. Dry weather until 11th.

Days suitable for fieldwork 6.3. Soil moisture 100% adequate. Cotton 30% bolls open; 30% fair, 70% good; warmer weather needed. Wheat 100% good; 30% planted; good moisture supplies available. Cattle 20% fair, 70% good, 10% excellent. Sheep 13% fair, 74% good, 13% excellent. Range 30% fair, 60% good, 10% excellent. Hay, roughage stock supplies 30% short, 70% adequate; shortages due to rain damage many locations.

NEW YORK: Widespread rain 0.50 to 1.50 in. over holiday weekend. Remainder of week dry; warming trend.

Days suitable for fieldwork 5.4. Soil moisture adequate. Pastures fair to good. Hay mostly good. Corn fair to mostly good. Corn in some areas denting. Second cutting alfalfa nearly complete. Third cutting 42% finished, 49% 1987, 42% avg. Oats 94% harvested, 96% 1987, 92% avg. Hay, roughage supplies 46% short, 54% adequate. Lake Ontario apples good to excellent; excellent weather for coloring. Bartlett pear harvest neared completion. Peaches 85% harvested. Only late varieties remained for picking. Cooler nights slowed growth of some vegetable crops. Cabbage, sweet corn, snap bean, beet harvest continued active.

NORTH CAROLINA: Temperatures 5 to 7° below normal. Temperature extremes 37°; 91°. Precipitation 1.24 to 3.69 in.

Days suitable for fieldwork 4.5. Soil moisture 18% short, 65% adequate, 17% surplus. Pasture 1% very poor, 8% poor, 36% fair, 51% good, 4% excellent. Flue-cured tobacco 71% harvested, 68% 1987, 74% avg. Tobacco 1% very poor, 19% fair, 79% good, 1% excellent. Peanuts 4% very poor, 21% fair, 71% good, 4% excellent. Sweetpotatoes 7% fair, 90% good, 3% excellent; 11% harvested, 12% 1987, 8% avg. Hay, roughage supplies 6% short, 91% adequate, 3% surplus; 11% poor, 42% fair, 44% good, 3% excellent. Livestock feed obtained from pasture 76%. Apples 21% harvested, 30% 1987, 27% avg.; 18% poor, 41% fair, 41% good. Corn silage 58% harvested, 74% 1987, 68% avg. Sorghum for grain 21% harvested, 17% 1987, 16% avg.; 2% very poor, 10% poor, 35% fair, 51% good, 2% excellent. Burley tobacco 35% harvested, 56% 1987, 45% avg. Major farm activities: Tobacco harvesting, marketing; baling hay; harvesting corn silage, peaches, sorghum, apples; spraying soybeans, peanuts; shearing Christmas trees; land preparation for fall planting; tending livestock, general farm maintenance.

NORTH DAKOTA: Temperatures near normal. Scattered light frost mainly northeast. Extremes 29°; 90°. Precipitation received northeast 0.30 to 1.00 in. Remainder of State no precipitation.

Days suitable for fieldwork 6.6. Topsoil moisture supplies 75% very short, 25% short. Subsoil moisture 89% very short, 11% short. Harvest of early season row crops continued rapid advancement. Harvest of corn grain, sunflower to begin while development continued ahead of normal. Dry edible beans 49% combined, 26% 1987, 24% avg; flax 70%, 38%, 41%; soybeans 17%, 3%, 2%; corn for grain 3%, none, none; sunflower 4%, none, none. Corn for grain 41% ripe, 12% 1987, 12% avg; sunflower bracts 45% brown and beyond, 29% 1987, 22% avg; corn silage cut 74%, 24% 1987, 24% avg. Condition of most crops remained same due to near normal temperatures. Corn for grain 17% very poor, 64% poor, 18% fair, 1% good; flax 20%, 42%, 38%, none; dry edible beans 2%, 43%, 47%, 8%; sunflower 10%, 35%, 43%, 12%; soybeans 1%, 46%, 36%, 17%; potatoes none, 72%, 23%, 5%. Pastures 40% very poor, 59% poor, 1% fair; furnished 55% roughage requirements. Hay, roughage supplies 89% very short to short, 10% adequate, 1% surplus.

OHIO: Low temperatures mid 40s to 50°, below normal 5 to 10°. High temperatures low to mid 70s, short normal by 2 to 5° north, 4 to 6° south. Precipitation generally under 0.10 in.

Days suitable for fieldwork 4.8. Soil moisture 32% short, 66% adequate, 2% surplus. Crop conditions generally unchanged. Corn harvest barely started; poor to fair. Soybeans began to shed; some damage from bean leaf beetle; poor to fair. Some 4th cutting hay; fair. Pasture remained poor to fair. Hay, roughage supplies 17% very short, 40% short, 40% adequate, 3% surplus. Continued harvesting of corn silage, potatoes, processing tomatoes, apples, grapes, tobacco. Began planting winter wheat.

OKLAHOMA: Temperatures 3° below normal south central to 1° above normal west central. No precipitation in State.

Days suitable for fieldwork 6.6. Topsoil moisture 85% short, 15% adequate. Subsoil moisture 70% short, 30% adequate. Cotton 60% fair, 40% good; 15% open bolls, 5% 1987, 10% avg. Sorghum 10% poor, 25% fair, 65% good; 70% coloring, 85% 1987, 85% avg.; 10% mature, 10% 1987, 25% avg.; 5% harvested, 3% 1987, 3% avg. Peanuts 25% mature, 10% 1987, 10% avg. Soybeans 75% setting pods, 95% 1987, 85% avg.; 2% mature, 20% 1987, 10% avg. Corn 30% harvested, 60% 1987, 40% avg. Pastures fair. Hay, roughage supplies 15% very short, 45% short, 40% adequate. Supplemental feed comprised 25% livestock feed. Cattle marketings average, prices down slightly from preceding week.

OREGON: Coastal, Willamette Valley stations only places in State with near normal temperatures. Remainder sizzled; 5 to 9° above normal. Some southwest valley, north central station readings triple digits beginning of period: Grants Pass 107°, Medford 103°, The Dalles and Prospect 102°. Readings in 80s, 90s common in all areas except coast. Barely more than trace precipitation coast, northern Willamette Valley. Rest saw no precipitation.

Soil moisture 90% short, 10% adequate. Winter wheat harvest essentially complete. Barley 91% harvested. Hay, roughage supplies 31% short, 66% adequate, 3% surplus. Post harvest practices continued. Hop harvest continued. Red clover fields swathed Polk County. Golden delicious apple harvest started. Pears full swing west; bartlett pears complete in Hood River County. Table beets, sweet corn harvest continued. Fall raspberry continued, evergreen blackberry began; blueberry virtually complete. Planting grass seed and harvesting carrot seed central. Klamath potatoes being prepared to dig. Mint harvest underway east. Malheur onion, potato, sweet corn harvest full swing. Livestock good. Range, pastures fair to good west, poor Polk; mostly fair to good east; some areas headed towards poor.

PENNSYLVANIA: Precipitation on first 2 days. Coolest May 15th. Temperature 59°, 7° below normal. Temperature extremes 32°; 83°. Precipitation 0.61 in., 0.24 in. below normal.

Days suitable for fieldwork 4.0. Soil moisture 27% short, 65% adequate, 8% surplus. Corn 82% dough, 99% 1987, 95% avg.; 40% dent, 73% 1987, 60% avg.; 10% mature, 20% 1987, 11% avg.; none harvested, 2% 1987, none avg. Ensilage corn 17% harvested, 30% 1987. Corn 17% very poor, 26% poor, 29% fair, 22% good, 6% excellent. Soybean 8% very poor, 23% poor, 32% fair, 27% good, 10% excellent. Wheat 9% planted, 24% 1987. Barley 11% planted, 28% 1987. Tobacco 52% harvested, 73% 1987. Potato 38% harvested, 45% 1987. Second cutting alfalfa 98%, 99% 1987. Third cutting alfalfa 78%, 62% 1987. Fourth cutting alfalfa 27%, 25% 1987. Second cutting clover-timothy 92%, 90% 1987. Hay, roughage supplies 12% very short, 50% short, 38% adequate. Livestock feed now obtained from pastures 27%. Quality of hay fair to good. Feed from pastures below average. Apples 30% harvested, 35% 1987. Peaches 76% harvested, 89% 1987. Grapes 6% harvested, 27% 1987. Fall plowing 39%, 41% 1987. Activities: Harvesting corn silage, hay, haylage, tobacco, fruit, potatoes, other vegetables; planting wheat, barley; fall plowing; controlling weeds, insects; caring for livestock; maintaining machinery.

PUERTO RICO: NO DATA AVAILABLE.

SOUTH CAROLINA: Temperatures 5 to 7° below average. Rainfall 9.17 in. Charleston; less than 1.00 in. Walhalla.

Days suitable for fieldwork 3.6. Soil moisture 13% short, 60% adequate, 27% surplus. Cotton 39% open bolls, 48% 1987, 59% avg.; 2% very poor, 13% poor, 81% fair, 4% good. Soybeans 83% setting pods, 81% 1987, 81% avg.; 8% leaves turning, 8% 1987, 6% avg.; 2% leaves shedding, 1% 1987; 5% poor, 33% fair, 57% good, 5% excellent. Tobacco fair to good; 88% harvested, 95% 1987, 95% avg.; 18% stalks destroyed, 32% 1987, 32% avg. Corn fair; 94% matured, 100% 1987, 100% avg.; 34% harvested, 49% 1987, 54% avg. Peanuts fair to good; 2% harvested, 7% 1987, 5% avg. Sorghum fair; 18% harvested, 35% 1987, 23% avg. Pastures fair to good. Hay, roughage supplies 7% very short, 60% short, 32% adequate, 1% surplus.

SOUTH DAKOTA: temperatures 3° below to 8° above normal. Extremes 30°; 102°. Virtually no rainfall throughout State. Rainfall for season below normal.

Days suitable for fieldwork 6.3. Topsoil moisture 58% critically short, 32% short, 10% adequate. Hay, roughage supplies 11% very short, 46% short, 40% adequate, 3% surplus. Livestock feed obtained from pastures 70%. Still waiting for moisture to seed winter wheat, rye. Silage cutting underway, row crop harvest for grain just beginning. Crop progress ahead of normal.

TENNESSEE: High pressure, record breaking cold temperatures dominated week. Temperatures 3 to 12° below normal. Scattered light rain 10th, 11th. Amounts generally below 0.25 in.

Days suitable for fieldwork 5.4. Soil moisture 10% very short, 47% short, 43% adequate. Hay, roughage supplies 7% very short, 74% short, 19% adequate. Corn 56% mature, 83% 1987, 70% avg.; 8% harvested, 28% 1987, 16% avg. Burley 56% harvested, 82% 1987, 66% avg. Dark fired 56% harvested, 76% 1987, 62% avg. Dark air-cured 62% harvested, 77% 1987, 63% avg. Primary activities:

Harvesting corn, sorghum, hay, vegetables, peaches; controlling insects, diseases in row crops; repairing, maintaining harvest equipment.

TEXAS: Not available.

Crops: Corn continued good progress Plains; strong winds, wet conditions caused some lodging. Harvest silage continued late week. Light grain harvest underway with excellent yields. Harvest winding down northeast, aflatoxin problems continued. Grain sorghum harvest continued Cross-Timbers without major delays, good yields. Fields Plains maturing some light harvest underway. Many fields could use more warm weather to fully develop. Recent moisture improved dryland prospects. Yields low drier parts Hill Country. Sorghum 99% headed, 100% 1987, 99% avg. Cotton harvest continued full swing Blacklands under good harvest conditions. Some harvesting continued central, east. Some dryland fields stressed for moisture Plains. Cooler temperatures slowed progress. Shedding smaller fruit continued. Spraying boll weevils continued. Progress Trans-Pecos slowed by cooler weather. Cotton 15% harvested, 14% 1987, 12% avg. Small grain seeding continued steady Plains. Producers Blacklands, central dusting in seed hopes of rain. Many producers waiting for moisture before beginning. Recent moisture Plains should insure good germination planted fields. Rice harvest intermittent Upper Coast, rainfall kept producers out of fields part of week. Overall yields down some from early prospects. Some early peanut harvest continued south. Cooler temperatures increased disease some areas. Dryland fields central, Cross-Timbers stressed for moisture. Irrigated fields look good. Some producers finished watering ready for harvest. Soybeans continued good progress Plains. Pods filling. Some minor leaf disease problems. Upper Coast harvest continued as weather permitted. Other Field Crops: Peanuts 5% harvested, 6% 1987, 5% avg. Soybeans 22% harvested, 15% 1987, 8% avg. Sunflowers 9% harvested, 1% 1987, 4% avg. Oats 2% planted, 8% 1987, 5% avg.

Commercial Vegetables: Rio Grande Valley land preparations continued with open weather. Irrigation continued tomatoes, peppers. Citrus sizing well. San Antonio-Winter Garden land preparations, pre-watering continued. Some planting underway. East planting, harvesting continued without major delays. High Plains harvest continued good yields, quality. Trans-Pecos insects began damaging peppers. Cantaloup harvest about over. Pecans beginning to open southern areas. Aphids, weevils cause problems some areas. Nut droppage continued. Producers wrapping up final irrigations Trans-Pecos.

Range and Pasture: Range, pasture conditions holding steady Plains, portions central, south drying out. Recent rain Upper Coast, Rio Grande Valley improved forages some. Livestock continued fair to good. Supplemental feeding steady. Stockers arrive Plains. Hay, roughage supplies steady. Current supplies 13% very short, 42% short, 40% adequate, 5% surplus.

UTAH: Precipitation light. Temperatures 4 to 8° above normal.

Days suitable fieldwork 6.4. Soil moisture 64% short, 36% adequate. Winter wheat 36% seeded, 54% 1987, 48% avg. Oats for grain 95% harvested, 93% 1987, 84% avg. Corn 68% dent, 68% 1987, 50% avg.; 23% mature, 17% 1987, 16% avg. Corn silage 19% harvested, 18% 1987, 9% avg. Alfalfa 3rd cutting 64%, 59% 1987, 43% avg. Harvest of apples, onions, potatoes continued. Peach, dry bean harvests neared completion. High winds on weekend caused high apple, peach drop. Livestock movement from summer range began 10 to 14 days ahead of normal. Livestock good to excellent. Pasture, range 14% very poor, 42% poor, 26% fair, 18% good. Irrigation water supplies 28% very short, 40% short, 32% adequate. Stockwater supplies 4% very short, 50% short, 46% adequate. Hay, roughage supplies 36% short, 52% adequate, 12% surplus.

VIRGINIA: Cool temperatures, heavy rain. Temperatures as much as 9° below normal. Range 38° to upper 80s. Early period highs in 80s, remaining period highs 60s to 70s. Rainfall 0.75 in. north, 1.25 in. southwest. Maximum 2.38 in.

Days suitable for fieldwork 5.4. Topsoil moisture 21% short, 68% adequate, 11% surplus. More rain; more hay, pasture land improvement. Corn silage 56% harvested, 54% 1987, 56% avg. Grain corn 10% harvested, 35% 1987, 28% avg. Soybeans fair to good. Peanuts excellent. Normal scouting activities. Some sprayed soybeans, peanuts for corn earworms. Flue-cured tobacco 47% harvested, 44% 1987, 58% avg. Burley tobacco 44% harvested, 56% 1987, 55% avg. Cut fall hay. Reseeded pasture, hay land. Preparation for small grain seeding, very little acreage seeded yet. Apple harvest continued. Hay, roughage supplies 27% short, 71% adequate, 2% surplus.

WASHINGTON: Weak upper level trough moved through State 6th, 7th bringing some rainfall, mainly to Puget Sound, northeast. Otherwise dry conditions, below normal temperatures prevailed.

Days suitable for fieldwork 7.0. Soil moisture 70% short, 30% adequate. Hot, dry weather continued, spring grain harvest completed. Planting winter wheat continued rapid pace; some growers waiting for additional moisture. Potato, corn silage harvests continued slightly ahead of average. Dry bean harvest progressing somewhat behind average; crop good. Mint harvest winding down Grant County. Hop harvest picking up Yakima Valley. Third cutting alfalfa hay winding down most areas, 4th cutting underway Grant County. Second cutting timothy hay full swing Kittitas County, yield slightly lower than normal. Peach harvest completed. D'Anjou pear harvest underway Yakima County. Cranberries near maturity, growers preparing to begin harvest 2 to 3 weeks. Sweet corn harvest full swing eastern area, more hot weather needed for maturity some fields western area. Late season vegetables, tomatoes, melons ripening, harvest active. Carrot, carrot seed harvest underway Grant County. Range, pasture mostly short.

WEST VIRGINIA: Temperature 61°, 7° below normal. Extremes 33° Greenbank; 90° Gary. Precipitation 0.10 in., 0.58 in. below normal.

Days suitable for fieldwork 5.0. Soil moisture 10% very short, 45% short, 45% adequate. Corn fair to poor; 99% silked, 85% dough, 31% mature. Apples good to fair. Feed supplies 8% very short, 49% short, 43% adequate. Feed from pasture 80%. Farm activities: General farm maintenance, livestock care, haying, tobacco harvest.

WISCONSIN: Cool temperatures averaged 59°, 4° below normal. Extremes 29°; 89°. Precipitation none to trace.

Days suitable for fieldwork 6.7. Soil moisture 75% short, 25% adequate. Crops 7% very poor, 39% poor, 42% fair, 12% good. Corn 10% very poor, 40% poor, 40% fair, 9% good, 1% excellent; 84% in dent, 84% 1987, 65% avg.; 53% mature, 52% 1987, 28% avg. Much corn cut for silage. Corn silo filling 29%, 21% 1987, 10% avg. Third crop hay 64% cut, 63% 1987, 47% avg. Yields good, quality excellent. Soybeans turning 65%, 57% 1987, 42 avg.; 22% shedding, 18% 1987. Late potatoes, cabbage, beets being harvested. Winter wheat being planted. Tobacco harvest active. Fall plowing 8%, 6% 1987,

(Continued to back cover)

CROP PROGRESS

FOR WEEK ENDING SEPTEMBER 11, 1988

CORN
% DENT

	1988	1987	AVG.
COLO	80	54	61
GA	100	100	100
ILL	97	100	96
IND	95	100	94
IOWA	100	100	86
KANS	97	95	80
KY	90	100	96
MICH	65	97	70
MINN	100	99	84
MO	98	100	97
NEBR	100	95	84
N C	98	100	99
OHIO	82	100	91
PA	40	73	60
S DAK	100	95	64
TEX	99	100	98
WIS	84	84	65
17 STATES	94	97	85

THESE 17 STATES PRODUCED 94% OF THE 1987 CORN CROP.

CORN
% MATURE

	1988	1987	AVG.
COLO	35	13	9
GA	100	100	100
ILL	65	89	55
IND	51	92	51
IOWA	95	85	48
KANS	75	70	45
KY	52	84	59
MICH	10	45	20
MINN	83	72	26
MO	79	86	70
NEBR	54	38	22
N C	82	83	89
OHIO	21	65	36
PA	10	20	11
S DAK	67	50	29
TEX	91	84	83
WIS	53	52	28
17 STATES	64	70	42

THESE 17 STATES PRODUCED 94% OF THE 1987 CORN CROP.

CORN
% HARVESTED

	1988	1987	AVG.
COLO	0	NA	NA
GA	71	80	76
ILL	5	13	4
IND	2	12	2
IOWA	10	4	1
KANS	20	15	5
KY	4	23	12
MICH	0	3	1
MINN	6	1	0
MO	14	21	14
NEBR	7	1	1
N C	15	17	25
OHIO	1	5	2
PA	0	2	0
S DAK	2	0	0
TEX	70	66	64
WIS	0	0	0
17 STATES	8	NA	NA
EXCL. STATES WITH NA	8	10	6

THESE 17 STATES PRODUCED 94% OF THE 1987 CORN CROP.

NA - NOT AVAILABLE.

GRAIN SORGHUM
% HARVESTED

	1988	1987	AVG.
ARK	25	78	52
ILL	0	9	2
KANS	4	5	2
LA	42	69	77
MISS	27	73	45
MO	9	28	17
NEBR	4	1	0
OKLA	5	3	3
S DAK	1	0	0
TENN	10	54	29
TEX	60	54	58
11 STATES	21	24	22

THESE 11 STATES PRODUCED 96% OF THE 1987 GRAIN SORGHUM CROP.

RICE
% HARVESTED

	1988	1987	AVG.
ARK	12	39	23
CALIF	2	0	1
LA	64	82	77
MISS	13	38	30
TEX	97	100	94
5 STATES	30	48	38

THESE 5 STATES PRODUCED 97% OF THE 1987 RICE CROP.

WINTER WHEAT
% PLANTED

	1988	1987	AVG.
ARK	0	0	0
CALIF	0	0	0
COLO	26	8	15
GA	1	0	2
IDAHO	4	0	10
ILL	0	0	0
IND	0	0	0
KANS	4	10	5
MICH	0	2	1
MO	5	3	1
MONT	3	9	8
NEBR	20	26	31
N MEX	30	30	NA
N C	0	0	0
OHIO	3	0	0
OKLA	5	20	5
OREG	2	1	1
S DAK	17	51	37
TEX	20	22	12
WASH	40	36	34
20 STATES	11	15	NA
EXCL. STATES WITH NA	11	15	10

THESE 20 STATES PRODUCED 91% OF THE 1987 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

SOYBEANS
% SETTING PODS

	1988	1987	AVG.
ALA	83	90	93
ARK	85	95	89
GA	97	100	96
ILL	100	100	100
IND	100	100	100
IOWA	100	100	100
KANS	100	98	95
KY	90	96	93
LA	92	99	97
MICH	95	100	100
MINN	100	100	100
MISS	80	86	89
MO	99	100	98
NEBR	100	100	100
N C	80	78	84
OHIO	100	100	100
S C	83	81	81
S DAK	100	100	100
TENN	100	100	100
19 STATES	97	98	97

THESE 19 STATES PRODUCED 96% OF THE 1987 SOYBEANS CROP.

SOYBEANS
% DROPPING LEAVES

	1988	1987	AVG.
ALA	9	16	10
ARK	3	5	6
GA	13	12	14
ILL	40	57	38
IND	33	72	33
IOWA	55	39	24
KANS	40	30	20
KY	12	35	20
LA	3	16	10
MICH	10	40	20
MINN	92	82	29
MISS	8	13	13
MO	13	27	19
NEBR	55	13	11
N C	0	0	0
OHIO	16	70	28
S C	2	1	0
S DAK	83	65	36
TENN	16	28	13
19 STATES	35	42	23

THESE 19 STATES PRODUCED 96% OF THE 1987 SOYBEANS CROP.

GRAIN SORGHUM
% COLORING

	1988	1987	AVG.
ARK	93	99	NA
ILL	75	89	NA
KANS	70	70	50
LA	94	98	98
MISS	92	98	100
MO	84	92	89
NEBR	95	86	78
OKLA	70	85	85
S DAK	88	91	67
TENN	100	100	100
TEX	84	89	83
11 STATES	80	82	NA
EXCL. STATES WITH NA	80	82	70

THESE 11 STATES PRODUCED 96% OF THE 1987 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

GRAIN SORGHUM
% MATURE

	1988	1987	AVG.
ARK	59	91	NA
ILL	55	67	NA
KANS	25	20	10
LA	72	92	91
MISS	59	87	85
MO	41	64	51
NEBR	50	30	14
OKLA	10	10	25
S DAK	42	25	16
TENN	56	85	60
TEX	62	64	66
11 STATES	42	41	NA
EXCL. STATES WITH NA	41	39	33

THESE 11 STATES PRODUCED 96% OF THE 1987 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

COTTON
% BOLLS OPENING

	1988	1987	AVG.
ALA	71	61	49
ARIZ	86	85	82
ARK	60	86	62
CALIF	60	85	68
GA	43	54	49
LA	74	86	67
MISS	75	91	71
MO	47	100	63
N MEX	30	40	77
N C	73	70	70
OKLA	15	5	10
S C	39	48	59
TENN	44	78	52
TEX	25	32	24
14 STATES	44	56	44

THESE 14 STATES PRODUCED 100% OF THE 1987 COTTON CROP.

1/ AVERAGES FOR THESE SUMMARIES ARE FOR THE YEARS 1983 - 1987.

Crop Condition

FOR WEEK ENDING SEPTEMBER 11, 1988

GRAIN SORGHUM

STATE	VP	P	F	G	EX
ARK	0	5	54	38	3
ILL	0	6	66	28	0
KANS	5	30	38	24	3
LA	0	15	43	35	7
MISS	0	10	60	30	0
MO	3	18	54	25	0
NEBR	0	28	51	17	4
OKLA	0	10	25	65	0
S DAK	12	14	42	30	2
TENN	3	7	65	25	0
TEX	0	3	26	57	14
11 STATE	3	19	38	34	6

RICE

STATE	VP	P	F	G	EX
ARK	0	0	33	60	7
CALIF	0	0	10	85	5
LA	0	0	47	51	2
MISS	0	0	50	50	0
TEX	0	1	12	73	14
5 STATE	0	0	31	63	6

SOYBEANS

STATE	VP	P	F	G	EX
ALA	2	8	24	64	2
ARK	0	11	62	27	0
GA	0	4	45	41	10
ILL	5	23	61	11	0
IND	0	30	60	10	0
IOWA	4	35	52	9	0
KANS	9	32	25	32	2
KY	3	8	61	27	1
LA	0	5	38	43	14
MICH	5	15	35	35	10
MINN	10	34	48	8	0
MISS	7	10	55	25	3
MO	5	38	44	13	0
NEBR	10	20	55	15	0
N C	0	5	26	63	6
OHIO	12	29	40	19	0
S C	0	5	33	57	5
S DAK	1	11	58	27	3
TENN	1	9	54	36	0
19 STATE	5	24	50	19	1

COTTON

STATE	VP	P	F	G	EX
ALA	0	26	54	20	0
ARIZ	0	0	0	90	10
ARK	0	0	25	65	10
CALIF	0	0	15	70	15
GA	21	11	61	7	0
LA	0	0	65	32	3
MISS	3	2	50	45	0
MO	0	0	38	54	8
N MEX	0	0	30	70	0
N C	0	9	25	63	3
OKLA	0	0	60	40	0
S C	2	13	81	4	0
TENN	0	6	25	69	0
TEX	0	4	31	60	5
14 STATE	1	3	36	55	5

CORN

STATE	VP	P	F	G	EX
COLO	1	1	13	61	24
GA	1	28	49	22	0
ILL	10	45	43	2	0
IND	6	48	42	4	0
IOWA	16	40	35	9	0
KANS	0	20	32	28	20
KY	10	39	37	14	0
MICH	10	25	40	23	2
MINN	18	42	36	4	0
MO	18	47	24	10	1
NEBR	0	11	28	57	4
N C	3	12	37	44	4
OHIO	18	33	37	12	0
PA	17	26	29	22	6
S DAK	12	29	44	15	0
TEX	0	2	17	46	35
WISC	10	40	40	9	1
17 STATE	11	34	36	17	2

VP - VERY POOR P - POOR F - FAIR G - GOOD EX - EXCELLENT

International Weather and Crop Summary

HIGHLIGHTS

September 4-10, 1988

USSR ... In Western USSR, the first substantial rain in recent weeks over the southern and eastern Ukraine and the northern North Caucasus delays early corn harvesting but provides excellent soil moisture for winter wheat planting. In the New Lands, warm, dry weather helps spring grain harvesting in Kazahkstan.

EUROPE ... Dry weather favors progress of winter grains harvest in the northwest. Widespread rainfall helps alleviate dryness in the southeast.

SOUTH ASIA ... Beneficial showers continue over the south. Hot, mostly dry weather hits the northwest, stressing immature crops. Flooding worsens in the east.

EASTERN ASIA ... Heavy rain and flooding continue over sections of China's Yangtze Valley. Rain delays harvest of summer crops in the northeast.

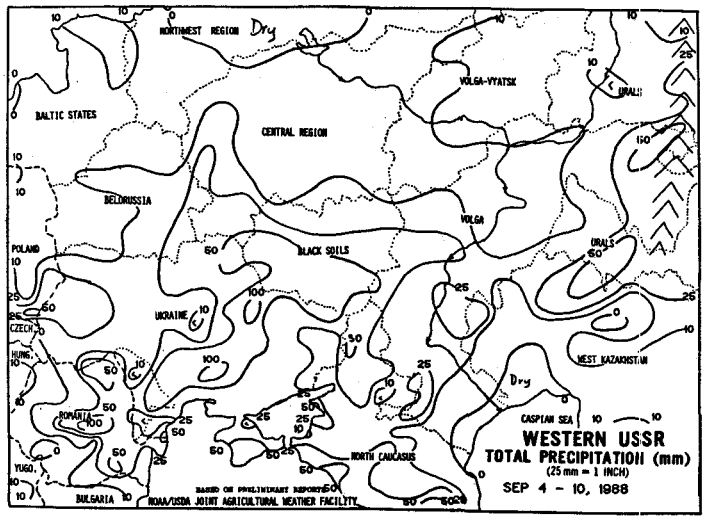
SOUTHEAST ASIA ... Much needed rain benefits rainfed crops in eastern Thailand.

SOUTH AMERICA ... In Argentina, rain helps southern wheat but dryness persists in the west. In south-central Brazil, showers benefit wheat growth in Rio Grande do Sul while dryness continues elsewhere.

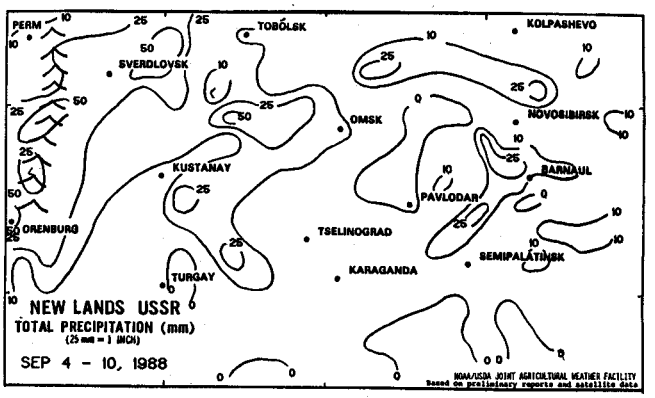
AUSTRALIA ... Beneficial rain and above-normal temperatures cover nearly all winter grain areas, leading to rapid crop growth and development.

MEXICO ... Dry, hot weather covers the northwest. Ample moisture continues over most of the Southern Plateau corn belt.

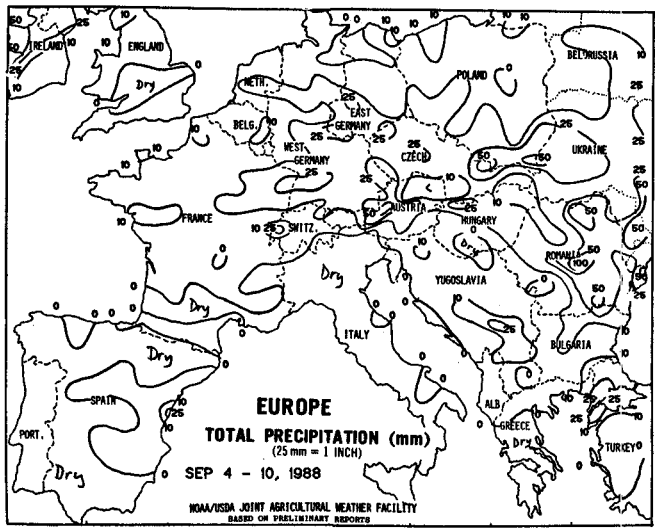
CANADA ... Late-week showers slow Prairie crop harvesting. Scattered frost in the northwest likely affects some late planted, immature crops.



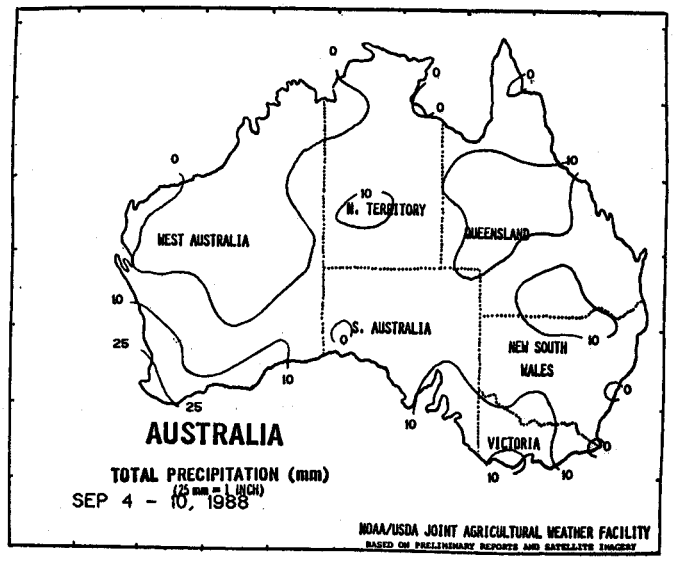
USSR ... In Western USSR, a slow moving storm system, located in the southern Ukraine on September 7, intensified rapidly, producing the first substantial rain in recent weeks over the southern and eastern Ukraine, and the northern North Caucasus. The storm also produced significant rain over the northern Ukraine and the southern Black Soils Region. Rainfall amounts from the storm ranged from 25 to 60mm, with isolated locations receiving rainfall in excess of 80mm. Gusty winds accompanied the rain, creating the potential for crop lodging. Although the rain was unfavorable for maturing corn and caused early harvest delays, it provided excellent soil moisture for winter wheat planting which usually begins around September 1. In northern crop areas of the Baltic States, Belorussia, the Central Region, the upper Volga, and the Volga Vyatsk, generally dry weather allowed late-season harvest. Weather conditions for emergence and early growth of winter grains in these areas have been mostly favorable.



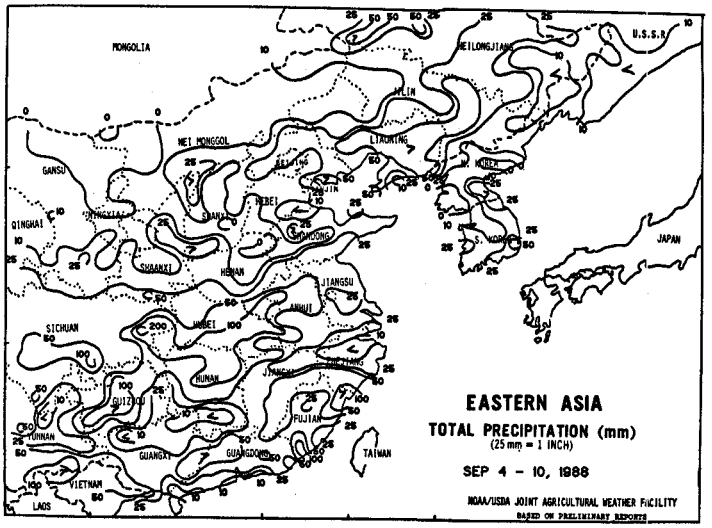
In crop areas east of the Ural mountains (New Lands), spring grain harveting was well underway. Widespread showers (25 to 50mm) in the Urals and crop areas around Novosibirsk delayed harvesting. Warm and mostly dry weather in Kazakhstan allowed the spring grain harvest to progress rapidly.



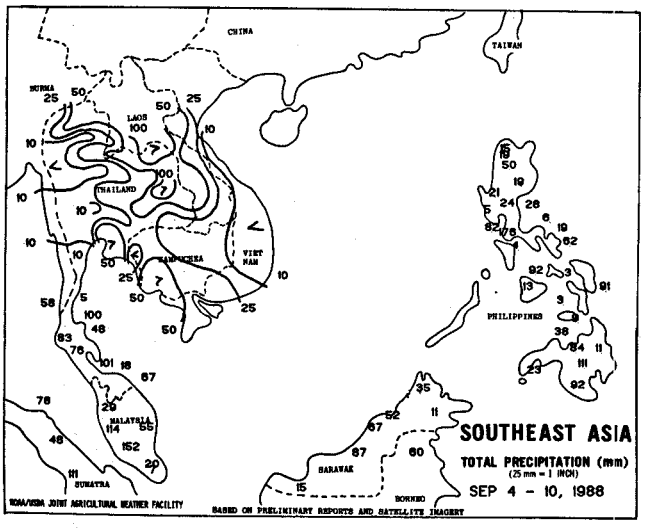
EUROPE ... Mostly dry weather favored a resumption of winter grains harvest across the United Kingdom and sections of northern West and East Germany. Scattered light to moderate rain (5-15mm) over the remainder of northwestern Europe caused only minor delays. Hot and dry weather covered southwestern Europe, with weekly mean temperatures as much as 7 degrees Celsius (C) above normal in Spain. The dryness favored corn harvesting and fall tillage in advance of winter grain planting. In the east, widespread rainfall (5-25mm, with isolated rain greater than 25mm) covered most crop areas, including the southern Balkans, where precipitation has been well below normal since July. The rain delayed harvest of summer crop but increased soil moisture levels for germination of early planted winter grains.



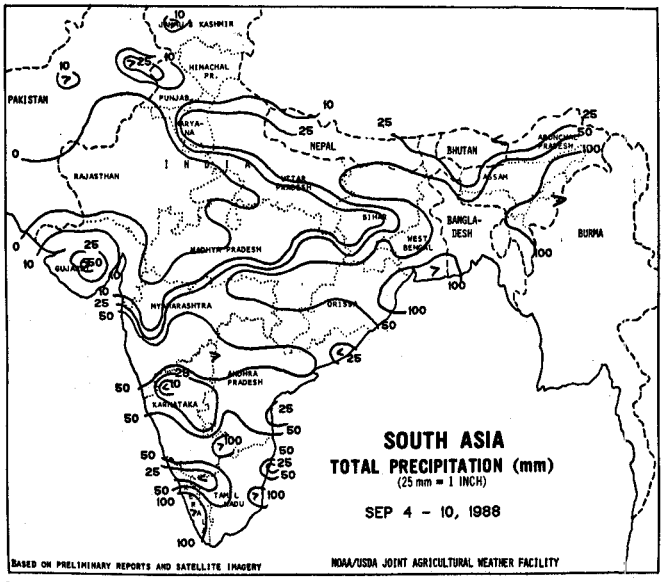
AUSTRALIA ... Moderate to heavy rain (15-40mm) fell over crop areas in Western Australia, benefiting vegetative winter grains mainly in the jointing stage. Light to moderate rain (5-20mm) covered wheat areas of South Australia, Victoria, New South Wales, and southern Queensland. Above-normal temperatures led to rapid development of winter cereals in all growing areas. Light to moderate rain (5-20mm) in western New South Wales and south-central Queensland favored rapid growth of forages and improvements in rangeland conditions. In coastal Queensland, scattered light showers (less than 10mm) caused only minor delays in sugarcane harvest.



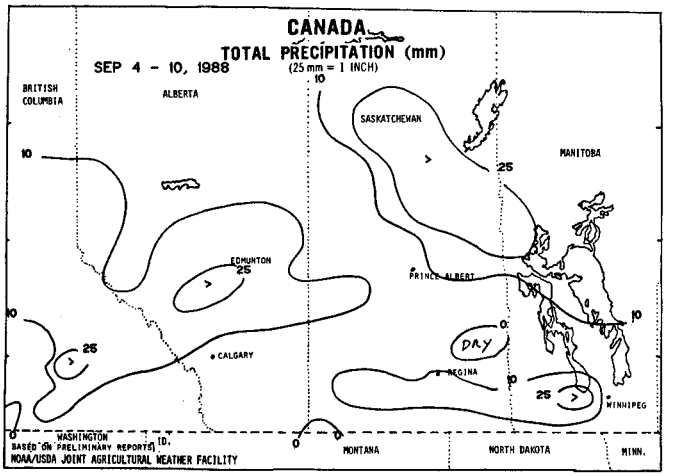
EASTERN ASIA ... Heavy rain (40-100mm) continued over much of China's Yangtze Valley, benefiting reproductive late crop rice but delaying harvest of the single season crop. Very heavy rain (100-200mm, with isolated rainfall greater than 200mm) likely led to a continuation of flooding in sections of eastern Sichuan, Guizhou, Hunan, and southern Hebei. In the north, heavy rain (30-60mm, with scattered rainfall greater than 75mm) caused delays in harvest of summer crops across much of Heilongjiang, Jilin, Liaoning, and northern Hebei. Heavy rain (50-150mm) also caused possible flooding across sections of southern Japan. Moderate to heavy rain (20-80mm) in coastal Fujian and southern Zheijiang helped alleviate persistent dryness. In the North China Plain, light to moderate rain (5-20mm) led to only minor delays in early summer crop harvest and fall planting across southern Hebei, northern Hunan, and Shandong. Mean temperatures for the week were near normal to above normal in most crop areas.



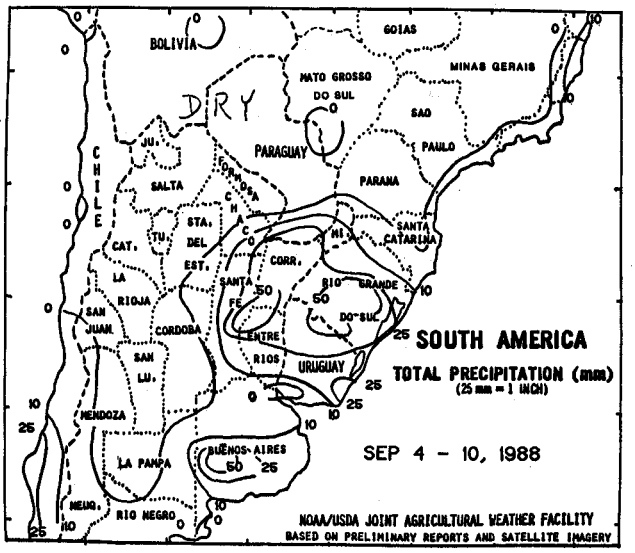
SOUTHEAST ASIA ... Much needed rain (25-157mm) covered rainfed rice regions of eastern Thailand that had been persistently drier than normal. Elsewhere in Thailand, light to moderate rain (10-50mm or more) maintained mostly favorable conditions for rainfed crop development, but corn harvesting slowed. Mostly light to moderate showers continued over Kampuchea, Laos, and Vietnam. In the Philippines, scattered showers covered the islands with heaviest rainfall (50-100mm or more) over southern Luzon, Mindanao, and isolated portions of the central islands.



SOUTH ASIA ... Moderate to heavy showers (25-100mm or more) continued over most crop regions of India's southern interior, benefiting filling summer crops. In central India, rain (10-50mm or more) maintained favorable conditions for reproductive to filling crops in Gujarat and from eastern Madhya Pradesh to Orissa. Dry, warmer-than-normal weather, however, continued elsewhere for the second week, reducing moisture reserves. Only scattered showers (as much as 47mm) fell in the north from northern Pakistan to eastern Uttar Pradesh. Temperatures in the north averaged 1-3 degrees C above normal and maximum temperatures ranged from 37 to 41 degrees C, stressing immature crops. Unfavorably wet weather continued in the east, with rainfall ranging from 50 to 192mm from northern Bihar through Bangladesh to Assam, worsening flood conditions.



CANADA ... Late-week, light to moderate rain (1-28mm) swept across the Prairie Provinces, causing some harvest delays in Alberta and western Saskatchewan. The wet, cooler weather was also unfavorable for maturing crops in the northwest. Temperatures averaged above normal across the Prairies but, by week's end, dipped below freezing locally over northern Alberta and northwestern Saskatchewan, possibly damaging some late planted crops.



SOUTH AMERICA ... A late-week storm moved across southern Argentina, producing beneficial rain for emerging wheat in southern Buenos Aires. Rainfall generally averaged 10-20mm except for an isolated heavier shower in the southwest of the province. Dryness continued, however, in northern Buenos Aires, western Santa Fe and Cordoba, where rain is urgently needed for wheat growth. Moist air brought substantial rain (25-83mm) to northeastern Argentina, mostly outside of the major wheat growing areas. The rain also covered the northern two-thirds of Uruguay and the southern two-thirds of Rio Grande do Sul, Brazil. The moisture helped wheat growth in extreme southern Brazil, but showers diminished further north. Weekly rainfall averaged 1-8mm in northern Rio Grande do Sul and Santa Catarina. Dry weather covered Parana northward into the citrus and coffee areas of Sao Paulo and Minas Gerais.

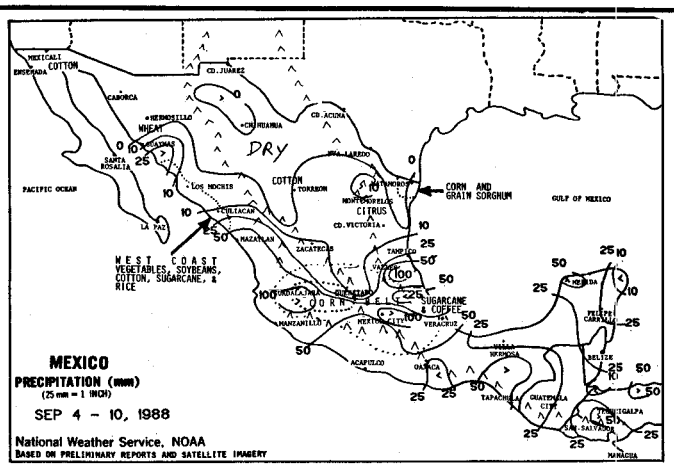
The Weekly Weather and Crop Bulletin (ISSN 0043-1974) is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the Weekly Weather Chronicle. It is issued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

Annual subscriptions: domestic $25, foreign $33 (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 Weekly Weather and Crop Bulletin, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, D.C. 20250. Order subscriptions from the office and address listed above. Second class postage paid at Washington, D.C. and additional mailing offices.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service/Climate Analysis Center
Managing Editor (Acting) . . . . Douglas Le Comte
Meteorologists . . . . . Tom Heddinghaus
Vilhelm Bjerknes, Wes Byrd, Jeff Logan, and Jeff Savadel

Subscriptions (202) 447-7917

U.S. DEPARTMENT OF AGRICULTURE
Economics Management Staff
Editor . . . . . Sharon Lee
National Agricultural Statistics Service
Agricultural Statistician . . . Tom Kurtz
World Agricultural Outlook Board
Agricultural Weather Analysts. . Ray Motha,
Tom Puterbaugh, Mark Brusberg, and Jeff Andresen



MEXICO ... Mostly dry, hot weather prevailed in the northwest with extreme maximum temperatures reaching 37-42 degrees C. The dryness stretched southward to include most of the west coast farming region, where extreme highs also hit the upper thirties C. In contrast, heavy rain (50-75mm) soaked western and southern portions of the Southern Plateau corn belt, providing ample moisture for filling grains. Heavier, isolated downpours (100-166mm) were scattered throughout the corn belt, likely causing some flooding and delaying early harvesting. Widespread tropical showers fell over southern Mexico, benefiting early corn growth. Mostly light showers (less than 5mm) caused minimal harvest delays in north-central cotton areas and northeastern grain areas.

(Continued from p.22)

4% avg. Feed, roughage supplies 21% very short, 60% short, 19% adequate.

WYOMING: Temperatures 1 to 8° above normal. No precipitation.

Days suitable for fieldwork 7.0. Topsoil moisture 100% short. Barley 5% mature, 5% 1987, 10% avg.; 95% harvested, 95% 1987, 90% avg. Spring wheat most harvested, 95% 1987, 90% avg. Oats 5% mature, 10% 1987, 15% avg.; 95% harvested, 90% 1987, 85% avg. Dry beans 100% leaves turning color, 100% 1987; 80% windrowed, 60% 1987, 50% avg.; 45% combined, 30% 1987, 35% avg. Corn 10% milk, 10% 1987, 5% avg.; 30% dough, 35% 1987, 35% avg.; 45% dented, 55% 1987, 50% avg.; 15% mature, 5% 1987, 10% avg. Corn silage 25% harvested, 30% 1987, 30% avg. Potatoes 10% harvested, 10% 1987, 15% avg. Winter wheat 25% seeded, 35% 1987, 60% avg.; 5% emerged, 10% 1987, 25% avg. Alfalfa 2nd cutting 95%, 95% 1987, 90% avg.; 3rd cutting 45%, 30% 1987, 25% avg. Roughage supplies 15% very short, 60% short, 25% adequate. Livestock feed obtained from pastures 85%.

NOAA/USDA Joint Agricultural
Weather Facility
Room 5844 USDA South Building
Washington, D.C. 20250

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

WEEKLY NEWS BULLETIN
SECOND CLASS

SECOND CLASS MAIL
POSTAGE AND FEES PAID
NOAA PERMIT NO.

ISSN 0043 1974