WEEKLY WEATHER AND CROP BULLETIN

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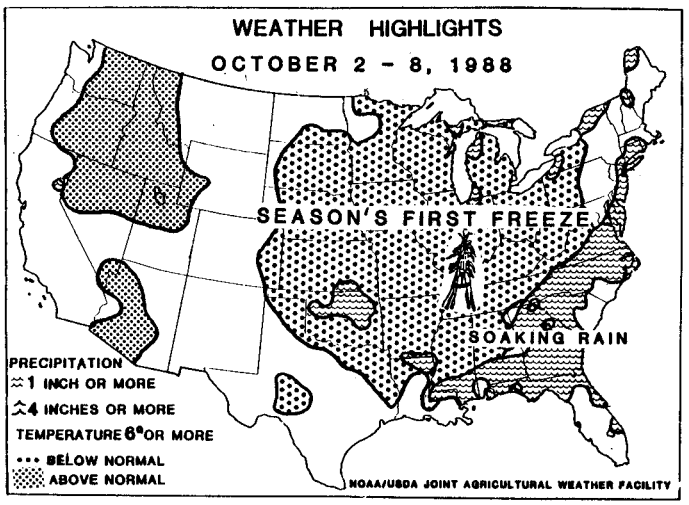
National Weather Summary

October 2-8, 1988



HIGHLIGHTS: A large, cold Canadian air mass spread over the central and eastern portions of the Nation. Numerous stations reported freezing and/or record-low temperatures for the date. The West enjoyed pleasant, warm weather. A storm system brought substantial rain to the Southeast early in the week, and persistent rain covered the central Plains. The Corn Belt and northern and central Great Plains had dry harvest weather.

SUNDAY...Rain showers covered the eastern third of the country with heavy amounts in the South. Clear skies prevailed over the remainder of the Nation. Brisk, northerly winds ushered cool air into the central United States. Warm weather continued in the West.

MONDAY...Showers continued over the eastern seaboard. A strong cold front over the north-central States spread southward, bringing in the coldest air of the season so far. Pleasant, warm weather prevailed west of the Rockies.

TUESDAY...Cold, Canadian air pushed into the north-central United States as the front moved southeastward. Record-low temperatures for the date occurred through the Dakotas and Nebraska. Bismarck, North Dakota had a record low 17 degrees, 5 degrees colder than the previous record. Rain, sleet, and snow fell from the Great Lakes to New England. Rain showers were scattered over the middle Atlantic States and the central Plains.

WEDNESDAY...Cold, Canadian air continued to spread across the north-central United States toward the Appalachian Mountains. Many areas received their first freeze of the season. Record-low temperatures were broken throughout the upper and middle Mississippi Valley. Showers remained over the Northeast and central Plains.

THURSDAY...The cold air mass continued to slide to the Southeast over the Appalachians, New England, and the central Atlantic coast. Freezing and record-low temperatures spread into the upper Ohio Valley. Showers persisted over the Northeast and the central Plains.

FRIDAY...High pressure and clear skies prevailed from New England to the middle Mississippi Valley. Rain showers extended down the Atlantic seaboard and over the lower Great Lakes. Showers remained in the central Great Plains and were widely scattered over the central and southern Rockies.

SATURDAY...High pressure and fair weather dominated much of the Nation. Rain with snow in the higher elevations fell over New England, while cool air flowing over the warm waters of the lower Great Lakes caused scattered showers. An upper-level disturbance moved across the lower Mississippi Valley producing showers and thunderstorms.

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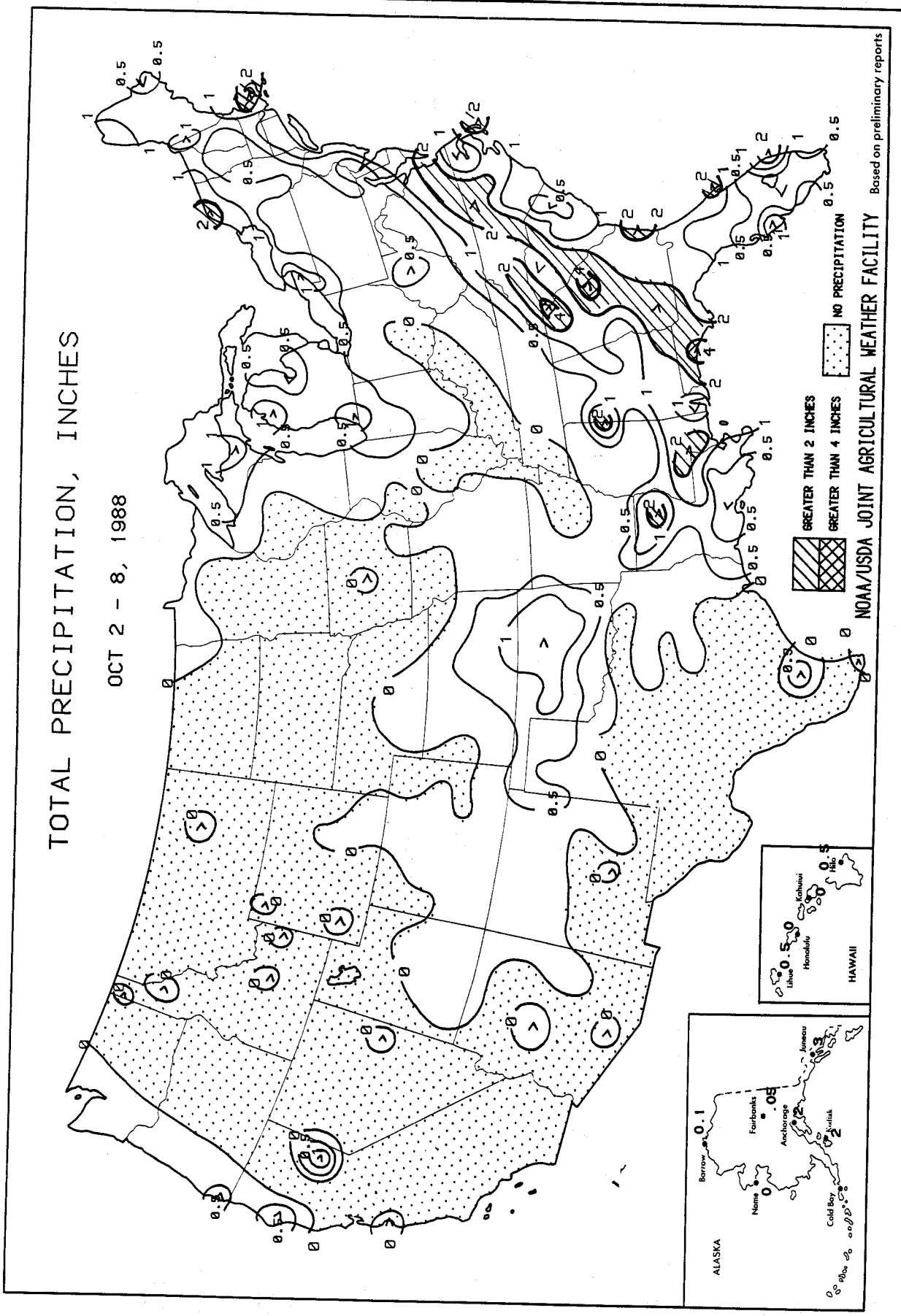
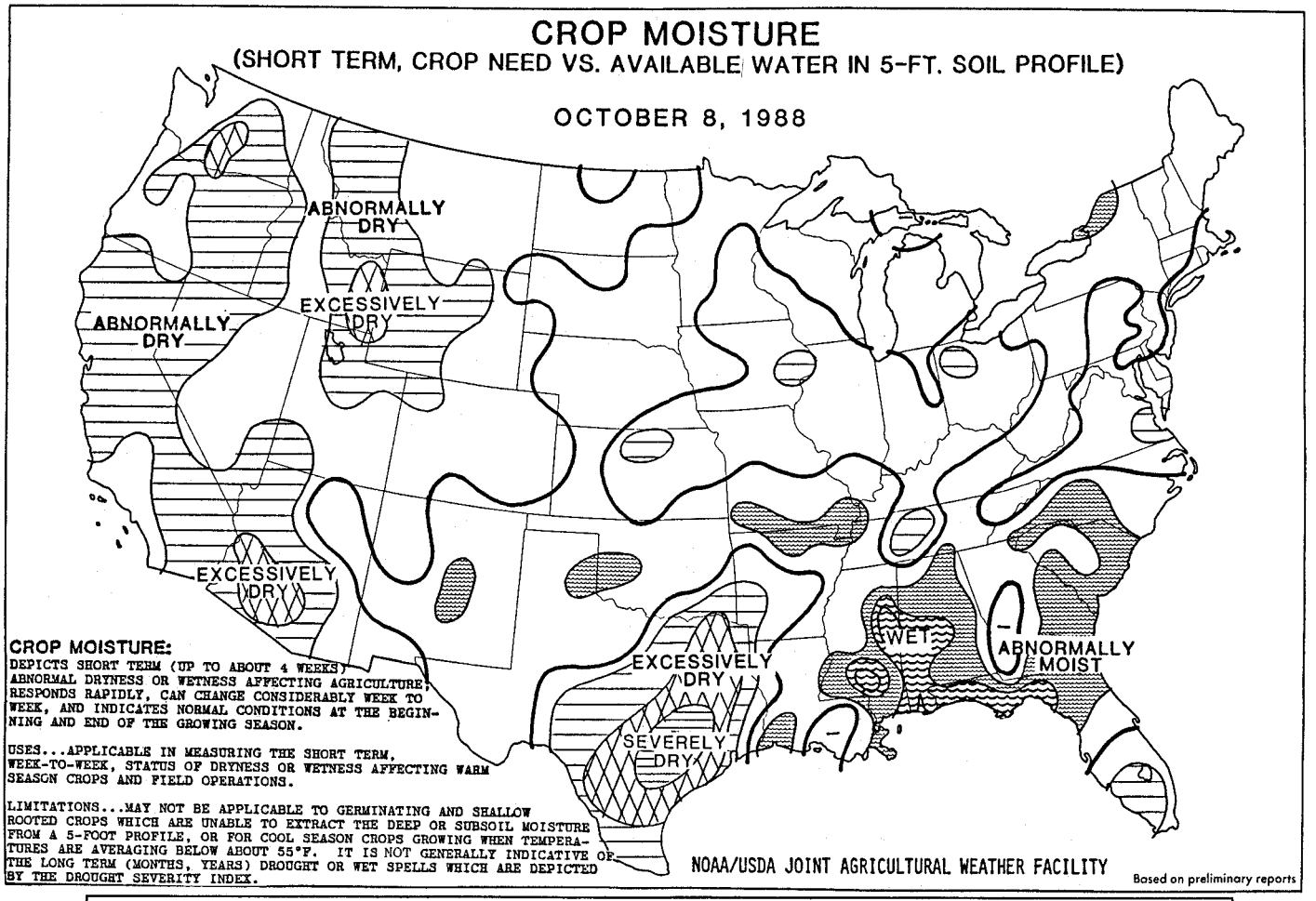
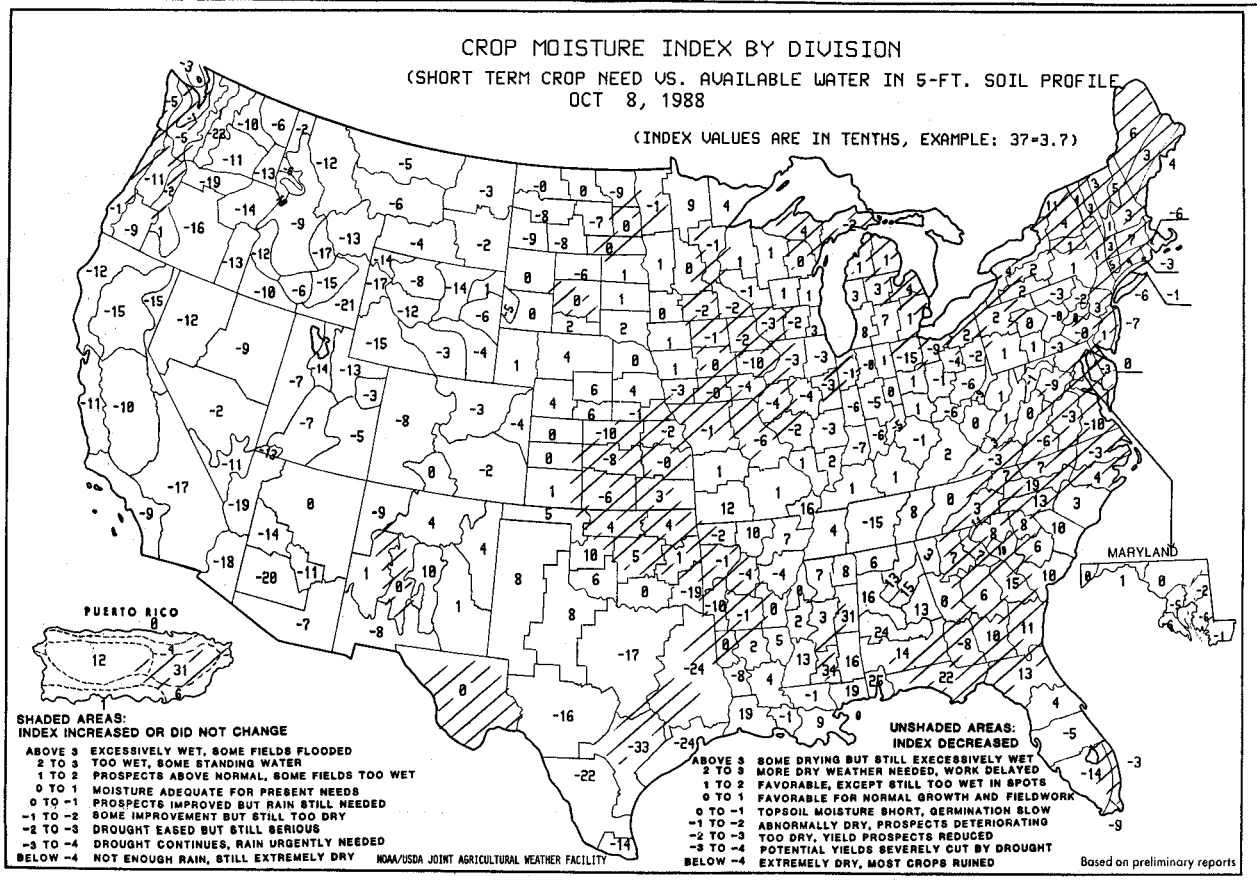
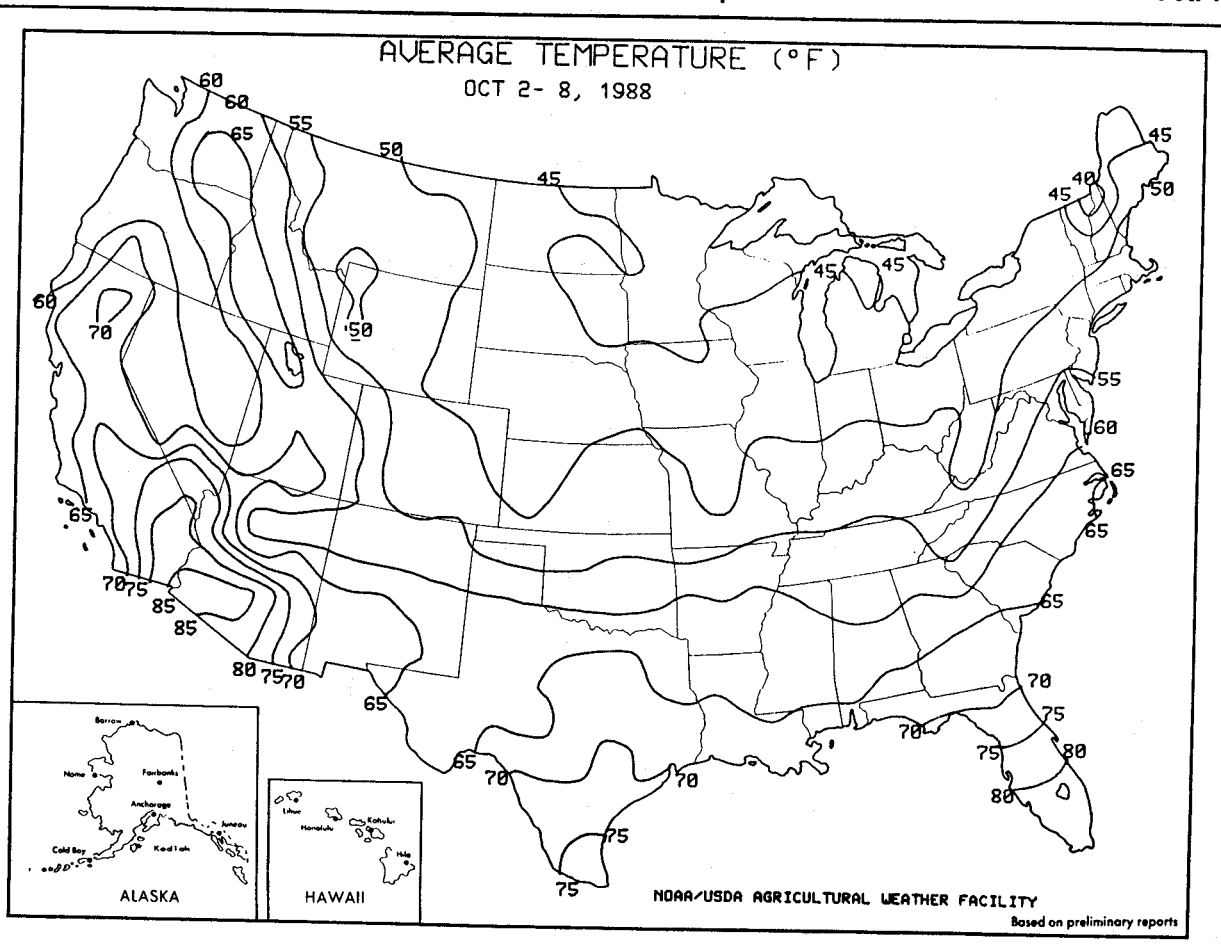
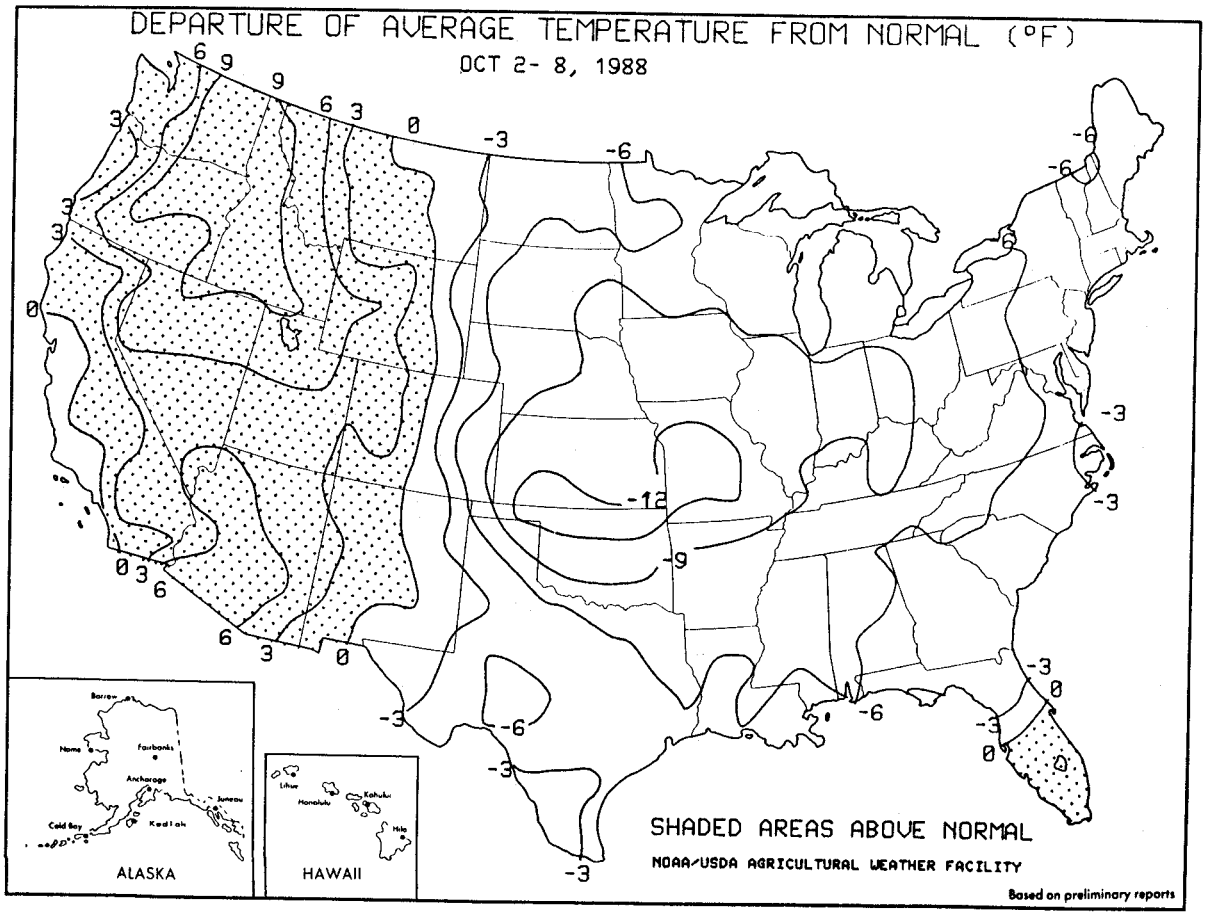

TOTAL PRECIPITATION, INCHES
OCT 2 - 8, 1988
GREATER THAN 2 INCHES
GREATER THAN 4 INCHES
NO PRECIPITATION
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports
ALASKA
Barrow
Nome
Fairbanks
Anchorage
Kodiak
Cold Bay
Juneau
HAWAII
Lihue
Honolulu
Kahului
Hilo


CROP MOISTURE
(SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)
OCTOBER 8, 1988
ABNORMALLY DRY
EXCESSIVELY DRY
ABNORMALLY DRY
EXCESSIVELY DRY
EXCESSIVELY DRY
SEVERELY DRY
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
OCT 8, 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


AVERAGE TEMPERATURE (°F)
OCT 2- 8, 1988
ALASKA
HAWAII
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
OCT 2- 8, 1988
ALASKA
HAWAII
SHADED AREAS ABOVE NORMAL
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

National Weather Data for Selected Cities

Weather Data for the Week Ending October 8, 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	70	48	75	40	59	-7	.1	-.5	.1	9.0	179	30.6	70	96	46	0	0	1	0
MOBILE	75	55	78	48	65	-7	1.0	.2	1.0	15.6	214	57.9	108	88	45	0	0	2	1
MONTGOMERY	74	53	77	43	64	-5	.9	.2	.8	10.1	188	50.1	126	95	48	0	0	2	1
AK ANCHORAGE	46	38	52	33	42	3	2.4	1.9	.6	3.7	124	11.2	96	94	71	0	0	7	3
BARROW	19	6	30	-4	13	-7	.2	0	.1	.6	82	3.3	88	94	82	0	7	2	0
FAIRBANKS	36	26	50	16	31	-1	.6	.5	.2	1.4	109	8.9	105	93	72	0	6	5	0
JUNEAU	54	45	59	38	50	5	3.7	1.9	1.4	9.1	107	40.4	107	98	75	0	0	6	3
KODIAK	51	40	55	29	46	2	2.3	.7	1.3	10.7	131	59.4	133	96	62	0	1	6	1
NOME	35	22	45	14	28	-4	T	-.3	T	1.4	51	11.1	91	86	48	0	7	0	0
AZ PHOENIX	101	74	105	71	88	10	0	-.1	0	0	0	3.9	76	32	12	7	0	0	0
PRESCOTT	82	49	86	43	65	7	.1	-.1	.1	.2	13	13.0	86	57	17	0	0	1	0
TUCSON	96	64	99	61	80	6	0	-.2	0	.8	52	8.8	98	42	13	7	0	0	0
YUMA	103	74	109	70	88	8	0	-.1	0	T	13	2.3	133	44	12	7	0	0	0
AR FORT SMITH	68	49	82	44	59	-8	.4	-.3	.2	6.1	153	26.8	86	96	48	0	0	3	0
LITTLE ROCK	68	51	77	43	59	-8	T	-.7	T	1.8	35	28.7	75	68	39	0	0	0	0
CA BAKERSFIELD	86	57	92	52	71	0	0	-.1	0	0	0	3.0	75	78	35	1	0	0	0
EUREKA	61	53	66	51	57	2	.4	-.1	.3	.5	35	16.4	68	93	81	0	0	3	0
FRESNO	86	55	90	53	70	2	0	-.1	0	0	0	5.5	77	85	33	2	0	0	0
LOS ANGELES	71	60	80	59	66	-2	0	0	0	.1	64	4.7	55	89	64	0	0	0	0
REDDING	88	52	95	48	70	0	0	-.3	0	0	0	16.9	63	74	20	3	0	0	0
SACRAMENTO	82	53	88	51	68	1	0	-.1	0	0	0	6.9	62	91	35	0	0	0	0
SAN DIEGO	73	63	81	62	68	0	0	-.1	0	T	0	6.7	100	91	64	0	0	0	0
SAN FRANCISCO	70	54	78	52	62	0	0	-.2	0	T	8	7.3	57	94	59	0	0	0	0
CO DENVER	67	39	81	36	53	-3	T	-.2	T	.9	64	13.5	103	90	38	0	0	1	0
GRAND JUNCTION	76	50	83	45	63	3	0	-.2	0	.7	80	6.6	109	64	26	0	0	0	0
PUEBLO	68	40	81	33	54	-4	T	-.2	T	1.8	180	10.7	112	95	38	0	0	0	0
CT BRIDGEPORT	60	49	75	38	55	-5	1.4	.7	.5	3.7	91	27.8	89	86	56	0	0	4	0
HARTFORD	60	42	77	30	51	-5	1.1	.3	.5	3.0	62	29.4	88	92	56	0	2	3	0
DC WASHINGTON	65	49	80	40	57	-6	.4	-.3	.3	2.2	57	23.7	77	91	49	0	0	4	0
FL APALACHICOLA	81	62	88	53	72	-2	1.6	.6	1.6	12.0	124	58.0	124	86	46	0	0	1	1
DAYTONA BEACH	82	67	88	57	74	-2	1.1	-.1	1.1	7.9	98	33.1	82	90	59	0	0	4	1
JACKSONVILLE	78	60	89	51	69	-4	1.9	.9	1.9	18.6	245	55.2	123	94	57	0	0	1	1
KEY WEST	88	77	89	75	82	1	.2	-1.1	.1	4.1	53	35.4	115	88	65	0	0	4	0
MIAMI	89	75	93	70	82	3	.5	-1.3	.2	4.5	45	43.7	91	93	58	3	0	4	0
ORLANDO	86	69	92	59	77	0	1.4	.5	.9	7.0	96	44.0	101	89	55	2	0	2	1
TALLAHASSEE	79	57	87	44	68	-4	2.0	1.2	1.9	6.0	82	42.9	79	94	48	0	0	2	1
TAMPA	86	67	91	57	76	-1	.1	-.6	.1	13.7	198	44.7	109	90	55	1	0	2	0
WEST PALM BEACH	89	74	93	69	81	2	2.7	.7	2.7	4.5	39	58.4	120	92	58	2	0	4	1
GA ATLANTA	70	53	76	48	62	-4	1.7	1.1	1.6	10.0	264	38.4	98	84	47	0	0	2	1
AUGUSTA	74	54	86	39	64	-3	2.9	2.4	2.9	8.5	208	36.0	99	94	47	0	0	2	1
MACON	74	55	85	41	64	-5	2.3	1.8	1.7	8.3	218	38.1	103	95	50	0	0	2	2
SAVANNAH	75	58	89	46	66	-4	1.4	.7	1.4	11.0	188	44.3	101	91	47	0	0	1	1
HI HILO	86	70	88	68	78	2	.7	-1.2	.4	12.0	137	93.2	101	88	56	0	0	4	0
HONOLULU	90	73	91	69	81	2	T	-.3	T	.9	89	8.2	54	84	46	5	0	0	0
KAHULUI	87	68	88	64	77	-1	0	-.1	0	.2	60	13.1	104	88	55	0	0	0	0
LIHUE	84	74	85	70	79	1	.2	-.6	.1	1.3	41	26.6	90	90	66	0	0	3	0
ID BOISE	84	49	87	46	67	11	0	-.1	0	.2	33	7.1	86	53	19	0	0	0	0
LEWISTON	82	51	85	50	66	10	0	-.2	0	.4	40	7.3	75	73	30	0	0	0	0
POCATELLO	82	37	84	35	59	7	0	-.2	0	T	5	4.6	57	72	15	0	0	0	0
IL CHICAGO	60	38	67	30	49	-9	.6	0	.5	4.6	98	20.3	71	89	39	0	2	2	1
MOLINE	61	35	68	29	48	-9	.1	-.6	.1	2.7	60	19.4	62	91	33	0	3	1	0
PEORIA	61	37	69	31	49	-9	T	-.6	T	3.1	71	15.0	51	87	30	0	2	0	0
QUINCY	62	37	70	30	49	-10	T	-.8	T	1.5	30	13.6	43	87	33	0	2	0	0
ROCKFORD	59	34	66	27	46	-10	T	-.7	T	2.9	65	17.3	57	94	40	0	3	1	0
SPRINGFIELD	62	37	71	30	50	-10	T	-.7	T	3.2	81	16.3	58	91	33	0	2	0	0
IN EVANSVILLE	68	39	77	34	53	-8	0	-.5	0	1.7	52	25.4	77	96	31	0	0	0	0
FORT WAYNE	59	39	66	32	49	-8	.2	-.4	.2	2.3	73	25.2	91	94	42	0	1	1	0
INDIANAPOLIS	63	37	71	31	50	-9	T	-.5	T	1.4	42	21.6	70	96	35	0	1	1	0
SOUTH BEND	58	40	63	33	49	-9	1.1	.3	.9	6.0	148	24.9	83	92	48	0	0	3	1
IA DES MOINES	59	35	65	30	47	-11	T	-.5	T	2.9	79	17.3	65	90	39	0	3	0	0
SIOUX CITY	60	35	66	26	47	-10	0	-.5	0	5.2	172	20.5	91	93	41	0	3	0	0
WATERLOO	60	29	67	24	44	-11	T	-.6	T	1.7	40	15.2	54	93	36	0	6	0	0
KS CONCORDIA	59	43	75	39	51	-10	T	-.5	T	1.1	31	13.4	55	84	47	0	0	2	0
DODGE CITY	58	42	74	39	50	-12	.5	.1	.2	3.3	151	14.7	80	96	59	0	0	5	0
GOODLAND	56	38	73	32	47	-10	T	-.2	T	2.2	131	20.0	138	93	52	0	1	0	0
TOPEKA	62	39	73	33	51	-11	T	-.7	T	1.9	46	17.4	61	90	39	0	0	0	0
WICHITA	60	46	74	40	53	-11	.8	.2	.4	1.4	34	15.8	64	90	51	0	0	2	0
KY BOWLING GREEN	65	42	72	34	53	-9	0	-.6	0	8.2	212	31.4	81	97	39	0	0	0	0
LEXINGTON	64	40	73	33	52	-9	0	-.5	0	6.1	159	28.7	77	91	39	0	0	0	0
LOUISVILLE	67	44	75	36	55	-7	T	-.6	T	1.8	44	27.0	78	89	34	0	0	0	0
LA ALEXANDRIA	76	55	79	50	65	-6	.3	-.3	.3	4.8	132	34.4	84	77	38	0	0	2	0
BATON ROUGE	77	54	82	49	66	-6	.4	-.2	.4	11.0	216	63.7	141	86	40	0	0	1	0
LAKE CHARLES	79	55	81	50	67	-5	.3	-.7	.3	9.0	134	49.1	116	87	38	0	0	1	0
NEW ORLEANS	76	61	80	55	68	-4	.6	-.1	.6	7.4	112	67.2	139	80	46	0	0	1	1

Based on 1951-80 normals

Weather Data for the Week Ending October 8, 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	75	53	78	47	64	-7	.4	-.2	.3	2.1	53	22.3	65	88	38	0	0	2	0
ME CARIBOU	51	35	71	24	43	-4	.8	.1	.5	2.6	61	23.4	84	97	53	0	4	4	0
PORTLAND	56	42	71	30	49	-3	.7	-.1	.4	2.2	52	30.8	98	94	54	0	2	4	0
MD BALTIMORE	65	45	80	37	55	-5	.2	-.5	.1	2.3	54	25.2	76	95	51	0	0	3	0
SALISBURY	66	45	81	34	56	-5	1.7	.8	.7	4.5	91	37.0	103	97	57	0	0	4	2
MA BOSTON	59	46	79	36	53	-5	1.1	.4	.7	2.4	57	26.7	82	93	62	0	0	5	1
CHATHAM	59	49	71	40	54	-2	2.3	1.5	1.5	3.6	78	26.8	77	92	69	0	0	5	1
MI ALPENA	54	33	59	28	44	-7	.4	-.1	.2	2.6	71	20.0	86	97	51	0	3	3	0
DETROIT	58	39	65	33	49	-8	.8	.3	.5	4.5	164	17.9	73	89	44	0	0	2	1
FLINT	57	36	65	29	47	-8	.6	.1	.5	3.7	131	19.3	83	94	48	0	1	3	1
GRAND RAPIDS	56	37	62	29	47	-8	.7	.1	.4	9.1	232	25.9	99	99	50	0	2	4	0
HOUGHTON LAKE	53	35	60	27	44	-7	.5	0	.3	4.3	127	20.1	90	93	51	0	3	2	0
LANSING	56	36	61	27	46	-8	.8	.4	.6	6.9	200	23.4	99	97	50	0	3	4	1
MARQUETTE	49	31	58	28	40	-9	1.3	.6	.6	5.3	111	27.6	93	94	63	0	5	4	1
MUSKEGON	57	39	64	32	48	-7	.6	0	.3	6.7	183	22.7	95	96	52	0	2	4	0
SAULT ST. MARIE	52	34	58	29	43	-6	.3	-.4	.2	4.4	94	22.4	88	97	53	0	3	2	0
MN ALEXANDRIA	57	35	67	30	46	-5	0	-.5	0	4.2	151	20.4	95	88	43	0	2	0	0
DULUTH	52	31	66	21	42	-7	.1	-.5	.1	6.3	164	26.7	107	93	49	0	3	2	0
INT'L FALLS	54	30	66	20	42	-5	.1	-.4	.1	4.0	110	21.8	105	94	40	0	3	1	0
MINNEAPOLIS	58	35	66	29	47	-7	T	-.5	T	2.8	94	14.7	65	85	37	0	1	0	0
ROCHESTER	57	31	63	26	44	-9	0	-.6	0	3.8	94	17.0	70	88	38	0	4	0	0
MS GREENWOOD	74	50	83	42	62	-6	.1	-.5	.1	7.9	198	25.1	61	88	37	0	0	1	0
JACKSON	73	52	77	46	63	-6	.2	-.4	.2	5.2	127	30.3	74	97	38	0	0	1	0
MERIDIAN	72	49	79	42	61	-7	.3	-.3	.3	10.7	251	38.9	92	97	43	0	0	1	0
MO CAPE GIRARDEAU	65	41	74	35	53	--	0	-.6	0	9.2	211	28.2	80	96	40	0	0	0	0
COLUMBIA	61	38	70	33	49	-13	T	-.8	T	2.4	50	21.6	71	93	40	0	0	1	0
KANSAS CITY	60	39	69	34	50	-13	0	-.9	0	8.5	161	21.2	69	88	43	0	0	0	0
SAINT LOUIS	64	44	72	38	54	-8	T	-.5	T	2.5	75	22.7	83	84	35	0	0	0	0
SPRINGFIELD	60	41	69	33	50	-12	.3	-.5	.2	5.4	105	38.2	120	95	46	0	0	2	0
MT BILLINGS	68	40	79	36	54	1	0	-.3	0	2.1	135	8.2	66	69	30	0	0	0	0
GLASGOW	65	36	75	28	51	0	0	-.2	0	1.0	91	6.8	69	69	26	0	3	0	0
GREAT FALLS	68	37	79	32	53	1	0	-.2	0	2.3	191	9.9	76	80	32	0	1	0	0
HAVRE	68	32	77	26	50	-1	0	-.2	0	1.5	129	5.3	51	81	29	0	4	0	0
HELENA	69	37	72	32	53	4	0	-.2	0	2.1	209	8.4	85	88	35	0	1	0	0
KALISPELL	72	37	74	32	55	8	0	-.2	0	2.1	159	11.1	91	95	34	0	1	0	0
MILES CITY	66	39	75	36	52	-1	0	-.2	0	1.1	83	3.5	28	63	26	0	0	0	0
MISSOULA	75	36	77	33	56	7	0	-.2	0	.5	41	9.2	88	86	27	0	0	0	0
NE GRAND ISLAND	58	39	72	29	49	-9	0	-.3	0	3.3	118	20.2	96	89	47	0	1	0	0
LINCOLN	62	38	72	31	50	-9	T	-.5	T	5.2	151	15.7	65	90	41	0	1	0	0
NORFOLK	60	33	71	26	47	-9	0	-.4	0	5.5	222	22.8	106	93	39	0	4	0	0
NORTH PLATTE	57	35	74	29	46	-9	T	-.2	T	1.6	84	18.4	104	97	49	0	2	1	0
OMAHA	61	39	68	32	50	-9	0	-.6	0	3.6	88	18.6	69	79	47	0	1	0	0
SCOTTSBLUFF	61	37	77	33	49	-5	T	-.2	T	1.0	76	14.4	110	86	42	0	0	0	0
VALENTINE	60	34	75	22	47	-7	0	-.2	0	1.7	101	19.1	122	81	37	0	3	0	0
NV ELY	76	35	83	30	55	6	T	-.1	T	.2	21	6.2	86	62	18	0	2	1	0
LAS VEGAS	93	64	97	57	79	6	0	-.1	0	T	0	2.2	71	32	13	5	0	0	0
RENO	83	41	88	39	62	9	0	-.1	0	T	13	2.5	48	60	11	0	0	0	0
WINNEMUCCA	85	38	89	35	61	9	0	-.1	0	.3	58	4.5	80	45	10	0	0	0	0
NH CONCORD	56	41	78	28	49	-3	.4	-.3	.3	2.0	51	26.4	97	95	55	0	2	3	0
NJ ATLANTIC CITY	63	44	80	33	54	-6	1.1	.5	.6	4.2	117	26.5	82	97	62	0	0	5	1
NM ALBUQUERQUE	75	51	81	45	63	1	.3	.1	.3	3.0	284	12.9	200	80	30	0	0	2	0
CLOVIS	73	48	83	46	60	-2	T	-.4	T	2.7	114	19.4	131	90	36	0	0	2	0
ROSWELL	80	50	83	48	65	1	T	-.3	T	1.6	76	13.2	144	80	28	0	0	1	0
NY ALBANY	58	42	72	34	50	-4	T	-.6	T	1.5	39	22.6	82	98	59	0	0	3	0
BINGHAMTON	54	39	66	30	46	-6	.1	-.6	.1	2.2	53	27.0	94	97	59	0	2	4	0
BUFFALO	57	42	70	33	49	-6	1.3	.7	.5	3.4	85	28.4	101	97	60	0	0	6	2
NEW YORK	61	51	79	40	56	-5	1.2	.4	.5	3.7	88	29.6	90	86	54	0	0	5	1
ROCHESTER	56	39	72	32	48	-8	.4	-.2	.2	2.1	64	20.0	82	100	67	0	1	4	0
SYRACUSE	59	40	73	32	49	-6	.4	-.3	.1	2.2	55	25.4	85	97	57	0	1	5	0
NC ASHEVILLE	62	42	71	29	52	-7	2.2	1.4	1.6	5.2	112	21.0	59	100	55	0	1	2	2
CHARLOTTE	67	50	80	39	59	-6	1.2	.6	1.2	5.7	132	27.6	79	88	49	0	0	2	1
GREENSBORO	65	47	75	36	56	-6	1.7	1.0	1.2	5.0	111	28.2	82	93	54	0	0	3	1
HATTERAS	72	61	85	53	67	-2	2.1	1.0	1.5	4.3	61	36.1	84	88	62	0	0	4	1
NEW BERN	72	56	87	43	64	-3	1.2	.3	.9	3.5	52	43.5	98	94	50	0	0	4	1
RALEIGH	69	48	83	37	58	-5	2.1	1.5	1.3	7.0	177	29.7	88	94	47	0	0	2	2
WILMINGTON	71	53	83	40	62	-6	.6	-.2	.6	3.4	52	53.0	118	93	57	0	0	3	1
ND BISMARCK	63	26	74	17	44	-6	T	-.2	T	.6	40	8.8	64	91	27	0	6	0	0
FARGO	59	32	72	23	46	-6	0	-.3	0	3.2	146	11.8	69	86	33	0	3	0	0
GRAND FORKS	61	29	74	21	45	-5	T	-.3	T	2.0	84	11.0	68	86	32	0	6	1	0
WILLISTON	62	30	74	25	46	-4	0	-.2	0	1.5	96	9.0	75	83	29	0	5	0	0
OH AKRON-CANTON	58	39	68	34	48	-8	.2	-.3	.1	5.2	147	25.1	87	98	54	0	0	4	0
CINCINNATI	63	38	74	31	51	-9	T	-.6	T	3.3	93	30.8	96	95	39	0	1	0	0
CLEVELAND	59	41	68	37	50	-7	.5	-.1	.2	2.3	65	20.6	74	92	49	0	0	5	0
COLUMBUS	62	37	71	31	49	-9	T	-.4	T	3.5	110	28.8	95	99	43	0	2	0	0

Weather Data for the Week Ending October 8, 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	60	39	67	34	50	-9	.1	-.4	.1	5.5	192	25.5	91	87	42	0	0	1	0
TOLEDO	60	34	68	27	47	-9	.1	-.3	.1	2.0	65	18.1	72	92	39	0	4	1	0
YOUNGSTOWN	57	37	70	31	47	-8	.4	-.2	.2	3.9	103	24.4	82	99	60	0	2	5	0
OK OKLAHOMA CITY	62	49	73	45	56	-11	.9	.2	.7	6.2	146	27.1	103	93	58	0	0	4	1
TULSA	61	48	74	44	55	-12	1.4	.5	1.0	6.7	127	27.0	84	93	58	0	0	3	1
OR ASTORIA	64	52	71	49	58	3	.1	-1.0	.1	1.4	30	32.8	76	98	75	0	0	1	0
BURNS	82	37	83	33	59	7	0	-.2	0	.1	15	5.0	73	59	14	0	0	0	0
MEDFORD	83	49	91	46	66	8	.1	-.2	.1	.3	32	7.2	60	88	29	1	0	1	0
PENDLETON	78	51	83	48	65	8	0	-.2	0	.3	41	7.6	93	72	35	0	0	0	0
PORTLAND	69	55	77	51	62	5	T	-.5	T	1.8	80	21.3	91	97	65	0	0	1	0
SALEM	67	48	76	44	58	2	.1	-.5	.1	1.1	46	19.9	80	97	66	0	0	1	0
PA ALLENTOWN	61	44	78	33	52	-5	.5	-.2	.3	3.7	78	31.8	92	97	54	0	0	3	0
ERIE	57	43	69	36	50	-6	1.7	.8	.7	4.9	100	26.7	88	93	58	0	0	6	2
HARRISBURG	62	45	76	37	54	-5	.2	-.5	.1	3.4	79	28.5	93	95	51	0	0	3	0
PHILADELPHIA	63	47	79	38	55	-5	.5	-.2	.4	3.1	75	30.5	94	94	55	0	0	4	0
PITTSBURGH	59	39	71	30	49	-8	T	-.6	T	2.4	70	20.8	70	97	55	0	1	2	0
SCRANTON	57	43	75	30	50	-5	.1	-.6	0	2.0	51	25.2	92	94	53	0	1	3	0
RI PROVIDENCE	60	44	76	35	52	-4	.9	.1	.5	3.3	75	28.9	86	94	62	0	0	6	0
SC CHARLESTON	73	57	88	46	65	-4	.5	-.3	.5	10.2	178	40.6	92	89	52	0	0	1	1
COLUMBIA	72	53	87	38	63	-5	.8	.1	.8	8.3	169	38.1	92	94	47	0	0	1	1
FLORENCE	73	53	86	41	63	-4	.3	-.3	.3	6.6	140	33.9	91	92	47	0	0	1	0
GREENVILLE	68	48	74	35	58	-6	1.9	1.0	1.6	6.6	117	30.7	74	95	54	0	0	2	1
SD ABERDEEN	59	31	70	25	45	-8	0	-.3	0	5.3	300	16.8	106	90	37	0	6	0	0
HURON	59	30	69	24	45	-9	0	-.3	0	3.7	213	17.5	107	91	36	0	5	0	0
RAPID CITY	62	33	78	26	47	-7	0	-.2	0	.6	46	8.9	61	76	31	0	2	0	0
SIOUX FALLS	58	31	65	22	44	-10	T	-.4	T	4.4	136	16.7	78	88	41	0	4	0	0
TN CHATTANOOGA	70	49	78	38	59	-5	.1	-.6	0	7.6	150	34.5	83	90	40	0	0	2	0
KNOXVILLE	67	47	76	33	57	-7	.2	-.4	.2	3.4	93	25.1	68	92	43	0	0	2	0
MEMPHIS	71	50	79	43	61	-6	0	-.5	0	5.0	121	30.5	75	81	36	0	0	0	0
NASHVILLE	69	45	79	36	57	-7	T	-.6	T	2.8	65	20.8	54	92	37	0	0	1	0
TX ABILENE	80	51	82	49	66	-4	0	-.6	0	1.7	47	14.4	74	81	30	0	0	0	0
AMARILLO	70	45	76	40	57	-6	.7	.3	.7	3.8	183	24.2	143	95	43	0	0	2	1
AUSTIN	82	58	85	55	70	-3	0	-.8	0	1.8	39	17.4	70	81	33	0	0	0	0
BEAUMONT	79	56	81	52	68	-6	.8	-.1	.8	11.1	176	42.3	97	85	38	0	0	1	1
BROWNSVILLE	85	62	86	61	74	-4	T	-1.0	T	7.5	118	21.1	103	94	47	0	0	1	0
CORPUS CHRISTI	83	63	85	60	73	-4	.4	-.5	.4	6.7	88	16.0	60	90	46	0	0	1	0
DEL RIO	79	58	82	55	69	-6	0	-.6	0	4.6	134	14.9	104	75	35	0	0	0	0
EL PASO	84	51	85	47	67	-1	0	-.2	0	1.5	94	9.8	151	69	23	0	0	0	0
FORT WORTH	77	54	79	51	66	-6	.2	-.5	.2	4.9	114	19.5	77	87	42	0	0	1	0
GALVESTON	78	66	83	61	72	-4	T	-.7	T	7.5	108	33.2	103	71	43	0	0	0	0
HOUSTON	83	55	85	51	69	-4	T	-.9	T	1.9	30	20.7	57	84	30	0	0	0	0
LUBBOCK	77	47	80	43	62	-3	T	-.5	T	2.3	89	12.3	80	91	32	0	0	0	0
MIDLAND	78	47	82	45	62	-6	0	-.4	0	5.1	203	17.7	154	91	35	0	0	0	0
SAN ANGELO	79	49	82	44	64	-6	0	-.6	0	3.2	88	13.3	88	91	34	0	0	0	0
SAN ANTONIO	83	54	85	51	69	-5	0	-.7	0	.8	18	17.7	76	85	31	0	0	0	0
VICTORIA	84	59	86	55	71	-3	T	-.9	T	2.8	38	12.8	42	86	32	0	0	0	0
WACO	80	55	83	52	68	-5	0	-.7	0	5.6	139	20.1	82	91	38	0	0	0	0
WICHITA FALLS	74	51	78	50	63	-7	T	-.7	T	7.1	170	21.2	95	91	45	0	0	1	0
UT BLANDING	75	46	81	40	60	4	T	-.3	T	1.1	87	9.3	110	69	26	0	0	1	0
CEDAR CITY	77	45	86	34	61	5	.1	-.1	.1	.2	18	10.4	128	61	18	0	0	1	0
SALT LAKE CITY	81	50	85	46	65	8	T	-.2	T	.1	6	6.5	55	59	19	0	0	0	0
VT BURLINGTON	53	39	72	29	46	-5	1.0	.4	.5	2.5	65	20.3	77	96	63	0	2	5	0
VA NORFOLK	68	56	86	47	62	-3	1.2	.4	.9	2.9	56	32.4	88	88	54	0	0	2	1
RICHMOND	67	46	85	37	56	-6	1.4	.5	1.1	3.1	70	30.8	89	98	50	0	0	3	1
ROANOKE	63	42	69	31	52	-8	.5	-.3	.4	3.5	87	25.5	82	97	52	0	2	2	0
WA QUILLAYUTE	63	50	69	42	57	4	.4	-1.7	.4	6.1	71	63.6	93	99	75	0	0	1	0
SEATTLE-TACOMA	63	52	71	51	58	2	T	-.6	T	1.8	65	18.8	79	99	77	0	0	1	0
SPOKANE	77	48	80	45	63	11	0	-.2	0	1.6	175	10.3	92	84	36	0	0	0	0
YAKIMA	82	45	85	44	64	10	0	-.1	0	.1	29	3.6	70	91	30	0	0	0	0
WV BECKLEY	57	39	63	29	48	-8	.3	-.3	.3	6.2	144	27.1	79	96	51	0	4	1	0
CHARLESTON	61	43	71	33	52	-8	.1	-.5	.1	3.5	97	22.0	64	98	48	0	0	1	0
HUNTINGTON	63	41	74	31	52	-8	.1	-.5	.1	2.7	76	25.6	77	97	42	0	2	1	0
PARKERSBURG	62	40	73	31	51	-9	.3	-.3	.3	4.2	121	24.4	79	98	46	0	1	1	0
WI GREEN BAY	58	34	64	30	46	-6	T	-.5	T	4.2	114	16.9	73	96	47	0	2	1	0
LACROSSE	59	34	66	28	47	-9	T	-.5	T	5.2	128	21.6	83	92	39	0	3	0	0
MADISON	58	32	64	25	45	-9	.1	-.5	.1	3.7	100	18.1	70	91	38	0	3	1	0
MILWAUKEE	57	40	62	34	49	-7	.1	-.4	.1	6.5	188	22.4	89	84	49	0	0	2	0
WAUSAU	55	34	61	30	44	-7	T	-.6	T	3.2	71	16.8	62	97	43	0	3	0	0
WY CASPER	69	34	77	27	52	0	T	-.2	T	.8	77	5.4	58	81	25	0	3	1	0
CHEYENNE	62	37	72	31	50	-2	T	-.2	T	1.7	134	14.7	124	91	40	0	1	1	0
LANDER	71	44	74	38	57	6	T	-.3	T	.9	77	6.8	63	59	24	0	0	0	0
SHERIDAN	70	36	78	30	53	2	0	-.3	0	1.0	67	8.5	67	80	26	0	2	0	0
PR SAN JUAN	89	75	92	74	82	0	1.9	.7	.7	7.4	101	48.5	121	92	61	1	0	5	2

September Weather and Crop Summary

WEATHER

HIGHLIGHTS: During the first part of the month, the far West was plagued with severe heat while Hurricane Florence and a stationary front caused heavy rain along the central Gulf and southern Atlantic coasts. Extensive flooding occurred across northern Florida. At midmonth, massive Hurricane Gilbert devastated Jamaica, the Yucatan, and northeastern Mexico before its remnants brought beneficial moisture into the central United States. At month's end, substantial rains drenched the eastern portions of the central and southern Plains and the lower Mississippi Valley. Dry harvest weather prevailed over the Corn Belt.

SEPTEMBER 1-3...The nonstop heat continued in the West as stations in northern California and Oregon set new September records for high temperatures. Heavy rain fell across Texas and the central Gulf coast.

SEPTEMBER 4-10...A stalled frontal system caused heavy rain over the Southeast and mid-Atlantic coast. Extensive flooding occurred across northern Florida. Hurricane Florence slammed into the central Gulf coast at the end of the period. Smoke from forest fires in the northern Rockies obscured skies over the north-central United States. Severe heat remained in California.

SEPTEMBER 11-17...Gilbert, the most powerful hurricane of the century in the western hemisphere, moved through the Caribbean, across the Yucatan Peninsula, and into northeastern Mexico. Gilbert brought torrential rain and numerous tornadoes to southern Texas. The northward flow of warm, moist air caused above-normal temperatures and widespread rain in the central and southern Great Plains, Southeast, and Mississippi and Ohio Valleys.

SEPTEMBER 18-24...Moisture from the remnants of Hurricane Gilbert contributed to the substantial rain that eased long-term moisture deficits in portions of the central United States. Hot, humid conditions prevailed over the Southeast, while cool autumn weather dominated the western half of the Nation.

SEPTEMBER 25-30...A storm system drenched the eastern portions of the central and southern Great Plains with heavy rain and caused local flooding. Warm, moist air from the Gulf of Mexico brought heavy to moderate rain to the lower and middle Mississippi Valley at month's end. Warm weather returned to the West.

ROW CROP DEVELOPMENT

Dry weather early in September accelerated crop development in the central and northern Plains States. Heavy rains slowed crop maturity in the Southeast. Crop development lagged behind normal in the Ohio Valley. Rain in the central and southeastern areas improved soil moisture conditions about midmonth. Soil moisture in the central Plains was mostly short early in the month and short to adequate by month's end. Soil moisture in the South and East was mostly adequate. Harvest was ahead of normal in the central and northern Plains States. Crop maturity and harvest continued to lagg behind normal in most of the East.

Corn was 91 percent mature, 5 points behind 1987 but equal to the 5-year average. Maturity was ahead of normal in the central and northern Plains States but lagged far behind normal in Michigan, Ohio, and Pennsylvania. Harvest was 32 percent complete, 6 points behind 1987 but 10 points ahead of normal. Harvest was far ahead of normal in Iowa, Kansas, and Minnesota. Iowa's harvest was 50 percent finished, 33 points ahead of normal. Harvest was 40 percent complete, 12 points ahead of normal in Illinois. Corn borers damaged some corn in eastern Nebraska. Nebraska's harvest was 30 percent complete, 18 points ahead of normal. Harvest was nearing completion in Georgia and Texas.

By the end of September, 78 percent of the soybean acreage had reached the leaf dropping stage, 5 points behind 1987 but 1 point ahead of normal. Soybeans were just beginning to drop leaves in the Carolinas but were nearing completion in the western Corn Belt. The percent of acreage dropping leaves lagged behind normal in Michigan, Ohio, and most of the South. Soybean harvest was 29 percent finished, 9 points behind 1987 but 9 points ahead of normal. Harvest was far ahead of normal in Iowa, Kansas, and Minnesota. Iowa's harvest was 48 percent complete, 21 points ahead of the average. Harvest was 50 percent complete, 13 points ahead of normal in Illinois. Illinois producers harvested nearly one-third of their soybean acreage during the last week of September.

Seventy-two percent of the cotton acreage had reached the boll opening stage, 3 points ahead of normal. By October 2, harvest was 19 percent finished, 9 points behind 1987 and 1 point behind normal. Harvest was 31 percent finished, 6 points behind normal in Mississippi. Texas' harvest was 22 percent complete, 6 points ahead of the average. Harvest lagged far behind normal in Arkansas, Missouri, South Carolina, and Tennessee. Harvest was just beginning in California, New Mexico, and Oklahoma.

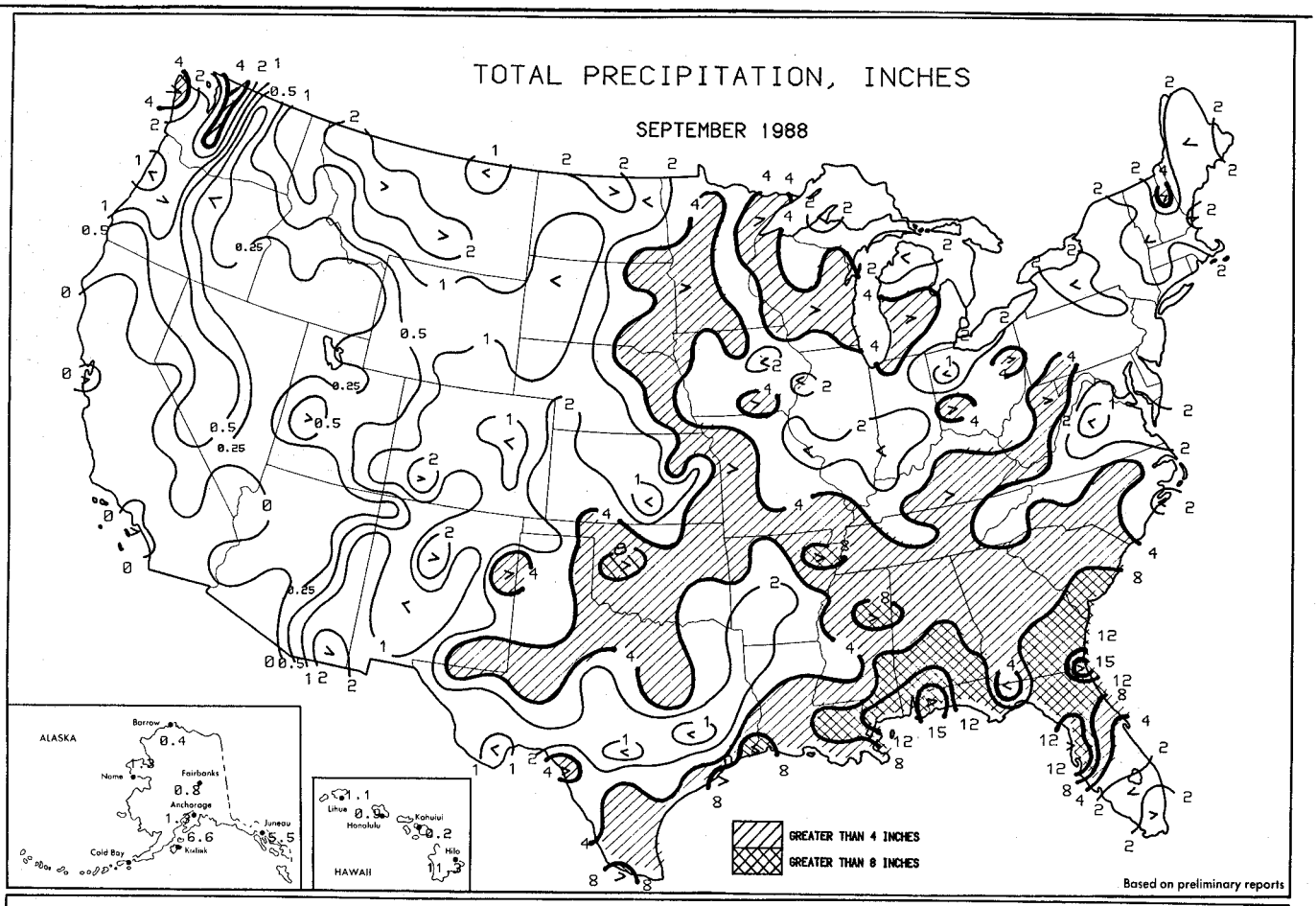
Seventy-eight percent of the sorghum acreage was mature by October 2, 8 points ahead of normal. Maturity was far ahead of normal in Kansas, Nebraska, and South Dakota. Oklahoma's acreage was only 30 percent mature, 35 points behind 1987 and 40 points behind normal. Harvest was 42 percent complete, 6 points ahead of normal in the 11 major producing states. Harvest was considerably ahead of normal in Kansas, Nebraska, and South Dakota.

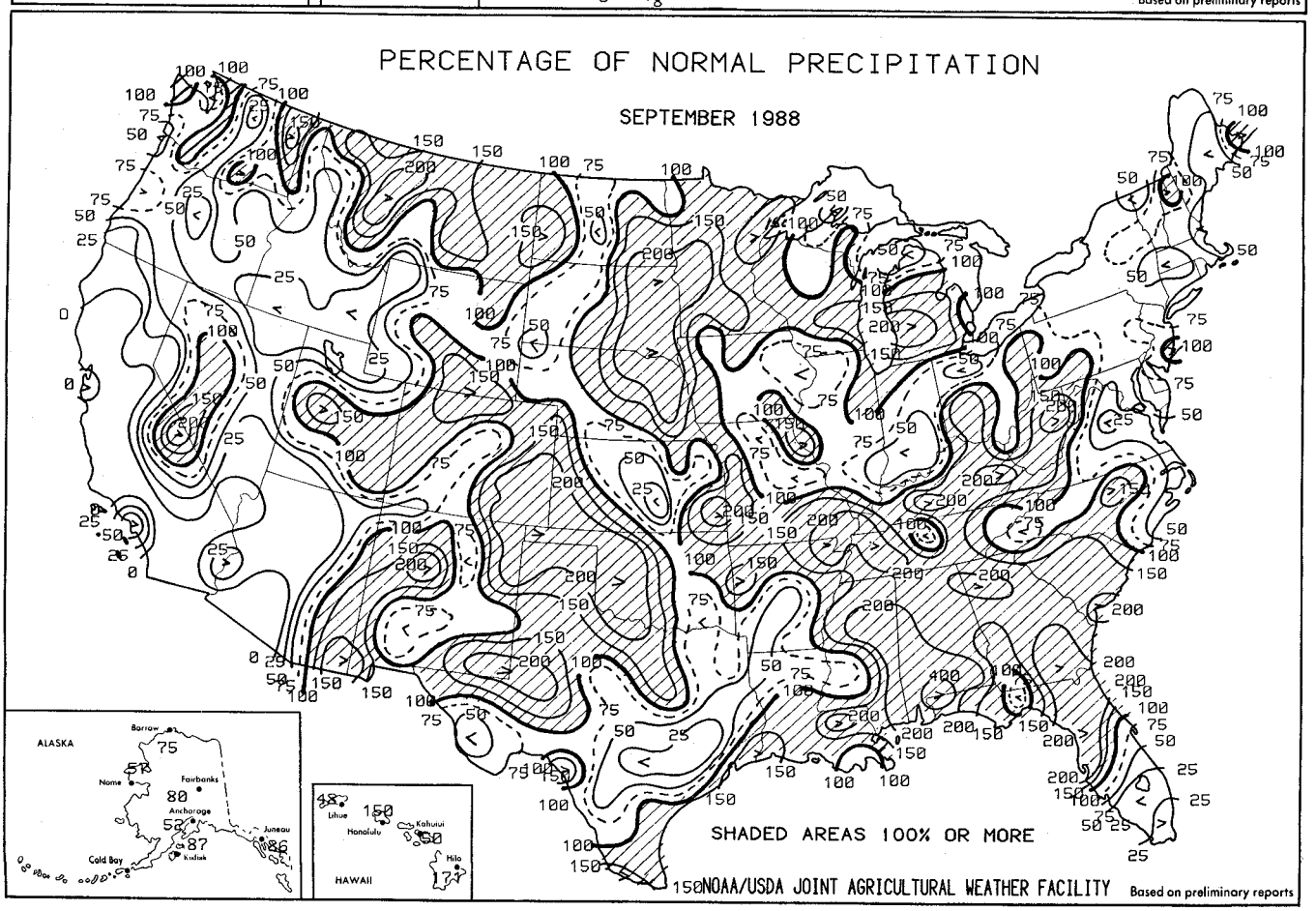
Rice harvest was 63 percent complete, 19 points behind 1987 and 9 points behind normal. Harvest was nearing completion in Louisiana and was complete in Texas. Arkansas' harvest was 53 percent finished, 20 points behind normal.

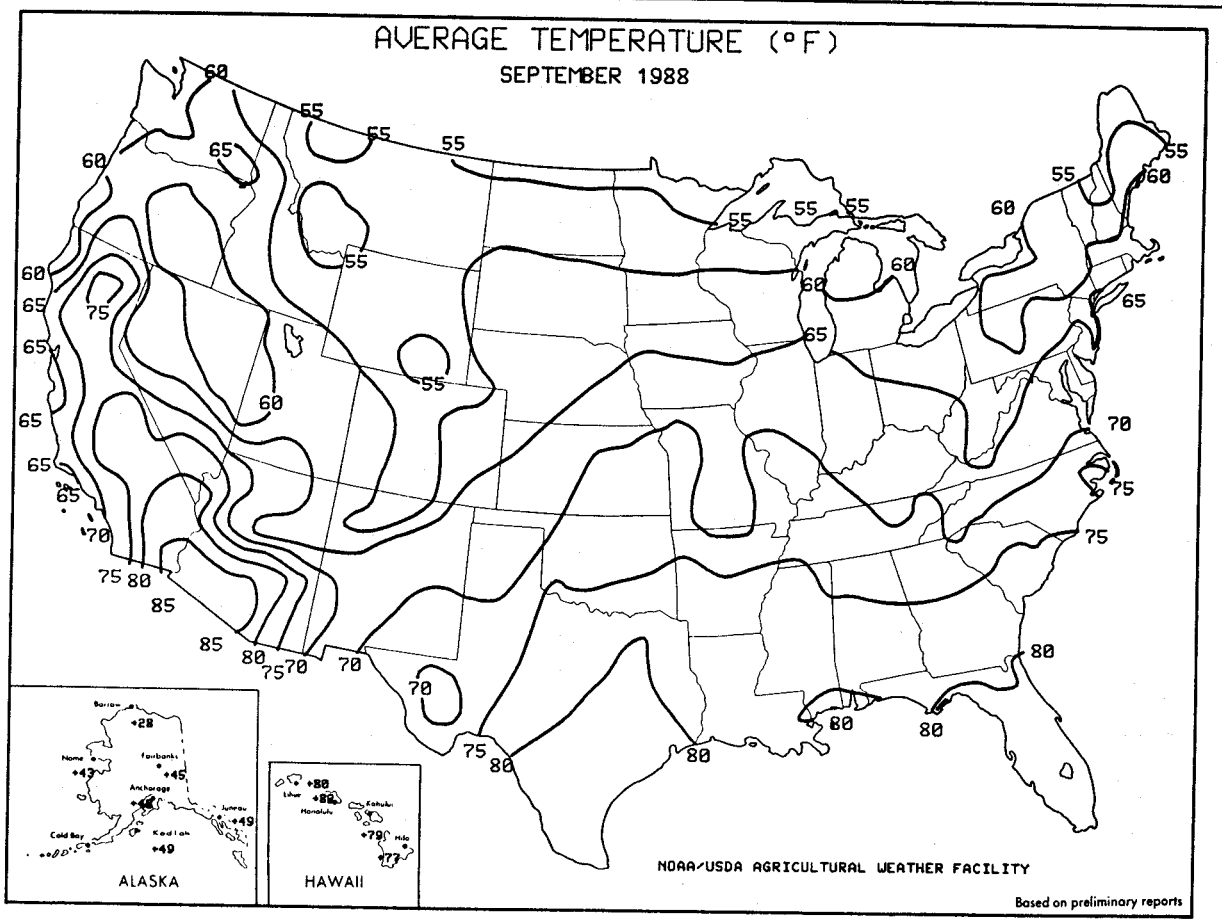
WINTER WHEAT SEEDING

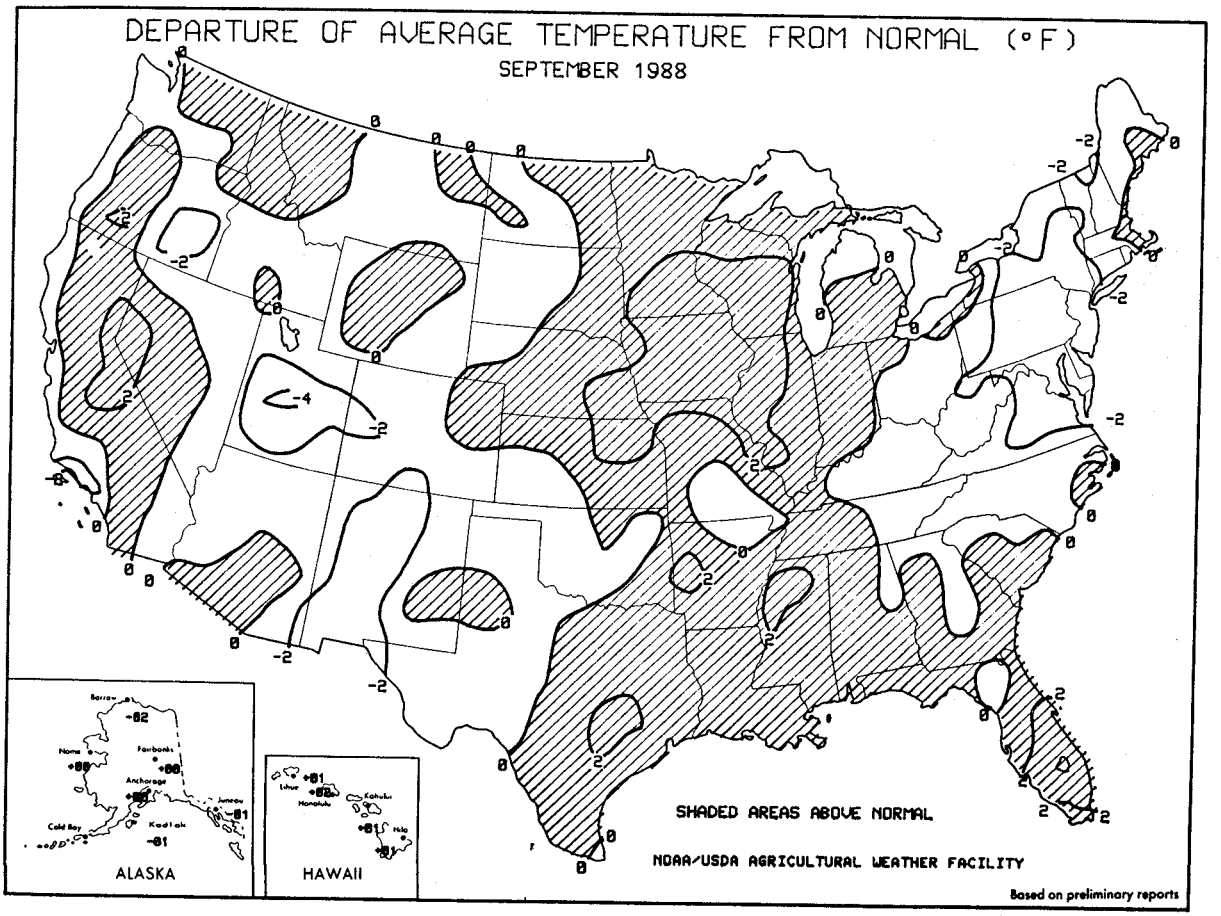
Winter wheat seeding was 53 percent finished by October 2, 11 points behind 1987 but 2 points ahead of the 5-year average. Seeding was ahead of normal in 10 of the 20 major producing states. Insufficient soil moisture delayed seeding in the central and northern Plains States early in September. By month's end, seeding progress was near or ahead of normal in most areas.

(Continued to p. 18)


TOTAL PRECIPITATION, INCHES
SEPTEMBER 1988
GREATER THAN 4 INCHES
GREATER THAN 8 INCHES
ALASKA
Barrow
Nome
Fairbanks
Anchorage
Juneau
Cold Bay
Kodiak
HAWAII
Lihue
Honolulu
Kahului
Hilo
Based on preliminary reports


PERCENTAGE OF NORMAL PRECIPITATION
SEPTEMBER 1988
SHADED AREAS 100% OR MORE
ALASKA
Barrow
Nome
Fairbanks
Anchorage
Juneau
Cold Bay
Kodiak
HAWAII
Lihue
Honolulu
Kahului
Hilo
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


AVERAGE TEMPERATURE (°F)
SEPTEMBER 1988
ALASKA
HAWAII
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
SEPTEMBER 1988
ALASKA
HAWAII
SHADED AREAS ABOVE NORMAL
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

Temperature and Precipitation Data for September 1988

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
AL BIRMINGHAM	74	0	7.3	3.0
MOBILE	78	0	14.0	7.5
MONTGOMERY	77	0	8.2	3.5
AK ANCHORAGE	48	0	1.3	-1.2
BARROW	28	-2	0.4	-0.2
FAIRBANKS	45	0	0.8	-0.3
JUNEAU	49	-1	5.5	-0.9
KODIAK	49	-1	6.6	0.3
NOME	43	0	1.2	-1.1
AZ FLAGSTAFF	56	-2	0.2	-1.3
PHONIX	87	3	0.0	-0.6
PRESCOTT	64	-1	0.1	-1.4
TUCSON	80	0	0.8	-0.5
WINSLOW	66	-3	T	-0.8
YUMA	88	1	T	-0.2
AR FORT SMITH	76	2	5.7	2.5
LITTLE ROCK	76	1	1.6	-2.7
CA BAKERSFIELD	77	0	0.0	-0.1
EUREKA	56	-1	0.1	-0.8
FRESNO	76	2	0.0	-0.2
LOS ANGELES	68	-2	0.1	-0.1
REDDING	77	0	0.0	-1.1
SACRAMENTO	73	1	0.0	-0.3
SAN DIEGO	71	1	T	-0.1
SAN FRANCISCO	63	-1	T	-0.2
STOCKTON	73	0	0.0	-0.2
CO DENVER	62	0	0.9	-0.3
GRAND JUNCTION	65	-2	0.8	0.1
PUEBLO	65	-1	1.8	1.0
CT BRIDGEPORT	65	-1	2.3	-1.0
HARTFORD	62	-1	1.9	-2.0
DC WASHINGTON	69	-2	1.8	-1.4
FL APALACHICOLA	80	1	10.4	1.7
DAYTONA BEACH	81	1	6.8	0.2
FT. MYERS	84	2	1.9	6.7
JACKSONVILLE	79	0	16.4	9.9
KEY WEST	84	0	3.5	-2.8
MIAMI	84	2	3.1	-5.0
ORLANDO	84	3	5.7	-0.7
TALLAHASSEE	79	1	4.0	-2.5
TAMPA	82	1	13.6	7.4
WEST PALM BEACH	83	2	1.8	-7.5
GA ATLANTA	73	0	6.3	3.2
AUGUSTA	75	1	5.6	2.0
MACON	76	0	6.1	2.8
SAVANNAH	77	1	9.6	4.4
HI HILO	77	1	11.3	4.7
HONOLULU	82	2	0.9	0.3
KAHULUI	79	0	0.2	-0.1
LIHUE	80	1	1.1	-1.2
ID BOISE	62	-1	0.2	-0.3
LEWISTON	64	1	0.8	-0.0
POCATELLO	58	-1	T	-0.6
IL CAIRO	--	-	7.6	4.1
CHICAGO	66	1	3.8	-0.3
MOLINE	67	2	2.0	-1.8
PEORIA	68	3	2.8	-0.8
QUINCY	69	2	1.3	-2.9
ROCKFORD	65	2	2.3	-1.4
SPRINGFIELD	69	1	2.8	-0.4
IN EVANSVILLE	69	0	1.2	-1.5
FORT WAYNE	64	0	1.8	-0.7
INDIANAPOLIS	67	1	1.1	-1.6
SOUTH BEND	64	0	4.4	1.2
IA DES MOINES	67	2	2.9	-0.2
DU BUQUE	64	2	2.7	-1.4
SIOUX CITY	65	1	5.2	2.7
WATERLOO	65	3	1.7	-1.8
KS CONCORDIA	70	2	1.1	-1.9
DODGE CITY	68	-1	2.8	1.0
GOODLAND	65	1	2.2	0.8
TOPEKA	70	2	1.9	-1.5
WICHITA	72	1	0.5	-2.9
KY BOWLING GREEN	69	-2	8.0	4.8
JACKSON	68	2	7.8	4.7
LEXINGTON	68	-1	6.0	2.7
LOUISVILLE	70	0	1.5	-1.9
LA ALEXANDRIA	78	0	3.5	0.6
BATON ROUGE	79	1	9.5	5.1
LAKE CHARLES	79	1	7.7	2.1
NEW ORLEANS	80	1	5.8	0.0
SHREVEPORT	78	1	1.6	-1.7
ME CARIBOU	53	-1	1.8	-1.7
PORTLAND	59	1	1.5	-1.8
MD BALTIMORE	67	-2	2.1	-1.4
SALISBURY	67	-2	2.8	-1.2
MA BOSTON	65	0	1.3	-2.1
CHATHAM	62	0	1.3	-2.4
MI ALPENA	58	1	1.5	-1.6
DETROIT	63	0	3.7	1.4
FLINT	61	0	3.0	0.7
GRAND RAPIDS	61	-1	7.5	4.3
HOUGHTON LAKE	58	1	3.6	0.9
LANSING	61	0	6.0	3.0
MARQUETTE	54	0	4.0	0.1
MUSKEGON	61	0	5.9	3.0
SAULT ST. MARIE	55	0	3.0	-0.9
MN ALEXANDRIA	59	1	4.2	1.9
DULUTH	55	1	6.2	3.0
INT'L FALLS	54	1	3.9	0.8
MINNEAPOLIS	62	2	2.8	0.3
ROCHESTER	61	2	3.8	0.4
ST. CLOUD	59	2	3.2	0.4
MS GREENWOOD	78	2	7.7	4.4
JACKSON	78	2	2.3	-1.3
MERIDIAN	76	0	9.3	5.8
MO COLUMBIA	70	0	2.3	-1.6
KANSAS CITY	71	0	8.5	4.4
SAINT LOUIS	73	3	2.0	-0.7
SPRINGFIELD	69	0	5.1	0.9
MT BILLINGS	59	-1	2.1	0.9
GLASGOW	58	0	1.0	0.1
GREAT FALLS	56	-1	2.3	1.3
HAVRE	56	-1	1.5	0.6
HELENA	56	1	2.1	1.3
KALISPELL	55	0	2.1	1.0
MILES CITY	59	-1	1.1	0.0
MISSOULA	57	1	0.5	-0.5
NE GRAND ISLAND	66	1	3.3	0.8
LINCOLN	68	2	6.2	3.3
NORFOLK	65	1	5.5	3.4
NORTH PLATTE	62	0	1.6	-0.1
OMAHA	68	2	3.6	0.1
SCOTTSBLUFF	61	-1	1.0	-0.1
VALENTINE	61	0	1.7	-0.3
NV ELKO	57	-1	0.1	-0.4
ELY	56	0	0.2	-0.5
LAS VEGAS	79	-1	T	-0.3
RENO	63	3	T	-0.3
WINNEMUCCA	59	0	0.3	0.0
NH CONCORD	58	-1	1.6	-1.6
NJ ATLANTIC CITY	64	-3	3.1	0.2
NM ALBUQUERQUE	66	-3	2.6	1.8
ROSWELL	72	1	1.6	-0.2
NY ALBANY	60	-1	1.5	-1.7
BINGHAMTON	57	-3	2.1	-1.3
BUFFALO	62	0	2.1	-1.3
NEW YORK	68	-1	2.6	-0.9
ROCHESTER	60	-2	1.7	-1.0
SYRACUSE	61	-1	1.9	-1.4
NC ASHEVILLE	66	-1	2.8	-1.0
CHARLOTTE	72	0	4.5	0.9
GREENSBORO	68	-1	3.2	-0.4
HATTERAS	74	0	2.2	-3.6
NEW BERN	75	1	2.3	-3.5
RALEIGH	70	-1	4.9	1.6
WILMINGTON	74	-1	2.8	-2.9
ND BISMARCK	57	-1	0.6	-0.7
FARGO	59	1	3.2	1.4
GRAND FORKS	56	0	2.0	-0.1
WILLISTON	56	-1	1.5	0.2
OH AKRON-CANTON	63	-1	4.9	2.0
CINCINNATI	67	-1	3.1	0.2
CLEVELAND	64	0	1.8	-1.1
COLUMBUS	65	-1	3.5	0.8
DAYTON	65	-1	4.7	2.4
TOLEDO	63	0	1.8	-0.7
YOUNGSTOWN	61	-1	3.5	0.4
OK OKLAHOMA CITY	74	0	5.1	1.6
TULSA	73	-1	5.4	1.0
OR ASTORIA	57	-2	1.2	-2.0
BURNS	56	-3	0.4	-0.2
MEDFORD	68	2	0.2	-0.5
PENDLETON	64	0	0.3	-0.3
PORTLAND	64	2	1.8	0.2
SALEM	62	1	1.0	-0.6
PA ALLENTOWN	63	-2	3.2	-0.8
ERIE	63	0	3.2	-0.8
HARRISBURG	64	-3	2.4	-1.2
PHILADELPHIA	67	-2	2.6	-0.8
PITTSBURGH	63	-1	2.3	-0.4
SCRANTON	60	-2	1.9	-1.3
RI PROVIDENCE	63	-1	2.4	-1.1
SC CHARLESTON	76	1	9.7	4.8
COLUMBIA	75	1	7.5	3.3
FLORENCE	74	0	6.3	2.2
GREENVILLE	71	-1	4.6	-0.1
SD ABERDEEN	57	-1	5.3	3.8
HURON	61	0	3.7	2.4
RAPID CITY	61	0	0.6	-0.5
SIOUX FALLS	63	2	4.4	1.6
TN CHATTANOOGA	72	0	6.8	2.5
BRISTAL	68	-1	3.2	0.2
KNOXVILLE	71	-1	2.7	-0.3
MEMPHIS	76	2	4.7	1.1
NASHVILLE	73	0	2.5	-1.2
TX ABILENE	76	0	1.7	-1.3
AMARILLO	68	-2	3.1	1.4
AUSTIN	82	2	1.4	-2.2
BEAUMONT	79	0	10.3	5.0
BROWNSVILLE	81	-1	7.5	2.2
CORPUS CHRISTI	81	0	6.3	-0.4
DEL RIO	79	-1	4.6	1.8
EL PASO	72	-2	1.5	0.1
FORT WORTH	79	1	4.0	0.6
GALVESTON	81	1	9.8	4.0
HOUSTON	81	2	1.2	-4.0
LUBBOCK	71	0	2.3	0.2
MIDLAND	73	-2	5.1	3.0
SAN ANGELO	75	-1	3.2	0.2
SAN ANTONIO	81	1	0.8	-2.9
VICTORIA	82	2	2.8	-3.5
WACO	80	1	5.5	2.4
WICHITA FALLS	75	-1	7.0	3.7
UT BLANDING	62	-1	1.1	0.2
CEDAR CITY	61	-2	0.1	-0.8
MILFORD	61	-2	0.6	-0.1
SALT LAKE CITY	64	-1	0.1	-0.8
VT BURLINGTON	58	-1	1.5	-1.7
LYNCHBURG	67	-1	1.7	-1.5
VA NORFOLK	70	-2	1.8	-2.5
RICHMOND	68	-2	1.7	-1.8
ROANOKE	66	-2	3.0	-0.1
WA QUILLAYUTE	56	-1	5.7	-0.4
SEATTLE-TACOMA	61	1	1.8	-0.3
SPOKANE	59	0	1.6	0.9
WALLA WALLA	66	0	0.5	-0.3
YAKIMA	60	-1	0.1	-0.2
WV BECKLEY	63	0	5.9	2.3
CHARLESTON	67	-1	3.5	0.5
ELKINS	61	-1	7.5	4.3
HUNTINGTON	67	-2	2.7	-0.4
PARKERSBURG	66	-2	3.9	1.1
WI GREEN BAY	61	2	4.1	1.0
LACROSSE	65	3	5.2	1.7
MADISON	63	3	3.3	0.3
MILWAUKEE	63	1	4.9	2.1
WAUSAU	60	2	3.2	-0.7
WY CASPER	58	0	0.7	0.0
CHEYENNE	58	0	1.7	0.6
LANDER	59	0	0.9	0.1
SHERIDAN	58	1	0.9	-0.3
PR SAN JUAN	82	0	5.5	-0.5

Based on 1951-80 normals.

National Agricultural Summary

October 3-9, 1988

HIGHLIGHTS: Rain and cool temperatures slowed crop maturity and harvest in most of the Southeast. Soil moisture was mostly adequate in the East and short to adequate elsewhere. Days suitable for fieldwork were between 5 and 6 in most areas.

Winter wheat seeding advanced to 71 percent (%) completion, 6 percentage points behind 1987 but 8 points ahead of the 5-year average. Forty-four percent of the crop was emerged, 10 points behind 1987 but 4 points ahead of the average. Corn harvest was 48% complete, 7 points behind 1987 but 15 points ahead of normal. Harvest continued far ahead of normal in the Plains States and western Corn Belt. Eighty-four percent of the soybean acreage reached the leaf dropping stage, 6 points behind 1987 and 3 points behind normal. Harvest was 45% complete, 15 points behind 1987 but 9 points ahead of normal. Harvest was behind normal in the Southern States. Sorghum harvest was 50% finished, 4 points behind 1987 but 8 points ahead of the average. Eighty-one percent of the cotton acreage was in the boll opening stage, 7 and 5 points ahead of last year and normal, respectively. Harvest was 25% complete, 11 points behind 1987 and slightly behind the 27% average. Cool, wet weather slowed crop maturity and harvest in the South. Rice harvest was 76% finished, 13 points behind 1987 and 6 points behind normal.

SMALL GRAINS: Winter wheat seeding was 71% finished, 6 points behind 1987 but 8 points ahead of normal. Forty-four percent of the crop was emerged, slightly ahead of the 40% normal. In Texas, early planted fields showed good growth. Armyworms were a problem in the Cross Timbers area. Kansas's seeding was 80% finished, 10 points ahead of the average. Armyworms were present in some locations. Winter wheat seeding was 77% complete, 11 points ahead of normal in Montana. Growers seeded one-third of the crop. Oklahoma's seeding was 65% finished, 10 points ahead of the average.

CORN: Ninety-five percent of the corn acreage was mature, slightly behind the 97% average. Harvest was 48% complete, 15 points ahead of the average. Harvest more than doubled the average in Iowa and Minnesota. Iowa's harvest was 70% finished, 39 points ahead of the average. Harvest was 63% complete, 42 points ahead of normal in Minnesota. Illinois' harvest was 66% finished, 24 points ahead of the average. Harvest was more than 10 points behind normal in Kentucky, North Carolina, and Ohio. Rain hampered harvest in North Carolina. High grain moisture content slowed harvest in Kentucky and Ohio.

SOYBEANS: Eighty-four percent of the soybean acreage was in the leaf dropping stage, slightly behind normal. Harvest was 45% complete, 9 points ahead of the average. Minnesota's harvest was 42 points ahead of the 44% average. Harvest was 75% finished, 25 points ahead of the average in Iowa. Illinois' harvest was 70% complete, 11 points ahead of normal. Harvest continued lagging behind the normal pace in most Southern States. Killing frost reduced harvest problems caused by weeds in Indiana. Cooler temperatures reduced insect problems in Georgia.

SORGHUM: Eight-seven percent of the crop was mature, 6 points ahead of the average. Harvest was half finished, 8 points ahead of normal. Texas' harvest was 69% complete, slightly ahead of the 67% normal. Cooler temperatures increased up crop maturity. Harvest was mostly finished in the southern portion of Texas. Nebraska's harvest was 65% finished, far ahead of the 31% normal. Producers harvested 35% of the crop. Harvest was 30% finished, 10 points ahead of normal in Kansas.

COTTON: Eighty-one percent of the acreage was in the boll opening stage, 5 points ahead of normal. Harvest was 25% complete, 2 points behind normal. Rain and cool temperatures slowed crop maturity and harvest in the South. Harvest was far behind normal in Arkansas, Missouri, South Carolina, and Tennessee. Mississippi's harvest was 48% finished, 5 points behind the average. Harvest was 23% complete, 5 points ahead of normal in Texas. Damage from boll weevils reduced yields. California's harvest gained momentum in central areas and continued in southern areas.

OTHER FIELD CROPS: Rice harvest was 76% complete, 6 points behind normal. Arkansas' harvest was 72% finished, 12 points behind the average. Harvest was nearing completion in Louisiana.

Wet field conditions slowed peanut harvest in Alabama. Harvest activity increased in the Cross Timbers and Low Plains area of Texas. Georgia's harvest was 46% complete, 25 points behind normal.

Flue-cured tobacco was 94% complete, 2 points behind normal in North Carolina. Burley stripping was 4% finished, 1 point behind normal in Kentucky. Housed tobacco continued to cure well with little or no houseburn.

FRUITS AND NUTS: Florida's citrus groves were in good condition but needed rain. Producers irrigated in most areas. Lemon harvest continued in Arizona. Grapefruit harvest began on a limited basis. Texas pecan harvest continued. Pecan harvest was just beginning in Georgia and Louisiana. California's desert grapefruit harvest is expected to begin soon. Pistachio, walnut, and late variety almond harvest continued. Other harvest activities included grapes, peaches, plums, and valencia oranges. Early variety navel oranges began turning color. In Washington, red delicious apple harvest was underway.

VEGETABLES: In Florida, beneficial rains improved vegetable growing conditions except in the Homestead area where moisture was excessive. Harvest activities included cucumbers, peppers, eggplant, sweet corn, and squash. Winter crop planting remained active. Winter crop planting continued in the Texas Rio Grande Valley. Carrot, pepper, and pumpkin harvests continued in the High Plains. California's fall and winter vegetable crops were in good condition. Harvest activities included broccoli, cauliflower, carrots, and celery. Arizona's harvest activities included fall lettuce, pumpkins, squash, and green chilies.

PASTURES AND LIVESTOCK: Pastures were mostly good. Livestock was mostly good. Producers continued to move livestock to harvested fields. Grazing of early seeded winter wheat fields is expected to begin soon in Texas.

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 up to 0.33 in. east; very little elsewhere. Temperatures 8 to 10° below normal.

Days suitable for fieldwork 4.5. Soil moisture 7% short, 76% adequate, 17% surplus. Wet conditions, cool temperatures caused further harvest delays, declining conditions cotton, peanuts. Soybeans 70% turning color, 89% 1987, 83% avg.; 45% dropping leaves, 65% 1987, 58% avg.; 27% mature, 40% 1987, 36% avg.; 8% harvested, 21% 1987, 15% avg.; 1% poor, 51% fair, 44% good, 4% excellent. Corn 83% harvested, 90% 1987, 88% avg. Sorghum 62% harvested, 69% 1987, 72% avg. Cotton 44% harvested, 74% 1987, 42% avg. Peanuts 63% dug, 70% 1987, 73% avg.; 38% combined, 60% 1987, 63% avg.; 67% fair, 33% good. Winter wheat 27% seeded, 20% 1987, 18% avg. Pastures, livestock mostly good. Primary activities: Harvesting row crops, sweetpotatoes, hay, catfish; defoliating, harvesting cotton; soil testing; seeding small grain crops; building fish ponds; fertilizing pastures; routine care of livestock, poultry.

ALASKA: NO DATA AVAILABLE UNTIL SPRING.

ARIZONA: Sunny, warm days; clear, cool nights 2nd, 3rd. Isolated light showers east portion 4th. Showers, thunderstorms numerous eastern two-thirds 5th. Heaviest amounts rain Grand Canyon-Flagstaff area 6th. Mostly sunny skies 7th, 8th. Rainfall amounts mostly over 0.25 in. central basins, central mountains northward; very little or none remainder of State. temperatures 2 to 10° above normal.

Cotton continued good progress, harvest activities increased central areas; just underway east. Statewide 20% harvested, 14% 1987; 16% avg. Defoliation moderate most areas, active Maricopa, Pinal, Pima Counties. Harvest active Pinal County. Defoliation, harvest upland cotton steady west, yield quality good. Weed, insect infestations mostly light to moderate. Fields remained mostly good. Alfalfa harvest continued past week; winding down central. Renovation existing stands, seeding new stands continued. Lemon harvest, packing continued progress western areas. Grapefruit harvest on limited scale. Fall lettuce, cauliflower, broccoli continued to make good progress. Lemon harvest progressed central. Honeydews, cantaloup harvest Aguila, Salt River Valley. Apple harvest, packing continued east. Fall lettuce, pumpkin, winter squash, green chilies also harvested.

ARKANSAS: Weather cool, temperatures well below normal. Light rain west, southeast portions. Temperature extremes 33°; 79°. Rainfall none to 0.74 in.

Days suitable for fieldwork 6.0. Soil moisture 33% short, 61% adequate, 6% surplus. Major farming activities: Harvesting cotton, corn, rice, sorghum, soybeans; defoliating cotton; planting fall, winter pastures; seeding wheat, oats; cutting late season hay. Cotton gins backlogged southeastern areas. Wet grounds slowed harvest, crop maturity. Soybeans 98% setting pods, 100% 1987, 100% avg.; 59% yellowing, 77% 1987, 73% avg. Rice 94% ripe, 100% 1987, 97% avg. Corn 91% harvested, 100% 1987, 94% avg. Wheat 3% seeded, 18% 1987, 13% avg. Oats 4% seeded, 19% 1987, 4% avg. Some desired wheat varieties unavailable. Pecan crop developing well. Fall green bean harvest started. Pastures growing well. Pasture range 2% very poor, 17% poor, 53% fair, 27% good, 1% excellent. Hay supplies mostly short. Stockwater 32% short, 66% adequate, 2% surplus. Livestock good.

CALIFORNIA: Weak low pressure north end State cooling temperatures. Rainfall confined north coast. Weak high pressure replaced system, returned near normal temperatures; dry conditions.

Harvest, other field activities rapid progress, excellent weather. Rice harvest full swing, stubble burning progressed. Cotton defoliation active, picking slowly gained momentum central areas. Southern harvest full swing. Seeding wheat began. Field corn, dry bean harvests full swing. Sunflower, sugarbeets, corn silage, sudan harvests progressed. Much northern, central valley alfalfa season's final cutting. Seeding winter forage increased. Some alfalfa seeded. Soil preparation active. Sugarbeets treated insects, mildew. Cultural practices ongoing. Late apples picked. Soft dates, figs, late peaches, late plums, late table grapes, wine grapes harvested. Raisins picked, packed. Kiwifruit harvest began. Olives, pomegranates, pineapple quince harvested. Pistachios, walnuts, late variety almonds harvested. Desert grapefruit harvest expected to begin end of month. Desert lemon harvest continued. Early variety navel oranges showed color. Valencia orange picking active. Weather not limiting vegetable production. Fall, winter vegetable crops look good. Harvested broccoli, cauliflower, carrots, celery, lettuce, onions, potatoes, sweetpotatoes, strawberries, fresh market tomatoes, processing tomatoes. Melon harvest winding down most areas, except Imperial Valley just began. Livestock fair to good statewide. Range, non-irrigated pasture conditions dry. Cattle grazed irrigated pasture freshly cut alfalfa fields. Supplemental feeding increased, ranchers feeding hay much earlier. Hay supplies adequate most areas. Livestock movement continued. Water supplies very low.

COLORADO: Cool, scattered light rains throughout week. Precipitation trace amounts to 0.20 in. most areas statewide. Temperatures 1 to 10° below normal east, San Luis Valley; west 2 to 4° above normal.

Days suitable for fieldwork 5.5. Soil moisture 4% very short, 55% short, 41% adequate. Corn 82% mature, 11% harvested. Dry beans cut 97%, 92% threshed. Dry onion 69% harvested. Summer potatoes 80% harvested; fall potatoes 85% harvested. Winter wheat 95% planted, 77% emerged. Sorghum 93% turning color, 64% mature, 9% harvested. Livestock mostly good to excellent. Ranges, pastures fair to good.

FLORIDA: An easterly flow across area brought daily rains southeast coast. Cold front moved through, stalling off southeast coast by midweek. Rainfall 1.00 to 3.00 in. Panhandle, east coast with totals generally under 1.00 in. elsewhere. Temperatures cooled behind front north, central 2 to 3° below normal, reaching new low, fall season of 38°, Panhandle. Readings south 4° above normal.

Soil moisture generally adequate. Peanut harvest, haymaking active. Cool night temperatures slowed cotton maturing. Planting started, fall sown oats for forage. Sugarcane good progress; planting active. Tobacco marketing season ended 6th. Cool temperatures north slowed permanent pasture growth. Panhandle grazing lowered to fair

to good: elsewhere, remained mostly good to excellent. Additional rain would benefit most higher ground Peninsula pastures. Cattle, calves mostly good to excellent. Calf marketings continued. Citrus trees, groves very good. Rain needed, irrigation continued; cool winds increased evaporation. Fresh shipments increased for white, colored grapefruit, k-earlys, early oranges, navels. Caretakers completing fall cultural care. Cooler temperatures northern, central vegetable producing areas; above normal southern areas. Rain beneficial except excessive Homestead area. Ground preparation, planting continued active. Harvest gaining cucumbers, peppers, eggplant, sweet corn, squash.

GEORGIA: Rain up to 3.00 in. on 3rd. Otherwise dry, temperatures 8 to 10° cooler than normal. Coldest temperatures mostly mid 30s to low 40s, freezing temperatures northeast mountains. Warmest temperatures mostly 70s, upper 60s mountains, low 80s southwest.

Days suitable for fieldwork 4.6. Soil moisture 10% short, 74% adequate, 16% surplus. Corn harvest neared completion. Cotton improved, but wet soils delaying harvest. Peanuts 66% dug, 83% 1987, 81% avg.; 46% threshed, 68% 1987, 71% avg.; disease increasing; threshing almost 2 weeks behind average. Soybean harvest began, cooler temperatures reducing insects. Rye, other small grain seeding near average. Apple harvest almost complete. Pecan harvest began. Pasture, hay mostly good. Cattle, hogs good.

HAWAII: Fair weather. Mostly sunny, humid. Moderate showers in windward areas midweek. Irrigation heavy. Temperatures mid 70s to low 90s. Rainfall none to 1.50 in. Winds light 5 to 25 mph.

Days suitable for fieldwork 7.0. Chinese cabbage production steady, moderate. Head cabbage output steady. Cucumber production heavy some areas. Snap bean production moderate. Banana harvesting steady, orchards good condition. Number of sugarcane plantations down to 12 as 1 plantation completed last harvest late week.

IDAHO: Temperatures 6 to 14° above normal statewide. Very little precipitation mountain areas, none elsewhere.

Days suitable for fieldwork 7.0. Soil moisture 31% very short, 59% short, 10% adequate. Potatoes 72% harvested, 84% 1987, 70% avg. Sugarbeets 17% harvested, 30% 1987, 24% avg. Winter wheat fair to good; 72% seeded, 72% 1987, 72% avg.; 29% emergence. Onion harvest wrapping up. Dry bean harvest virtually complete. Apples 37% harvested, 72% 1987, 56% avg. Third cutting alfalfa hay virtually complete. Livestock good despite dry pasture, range condition.

ILLINOIS: Temperatures 8 to 12° below normal. First frost, freeze about 1 or 2 weeks ahead of normal. Precipitation totals 0.10 in.

Days suitable for fieldwork 5.5. Soil moisture 71% short, 28% adequate, 1% surplus. Pasture 5% very poor, 23% poor, 60% fair, 9% good, 3% excellent.

INDIANA: Temperatures 6 to 12° below normal. Lows mid to upper 30s, highs upper 50s to low 60s. Dry, precipitation less than 0.30 in. north.

Days suitable for fieldwork 5.2. Topsoil moisture 31% short, 69% adequate. Subsoil moisture 76% short, 24% adequate. Pastures 22% poor, 62% fair, 16% good. Soybeans 90% mature, 100% 1987, 91% avg. Wheatland 71% plowed, 70% 1987, 63% avg. Rye 51% seeded, 68% 1987, 53% avg. Killing frost over most area reduced weed problems. Corn, soybean harvest continued to gain momentum.

IOWA: Temperatures 8 to 12° below normal; extremes 18°; 72°. Very light rain southeast, none elsewhere.

Days suitable for fieldwork 6.5. Topsoil moisture 51% short, 49% adequate; subsoil moisture 94% short, 6% adequate. Corn lodging 5% none, 70% light, 24% moderate, 1% heavy; ear droppage 3% none, 64% light, 32% moderate, 1% heavy. Soybeans lodging 16% none, 66% light, 18% moderate; shattering 5% none, 55% light, 33% moderate, 7% heavy. Winter wheat 86% seeded, 79% 1987, 62% avg. Fall tillage 15%, 11% 1987, 9% avg. Fall fertilizer application 10%, 7% 1987, 7% avg. Livestock mostly good. Movement to market normal. Stubble fields being used for livestock grazing.

KANSAS: Temperatures 49° northwest to 52° south central, 8° below normal northwest, 12 to 13° below normal southern third, 10 to 11° below normal elsewhere. Precipitation generally light 0.02 in. northeast, 0.25 in. northern, western third; 0.75 in. south central, southeast.

Days suitable for fieldwork 4.5. Topsoil moisture 37% short, 57% adequate, 6% surplus. Subsoil moisture 61% short, 38% adequate, 1% surplus. Row crop harvest good progress, ahead of normal for all crops. Wheat seeding good progress, ahead of normal. Fall armyworms present some locations, growers watchful. Russian wheat aphid evident in far western counties in volunteer wheat. None found in planted wheat yet. Range, pasture conditions some improvement, may go into winter better shape than anticipated. Movement of cattle to corn, sorghum stubble following harvest. Hay, forage supplies 42% short, 58% adequate.

KENTUCKY: Cool weather, no significant rainfall. Temperatures 10° below normal. Lows 35 to 40°, highs 60 to 65°. Rainfall deficits 0.50 to 0.75 in.

Days suitable for fieldwork 5.3. Soil moisture 6% very short, 36% short, 55% adequate, 3% surplus. Corn harvest slowed by high moisture content. Soybeans continued to mature, 60% shedding leaves or beyond; fair to good. Burley stripping reached 4%, 9% 1987, 5% avg. Housed tobacco showed little to no houseburn. Wheat seeding advanced 22%, 31% 1987, 23% avg. Pastures fair to good.

LOUISIANA: Temperatures 6° below normal. Temperature extremes 44°; 89°. Rainfall none to less than 1.00 in.

Days suitable for fieldwork 4.9. Soil moisture 2% very short, 19% short, 64% adequate, 15% surplus. Cotton 41% fair, 57% good, 2% excellent. Soybeans 5% poor, 26% fair, 60% good, 9% excellent; 81% turning color. Sweetpotatoes 75% harvested. Sugarcane good; 88% planted. Winter wheat 4% planted; 1% emerged. Hay final cutting 86%. Hay, roughage supplies 5% very short, 28% short, 59% adequate, 8% surplus. Livestock, pecans good; some pecans harvested. Pastures, vegetables fair to good. Main activities: Harvesting corn, cotton, hay, rice, sorghum, soybeans, sweetpotatoes; planting sugarcane, winter pastures; marketing calves; working cattle.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.47 in. Temperature 59°, normal 62°. Temperature extremes 27°; 84°.

Days suitable for fieldwork 6.0. Topsoil moisture 20% short, 80% adequate. Subsoil moisture 70% short, 30% adequate. Hay supplies 20% short, 80% adequate. Corn 95% mature, 95% avg.; silage 97% harvested, 97% avg.; grain 50% harvested, 60% avg. Soybeans 25% fair, 75% good; 80% turning, 90% avg.; 55% shedding leaves, 65% avg.; 5% harvested, 15% avg. Tobacco 100% harvested, 97% avg. Alfalfa 4th cutting 80%, 80% avg. Apples 75% harvested, 75% avg. Winter wheat 20% seeded, 25% avg. Barley 55%

seeded, 55% avg. Rye 45% planted, 50% avg. Oats 10% seeded, 30% avg.

DELAWARE: Precipitation 0.89 in. Temperature 60°, normal 62°. Temperature extremes 34°; 82°.

Days suitable for fieldwork 5.7. Topsoil moisture 100% adequate. Subsoil moisture 30% short, 70% adequate. Hay supplies 100% adequate. Corn 97% mature, 99% avg.; silage 99% harvested, 98% avg.; grain 65% harvested, 65% avg. Soybeans 80% turning, 85% avg.; 45% turning, 65% avg.; 5% harvested, 65% avg. Alfalfa 4th cutting 90%, 95% avg. Apples 75% harvested, 70% avg. Winter wheat 15% seeded, 10% avg. Barley 35% seeded, 30% avg. Rye 15% seeded, 25% avg.

MICHIGAN: Temperatures 6 to 9° below normal. Temperature extremes 24°; 65°. Precipitation 0.14 to 1.66 in.

Days suitable for fieldwork 4.5. Soil moisture 10% short, 65% adequate, 25% surplus. Corn 75% mature, 97% 1987, 90% avg.; 10% harvested, 20% 1987, 10% avg. Soybeans 90% shedding, 99% 1987, 97% avg.; 10% harvested, 15% 1987, 15% avg. Winter wheat 60% planted, 50% 1987, 50% avg.; 30% emerged, 30% 1987, none avg. Dry beans 40% harvested, 35% 1987, 60% avg. Pastures supplied 35% livestock feed. Major activities: Harvesting corn silage, haylage, dry beans, soybeans, corn for grain, fruit, seeding winter wheat, harvesting some sugarbeets.

MINNESOTA: Temperatures 4 to 9° below normal. Temperature extremes 18°; 76°. Precipitation none to 0.08 in. Greatest weekly total 0.18 in.

Days suitable for fieldwork 5.8. Topsoil moisture 8% very short, 33% short, 58% adequate, 1% surplus. Corn 63% combined, 49% 1987, 21% avg.; 99% silage cut, 96% 1987, 77% avg.; 20% moisture content, 19% 1987, 25% avg. Land plowed 26%, 15% 1987, 3% avg. Soybeans 86% combined, 88% 1987, 44% avg.; 12% moisture content, 10% 1987, 14% avg. Land plowed 40%, 35% 1987, 7% avg. Sunflowers 60% harvested, 34% 1987, 16% avg. Sugarbeets 55% harvested, 68% 1987, 50% avg. Potatoes 87% harvested, 94% 1987, 85% avg. Dry beans 90% harvested, 96% 1987, 76% avg.

MISSISSIPPI: Cool, dry; showers over southern half of State early week. Temperatures 7° below normal. Extremes 35°; 83°.

Days suitable for fieldwork 4.6, 6.6 1987, 4.8 avg. Soil moisture 5% short, 80% adequate, 15% surplus. Corn 73% harvested, 91% 1987, 86% avg. Sorghum 83% harvested, 95% 1987, 88% avg. Cotton good; 48% harvested, 75% 1987, 53% avg. Soybeans fair; 10% harvested, 29% 1987, 19% avg. Rice 78% harvested, 100% 1987, 90% avg. Rain still slowing cotton harvest causing some regrowth. Sweetpotatoes 60% harvested, 73% 1987, 65% avg. Peanuts 80% harvested, 85% 1987, 77% avg. Hay 90% harvested, 95% 1987, 94% avg. Wheat 17% planted, 11% 1987, 15% avg. Pecans good. Pastures good. Livestock good. Hay, roughage 35% short, 65% adequate. Activities: Cotton, rice, corn, sorghum harvest.

MISSOURI: Temperatures 9 to 14° below normal. Rainfall 0.10 in. south, dry elsewhere.

Days suitable for fieldwork 5.5. Topsoil moisture 51% short, 41% adequate, 8% surplus; northern third mostly short. Corn harvest varies 60% east central to 96% southeast. Soybean harvest 9% southeast to 39% west central. Livestock water supplies still low northern counties. Pastures 9% very poor, 23% poor, 48% fair, 14% good, 6% excellent.

MONTANA: Temperatures much above normal west. Other areas temperatures near normal. No measurements of precipitation.

Days suitable for fieldwork 6.8. Topsoil moisture 64% short, 36% adequate. Subsoil moisture 90% short, 10% adequate. Potatoes 64% harvested, 66% 1987, 53% avg. Corn silage 96% harvested, 88% 1987, 84% avg. Dry beans 90% harvested, 87% 1987, 83% avg. Sugarbeets 22% harvested, 15% 1987, 12% avg. Cattle, calves moved from summer pastures 83%, 46% 1987, 58% avg. Sheep, lambs 88% moved, 51% 1987, 62% avg. Stockwater 70% short, 30% adequate.

NEBRASKA: Cool, dry. Temperatures 9° below normal. Little to no precipitation occurred throughout week. Extremes 22°; 77°.

Days suitable for fieldwork 5.6. Topsoil moisture 6% short, 88% adequate, 6% surplus. Subsoil moisture 56% short, 44% adequate. Corn 45% harvested, 38% 1987, 24% avg. Soybeans 55% harvested, 59% 1987, 36% avg. Sorghum 65% harvested, 55% 1987, 31% avg. Sugarbeet harvest continued. Sunflower, millet harvest started. Winter wheat 85% emerged, 92% 1987, 85% avg. Pasture, range feed supplies 6% very short, 43% short, 51% adequate.

NEVADA: High pressure system dominated beginning of week, low pressure moved in later bringing isolated showers. Precipitation 0.05 in. Caliente, 0.03 in. Jackpot, trace amounts elsewhere. Lows 35 to 40° north, 60° south; highs 90° north to 100° south.

Potato harvest good progress, should be complete by mid-month. Late cuttings alfalfa hay still in progress some areas. Most livestock on low elevation ranges. Early feeding, hauling stock water common practice many areas due to drought conditions.

NEW ENGLAND: Precipitation 1.00 to 1.50 in. northern Maine, Rhode Island, Connecticut, coastal Massachusetts, 0.50 to 1.00 in. remainder. Temperatures near 40° Canadian border to low 50s southern coast. Temperatures below normal.

Days suitable for fieldwork 5.0. Fieldwork 0.5 days behind. Soil moisture 16% short, 74% adequate, 11% surplus. Grazing availability 27% short, 73% adequate. Maine potatoes 85% dug, 81% 1987, 81% avg.; good. Rhode Island potatoes 100% harvested, 90% 1987, 93% avg.; good. Connecticut River Valley potatoes 80% dug, 72% 1987, 74% avg.; fair. Field corn 75% harvested, 65% 1987, 67% avg.; good to excellent. Second crop hay harvest complete. Third crop hay 80% cut, 74% 1987, 81% avg.; good to excellent. Apples 77% picked, 77% 1987, 72% avg.; good; medium size; color fair to good. Cranberries 60% harvested; color excellent; size good. Major farm activities: Harvesting fall vegetables, haying, planting cover crops.

NEW JERSEY: Temperatures much below normal. Extremes 25°; 77°. Rainfall 0.25 in. north, 0.49 in. central, 0.40 in. south. Heaviest 24-hour total 0.70 in. on 7th, 8th. Estimated soil moisture percent field capacity 79% north, south; 68% central. Four inch soil temperatures 53° north, 55° central, 56° south.

Sharply colder temperatures slowed crop growth. Frost occurred many areas. Irish potato digging complete some areas. Apple, cranberry harvest active. Corn silage making continued. Harvest of corn for grain active. Soybean combining began. Grain, cover crop seeding continued active. Pasture growth limited. Hay, roughage 25% short, 75% adequate.

NEW MEXICO: Showers northern portion of State, some snow higher elevations. Clayton 1.28 in. of

rain. Temperatures overnight low of 28° Chama to 88° Animas.

Days suitable for fieldwork 6.9. Soil moisture 27% short, 73% adequate. Cotton 87% bolls open, 2% harvested; 23% fair, 77% good. Wheat 10% poor, 15% fair, 75% good; 90% planted, 82% emerged. Cattle 27% fair, 64% good, 9% excellent. Sheep 17% fair, 58% good, 25% excellent. Range 27% fair, 55% good, 18% excellent.

NEW YORK: Week began mild, highs in 70s. Temperatures fell early in week, highs mainly in 50s from 4th on. Widespread freezing temperatures occurred 7th. Light showers widespread each day through 6th and 8th. Heaviest amounts across north.

Days suitable for fieldwork 5.2. Soil moisture mostly adequate. Wet fields hindered harvesting some areas. Pastures mostly fair to good. Hay fair to mostly good. Third cutting alfalfa 81%, 71% 1987, 77% avg. Corn good; silage 56% harvested, 55% 1987, 46% avg.; grain harvest underway. Early winter grain development hindered by unseasonably cool weather. Vegetable harvest neared completion. Crop growth stopped by widespread freezing temperatures. Apple harvest active. Harvest of hybrid, vinifera grapes in Chautauqua - Erie areas nearly complete.

NORTH CAROLINA: Temperatures 5 to 9° below normal, statewide. Temperature extremes 24°; 87°. Precipitation 0.14 to 3.66 in.

Days suitable for fieldwork 4.1. Soil moisture 6% short, 78% adequate, 16% surplus. Pasture 3% poor, 29% fair, 61% good, 7% excellent. Flue-cured tobacco 94% harvested, 94% 1987, 96% avg. Peanuts 7% poor, 36% fair, 53% good, 4% excellent. Sweetpotatoes 23% fair, 69% good, 8% excellent; 45% harvested, 45% 1987, 41% avg. Apples 71% harvest, 74% 1987, 73% avg.; 3% poor, 37% fair, 60% good. Corn silage 95% harvested, 98% 1987, 95% avg. Sorghum for grain 55% harvested, 50% 1987, 47% avg.; 5% poor, 37% fair, 55% good, 3% excellent. Burley tobacco 95% harvested, 98% 1987, 96% avg. Hay 3rd cutting 65%. Major farm activities: Tobacco harvesting, marketing; corn, apple, peanut harvesting. Other activities: Cotton, sweetpotato, vegetable harvesting; spraying crops; land preparation for fall planting; planting small grains, cover crops; tagging, shearing Christmas trees; tending livestock, general farm maintenance. First frost western part of State, light damage some areas. Wet weather hampered harvest activities other portions of State.

NORTH DAKOTA: Temperatures 3 to 7° below normal. Extremes 12°; 78°.

Days suitable for fieldwork 6.9. Topsoil moisture 53% very short, 40% short, 7% adequate. Subsoil moisture 73% very short, 25% short, 2% adequate. Row crop harvest ahead of normal pace. Sunflower 52% combined, 24% 1987, 14% avg.; corn for grain 62%, 29% 1987, 26% avg.; flax 95%, 95% 1987, 79% avg.; dry edible beans 94%, 93% 1987, 75% avg.; soybeans 88%, 86% 1987, 55% avg.; potatoes 94% dug, 100% 1987, 87% avg.; sugarbeets 58% lifted, 74% 1987, 57% avg. Dry conditions held fall planting of winter wheat, rye behind average pace 86%, 87% respectively. Pasture conditions declined slightly; 44% very poor, 45% poor, 10% fair, 1% good; furnished 57% roughage requirements. Hay, roughage supplies 77% very short to short, 23% adequate.

OHIO: Lows mid to upper 30s, highs upper 50s. Temperatures mostly 6 to 12° subnormal. Lowest readings upper 20s to mid 30s brought end to growing season most areas. Precipitation 0.20 to 0.40 in. northeast; 0.10 in. elsewhere.

Days suitable for fieldwork 6.2. Soil moisture 33% short, 65% adequate, 2% surplus. Harvests slowed. Grain, bean moisture high; slow dry-down. No aflatoxin identified in corn. Soybeans fair. Winter wheat seedings need moisture for germination. Grasslands fair to good.

OKLAHOMA: Temperatures 9° below normal southeast to 15° below normal northeast. Precipitation 0.01 in. southwest to 1.09 in. central.

Days suitable for fieldwork 5.0. Topsoil moisture 15% short, 70% adequate, 15% surplus. Subsoil moisture 35% short, 65% adequate. Wheat 65% planted, 75% 1987, 55% avg.; 30% emerged, 45% 1987, 25% avg. Cotton 5% poor, 25% fair, 50% good, 20% excellent; 80% open bolls, 60% 1987, 65% avg.; 5% harvested, 1% 1987, 3% avg. Growers spraying chemicals in preparation for harvest. Sorghum 1% poor, 25% fair, 70% good, 4% excellent; 40% mature, 85% 1987, 80% avg.; 10% harvested, 15% 1987, 20% avg. Peanuts 10% harvested, 10% 1987, 15% avg. Soybeans 25% mature, 55% 1987, 60% avg.; 3% harvested, 10% 1987, 15% avg. Corn 95% harvested, 95% 1987, 90% avg. Wet fields hindered harvest most areas. Pastures good to fair. Cattle good; marketings average, prices stable. Rain needed to replenish stock ponds south.

OREGON: Temperatures well above normal statewide. Coastal areas 3° above normal, western interior 7° above normal, east side 9° above normal. Precipitation 0.10 to 0.20 in. along coast western interior valleys; except extreme southern coast 0.75 in. Very little precipitation east of Cascades, except 0.50 in. at high plateau.

Soil moisture 74% short, 26% adequate. Barley 14% seeded, 32% 1987. Russian wheat aphid activity Columbia Basin winter wheat fields; emerged fields look spotty, show stress due to dry conditions. Rye grass, crimson clover seeding full swing Willamette Valley; fieldwork for grain crops continued. Last alfalfa cutting, last of grain harvest Klamath Basin. Final irrigation application central area. Sugarbeet harvest going well Malheur County, sugar content down from 1987. Pear harvest complete lower Hood River Valley, continued upper valley; expected completion 12th Medford areas. Apple harvest underway lower Hood River Valley, continued other areas. Filberts continued to drop west, early harvest underway. Wine grape harvest in progress. Red raspberry training complete. Cranberry harvest proceeding slowly south coast, color variable. Potato digging 85% Malheur County; underway Willamette Valley, Klamath Basin; continued elsewhere. Seed potatoes 60% harvested Wallowa County. Onion harvest neared completion all areas. Sweet corn, table beet harvests continued Willamette Valley, excellent weather. Livestock mostly good. Some movement of cattle off ranges continued east; movement to California winter pastures has not begun yet. Range, pasture mostly poor to fair east, except Columbia Basin fair to good. Western pastures mainly good, new seedings started to grow.

PENNSYLVANIA: Temperatures below freezing many areas weekend. Temperature 49°, 9° below normal. Temperature extremes 27°; 85°. Precipitation 0.29 in., 0.47 in. below normal.

Days suitable for fieldwork 5.0. Soil moisture 30% short, 65% adequate, 5% surplus. Corn 85% dented, 100% 1987, 98% avg.; 40% mature, 80% 1987, 73% avg.; 8% harvested, 17% 1987, 13% avg.; 15% very poor, 26% poor, 38% fair, 17% good, 4% excellent; ensilage 64% harvested, 75% 1987, 73% avg. Soybean 10% harvested, 19% 1987, 17% avg.; 8% very poor, 22% poor, 39% fair, 26% good, 5% excellent. Potato 70% harvested, 75% 1987, 84% avg. Fall plowing 71%, 73% 1987, 80% avg. Winter wheat 56% planted, 54% 1987, 65% avg. Barley 75%

planted, 81% 1987, 83% avg. Third cutting alfalfa 92%, 79% 1987; 4th cutting 50%, 43% 1987. Quality of hay fair. Amount of feed being obtained from pastures average to below average. Apples 53% harvested, 65% 1987. Grapes 50% harvested, 74% 1987. Activities: Harvesting corn grain, corn silage, soybeans, hay, haylage, fruit, potatoes, other vegetables; planting wheat, barley; fall plowing; spreading manure, fertilizer; caring for livestock; maintaining machinery.

PUERTO RICO: The island average rainfall of 1.54 in., 0.30 inch below normal. The highest weekly total rainfall 6.03 in. Pico del Este-Luquillo, 5.30 in. Guayama, 3.82 in. Rio Blanco-Lower. Highest 24-hour total 3.23 in. Pico del Este-Luquillo. Accumulated rainfall since January 1 to October 7, 50.55 in., 8% above normal.

Divisional temperatures averaged about 80° to 81° on coasts, 74° to 76° interior division, with mean station temperature ranging from 68° at Pico del Este-Liquillo to 82° Roosevelt Roads. Highest maximum temperature 93° several places, lowest minimum temperature 55° Adjundtas.

SOUTH CAROLINA: Temperatures cooler than usual. Upstate, north Midlands received first frost. Rainfall amounts 3.60 in. Beaufort to less than 0.10 in. few areas.

Days available for fieldwork 5.2. Soil moisture 15% short, 85% adequate. Cotton 86% open bolls, 95% 1987, 95% avg.; 15% harvested, 47% 1987, 36% avg.; 2% very poor, 16% poor, 82% fair. Soybeans 40% leaves turning, 55% 1987, 62% avg.; 18% leaves shedding, 23% 1987, 30% avg.; 18% matured, 17% 1987, 16% avg.; 1% poor, 32% fair, 62% good, 5% excellent. Tobacco stalks destroyed 71%, 81% 1987, 78% avg. Corn poor to fair; 82% harvested, 92% 1987, 93% avg. Peanuts fair to good; 23% harvested, 38% 1987, 45% avg. Sweetpotatoes fair to good; 40% harvested, 43% 1987, 39% avg. Apples fair to good; 74% harvested, 72% 1987, 80% avg. Sorghum fair to good; 47% harvested, 64% 1987, 56% avg. Pastures fair to good. Livestock fair to good.

SOUTH DAKOTA: Temperatures 11° below to normal. Extremes 12°; 78°. Virtually no measurable rain from regular stations. Rainfall for fall season above normal east, central; below normal west.

Days suitable for fieldwork 5.4. Topsoil moisture 20% critically short, 31% short, 49% adequate. Feed supplies 10% very short, 32% short, 57% adequate, 1% surplus. Livestock feed obtained from pastures 61%. Harvest ahead of normal. Wheat, rye seedings, emergence behind normal.

TENNESSEE: Cold front brought light rain east 3rd, otherwise high pressure kept cool, dry weather over State entire week. Temperatures 15° below normal Plateau, 10° below normal rest of State. Precipitation totaled less than 0.10 in. east, no rain rest of State.

Days suitable for fieldwork 5.0. Soil moisture 21% short, 76% adequate, 3% surplus. Pasture feed normal. Corn 64% harvested, 83% 1987, 57% avg. Burley tobacco 10% stripped, 16% 1987, 10% avg. Wheat 16% seeded, 25% 1987, 22% avg. Hay supplies short, late cuttings promising. Main activities: Harvesting corn, cotton, sorghum, soybeans, stripping tobacco, seeding wheat, pastures. Cattle fair to good.

TEXAS: High pressure limited rainfall but main concentrations showers Panhandle, west, north. Several pushes cooler air maintained below normal temperatures much State, especially northern areas. Temperature, rainfall totals below normal.

Crops: Corn harvest without much delay through midweek. Rain delayed operations slightly late Damage from boll weevils affected yields. Producers defoliating Trans-Pecos. Harvest delayed northern Blacklands. Small grain planting continued Plains, central, Blacklands. Early planted fields Plains emerging, showed good growth; additional moisture needed soon. Some irrigating occurred drier areas. Increased armyworms Cross-Timbers. Early fields provide additional grazing soon. Producers fertilizing fields central, many areas still remain too dry to plant. Peanut harvest began more areas Cross-Timbers, Low Plains. Irrigated yields fair to good. Dryland yields low. Late fields south low yields. Grades low. Harvest Hill Country good yields. Soybean harvest getting underway early week Plains. Early yields good. Harvest continued Upper Coast. Yields low northern Blacklands. Sugarbeet harvest began High Plains. Yield expectations above average. Sugarcane harvest begin soon Rio Grande Valley. Other Field Crops: Peanuts 29% harvested, 17% 1987, 23% avg. Pecans 3% harvested, 3% 1987, 3% avg. Soybeans 42% harvested, 31% 1987, 26% avg. Sugarbeets 5% harvested, 12% 1987, 13% avg. Sunflowers 37% harvested, 35% 1987, 34% avg. Oats 35% planted, 49% 1987, 46% avg.

Commercial Vegetables: Rio Grande Valley planting activities increased as conditions dried. Progress other planted fields good. Harvest tomatoes, peppers continued. Harvest oranges increased. Yields above 1987. San Antonio-Winter Garden land preparations, planting continued. Irrigation continued some fields. East planting continued. Sweetpotato harvest continued with average yields. High Plains carrot, pepper, pumpkin harvest continued throughout midweek. Trans-Pecos pepper, cucumber harvest continued. Pecan harvest increased south, east, expanding into central. Shucks splitting Blacklands, Cross-Timbers.

Range and Pasture: Rains past few weeks improved pastures Hill Country, South. Cooler temperatures east slowed growth. Early planted small grains Plains providing some grazing, more soon. Livestock good most areas; heavy marketings occurred drier portions central because lack of forage.

UTAH: Precipitation light throughout State. Temperatures 6 to 8° above normal.

Days suitable for fieldwork 6.9. Soil moisture 68% short, 32% adequate. Winter wheat 90% seeded, 92% 1987, 83% avg.; 42% emerged. Corn 90% mature, 78% 1987, 80% avg.; silage 95% harvested, 85% 1987, 77% avg. Alfalfa 4th cutting 80% harvested, 40% 1987. Alfalfa seed 75% harvested. Onions 95% harvested, 71% avg. Potatoes 90% harvested, 66% avg. Apples 65% harvested. Livestock movement from summer range 70% cattle, 46% 1987, 47% avg.; 78% sheep, 42% 1987, 50% avg. Pasture, range 14% very poor, 34% poor, 28% fair, 24% good. Irrigation water supplies 14% very short, 50% short, 36% adequate. Stockwater supplies 16% very short, 32% short, 52% adequate. Hay, roughage supplies 4% very short, 28% short, 60% adequate, 8% surplus. Livestock fair to good.

VIRGINIA: Cloudy, warm, wet beginning; cool, dry mid, late period. Temperatures 6° below normal. Rainfall 0.25 to 0.50 in. but ranged to over 1.00 in.

Days suitable for fieldwork 5.0. Topsoil moisture 15% short, 85% adequate. Grain corn 54% harvested, 72% 1987, 64% avg.; silage 82% harvested, 93% 1987, 94% avg. Soybeans 2% harvested, 2% 1987, 4% avg.; 4% poor, 42% fair, 32% good, 22% excellent. Peanuts 99% good, 1% excellent; harvest delayed by rain, frost warnings; 44% dug, 26% 1987, 63% avg.; 32% combined, 16% 1987, 48% avg. Flue-cured tobacco 90% harvested, normal progress. Burley tobacco harvest virtually

week. Yields continued very good. Only minor problems from lodging. Aflatoxin concern some areas. Grain sorghum harvest increased early week as cooler temperatures helped mature fields. Yields good. Most harvest completed up to Low Plains, Cross-Timbers. Sorghum 99% turning color, 100% 1987, 98% avg. Cotton harvest began Low Plains. Many other producers defoliating, applying harvest aid chemicals to speed up boll openings. Cooler temperatures slowed natural process. Harvest increased Cross-Timbers varied yields. complete. Some hay, alfalfa cut. Apples harvested, normal pace. Excellent small grain planting conditions after early period rain.. Wheat 9% seeded, 18% 1987, 16% avg. Barley 27% seeded, 50% 1987, 47% avg. Cattle sales active. Livestock 15% fair, 68% good, 17% excellent. Pastures 5% poor, 33% fair, 41% good, 21% excellent.

WASHINGTON: High pressure rebuilt along coast keeping western area temperatures near normal with fog, drizzle, brief periods of clearing. Eastern area thermal trough over it producing hot, dry, mostly clear weather all week. Some precipitation western areas.

Days suitable for fieldwork 6.9. Soil moisture 70% short, 30% adequate. Seeding of fall grains continued. Winter wheat seeding 76%, 68% last week, 74% 1987, 79% avg. Winter wheat 57% emergence, 45% last week, 54% 1987, 58% avg. Early stands of winter wheat experienced moisture stress. Third cutting alfalfa hay, mint harvest neared completion. Dry bean harvest underway Grant County. Potato harvest full swing. Cranberry harvest continued Pacific County, excellent color. Harvest of red delicious apples underway. Strawberry, raspberry harvest complete. Concord grape harvest 50% Benton County. Harvest of fall vegetables continued. Most onions in storage Grant County.

WEST VIRGINIA: Temperature 48°; 7 to 11° below normal. Extremes 19° Greenbank; 70° Creston. Precipitation 0.02 in.

Days suitable for fieldwork 5.2. Soil moisture 11% very short, 47% short, 42% adequate. Corn fair to poor; 53% harvested. Apples fair to good; 27% harvested. Feed supplies 17% very short, 36% short, 47% adequate. Feed from pasture 81%. Farm activities: General farm maintenance, haying, cutting silage, seeding small grains.

WISCONSIN: Cold, dry week ended growing season. Temperatures 45°, 8° below normal. Extremes 20°; 70°. Precipitation trace to 0.10 in.

Days suitable for fieldwork 6.7. Soil moisture 50% short, 50% adequate. Corn for grain 35% harvested, 32% 1987, 13% avg. Yields variable, mainly low. Corn silo filling 92%, 89% 1987, 60% avg. Alfalfa excellent. Farmers cutting haylage after frost. Soybeans 23% harvested, 40% 1987, 16% avg. Frost aided harvest, killing weeds. Winter wheat excellent, amount planted up. Fall plowing 25%, 22% 1987, 17% avg. Pastures improved 59%, 85% 1987, 87% avg.

WYOMING: Temperatures above normal west. East below normal. No rainfall except trace amounts south.

Days suitable for fieldwork 7.0. Topsoil moisture 83% short, 17% adequate. Winter wheat 95% seeded, most 1987, most avg.; 65% emerged, 85% 1987, 90% avg.; mostly fair. Corn 15% dented, 20% 1987; 75% mature, 75% 1987; 10% harvested, 5% 1987, 20% avg.; silage 95% harvested, 95% 1987. Dry beans 90% combined, 85% 1987, 85% avg. Sugarbeets 40% dug, 45% 1987, 40% avg. Potatoes 70% harvested, 85% 1987, 80% avg. Hay supplies for wintering livestock 60% short. Livestock fair to good.

(Continued from p. 8)

Nebraska's wheat was 85 percent seeded, 6 points behind normal. Sixty percent of the crop was emerged, 10 points behind the average. Emergence in early September was slowed by lack of rain.

Kansas wheat seeding was progressing at a normal pace and was 55% finished. Twenty percent of the crop was emerged, 5 points behind the average. Rain in mid-September improved seeding and germination conditions.

Seeding in Oklahoma was 45 percent finished, 5 points ahead of normal. Crop emergence, at 20 percent, was 5 points ahead of the average.

Crop Progress 1/

FOR WEEK ENDING OCTOBER 9, 1988

SOYBEANS
% DROPPING LEAVES

	1988	1987	AVG.
ALA	45	65	58
ARK	30	53	47
GA	43	71	71
ILL	99	100	98
IND	99	100	99
IOWA	100	100	100
KANS	97	90	85
KY	60	82	69
LA	54	70	64
MICH	90	99	97
MINN	100	100	100
MISS	55	75	77
MO	84	94	82
NEBR	100	99	98
N C	20	25	26
OHIO	95	100	99
S C	18	23	30
S DAK	100	100	97
TENN	66	84	73
19 STATES	84	90	87

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

SOYBEANS
% HARVESTED

	1988	1987	AVG.
ALA	8	21	15
ARK	3	22	12
GA	2	5	7
ILL	70	87	59
IND	40	75	44
IOWA	75	83	50
KANS	45	40	20
KY	10	25	13
LA	19	37	25
MICH	10	15	15
MINN	86	88	44
MISS	10	29	19
MO	25	47	27
NEBR	55	59	36
N C	3	0	0
OHIO	30	68	42
S C	0	0	0
S DAK	64	85	42
TENN	8	17	9
19 STATES	45	60	36

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

COTTON
% BOLLS OPENING

	1988	1987	AVG.
ALA	98	99	93
ARIZ	100	95	99
ARK	90	100	95
CALIF	100	100	97
GA	85	87	86
LA	98	100	97
MISS	96	100	100
MO	90	100	95
N MEX	87	80	94
N C	94	99	98
OKLA	80	60	65
S C	86	95	94
TENN	100	100	100
TEX	64	48	54
14 STATES	81	74	76

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

COTTON
% HARVESTED

	1988	1987	AVG.
ALA	44	74	42
ARIZ	20	14	16
ARK	33	73	50
CALIF	5	25	8
GA	19	45	28
LA	51	75	53
MISS	48	75	53
MO	25	81	56
N MEX	2	4	4
N C	9	21	19
OKLA	5	1	3
S C	15	47	36
TENN	26	71	48
TEX	23	17	18
14 STATES	25	36	27

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

WINTER WHEAT
% PLANTED

	1988	1987	AVG.
ARK	3	18	13
CALIF	1	3	3
COLO	95	96	96
GA	8	6	9
IDAHO	72	72	72
ILL	47	59	36
IND	45	52	39
KANS	80	90	70
MICH	60	50	50
MO	39	49	31
MONT	77	90	66
NEBR	100	99	97
N MEX	90	85	NA
N C	11	10	10
OHIO	46	59	43
OKLA	65	75	55
OREG	34	24	30
S DAK	90	98	97
TEX	77	77	58
WASH	76	74	79
20 STATES	71	77	NA
EXCL. STATES WITH NA	71	77	63

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

NA - NOT AVAILABLE.

WINTER WHEAT
% EMERGED

	1988	1987	AVG.
ARK	1	4	NA
CALIF	0	0	0
COLO	77	77	79
GA	3	4	5
IDAHO	29	36	42
ILL	15	14	10
IND	22	22	21
KANS	50	60	40
MICH	30	30	NA
MO	21	24	14
MONT	35	63	39
NEBR	85	92	84
N MEX	82	80	NA
N C	5	3	NA
OHIO	15	16	12
OKLA	30	45	25
OREG	19	8	10
S DAK	76	94	83
TEX	38	54	33
WASH	57	54	58
20 STATES	43	53	NA
EXCL. STATES WITH NA	44	54	40

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

NA - NOT AVAILABLE.

RICE
% HARVESTED

	1988	1987	AVG.
ARK	72	95	84
CALIF	50	50	41
LA	94	99	97
MISS	78	100	90
TEX	100	100	100
5 STATES	76	89	82

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

GRAIN SORGHUM
% MATURE

	1988	1987	AVG.
ARK	93	100	NA
ILL	97	100	NA
KANS	85	75	70
LA	100	100	100
MISS	97	100	99
MO	92	97	91
NEBR	100	100	96
OKLA	40	85	80
S DAK	100	97	84
TENN	100	100	100
TEX	86	85	84
11 STATES	87	86	NA
EXCL. STATES WITH NA	87	85	81

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

NA - NOT AVAILABLE.

CORN
% MATURE

	1988	1987	AVG.
COLO	82	78	90
GA	100	100	100
ILL	100	100	100
IND	98	100	98
IOWA	100	100	100
KANS	100	99	96
KY	86	100	90
MICH	75	97	90
MINN	100	99	93
MO	99	100	99
NEBR	100	100	98
N C	100	100	100
OHIO	70	100	97
PA	40	80	73
S DAK	100	100	100
TEX	100	100	100
WIS	91	99	94
17 STATES	95	99	97

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

CORN
% HARVESTED

	1988	1987	AVG.
COLO	11	15	17
GA	91	94	95
ILL	66	78	42
IND	25	63	29
IOWA	70	50	31
KANS	70	70	50
KY	40	80	53
MICH	10	20	10
MINN	63	49	21
MO	76	77	56
NEBR	45	38	24
N C	58	68	75
OHIO	8	48	24
PA	8	17	13
S DAK	42	37	18
TEX	94	92	91
WIS	35	32	13
17 STATES	48	55	33

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

GRAIN SORGHUM
% HARVESTED

	1988	1987	AVG.
ARK	79	97	89
ILL	41	88	44
KANS	30	35	20
LA	92	99	98
MISS	83	95	88
MO	54	76	54
NEBR	65	55	31
OKLA	10	15	20
S DAK	44	59	24
TENN	74	91	71
TEX	69	64	67
11 STATES	50	54	42

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

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

International Weather and Crop Summary

October 2-8, 1988

HIGHLIGHTS

USSR ... In Western USSR, summer crop harvesting continues to progress, helped by mostly dry weather. Late-week rain in the south moistens topsoils for winter grain planting. In the New Lands, late-week rain in eastern areas delays final harvest efforts.

EUROPE ... Moderate to heavy rain delays summer crop harvest and winter grain planting across the northwest. Rain helps alleviate earlier dryness and benefits establishing winter grains in the southeast.

SOUTH ASIA ... Scattered showers in central and southern India benefit filling crops. Much needed drier weather covers northern India and northern Pakistan.

EASTERN ASIA ... Typhoon Nelson brushes sections of Japan. Moderate to heavy rainfall spreads into central China.

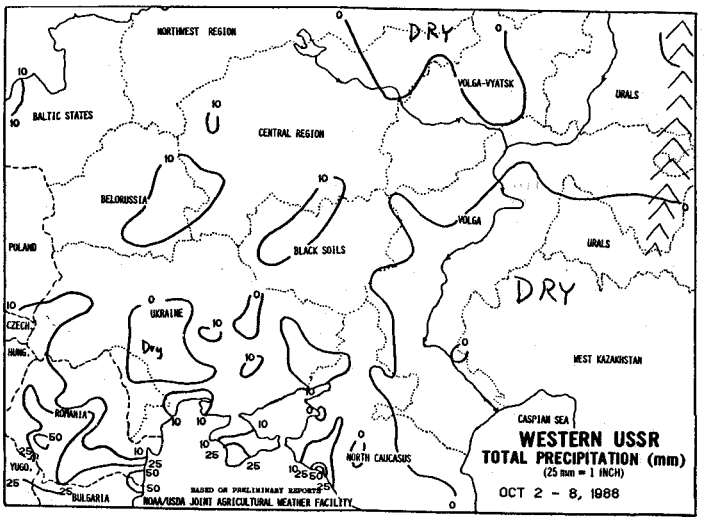
SOUTHEAST ASIA ... Widespread showers cover Indochina with continued flooding likely in south-central areas. Widespread showers over the Philippines help secondary grain planting.

SOUTH AMERICA ... Periodic showers benefit crops in eastern Argentina. Wetness continues in southern Brazil but rain is needed in Mato Grosso do Sul.

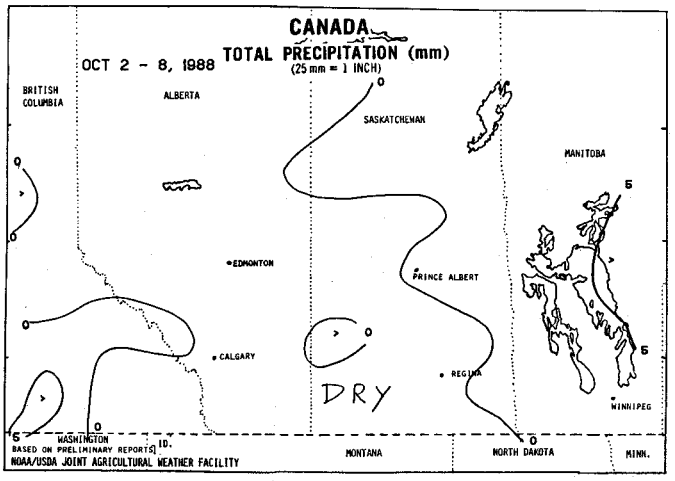
AUSTRALIA ... Abnormally hot, dry weather stresses winter grains early in the week across eastern growing areas. Moderate to heavy rain continues in Western Australia.

MEXICO ... Dryness favors crop harvesting and winter crop planting in the north. Tropical showers fell in the southeast.

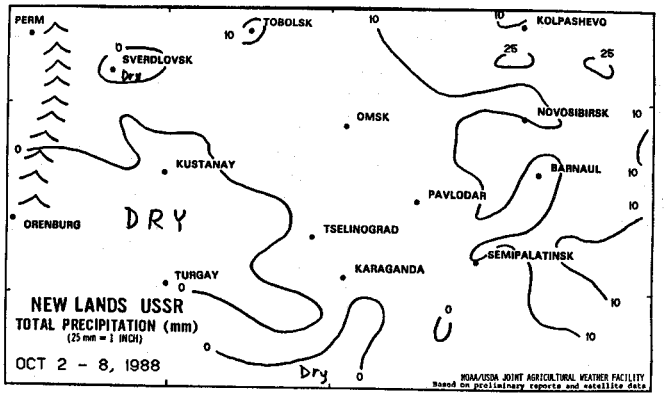
CANADA ... Dry weather favors late spring crop harvesting in the northwest and winter wheat planting activities to the south.



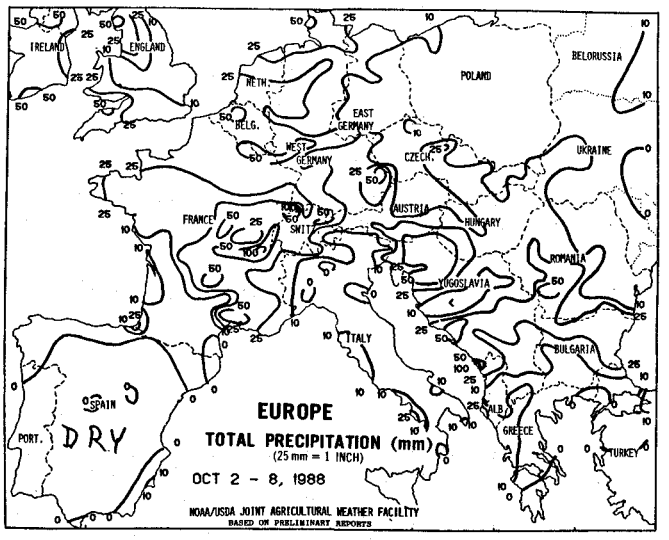
USSR ... In Western USSR, high pressure covered most of the region, providing abundant sunshine and generally dry weather. Corn, sunflower, sugar beet, and potato harvests continued to progress, helped by mostly dry weather. Winter grain planting advanced toward completion in the Ukraine and the North Caucasus. Average weekly temperatures were 1-3 degrees Celcius (C) above normal over the region, promoting continued winter grain growth in the north and favoring crop emergence in the south. By week's end, a storm system developed over the Black Sea, spreading light showers (4-12mm) over the eastern half of the Ukraine and the western North Caucasus. Although the rain increased topsoil moisture for winter grain emergence, more rain is needed to ensure that winter grains become sufficiently established before entering dormancy.



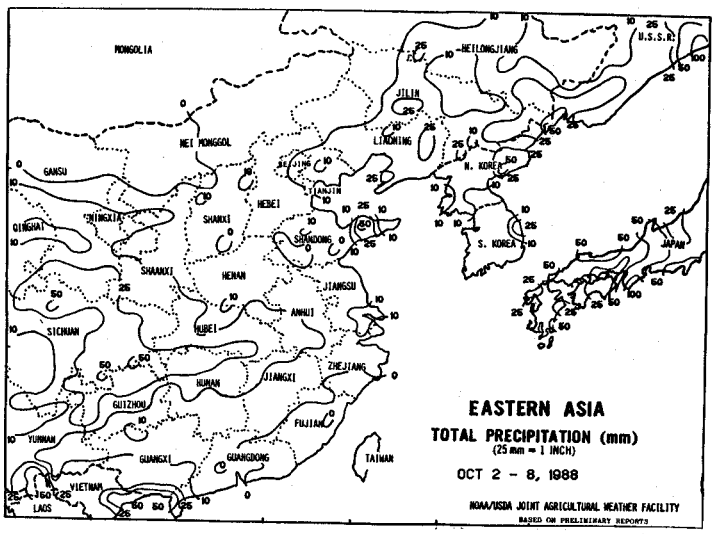
CANADA ... Dry weather covered the Prairies, favoring late spring crop harvesting in the northwest and planting activities in some southern and western winter wheat areas. Cold weather early in the week may have damaged some late planted oilseeds in the northwest as temperatures dipped below -5 degrees C over much of Saskatchewan.



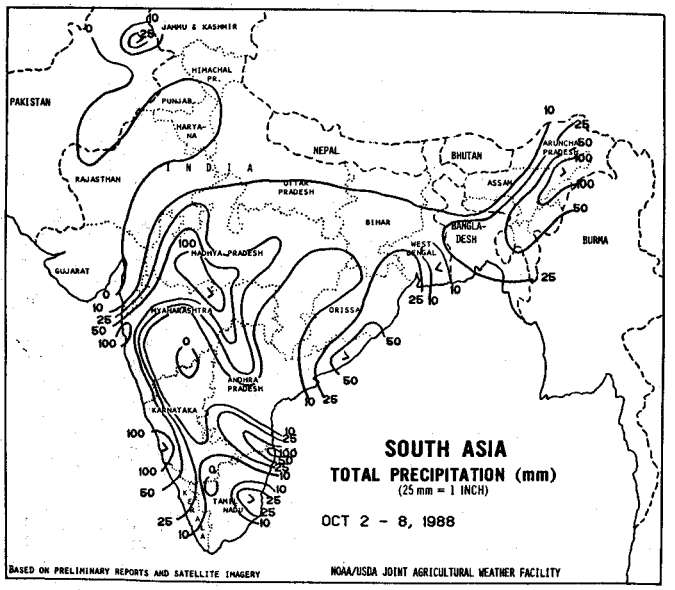
In crop areas east of the Ural mountains (New Lands), unseasonable warm, dry weather in the northern Urals helped spring grain harvesting. In crop areas east of Pavlodar, early-week dry weather helped the spring grain harvest. However, late-week rain (10-25mm) likely caused some delays in final harvest efforts. In South Central USSR cotton areas, dry weather continued to benefit the cotton harvest, well underway in most areas.



EUROPE ... A late-week storm brought moderate to heavy rain (15-25mm, with scattered amounts greater than 30mm) and strong winds to the United Kingdom, northern France, Benelux, and West Germany. The rain delayed summer crop harvest and winter grain planting. Moderate to heavy rain (15-45mm) also covered much of southeastern Europe, helping to alleviate earlier dryness and benefiting winter grain establishment. The rain was the first above normal precipitation in sections of the southern Balkans since June. Elsewhere, light to moderate rain (5-15mm) benefited vegetative winter grains in the northeast, while mostly dry weather favored summer crop harvest in the southwest. Mean temperatures for the week ranged from above normal in the southwest and extreme east to slightly below normal in central and northwestern crop areas.

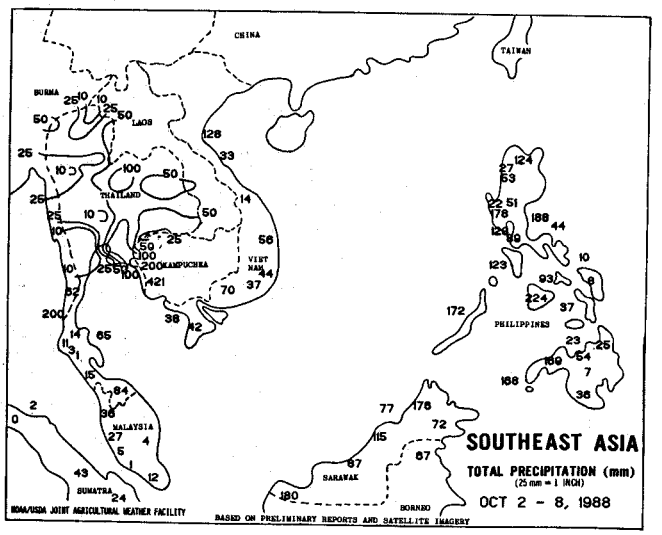


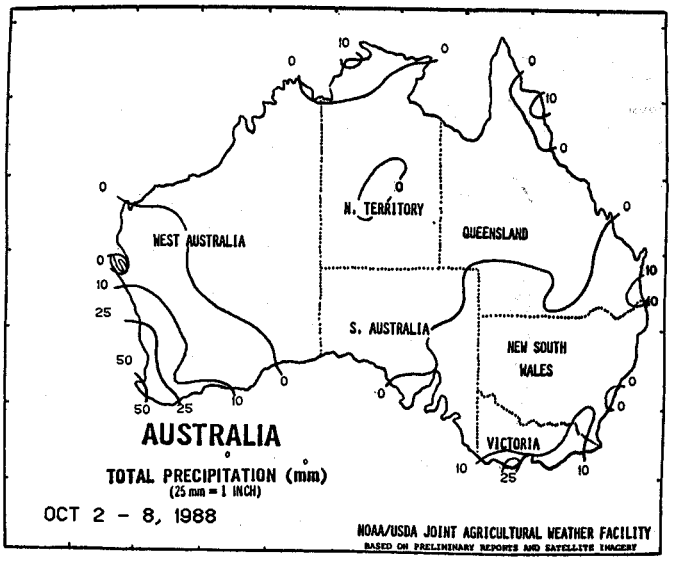
EASTERN ASIA ... Typhoon Nelson brushed southern and eastern sections of Japan late in the week, bringing high winds, heavy rain (25-100mm, with isolated rainfall greater than 100mm), and localized flooding to the Ryuku Islands on Thursday, and to southeastern Honshu on Friday and Saturday. The rainfall caused delays in rice and summer crop harvest. In China, moderate to heavy rain (15-40mm) continued in western crop areas, spreading into middle sections of the Yangtze Valley. The rain delayed late single crop rice harvest but benefited establishing winter grains and oilseeds. Scattered mostly light rain (less than 10mm) favored vegetative winter grains on the North China Plain, although persistently below normal rainfall in sections of Shandong, Henan, and Anhui has caused some soils to become unfavorably dry.

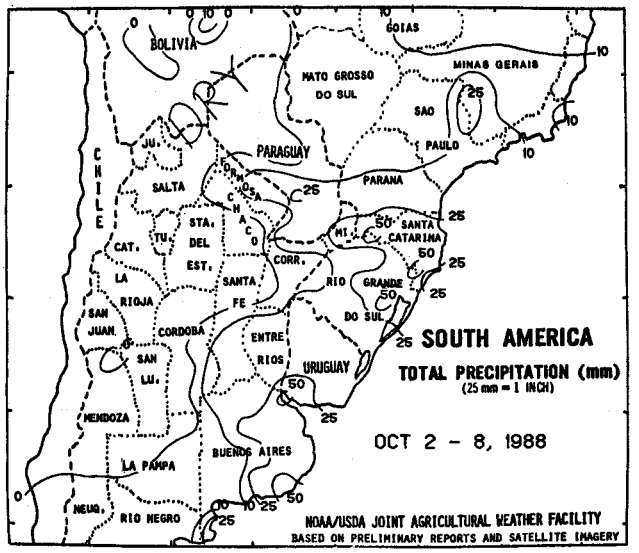


SOUTH ASIA ... Rainfall tapered off from the previous week over much of central and southern India but pockets of heavy rain (100mm or more) continued over portions of western Madhya Pradesh and central Maharashtra, possibly causing local flooding. Scattered showers (10-50mm or more) benefited filling crops in Andhra Pradesh, eastern Tamil Nadu, and along the southeast coast. Mostly dry, warm weather from Gujarat to western Tamil Nadu benefited maturing groundnuts and grains. Moisture conditions across India favor cotton which ranges from flowering to boll forming. Much needed dry weather covered flooded regions of northern India and northern Pakistan. Light to moderate rain (10-25mm or more) from Uttar Pradesh to West Bengal benefited rice ranging from heading to filling and boosted irrigation reserves for winter wheat planting, due to begin soon. Rainfall was generally light (2-27mm) from central Bangladesh eastward, though locally heavy showers (up to 111mm) persisted in far eastern India.

SOUTHEAST ASIA ... Locally heavy rain (100-200mm or more) continued from Bangkok to westernmost Kampuchea, maintaining high irrigation levels but likely causing more flooding. Widespread, moderate to heavy showers (25-125mm) covered most other regions of Indochina, including rainfed rice areas of northeastern Thailand which had been trending dry since mid-September. Locally heavy rain (as much as 128mm) in northern Vietnam was due in part to a tropical depression which moved onshore late in the week. Much needed drier weather covered the western coast of the Malay Peninsula but locally heavy showers (200mm) persisted over a small region. In the Philippines, heavy showers (100-224mm) extended from southwestern Luzon to western Mindanao. Heavy rain (up to 124mm) also fell over grain regions of northeastern Luzon, improving conditions for secondary grain planting.

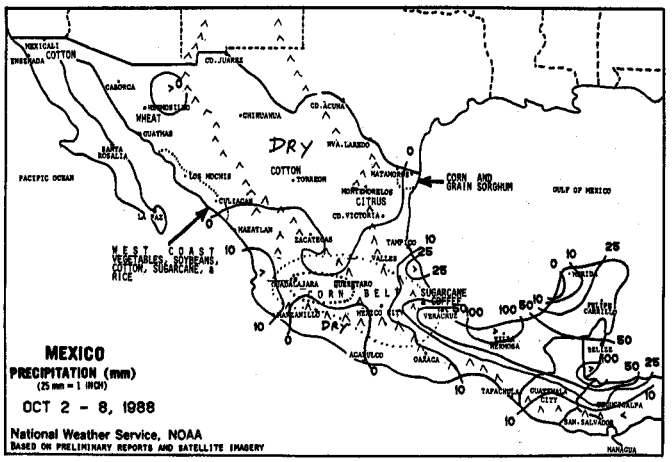






AUSTRALIA ... Abnormally hot, dry weather continued through midweek in eastern Australia, with maximum temperatures in the 35-39 degrees C range causing stress in winter grains across western crop areas of Queensland and New South Wales. A cool front brought relief in the form of cooler temperatures and scattered light rain (less than 10mm) by week's end. Below normal rainfall over the past several weeks in sections of central Queensland, New South Wales, and southern South Australia has caused increasing levels of stress in winter wheat and barley, which are reproductive to filling. In contrast, moderate to heavy rain (15-40mm) continued across growing areas in Western Australia, favoring heading to reproductive winter cereals. Mean temperatures ranged from much above normal in Queensland and New South Wales to near normal in Western Australia.

SOUTH AMERICA ... Periodic showers continued over eastern Argentina and southern Brazil. In Argentina, weekly rainfall averaged 25-73mm in eastern Buenos Aires, an area missed by the previous week's rain, and 10-21mm in southern Santa Fe. Mostly dry weather prevailed in Cordoba, eastern La Pampa and northern cotton areas. Topsoil moisture has improved in recent weeks for summer crop planting and wheat growth. In Brazil, weekly rainfall averaged 10-25mm in the southwestern half of Rio Grande do Sul, and 25-59mm in the northeast and Santa Catarina, maintaining moist field conditions. Beneficial showers (10-20mm) helped early summer crops in southern Parana, eastern Sao Paulo, southern Goias, and scattered areas of Minas Gerais. Warm, dry weather persisted over Mato Grosso do Sul and western Sao Paulo.



MEXICO ... Dry weather prevailed over much of northern Mexico, favoring early wheat planting in the northwest and both harvesting and planting activities in the northeast. Very light showers fell over the Southern Plateau corn belt, favoring the corn harvest. Weekly rainfall averaged 5mm or less in all but eastern portions where 7-25mm of rain fell. Locally heavy tropical showers were confined to an area from Veracruz southward, covering much of southeastern Mexico. Weekly rainfall averaged 40-143mm from Veracruz to Villahermosa, and 10-38mm along the Yucatan peninsula.

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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, Jeff Logan, Bob Stefanski, Wes Byrd, and Jeff Savadel

Subscriptions (202) 447-7917 . . Jeanette Hill

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

Heating Degree Days (Base 65° F.)
September 1988

Station	HDD
AL. Birmingham	0
Mobile	0
Montgomery	0
AK. Anchorage	503
Barrow	1096
Fairbanks	611
Nome	497
AZ. Flagstaff	266
Phoenix	0
Tucson	0
Winslow	44
Yuma	0
AR. Fort Smith	0
Little Rock	0
CA. Bakersfield	0
Eureka	274
Fresno	0
Los Angeles	5
Red Bluff	0
Stockton	2
San Diego	0
San Francisco	71
CO. Denver	129
Pueblo	84
CO. Bridgeport	62
Hartford	112
DC. Washington	18
FL. Apalachicola	0
Jacksonville	0
Key West	0
Miami	0
Orlando	0
W. Palm Beach	0
Tallahassee	0
Tampa	0
GA. Atlanta	0
Augusta	1
Macon	0
Savannah	0
ID. Boise	157
Lewiston	122
Pocatello	229
IL. Chicago	63
Moline	45
Peoria	38
Rockford	66
Springgfield	33
Fort Wayne	62
Indianapolis	37
South Bend	72
IA. Des Moines	35
Dubuque	87
Souix City	75
KS. Concordia	29
Dodge City	49
Goodland	102
Topeka	24
Wichita	0
KY. Lexington	30
Louisville	13
LA. Baton Rouge	0
Lake Charles	0
New Orleans	0
Shreveport	0
ME. Caribou	373
Portland	180

Station	HDD
MD. Baltimore	39
MA. Boston	54
Chatham	8
MI. Alpena	213
Detroit	90
Flint	144
Grand Rapids	135
Houghton Lake	218
Lansing	147
Marquette	305
S. Ste. Marie	291
MN. Duluth	287
Internatl Falls	331
Minneapolis	116
Rochester	154
St. Cloud	202
MS. Jackson	0
Meridian	1
MO. Columbia	16
Kansas City	18
St. Louis	5
Springfield	26
MT. Billings	221
Glasgow	244
Great Falls	294
Havre	283
Helena	282
Kalispell	337
Miles City	200
Missoula	285
NE. Grand Island	78
Lincoln	44
Norfolk	96
North Platte	128
Omaha	38
Valentine	160
NV. Ely	260
Las Vegas	0
Reno	132
Winnemucca	223
NH. Concord	219
NJ. Atlantic City	79
NM. Albuquerque	39
NY. Albany	160
Binghamton	232
Buffalo	122
New York	22
Rochester	164
Syracuse	150
NC. Asheville	33
Charlotte	1
Greensboro	24
Hatteras	0
Raleigh	8
Wilmington	0
ND. Bismark	251
Fargo	207
Williston	279
OH. Akron-Canton	95
Cinncinnati	38
Cleveland	83
Columbus	57
Dayton	56
Toledo	104
Youngstown	134

Station	HDD
OK. Okla. City	8
Tulsa	8
OR. Astoria	250
Burns	27
Medford	62
Pendleton	120
Portland	91
Salem	125
PA. Allentown	97
Erie	102
Harrisisburg	88
Philadelphia	35
Pittsburg	83
Scranton	156
RI. Providence	89
SC. Charleston	0
Columbia	2
Greenville	2
SD. Aberdeen	193
Huron	151
Rapid City	163
Sioux Falls	126
TN. Chattanooga	1
Knoxville	3
Memphis	1
Nashville	5
TX. Abilene	3
Amarillo	32
Austin	0
Beamont	0
Brownsville	0
Corpus Christi	0
Del Rio	0
El Paso	2
Fort Worth	0
Galveston	0
Houston	0
Lubbock	11
Midland	10
San Angelo	2
San Antonia	0
Victoria	3
Waco	3
Wichita Falls	0
UT. Milford	186
Salt Lake City	142
VT. Burlington	211
VA. Lynchburg	39
Norfolk	2
Richmond	27
Roanoke	309
WA. Quillayute	293
Seattle-Tacoma	162
Spokane	240
Walla Walla	72
Yakima	197
WV Beckley	85
Charleston	37
Huntington	38
WI. Green Bay	146
Madison	107
Milwaukee	87
WY Casper	223
Cheyenne	236
Lander	217
Sheridan	221

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