WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
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U.S. DEPARTMENT OF AGRICULTURE
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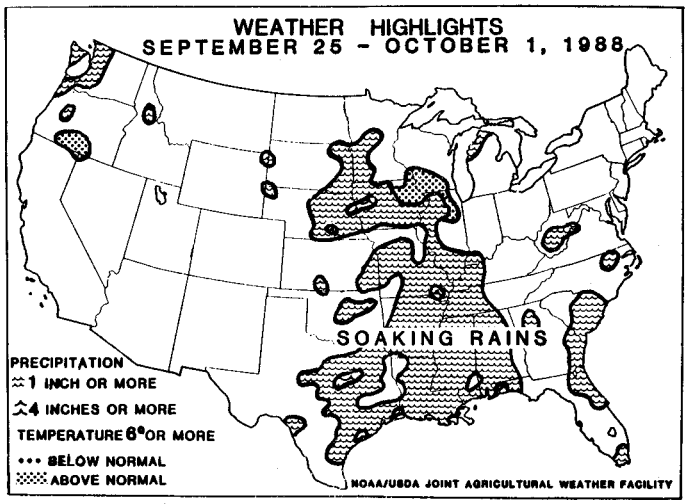
National Weather Summary

September 25-October 1, 1988



HIGHLIGHTS: A storm system drenched the central and southern Great Plains at midweek with heavy rain and caused local flooding. Warm moist air from the Gulf of Mexico brought heavy to moderate rain to much of the Mississippi Valley at weeks' end. Warm weather returned to the West.

SUNDAY...Fair weather dominated much of the Nation. Showers were limited to the middle and southern Atlantic Coast States, upper Mississippi Valley, and the extreme Northwest. Warm air remained over the South.

MONDAY...Fair weather and clear skies again prevailed over most of the country. Rain showers continued over Florida and the Pacific Northwest. Cooler air moved into the north-central United States.

TUESDAY...Showers and thunderstorms developed over the central Great Plains and middle Mississippi Valley. Heavy downpours drenched eastern Nebraska. Other showers and thunderstorms were scattered across the Southeast, northern Rockies, and northern Plains.

WEDNESDAY...Intense thunderstorms over the central and southern Great Plains and middle Mississippi Valley dumped heavy rain and hail and produced high winds. Four inches of rain inundated downtown Kansas City. Showers were scattered across the Southeast, northern Plains, and upper Mississippi Valley. Cooler air moved into the Plains and the Northeast.

THURSDAY...Thunderstorms produced heavy rain over the eastern half of Texas. Moist southerly winds brought scattered showers into the Mississippi Valley. Scattered thunderstorms continued across the central Plains and the Southeast.

FRIDAY...The heavy rain moved eastward and covered much of the lower and mid-Mississippi Valley. Rain showers lingered over the central and southern Plains and extended along the southern Atlantic coast. Temperatures climbed into the hundreds in the Southwest.

SATURDAY...Heavy to moderate rain reached from the central Gulf coast to the Great Lakes. Showers remained over the southern Plains. Sunshine prevailed over the western half of the Nation.

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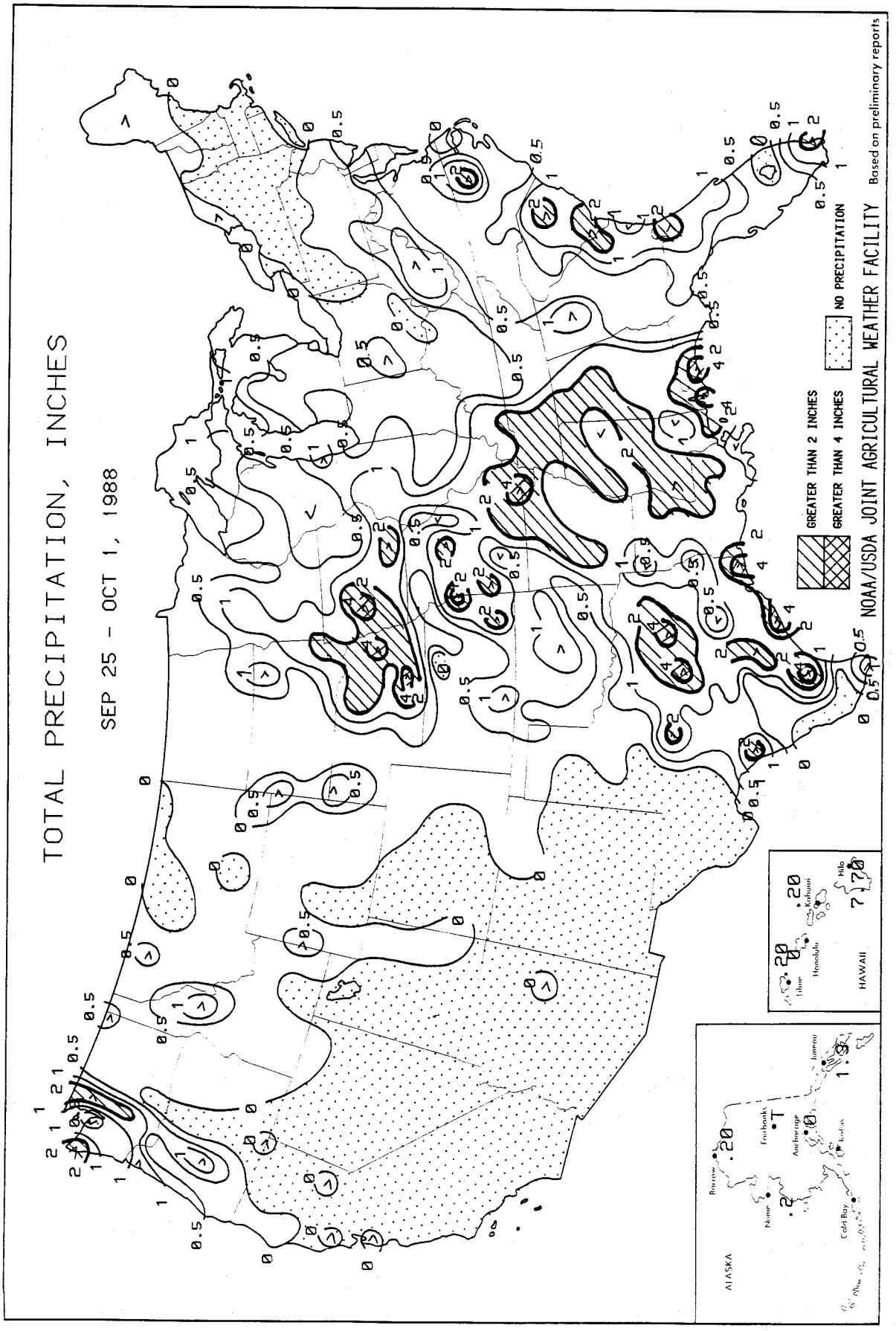
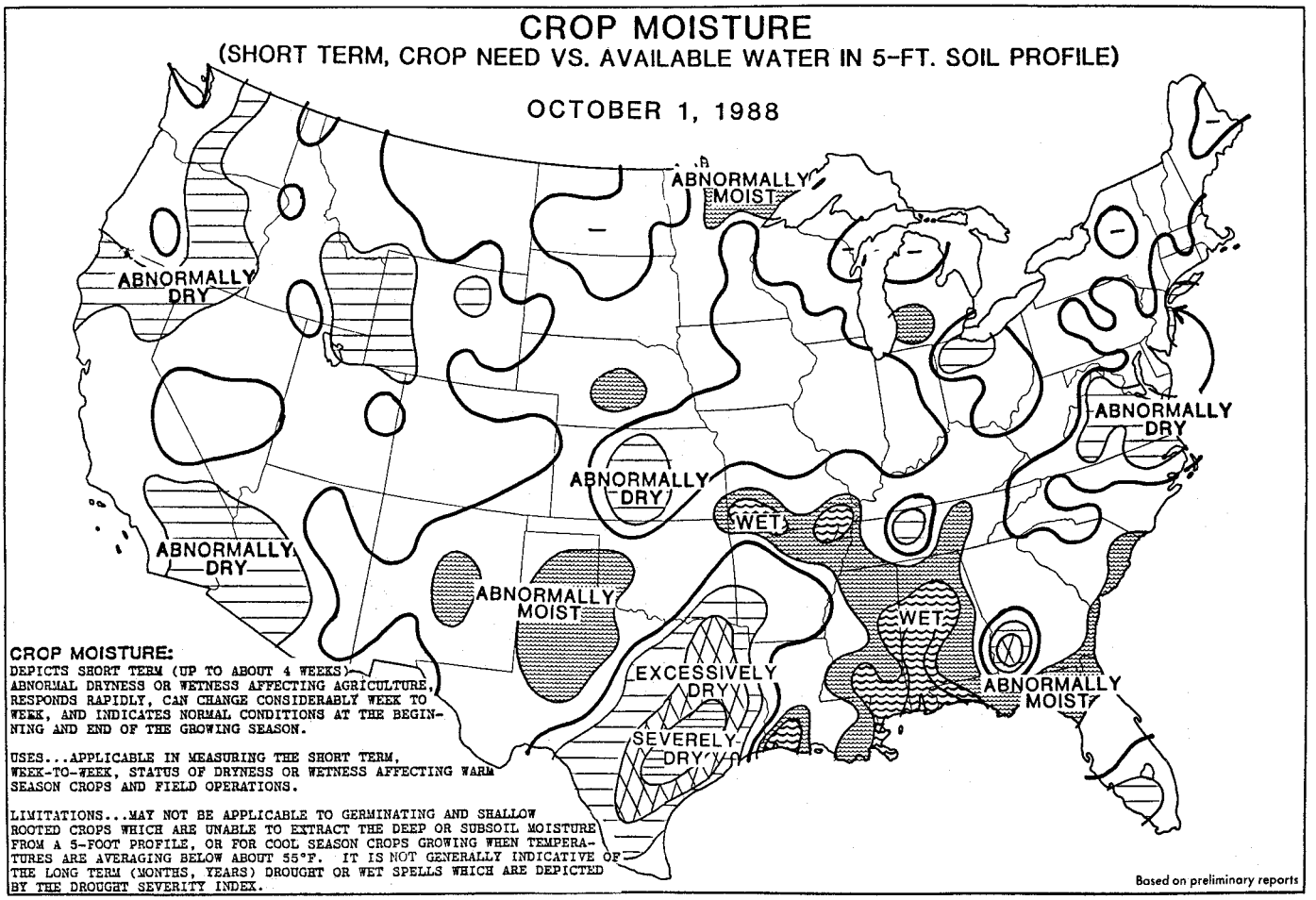
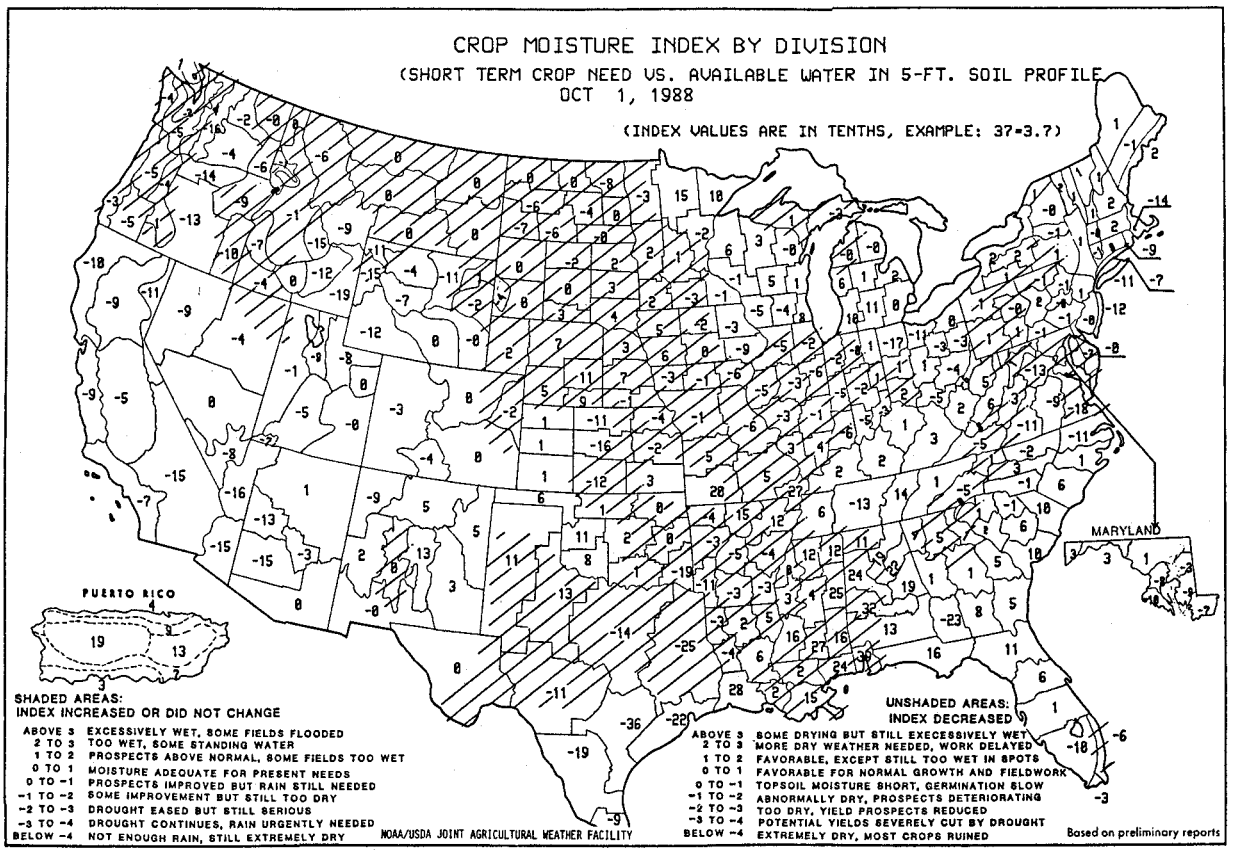
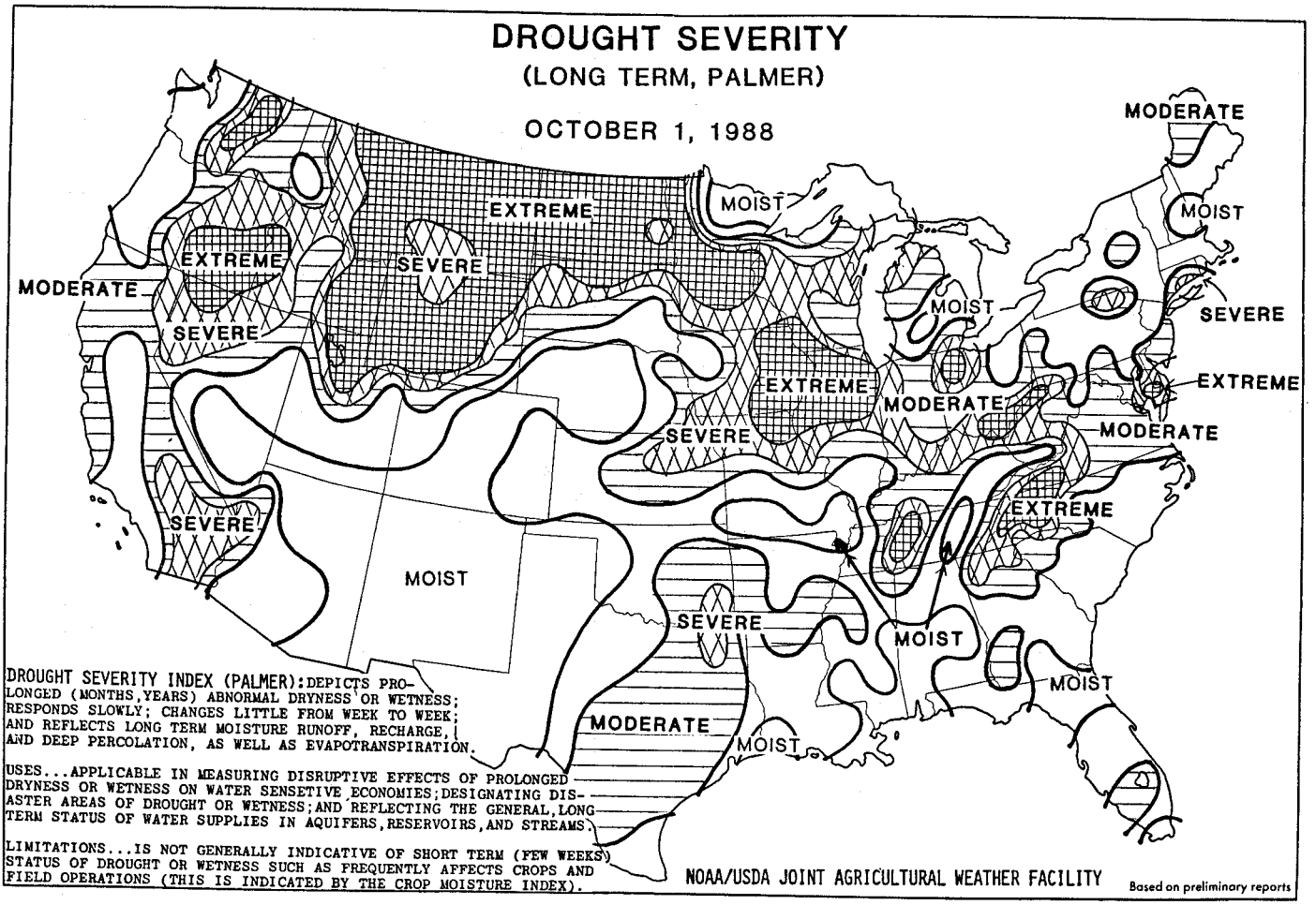
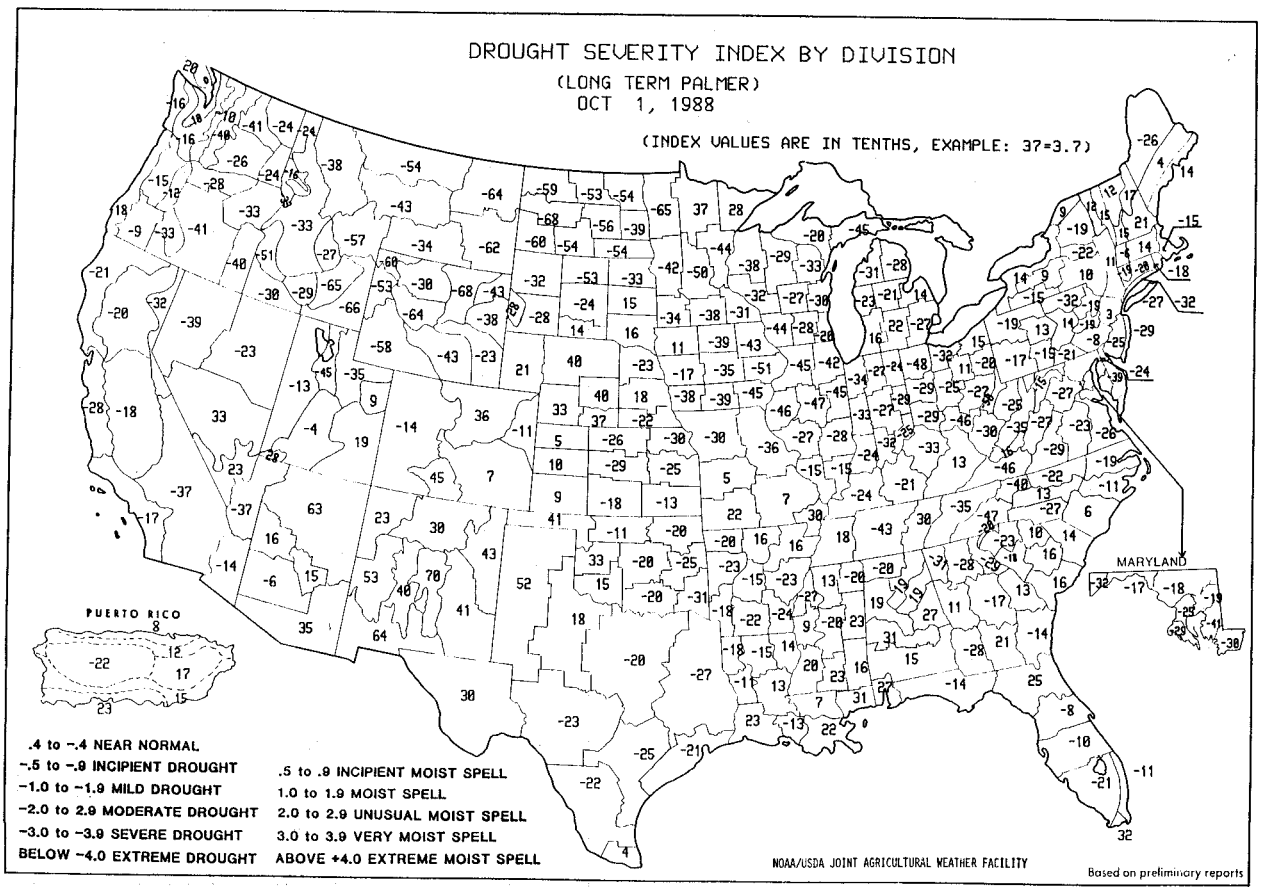
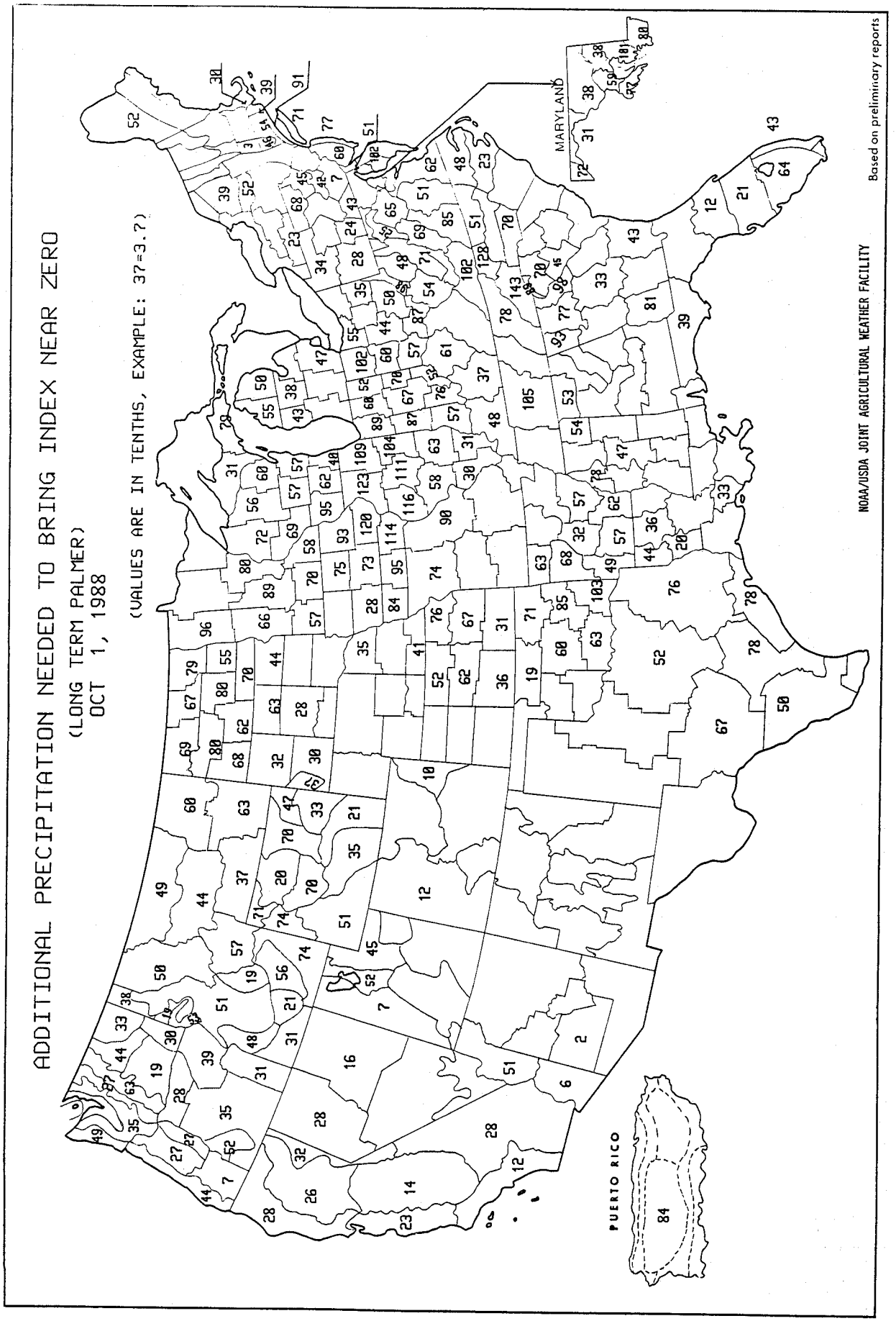

TOTAL PRECIPITATION, INCHES
SEP 25 - OCT 1, 1988
GREATER THAN 2 INCHES
GREATER THAN 4 INCHES
NO PRECIPITATION
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports
ALASKA
HAWAII

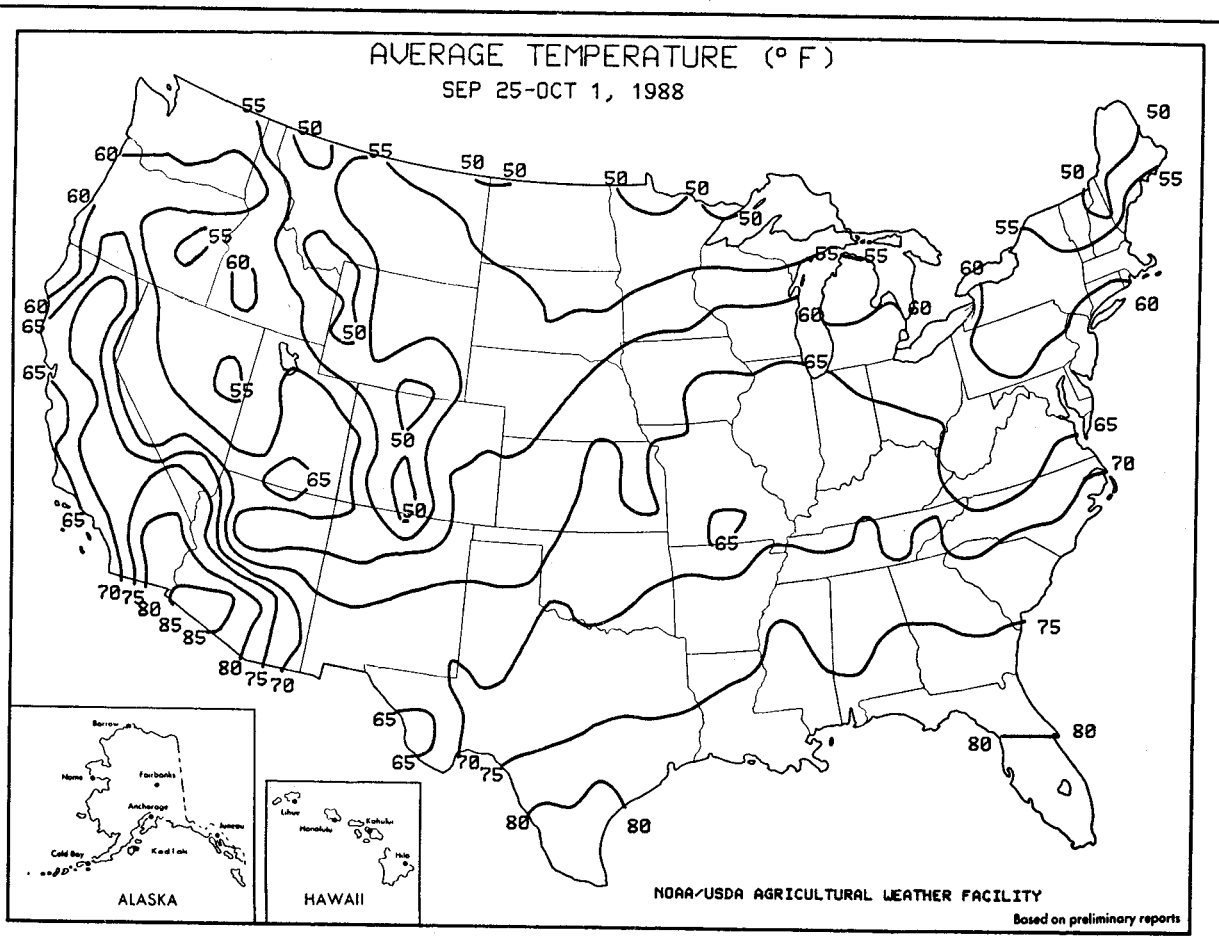

CROP MOISTURE
(SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)
OCTOBER 1, 1988
ABNORMALLY MOIST
ABNORMALLY DRY
ABNORMALLY DRY
ABNORMALLY DRY
WET
ABNORMALLY DRY
ABNORMALLY MOIST
WET
EXCESSIVELY DRY
SEVERELY DRY
ABNORMALLY MOIST
CROP MOISTURE:
DEPICTS SHORT TERM (UP TO ABOUT 4 WEEKS) ABNORMAL 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.
Based on preliminary reports

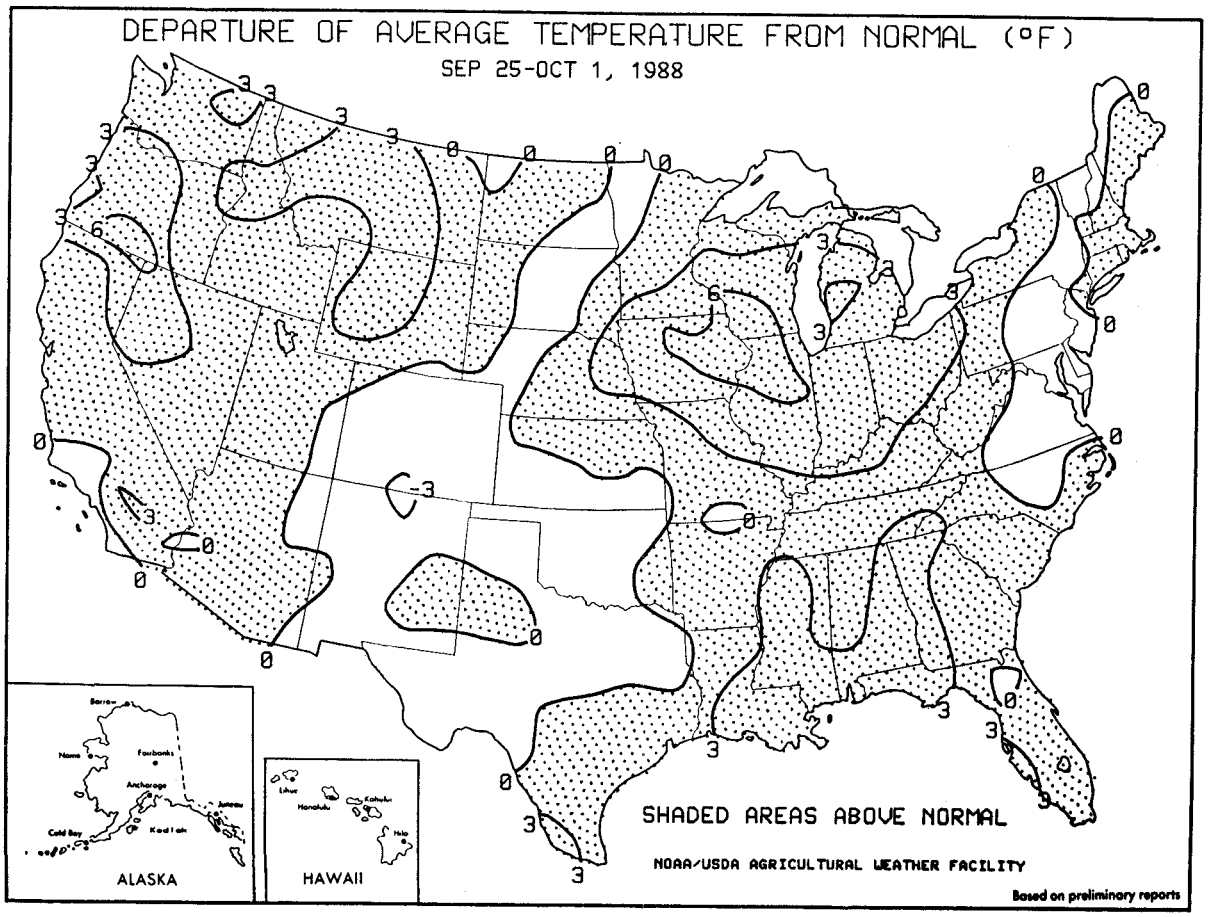

CROP MOISTURE INDEX BY DIVISION
(SHORT TERM CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE
OCT 1, 1988
(INDEX VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)
MARYLAND
PUERTO RICO
SHADED AREAS:
INDEX INCREASED OR DID NOT CHANGE
ABOVE 3 EXCESSIVELY WET, SOME FIELDS FLOODED
2 TO 3 TOO WET, SOME STANDING WATER
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
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
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


DROUGHT SEVERITY
(LONG TERM, PALMER)
OCTOBER 1, 1988
MODERATE
MOIST
EXTREME
SEVERE
MOIST
MODERATE
EXTREME
SEVERE
MOIST
SEVERE
EXTREME
MODERATE
SEVERE
MODERATE
EXTREME
SEVERE
MOIST
SEVERE
MOIST
MOIST
MODERATE
MOIST
DROUGHT SEVERITY INDEX (PALMER): DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS; RESPONDS SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION, AS WELL AS EVAPOTRANSPIRATION.
USES...APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSETIVE ECONOMIES; DESIGNATING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL, LONG TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS, AND STREAMS.
LIMITATIONS...IS NOT GENERALLY INDICATIVE OF SHORT TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


DROUGHT SEVERITY INDEX BY DIVISION
(LONG TERM PALMER)
OCT 1, 1988
(INDEX VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)
MARYLAND
PUERTO RICO
.4 to -.4 NEAR NORMAL
-.5 to -.9 INCIPIENT DROUGHT
-1.0 to -1.9 MILD DROUGHT
-2.0 to 2.9 MODERATE DROUGHT
-3.0 to -3.9 SEVERE DROUGHT
BELOW -4.0 EXTREME DROUGHT
.5 to .9 INCIPIENT MOIST SPELL
1.0 to 1.9 MOIST SPELL
2.0 to 2.9 UNUSUAL MOIST SPELL
3.0 to 3.9 VERY MOIST SPELL
ABOVE +4.0 EXTREME MOIST SPELL
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


ADDITIONAL PRECIPITATION NEEDED TO BRING INDEX NEAR ZERO
(LONG TERM PALMER)
OCT 1, 1988
(VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)
MARYLAND
PUERTO RICO
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


AVERAGE TEMPERATURE (° F)
SEP 25-OCT 1, 1988
ALASKA
HAWAII
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports


DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
SEP 25-OCT 1, 1988
SHADED AREAS ABOVE NORMAL
ALASKA
HAWAII
NOAA/USDA AGRICULTURAL WEATHER FACILITY
Based on preliminary reports

National Weather Data for Selected Cities

Weather Data for the Week Ending OCTOBER 1, 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	79	65	84	61	72	3	2.4	1.5	1.6	10.0	229	31.7	73	96	67	0	0	3	2
MOBILE	84	70	90	68	77	3	3.9	2.8	1.2	14.6	224	56.9	107	98	70	2	0	4	4
MONTGOMERY	84	67	91	64	76	4	1.4	.5	1.1	9.3	195	49.2	126	96	61	1	0	3	1
AK ANCHORAGE	52	33	57	28	43	0	T	-.5	T	1.3	52	8.8	79	86	42	0	5	1	0
BARROW	31	19	33	10	25	0	.2	.1	.1	.4	76	3.1	87	97	77	0	7	6	0
FAIRBANKS	41	26	46	20	34	-4	T	-.2	T	.8	68	8.2	100	89	53	0	7	1	0
JUNEAU	51	41	55	35	46	0	1.4	-.3	.7	5.3	80	36.7	102	99	72	0	0	5	1
KODIAK	54	41	58	32	47	2	3.6	2.0	1.8	8.3	127	57.1	133	91	65	0	1	3	2
NOME	43	30	46	25	36	0	.2	-.2	.1	1.4	58	11.1	94	91	66	0	5	3	0
AZ PHOENIX	99	71	100	68	85	5	0	-.1	0	0	0	3.9	78	32	14	7	0	0	0
PRESCOTT	82	44	86	40	63	2	0	-.3	0	.1	6	12.8	87	54	14	0	0	0	0
TUCSON	96	62	97	59	79	2	0	-.3	0	.8	60	8.8	101	44	14	7	0	0	0
YUMA	102	70	105	67	86	3	0	-.1	0	T	16	2.3	137	39	12	7	0	0	0
AR FORT SMITH	81	60	91	58	70	1	.4	-.3	.3	5.7	174	26.4	87	97	52	1	0	2	0
LITTLE ROCK	81	63	87	59	72	2	1.3	.4	1.1	1.8	41	28.7	76	83	53	0	0	2	1
CA BAKERSFIELD	90	57	98	52	73	0	0	0	0	0	0	3.0	76	76	31	4	0	0	0
EUREKA	66	49	71	48	58	2	.1	-.3	.1	.1	13	16.0	68	94	69	0	0	1	0
FRESNO	89	55	99	53	72	2	0	-.1	0	0	0	5.5	77	81	26	4	0	0	0
LOS ANGELES	73	59	77	57	66	-3	0	0	0	.1	64	4.7	55	94	61	0	0	0	0
REDDING	91	54	100	50	72	0	0	-.3	0	0	0	16.9	64	68	18	4	0	0	0
SACRAMENTO	87	53	97	48	70	1	0	-.1	0	0	0	6.9	63	84	24	3	0	0	0
SAN DIEGO	73	61	76	58	67	-1	0	-.1	0	T	0	6.7	101	93	63	0	0	0	0
SAN FRANCISCO	78	53	87	50	66	2	T	-.1	T	T	14	7.3	58	96	43	0	0	1	0
CO DENVER	73	43	84	35	58	0	T	-.3	T	.9	73	13.4	104	73	24	0	0	0	0
GRAND JUNCTION	76	45	82	37	60	-2	0	-.2	0	.7	100	6.6	113	53	17	0	0	0	0
PUEBLO	78	41	89	32	60	-1	T	-.2	T	1.8	222	10.7	115	72	17	0	1	0	0
CT BRIDGEPORT	71	54	78	44	63	1	0	-.7	0	2.3	67	26.4	86	85	48	0	0	0	0
HARTFORD	74	45	82	35	59	1	0	-.9	0	1.9	47	28.3	87	94	40	0	0	0	0
DC WASHINGTON	73	56	82	53	65	-2	.4	-.3	.4	1.8	56	23.4	78	97	59	0	0	1	0
FL APALACHICOLA	86	72	92	68	79	3	.4	-1.1	.4	10.4	120	56.4	123	94	62	2	0	1	0
DAYTONA BEACH	87	69	93	67	78	1	1.3	-.1	.8	6.8	100	32.0	81	97	59	1	0	4	1
JACKSONVILLE	85	68	91	65	77	1	1.2	-.1	.4	16.7	255	53.2	121	97	57	1	0	5	0
KEY WEST	88	76	90	74	82	0	.8	-.6	.4	3.9	60	35.2	119	91	61	1	0	3	0
MIAMI	89	76	92	74	83	2	1.0	-.9	1.0	4.1	49	43.2	93	91	55	4	0	1	1
ORLANDO	90	72	95	70	81	2	1.1	-.1	.9	5.7	88	42.6	100	95	51	3	0	2	1
TALLAHASSEE	89	67	93	58	78	4	.5	-.6	.4	4.0	62	40.9	76	97	52	3	0	3	0
TAMPA	91	71	92	67	81	2	.4	-.7	.3	13.6	219	44.6	110	94	50	6	0	3	0
WEST PALM BEACH	89	74	91	70	82	2	0	-2.2	0	1.8	19	55.6	119	91	52	2	0	0	0
GA ATLANTA	80	64	86	61	72	3	1.9	1.3	1.9	8.3	259	36.7	95	91	56	0	0	1	1
AUGUSTA	83	63	92	54	73	2	T	-.6	T	5.6	157	33.1	92	97	53	1	0	1	0
MACON	84	65	91	57	74	3	.5	-.2	.5	6.1	182	35.8	98	97	56	1	0	1	0
SAVANNAH	84	68	89	60	76	3	1.1	.2	.8	9.6	185	42.9	100	96	61	0	0	4	1
HI HILO	84	70	87	68	77	2	7.7	6.0	3.1	11.3	165	92.5	102	93	60	0	0	5	4
HONOLULU	90	74	92	72	82	2	T	-.2	T	.9	127	8.1	55	85	49	4	0	0	0
KAHULUI	88	69	91	64	79	1	.2	.1	.2	.2	64	13.1	105	92	54	2	0	1	0
LIHUE	85	73	86	70	79	1	.2	-.6	.2	1.1	46	26.3	92	92	68	0	0	1	0
ID BOISE	76	45	84	34	60	2	.1	0	.1	.2	41	7.1	87	71	24	0	0	1	0
LEWISTON	74	49	83	41	62	3	.1	-.1	.1	.4	51	7.3	77	76	31	0	0	1	0
POCATELLO	73	38	82	31	55	1	T	-.2	T	T	6	4.6	58	67	22	0	1	0	0
IL CHICAGO	75	54	81	45	65	5	.3	-.5	.3	4.1	98	19.7	71	85	51	0	0	1	0
MOLINE	78	55	83	43	66	6	1.1	.3	.7	2.7	70	19.4	63	97	55	0	0	4	1
PEORIA	80	56	84	44	68	7	1.8	1.0	1.3	3.1	84	15.0	52	92	48	0	0	3	1
QUINCY	79	57	85	47	68	5	.3	-.6	.2	1.5	35	13.6	44	91	48	0	0	2	0
ROCKFORD	76	53	81	43	65	6	.7	-.1	.6	2.9	77	17.3	58	93	53	0	0	2	1
SPRINGFIELD	79	55	83	41	67	4	.3	-.4	.3	3.2	97	16.3	59	91	47	0	0	2	0
IN EVANSVILLE	80	57	83	49	68	4	.5	-.1	.5	1.7	62	25.4	78	95	51	0	0	1	1
FORT WAYNE	76	52	80	44	64	4	.4	-.1	.3	2.1	81	25.0	93	95	51	0	0	3	0
INDIANAPOLIS	79	54	83	46	67	5	.3	-.3	.3	1.4	50	21.6	71	97	46	0	0	1	0
SOUTH BEND	75	53	80	43	64	4	.5	-.2	.5	4.9	149	23.8	82	92	54	0	0	1	0
IA DES MOINES	74	56	82	46	65	5	1.3	.7	.9	2.9	93	17.3	66	93	58	0	0	3	1
SIOUX CITY	73	54	84	46	64	5	1.4	.9	1.1	5.2	203	20.5	93	93	55	0	0	2	1
WATERLOO	74	53	81	42	64	6	T	-.7	T	1.7	47	15.2	55	96	51	0	0	1	0
KS CONCORDIA	77	53	88	43	65	2	T	-.6	T	1.1	35	13.3	56	88	40	0	0	0	0
DODGE CITY	75	51	89	46	63	-1	.8	.5	.7	2.9	152	14.3	79	98	42	0	0	3	1
GOODLAND	71	48	89	40	60	0	.2	0	.2	2.2	153	20.0	140	94	38	0	0	2	0
TOPEKA	78	51	87	44	65	1	.1	-.7	.1	1.9	55	17.4	63	94	45	0	0	1	0
WICHITA	79	53	88	43	66	0	.1	-.7	.1	.6	17	14.9	62	90	41	0	0	2	0
KY BOWLING GREEN	77	57	80	48	67	2	.2	-.5	.2	8.2	251	31.4	83	100	56	0	0	1	0
LEXINGTON	76	57	80	48	67	3	.1	-.5	.1	6.1	183	28.7	79	95	55	0	0	2	0
LOUISVILLE	79	59	83	51	69	4	.3	-.4	.3	1.8	52	27.0	80	94	51	0	0	3	0
LA ALEXANDRIA	86	67	90	61	76	3	1.8	1.2	1.0	4.5	147	34.0	84	85	50	1	0	2	2
BATON ROUGE	87	69	90	66	78	4	1.1	.3	1.1	10.6	237	63.3	143	96	53	1	0	1	1
LAKE CHARLES	88	68	91	65	78	4	1.4	.3	1.0	8.7	151	48.9	118	96	48	1	0	2	1
NEW ORLEANS	86	71	89	69	79	3	1.0	-.1	.9	6.7	114	66.6	139	99	62	0	0	3	1

Based on 1951-80 normals

Weather Data for the Week Ending OCTOBER 1, 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	86	61	93	56	73	0	.1	-.6	.1	1.7	51	21.9	65	97	47	2	0	2	0
ME CARIBOU	59	39	74	34	49	0	.1	-.6	.1	1.8	51	22.6	83	97	53	0	0	3	0
PORTLAND	68	44	79	39	56	2	0	-.8	0	1.5	45	30.1	99	92	45	0	0	0	0
MD BALTIMORE	73	54	82	51	63	0	.5	-.2	.5	2.1	59	25.0	78	99	58	0	0	1	1
SALISBURY	74	53	80	50	64	0	.2	-.7	.2	2.8	68	35.3	100	97	56	0	0	1	0
MA BOSTON	72	51	83	44	61	1	0	-.8	0	1.3	37	25.6	81	88	47	0	0	0	0
CHATHAM	66	52	72	45	59	1	T	-.8	T	1.3	34	24.5	72	87	67	0	0	1	0
MI ALPENA	67	45	80	37	56	3	.7	.1	.7	2.2	69	19.6	86	95	62	0	0	3	1
DETROIT	74	54	80	46	64	5	T	-.4	T	3.7	162	17.1	71	92	52	0	0	1	0
FLINT	73	50	79	41	61	4	.2	-.3	.1	3.1	132	18.7	83	93	54	0	0	2	0
GRAND RAPIDS	71	49	74	41	60	3	.9	.2	.9	8.4	254	25.2	98	95	61	0	0	1	1
HOUGHTON LAKE	68	45	75	35	56	3	.1	-.5	.1	3.8	133	19.6	90	93	58	0	0	1	0
LANSING	73	49	78	40	61	5	.1	-.5	.1	6.0	202	22.6	97	97	58	0	0	1	0
MARQUETTE	60	42	73	37	51	1	.9	0	.7	4.0	99	26.2	91	94	63	0	0	5	1
MUSKEGON	70	50	73	40	60	3	.1	-.5	.1	6.0	202	22.0	95	93	63	0	0	1	0
SAULT ST. MARIE	60	42	72	31	51	0	1.8	.9	1.1	4.1	104	22.1	89	97	72	0	1	2	2
MN ALEXANDRIA	60	47	74	43	53	0	1.2	.8	1.2	4.2	181	20.4	97	95	64	0	0	2	1
DULUTH	58	45	65	41	52	2	.5	-.2	.2	6.2	189	26.6	109	98	67	0	0	4	0
INT'L FALLS	58	43	71	38	50	2	.2	-.5	.1	3.9	123	21.7	107	96	58	0	0	2	0
MINNEAPOLIS	67	51	78	47	59	3	.4	-.1	.3	2.8	111	14.7	66	93	56	0	0	3	0
ROCHESTER	69	50	79	48	60	5	.3	-.4	.3	3.8	111	17.0	71	94	58	0	0	1	0
MS GREENWOOD	84	66	88	59	75	4	1.6	.8	1.4	7.8	231	25.0	62	95	57	0	0	2	1
JACKSON	87	66	91	57	76	4	3.1	2.4	2.8	5.1	141	30.2	75	97	55	1	0	2	1
MERIDIAN	80	66	87	62	73	2	2.3	1.6	1.1	10.4	285	38.7	93	98	74	0	0	3	2
MO CAPE GIRARDEAU	79	58	83	51	69	—	1.8	1.1	1.1	9.2	241	28.2	81	99	56	0	0	2	2
COLUMBIA	78	55	84	48	67	2	1.8	.9	1.5	2.4	60	21.6	73	96	54	0	0	3	1
KANSAS CITY	76	57	83	50	66	1	.1	-.9	.1	8.5	193	21.2	71	94	50	0	0	1	0
SAINT LOUIS	79	59	83	50	69	4	1.5	.9	1.0	2.5	89	22.7	84	95	52	0	0	2	1
SPRINGFIELD	76	56	83	48	66	1	.4	-.5	.3	5.1	118	38.0	122	95	56	0	0	2	0
MT BILLINGS	71	46	82	41	59	4	T	-.3	T	2.1	163	8.2	67	61	28	0	0	0	0
GLASGOW	66	43	78	39	55	2	T	-.2	T	1.0	106	6.8	70	77	32	0	0	1	0
GREAT FALLS	68	45	81	36	57	3	T	-.2	T	2.3	222	9.8	77	74	33	0	0	0	0
HAVRE	67	46	86	42	57	4	0	-.2	0	1.5	151	5.3	52	77	34	0	0	0	0
HELENA	69	42	79	39	55	4	T	-.1	T	2.1	249	8.4	87	83	35	0	0	1	0
KALISPELL	63	37	74	30	50	1	.5	.2	.3	2.1	191	11.1	93	99	50	0	1	3	0
MILES CITY	69	45	79	39	57	2	.1	-.1	.1	1.1	100	3.5	29	67	29	0	0	2	0
MISSOULA	69	39	79	31	54	3	.2	0	.2	.5	49	9.2	89	92	37	0	1	2	0
NE GRAND ISLAND	73	50	89	40	62	2	1.4	.9	1.2	3.3	133	20.2	98	97	54	0	0	3	1
LINCOLN	75	52	86	46	64	3	2.6	2.0	1.3	5.2	175	15.7	66	95	54	0	0	3	2
NORFOLK	74	51	89	42	63	4	2.1	1.7	1.2	5.5	259	22.8	108	95	51	0	0	3	2
NORTH PLATTE	70	44	89	36	57	0	.5	.2	.3	1.6	95	18.4	105	97	46	0	0	3	0
OMAHA	74	55	85	50	65	4	2.3	1.7	2.2	3.6	101	18.6	71	93	65	0	0	2	1
SCOTTSBLUFF	72	43	87	32	57	1	.5	.3	.3	1.0	89	14.4	112	82	32	0	1	3	0
VALENTINE	67	43	92	37	55	-1	.1	-.1	.1	1.0	71	18.5	119	82	42	1	0	2	0
NV ELY	74	34	82	25	54	2	0	-.2	0	.2	21	6.1	87	55	17	0	3	0	0
LAS VEGAS	92	62	96	60	77	2	0	-.1	0	T	0	2.2	72	27	12	5	0	0	0
RENO	81	40	89	36	61	5	0	-.1	0	T	17	2.5	48	65	13	0	0	0	0
WINNEMUCCA	79	35	87	27	57	3	0	-.1	0	.3	76	4.5	81	56	15	0	2	0	0
NH CONCORD	71	37	82	32	54	-1	0	-.7	0	1.6	49	26.0	98	99	43	0	1	0	0
NJ ATLANTIC CITY	72	50	81	48	61	-2	.6	0	.6	3.1	104	25.4	81	99	59	0	0	1	1
NM ALBUQUERQUE	77	48	82	43	63	-2	0	-.2	0	2.6	309	12.6	201	67	18	0	0	0	0
CLOVIS	80	51	87	46	65	0	0	-.4	0	2.7	139	19.4	136	70	26	0	0	0	0
ROSWELL	85	51	92	45	68	2	0	-.3	0	1.6	88	13.2	148	75	21	3	0	0	0
NY ALBANY	71	43	78	34	57	0	T	-.7	T	1.5	45	22.6	84	98	50	0	0	0	0
BINGHAMTON	67	44	75	34	55	0	0	-.7	0	2.1	60	26.9	96	95	53	0	0	0	0
BUFFALO	70	50	81	41	60	2	T	-.7	T	2.1	62	27.0	98	89	47	0	0	1	0
NEW YORK	72	57	78	49	65	1	0	-.7	0	2.6	73	28.5	89	79	51	0	0	0	0
ROCHESTER	71	45	82	36	58	0	0	-.6	0	1.7	62	19.5	83	94	49	0	0	0	0
SYRACUSE	71	46	81	35	58	1	0	-.7	0	1.9	56	25.0	85	92	50	0	0	0	0
NC ASHEVILLE	76	55	81	48	65	3	.2	-.6	.2	3.0	78	18.8	54	100	56	0	0	2	0
CHARLOTTE	78	60	81	57	69	2	T	-.7	T	4.5	122	26.4	77	94	55	0	0	0	0
GREENSBORO	73	55	80	51	64	-1	T	-.8	T	3.3	87	26.4	79	98	64	0	0	1	0
HATTERAS	79	68	82	64	74	3	.1	-1.1	.1	2.2	37	34.0	81	94	66	0	0	3	0
NEW BERN	81	64	85	60	73	3	T	-1.1	T	2.3	39	42.3	98	95	59	0	0	1	0
RALEIGH	76	57	82	53	67	0	T	-.7	T	4.9	147	27.6	83	98	59	0	0	1	0
WILMINGTON	81	63	84	59	72	1	T	-1.0	T	2.8	49	52.4	119	97	63	0	0	1	0
ND BISMARCK	67	40	82	35	53	1	.4	.1	.3	.6	46	8.8	65	91	42	0	0	2	0
FARGO	62	43	79	38	52	-1	.2	-.1	.2	3.2	171	11.8	70	96	53	0	0	1	0
GRAND FORKS	63	41	77	34	52	0	.1	-.3	0	2.0	95	10.9	69	91	51	0	0	2	0
WILLISTON	64	39	78	33	52	0	.1	-.2	.1	1.5	110	9.0	76	87	39	0	0	2	0
OH AKRON-CANTON	74	52	79	45	63	4	T	-.6	T	4.9	165	24.9	88	97	56	0	0	1	0
CINCINNATI	77	55	81	47	66	3	.2	-.4	.2	3.3	111	30.8	98	96	51	0	0	1	0
CLEVELAND	75	52	83	43	64	3	T	-.6	T	1.8	60	20.1	73	93	50	0	0	1	0
COLUMBUS	77	54	80	47	66	4	T	-.5	T	3.5	128	28.8	97	98	53	0	0	1	0

Weather Data for the Week Ending OCTOBER 1, 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	76	54	79	47	65	3	.7	.2	.7	5.4	223	25.4	92	95	50	0	0	2	1
TOLEDO	74	52	80	44	63	4	T	-.5	T	1.8	71	18.0	73	89	51	0	0	1	0
YOUNGSTOWN	74	48	81	41	61	3	0	-.7	0	3.5	111	24.1	83	97	51	0	0	0	0
OK OKLAHOMA CITY	78	57	89	51	68	-1	1.1	.3	.9	5.3	150	26.2	102	90	50	0	0	2	1
TULSA	76	57	87	54	67	-2	.6	-.4	.4	5.4	120	25.6	82	93	51	0	0	2	0
OR ASTORIA	68	49	77	43	58	2	.5	-.5	.3	1.2	36	32.6	78	96	63	0	0	3	0
BURNS	76	35	92	27	55	1	.1	-.1	.1	.1	20	5.0	75	72	20	1	2	1	0
MEDFORD	87	46	98	42	67	6	T	-.2	T	.2	28	7.1	60	83	20	3	0	1	0
PENDLETON	75	48	85	43	62	2	T	-.1	T	.3	53	7.6	95	73	29	0	0	1	0
PORTLAND	76	51	91	46	64	4	.2	-.3	.1	1.8	104	21.2	93	94	46	1	0	3	0
SALEM	77	49	92	41	63	5	.2	-.3	.1	1.0	58	19.8	82	93	40	1	0	2	0
PA ALLENTOWN	71	49	78	42	60	0	T	-.8	T	3.2	79	31.3	92	96	56	0	0	1	0
ERIE	72	52	83	45	62	4	0	-.9	0	3.2	79	25.0	85	87	55	0	0	0	0
HARRISBURG	69	51	78	47	60	-2	.1	-.7	.1	3.2	88	28.3	94	96	60	0	0	1	0
PHILADELPHIA	74	54	82	53	64	1	.1	-.6	.1	2.6	76	30.1	95	95	56	0	0	1	0
PITTSBURGH	75	50	83	43	63	3	T	-.6	T	2.3	84	20.7	71	97	56	0	0	0	0
SCRANTON	68	46	78	36	57	-1	0	-.7	0	1.9	58	25.1	94	94	50	0	0	0	0
RI PROVIDENCE	72	46	79	41	59	0	0	-.8	0	2.4	66	28.0	85	97	46	0	0	0	0
SC CHARLESTON	82	67	90	62	74	2	.4	-.5	.4	9.7	196	40.1	92	97	63	1	0	1	0
COLUMBIA	83	62	90	59	73	2	1.5	.7	1.5	7.5	177	37.4	92	97	53	1	0	1	1
FLORENCE	81	63	88	60	72	2	1.5	.8	1.5	6.3	154	33.6	92	95	56	0	0	2	1
GREENVILLE	80	59	86	54	69	2	.1	-.9	.1	4.7	99	28.8	71	98	57	0	0	2	0
SD ABERDEEN	63	45	80	40	54	-1	1.1	.8	1.1	5.3	352	16.8	107	92	60	0	0	2	1
HURON	66	45	80	42	55	0	.4	.1	.3	3.7	264	17.5	109	92	55	0	0	2	0
RAPID CITY	70	44	79	36	57	1	.4	.2	.4	.6	54	8.9	62	80	31	0	0	1	0
SIOUX FALLS	69	49	83	42	59	3	2.1	1.5	1.6	4.4	157	16.7	80	93	56	0	0	3	1
TN CHATTANOOGA	81	62	85	58	71	4	.8	-.1	.8	7.5	171	34.4	85	96	54	0	0	1	1
KNOXVILLE	82	57	85	53	70	3	.5	-.2	.5	3.2	104	24.9	69	97	47	0	0	1	0
MEMPHIS	82	64	85	57	73	3	1.3	.6	1.0	5.0	138	30.5	76	97	55	0	0	2	1
NASHVILLE	79	61	86	55	70	3	.4	-.4	.4	2.8	75	20.8	55	98	57	0	0	1	0
TX ABILENE	84	60	92	51	72	0	T	-.7	T	1.7	56	14.4	76	79	33	3	0	1	0
AMARILLO	78	51	89	45	64	-1	T	-.3	T	3.1	180	23.6	142	87	29	0	0	0	0
AUSTIN	90	65	97	62	77	2	1.5	.6	1.2	1.8	47	17.4	73	87	41	5	0	2	1
BEAUMONT	87	67	90	64	77	1	3.6	2.6	3.4	10.3	190	41.5	98	99	51	2	0	2	1
BROWNSVILLE	90	72	94	71	81	2	.8	-.4	.5	7.5	139	21.1	108	98	56	5	0	2	1
CORPUS CHRISTI	90	70	93	67	80	1	2.9	1.6	2.8	6.3	94	15.6	60	99	54	5	0	2	1
DEL RIO	85	66	91	60	75	-1	1.7	1.0	1.7	4.6	162	14.9	108	85	40	3	0	1	1
EL PASO	87	52	93	46	70	-1	0	-.3	0	1.5	109	9.8	156	77	20	4	0	0	0
FORT WORTH	84	60	94	56	72	-1	2.0	1.2	1.1	4.7	132	19.3	79	94	43	2	0	3	2
GALVESTON	85	74	87	71	79	2	1.2	0	.8	7.5	122	33.2	106	88	58	0	0	3	1
HOUSTON	91	66	96	61	79	3	1.1	-.1	.7	1.9	36	20.7	58	95	41	5	0	3	1
LUBBOCK	83	55	91	45	69	2	.1	-.4	.1	2.3	109	12.3	83	84	28	2	0	1	0
MIDLAND	85	54	93	43	69	-1	0	-.5	0	5.1	239	17.7	159	92	29	2	0	0	0
SAN ANGELO	86	57	92	50	71	-1	.7	0	.7	3.2	103	13.3	91	92	36	4	0	1	1
SAN ANTONIO	89	66	95	63	78	2	T	-.8	T	.8	22	17.7	79	87	40	5	0	0	0
VICTORIA	92	69	97	67	81	4	1.3	0	1.3	2.8	44	12.8	43	94	43	5	0	2	1
WACO	85	62	96	57	74	-1	4.0	3.2	3.1	5.6	170	20.1	84	93	46	4	0	3	2
WICHITA FALLS	82	58	91	52	70	-2	.4	-.4	.3	7.1	202	21.1	98	92	44	2	0	3	0
UT BLANDING	75	48	80	40	62	3	T	-.2	T	1.1	114	9.3	114	54	22	0	0	1	0
CEDAR CITY	77	40	84	35	59	0	0	-.2	0	.1	11	10.3	130	59	14	0	0	0	0
SALT LAKE CITY	74	48	83	39	61	2	0	-.2	0	.1	8	6.5	56	55	20	0	0	0	0
VT BURLINGTON	67	42	75	30	54	0	T	-.7	T	1.5	46	19.3	75	94	47	0	1	0	0
VA NORFOLK	74	57	78	54	66	-2	T	-.9	T	1.8	40	31.2	87	99	63	0	0	1	0
RICHMOND	75	54	81	50	65	-1	.1	-.7	.1	1.7	48	29.4	87	99	60	0	0	1	0
ROANOKE	71	52	77	48	62	-2	.1	-.7	.1	3.0	93	25.0	83	100	65	0	0	1	0
WA QUILLAYUTE	69	45	83	40	57	2	2.4	.5	1.8	5.7	87	63.2	96	98	57	0	0	2	2
SEATTLE-TACOMA	69	51	78	47	60	3	.7	.2	.4	1.8	83	18.8	81	95	54	0	0	3	0
SPOKANE	69	45	78	36	57	2	.3	.1	.2	1.6	220	10.3	94	92	40	0	0	3	0
YAKIMA	74	42	87	35	58	2	T	-.1	T	.1	35	3.6	71	90	34	0	0	0	0
WV BECKLEY	72	52	78	49	62	4	1.1	.4	1.1	5.9	160	26.7	79	96	56	0	0	1	1
CHARLESTON	76	53	82	49	64	2	1.1	.4	1.1	3.5	113	21.9	65	100	55	0	0	1	1
HUNTINGTON	77	54	83	48	66	2	T	-.6	T	2.7	87	25.5	78	100	52	0	0	1	0
PARKERSBURG	76	53	82	49	64	2	T	-.6	T	3.9	135	24.1	80	99	57	0	0	0	0
WI GREEN BAY	69	50	77	44	60	5	.1	-.5	.1	4.2	132	16.9	74	95	61	0	0	1	0
LACROSSE	73	54	82	51	64	6	.3	-.4	.2	5.2	148	21.6	85	91	48	0	0	2	0
MADISON	73	51	79	43	62	6	.3	-.3	.2	3.6	115	18.0	72	95	52	0	0	2	0
MILWAUKEE	72	53	80	49	63	5	1.4	.8	1.4	6.4	218	22.3	90	94	60	0	0	1	1
WAUSAU	66	49	77	43	58	4	.5	-.2	.3	3.2	82	16.8	64	96	55	0	0	3	0
WY CASPER	71	40	79	29	56	2	.1	-.1	.1	.7	95	5.4	59	71	21	0	2	1	0
CHEYENNE	67	41	78	35	54	1	T	-.2	T	1.7	155	14.7	125	79	30	0	0	1	0
LANDER	72	43	77	35	58	4	0	-.3	0	.9	100	6.8	64	55	19	0	0	0	0
SHERIDAN	73	41	85	34	57	4	.1	-.2	.1	1.0	82	8.5	69	77	27	0	0	2	0
PR SAN JUAN	89	76	92	74	82	0	.1	-1.3	0	5.3	87	46.4	120	88	63	1	0	2	0

National Agricultural Summary

September 26-October 2, 1988

HIGHLIGHTS: Rain in the Delta and western Corn Belt continued to improve soil moisture conditions. Soil moisture was adequate to short except in the West where it was mostly short. Most areas had 5-6 days suitable for fieldwork.

Winter wheat seeding was 53 percent (%) finished, 11 percentage points behind 1987 but 2 points ahead of the 5-year average. Crop emergence was normal at 27%. Ninety-one percent of the corn acreage was mature, 5 points behind 1987 but equal to the average. Corn harvest was 32% finished, 6 points behind 1987 but 10 points ahead of the average. Harvest was far ahead of normal in Iowa and Minnesota. Seventy-eight percent of the soybean acreage was dropping leaves, 5 points behind 1987 but 1 point ahead of the average. Harvest was 29% finished, 9 points behind 1987 but 9 points ahead of normal. Illinois producers harvested nearly one-third of their acreage during the week. Harvest was normal or ahead of normal in 10 of the 19 major producing States. Seventy-eight percent of the sorghum acreage was mature, 8 points ahead of the average. Harvest was 42% finished, 6 points ahead of normal. Seventy-two percent of the cotton acreage was opening bolls, 3 points ahead of both 1987 and the average. Harvest was 19% finished, 9 points and 1 point behind 1987 and the average, respectively. Harvest was behind normal in 10 of the 14 major producing States. Rice harvest was 63% finished, 9 points behind normal. Burley tobacco harvest was nearing completion in Kentucky.

SMALL GRAINS: Winter wheat seeding was 53% complete, 11 points behind 1987 but 2 points ahead of normal. Twenty-seven percent of the crop was emerged, 11 points behind 1987 but equal to the average. Kansas' seeding progressed at a normal pace and was 55% finished. Twenty percent of the crop was emerged, 5 points behind normal. Some reseeding may be necessary for early seeded wheat. Soil moisture was adequate for seeding and germination. Seeding was 45% finished, 5 points ahead of normal in Oklahoma. Seeding continued to lag behind normal in the Northern Plains States. In Washington, rain improved soil moisture conditions for seeding but crusting has slowed crop emergence in some areas.

CORN: Ninety-one percent of the acreage was mature. Crop maturity was normal but 5 points behind 1987. Percentage of mature acreage was more than 25 points behind normal in Michigan, Ohio, and Pennsylvania. Maturity was near or ahead of normal in the other 14 major producing States. Harvest was 32% finished, 6 points behind 1987 but 10 points ahead of the average. Iowa and Minnesota's harvests were more than 30 points ahead of normal. Illinois' harvest was 40% finished, 12 points ahead of normal. Harvest was nearing completion in Georgia and Texas. Lodging was a problem in some areas of the Texas High Plains. High moisture content has slowed harvest in Kentucky.

SOYBEANS: Seventy-eight percent of the acreage was in the leaf dropping stage, 5 points behind 1987 but slightly ahead of normal. Harvest was 29% finished, 9 points behind 1987 but 9 points ahead of the average. Harvest was more than 20 points ahead of normal in Iowa, Kansas, and Minnesota. Illinois' harvest was 50% finished, 13 points ahead of normal. Illinois producers harvested nearly one-third of their acreage during the week. Insect problems continued in Georgia, Kentucky, and Louisiana. Harvest was normal or ahead of normal in 10 of the 19 major producing States. Harvest lagged behind normal in the eastern Corn Belt and the South.

SORGHUM: Seventy-eight percent of the acreage was mature, 8 points ahead of normal. Oklahoma's crop was 30% mature, 35 and 40 points behind 1987 and normal, respectively. Harvest was 42% finished, 6 points ahead of normal. Texas' harvest was 67% finished, 3 points ahead of the average. Harvest was nearing completion in the Cross-Timbers area. Harvest was 25% complete, 10 points ahead of normal in Kansas. Nebraska's harvest was 30% finished, 14 points ahead of normal.

COTTON: Seventy-two percent of the acreage was opening bolls, 3 points ahead of both 1987 and normal. Harvest was 19% finished, 9 points behind 1987 and 1 point behind the average. Mississippi's harvest was 31% complete, 6 points behind normal. Rain slowed harvest progress. Harvest was 22% finished, 6 points ahead of normal in Texas. Harvest was expected to begin soon in the Low Plains. Scattered showers slowed harvest progress in the Blacklands. Harvest was becoming more active in southern California. Defoliation continued in the central area. Boll rot problems were increasing in Georgia. Harvest was behind normal in 10 of the 14 major producing States.

OTHER FIELD CROPS: Rice harvest was 63% finished, 19 points behind 1987 and 9 points behind the average. Arkansas' harvest was 53% finished, 20 points behind normal.

Georgia's peanut harvest was 50% finished, 21 and 20 points behind 1987 and the average, respectively. Harvest was 30% complete, 16 points behind normal in Alabama. Dry soil conditions hampered digging in Virginia.

Flue-cured tobacco harvest was 91% complete, slightly behind normal in North Carolina. Burley tobacco harvest was nearing completion in Kentucky. The crop was curing well. Tennessee's burley harvest continued at a normal pace and was 94% finished.

FRUITS AND NUTS: Citrus groves in Florida were in good condition. Lemon harvest continued in western Arizona. Harvest was just beginning in central Arizona. Other harvest activities included honeydews, cantaloups, and watermelons. Raisin, table, and wine grape harvests neared completion in California. Fig harvest continued in the San Joaquin Valley. Kiwifruit were sizing well. Harvest is expected to begin soon. Almond, pistachio, and walnut harvests were active. Desert grapefruit harvest is expected to begin soon. Desert lemon harvest was active. Quality of the crop was good. Pecan harvest was active in south Texas and just beginning in east Texas. Shucks were beginning to open in the Cross-Timbers and Blacklands areas.

VEGETABLES: Winter crop planting was active in Florida. Fall crop harvest was gaining momentum. Tomato harvest in Gadsden County began. Fall crop harvest was active in Texas. Planting and harvesting resumed in the Rio Grande Valley. Sweetpotato and late-season pea harvests continued in east Texas. Arizona's harvest activities included fall lettuce, cauliflower, and broccoli. Whitefly infestations were causing problems in fall lettuce. Broccoli, cauliflower, carrot, celery, and lettuce harvests continued in

(Continued to back cover)

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 mostly over 1.00 in.; 2.00 to 4.00 in. common west. Temperatures 2 to 4° above normal; 1 to 2° above normal west central.

Days suitable for fieldwork 5.0. Soil moisture 12% short, 72% adequate, 16% surplus. Field activities slowed due to wet conditions most areas; peanut harvest good progress. Soybeans 54% turning yellow, 75% 1987, 71% avg.; 27% dropping leaves, 47% 1987, 43% avg.; 16% mature, 32% 1987, 27% avg.; 5% harvested, 14% 1987, 8% avg.; 1% poor, 36% fair, 61% good, 2% excellent. Corn 79% harvested, 87% 1987, 84% avg. Sorghum 53% harvested, 62% 1987, 65% avg. Cotton 96% bolls opened, 97% 1987, 89% avg.; 35% harvested, 55% 1987, 26% avg.; 16% very poor, 4% poor, 48% fair, 32% good. Peanuts 49% dug, 52% 1987, 59% avg.; 30% combined, 40% 1987, 46% avg.; 11% fair, 89% good. Wheat 19% seeded, 14% 1987, 13% avg. Pasture, livestock good to fair. Primary activities: Harvesting row crops, hay, sweetpotatoes; defoliating, combining cotton; seeding small grain crops; soil testing; marketing cattle; building fish ponds, marketing catfish; routine care of livestock, poultry.

ALASKA: Primarily cool, sunny all areas Railbelt allowed last vestiges of crops to be harvested before winter. Lows 7° below normal to 2° above normal. Highs 7° below normal Tanana Valley to 3° warmer than normal elsewhere. Seasonal precipitation 3.30 in. wetter than normal Big Delta to 2.08 in. drier than normal Wasilla.

Days suitable for haying, harvest of small grains 4.0. Topsoil, subsoil moisture adequate. Second hay 90% harvested. Winter hay availability overall, mostly surplus. Small grain harvest ending Matanuska Valley; complete elsewhere. Potato harvest winding down, 95% in bins. Livestock going into winter mostly good to excellent.

ARIZONA: Dry air, sunny, warm days, clear cool nights dominated weekend weather pattern. No precipitation anywhere. Temperatures varied 3° below to 4° above normal.

Cotton favorable progress, harvest activity west. Defoliation active all areas; most active west. Upland cotton bolls matured, opened rapidly west. American-pima cotton excellent progress; expectations for high yields. Weed, insect infestations light to moderate statewide. Renovation of existing alfalfa stands continued most areas. Seedbed preparation, early planting fall crop remained active west, central. Lemon harvest, packing continued steady pace west. Grapefruit harvest began, progress slow. Asparagus harvested. Fall lettuce, cauliflower, broccoli good progress. Whitefly infestations fall lettuce some areas. Stands established, many fields thinned. Seeding, irrigation late season vegetables continued. Few lemons harvested central areas. Honeydews, cantaloup, watermelons continued to be harvested. Apple harvest, packing continued east. Some fall lettuce thinning stage. Ranges providing average to above average feed supplies, except central portions, short supplies. Grazing very good higher elevations, northeast; winter ranges, lower elevations, fair. Problems with elk caused severe damage to winter pastures north central. Stockwater mostly adequate to surplus. Cattle good to excellent.

ARKANSAS: Warm early part, cooler weekend. Good rain statewide latter part of week. Temperature extremes 45°; 92°. Rainfall totals 0.41 to 4.27 in.

Days suitable for fieldwork 6.0. Soil moisture 52% short, 43% adequate, 5% surplus. Major farming activities: Cotton, corn, rice, sorghum harvest; seeding wheat, oats; planting fall, winter pastures; defoliating cotton; applying desiccants, rice; harvesting fruits; cutting hay. Soybeans 96% setting pods, 99% 1987, 99% avg.; 46% yellowing, 65% 1987, 58% avg. Rice 91% ripe, 100% 1987, 92% avg. Corn 90% harvested, 100% 1987, 92% avg. Sorghum turning color virtually complete. Oats 2% seeded, none 1987, 5% avg. Apple harvest nearly complete northwest. Pasture, range 29% poor, 51% fair, 19% good, 1% excellent. Hay, roughage supplies 3% very short, 74% short, 23% adequate. Stockwater supplies 40% short, 60% adequate. Livestock good.

CALIFORNIA: Weak cold front early spreading sprinkles northern mountains, north coast. Later, strong high built warming, drying above normal temperatures.

Excellent weather, rapid progress harvest, other field activities. Rice harvest full swing. Cotton harvest slowly gained momentum. Defoliation full swing central areas. Picking full swing southern areas. Dry bean, sugarbeet, sunflower, corn, sudan, alfalfa harvests active. Some central valley alfalfa sheeped off. Ground preparation active. Some winter forage seeded. Insect, disease controls as necessary. Activities included dead tree removal, irrigation, fumigation of orchards, vineyards. Later varieties apples picked. Soft date harvest continued Riverside County. Fig harvest continued San Joaquin Valley. Raisin, table grape, wine grape harvests neared completion; pruning, pulling, spraying continued. Kiwifruit sizing well; harvest begins next week. Olive, pomegranate, quince picking active. Peach harvest virtually complete. Almond, pistachio, walnut harvests continued. Some walnut sunburn. Citrus groves irrigated. Western Riverside County grapefruit harvest virtually complete. Desert grapefruit harvest neared start, good yields expected. Desert lemon harvest active, good quality. New crop navel oranges began to color. Valencia orange picking continued. Broccoli, cauliflower, carrot, celery, lettuce harvested Salinas, Santa Maria; good quality. Melon harvest winding down Merced-Atwater, Sacramento Valley, Westside. Potatoes harvested Tulelake. Central coast strawberry production continued unusual late season. Fresh market tomatoes harvested delta, Merced-Atwater. Processing tomatoes harvested Merced-Atwater. Westside broccoli, cauliflower, celery, lettuce showed good growth. Range, non-irrigated pasture continued deteriorate. Livestock irrigated pasture doing well, fair to good. Supplemental feeding strong, movement heavy. Producers provided supplemental water most areas. Hay, roughage supplies 15% short, 85% adequate.

COLORADO: Mostly dry, mild through 27th. Showers spotty, light 28th through 30th. Precipitation 0.10 to 0.50 in. Temperatures generally normal, except San Luis Valley mostly 2 to 4° below normal.

Days suitable for fieldwork 5.8. Soil moisture 7% very short, 40% short, 53% adequate. Corn 79% mature, 9% harvested. Dry beans cut 96%, 77% threshed. Dry onion 65% harvest. Summer potatoes 71% harvested; fall potatoes 60% harvested. Winter wheat 86% planted, 59% emerged. Sorghum 87%

turning color, 46% mature, 2% harvested. Livestock mostly good. Ranges, pastures fair to good.

FLORIDA: Weak cold front moved north 26th; to north central 27th, resulting in increased thunderstorms. Front dissipated; rainfall amounts small except western Panhandle, lower southeast totals of 2.00 in. or more. By 2nd, moist, unstable air ahead of cold front produced thunderstorms statewide with most concentrated over Panhandle. Temperatures seasonal.

Soil moisture adequate to surplus. Peanut harvest, haymaking active, weather permitting. Disease problems in peanuts. Cotton boll rot very prevalent. Land preparation small grains started. Soybeans, sugarcane good progress. Sugarcane planting active. Pastures mostly good or better. Some areas, loopers, army worms further reduced winter hay, forage supplies already cut short by earlier dry conditions. Cattle, calves continued generally good to excellent. Citrus groves good. Little rain, much irrigation. Fresh fruit shipping started white, colored grapefruit, k-earlys, hamlin oranges. New crop good progress; caretakers active spraying, fertilizing, cultivating. Vegetable areas hot daytime temperatures, mild nighttime lows. Rainfall continued limited. Ground preparation, planting active. Harvest fall crops gained. First Gadsden County tomatoes picked.

GEORGIA: Rain 1.00 to 4.00 in. north, mostly 0.50 in. or less elsewhere. Most rain weekend. Temperatures 2 to 4° above normal, coldest mid and upper 40s mountains, low 60s south. Hottest upper 70s low 80s north, upper 80s low 90s south.

Days suitable for fieldwork 5.8. Soil moisture 1% very short, 28% short, 70% adequate, 1% surplus. Cotton some improved but boll rot increased. Peanuts 50% dug, 71% 1987, 70% avg.; harvest very active, but week behind average, further delayed by weekend rain. Soybeans improved; worms, insects still problem central. Rye, other small grain seedings near average. Apples 85% harvested, near average. Pecans 3% poor, 44% fair, 53% good; scab increased central. Pasture, hay fair to good, worms increased. Cattle, hogs fair to mostly good.

HAWAII: Variable weather. Windward areas heavy showers early week. Minor flooding, general slowdown in activity. Losses expected to be light. Remainder of week sunny, warm, humid. Irrigation necessary to promote normal growth. Pesticide spraying heavy. Temperatures low 70s to low 90s. Rainfall none to 6.70 in. Winds light trades 5 to 15 mph.

Days suitable for fieldwork 7.0. Chinese cabbage production steady, moderate. Head cabbage output steady. Cucumber production heavy some areas. Snap bean production increase expected. Banana harvesting steady, orchards good condition.

IDAHO: Precipitation below normal south, east; mostly above normal north. Temperatures near normal.

Days suitable for fieldwork 6.0. Soil moisture 42% very short, 33% short, 25% adequate. Potatoes 34% harvested, 64% 1987, 46% avg. Sugarbeets 10% harvested, 11% 1987, 14% avg. Winter wheat fair to good; 59% seeded, 60% 1987, 59% avg.; 12% emergence. Russian wheat aphids in volunteer grain. Onions 80% harvested. Dry beans 88% harvested, 70% avg. Plum harvest virtually complete. Apples 17% harvested. Hop harvest wrapping up. Third cutting alfalfa hay 93% harvested, 64% avg. Range, pasture poor to fair. Hay, roughage supplies adequate except eastern areas short. Livestock good.

ILLINOIS: Temperatures 5 to 7° above normal north, central, none to 3° above normal south. Precipitation 1.00 in. or more, except west central 0.50 in.

Days suitable for fieldwork 6.5. Soil moisture 77% short, 23% adequate. Pasture 9% very poor, 28% poor, 49% fair, 14% good.

INDIANA: Temperatures 2 to 6° above normal statewide. Lows upper 30s to 60, highs low to upper 70s. Precipitation heavy by weekend, less than 0.25 to 1.38 in.

Days suitable for fieldwork 6.5. Topsoil moisture 41% short, 59% adequate. Subsoil moisture 79% short, 21% adequate. Pasture 2% very poor, 21% poor, 60% fair, 16% good, 1% excellent. Soybeans 72% mature, 96% 1987, 77% avg. Wheatland 62% plowed, 60% 1987, 53% avg. Rye 34% seeded, 48% 1987, 36% avg. Heavy rain by weekend slowed corn, soybean harvest.

IOWA: Temperatures 2° above normal west to 6° above normal east; extremes 31 to 85°. Precipitation 1.10 in.; extremes none to 4.06 in.

Days suitable for fieldwork 4.7. Topsoil moisture 37% short, 63% adequate; subsoil moisture 93% short, 7% adequate. Corn lodging 4% none, 64% light, 30% moderate, 2% heavy; ear droppage 2% none, 68% light, 29% moderate, 1% heavy. Soybeans lodging 11% none, 77% light, 12% moderate; shattering 8% none, 57% light, 29% moderate, 6% heavy. Winter wheat 55% seeded, 44% 1987, 43% avg. Fall tillage 8%, 5% 1987, 5% avg. Fall fertilizer application 6%, 3% 1987, 2% avg. Livestock remained mostly good. Feeder cattle supplies improving as new calves come to market early.

KANSAS: Temperatures 60° west to mid 60s central, east; 3° above normal northeast, 3° below normal southwest; normal elsewhere. Precipitation occurred most areas, 0.25 to 0.50 in. Local amounts greater than 1.00 in. scattered areas.

Days suitable for fieldwork 5.5. Topsoil moisture 55% short, 40% adequate, 5% surplus. Subsoil moisture 58% short, 42% adequate. Corn, sorghum, soybean harvest delayed by widespread, moderate to light rain but progress generally ahead of schedule. Wheat seeding good progress but behind 1987 schedule. Adequate moisture for seeding, germination. Early emergence good, some reseeding necessary. Range, pasture slight improvement but cool season grasses show promise. Cattle grazing corn, sorghum stubble many areas. Hay, roughage supplies 11% very short, 43% short, 46% adequate.

KENTUCKY: Lows 60s, 4 to 10° above normal. Highs 70s, near normal. Rainfall 1.00 to 2.00 in. over west to few hundredths of inch east.

Days suitable for fieldwork 4.6. Soil moisture 5% very short, 46% short, 45% adequate, 4% surplus. Corn harvest slowed by high moisture content. Early corn yields, quality vary. Limited soybean harvest underway. Insect, weed problems biggest concern. Tobacco harvest neared completion. Favorable drying conditions. Tobacco stripping began 2%. Pasture continued to improvement 6% poor, 35% fair, 52% good, 7% excellent.

LOUISIANA: Temperatures normal to 4° above normal. Temperature extremes 54°; 95°. Rainfall 0.98 to 2.20 in.

Days suitable for fieldwork 6.2. Soil moisture 3% very short, 32% short, 58% adequate, 7% surplus. Corn 100% harvested. Cotton 40% fair, 58% good, 2% excellent. Rice 100% ripe. Soybeans 28% fair, 67% good, 5% excellent; 63% turning color. Spraying for stinkbugs southwest. Sweetpotatoes 64% harvested. Sugarcane good; 82% planted. Winter wheat 2% planted; 1% emerged. Hay final cutting 78%; roughage supplies 5% very short, 31% short, 64% adequate. Livestock, pecans good; some pecans

harvested. Pastures fair to good. Vegetables fair. Main activities: Harvesting corn, cotton, hay, rice, sorghum, soybeans, sweetpotatoes; planting sugarcane, winter pastures.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.97 in. Temperature 64°, normal 65°. Temperature extremes 37°; 91°.

Days suitable for fieldwork 6.2. Topsoil moisture 30% short, 70% adequate. Subsoil moisture 75% short, 25% adequate. Hay supplies 15% short, 85% adequate. Corn 85% mature, 90% avg.; silage 95% harvested, 95% avg.; grain 45% harvested, 50% avg. Soybeans 40% fair, 60% good; 60% turning, 80% avg.; 30% shedding leaves, 50% avg. Tobacco 98% harvested, 90% avg. Alfalfa 4th cutting 70%, 75% avg. Apples 65% harvested, 75% avg. Winter wheat 5% seeded, 15% avg. Barley 25% seeded, 40% avg. Rye 25% planted, 40% avg. Oats 5% seeded, 20% avg.

DELAWARE: Precipitation 0.85 in. Temperature 64°, normal 65°. Temperature extremes 40°; 84°.

Days suitable for fieldwork 6.2. Topsoil moisture 100% adequate. Subsoil moisture 30% short, 70% adequate. Hay supplies 100% adequate. Corn 95% mature, 95% avg.; silage 98% harvested, 95% avg.; grain 50% harvested, 45% avg. Soybeans 100% good; 50% turning, 75% avg. Alfalfa 4th cutting 85%, 90% avg. Apples 45% harvested, 50% avg. Barley 7% seeded, 15% avg.

MICHIGAN: Temperatures 2 to 6° above normal. Temperature extremes 31°; 80°. Precipitation none to 1.75 in.

Days suitable for fieldwork 5.5. Soil moisture 10% short, 80% adequate, 10% surplus. Corn 55% mature, 90% 1987, 80% avg.; 5% harvested, 10% 1987, 5% avg. Soybeans 80% shedding, 97% 1987, 90% avg.; 5% harvested, 10% 1987, 5% avg. Winter wheat 50% planted, 30% 1987, 25% avg.; 15% emerged, 15% 1987, none avg. Dry beans 20% harvested, 30% 1987, 40% avg. Pastures supplying 40% livestock feed. Major activities: Harvesting corn silage, hay, dry beans, soybeans, corn for grain, fruit, vegetables, seeding winter wheat.

MINNESOTA: Temperatures near normal to 5° above normal. Temperature extremes 28°; 83°. Precipitation 0.09 to 1.10 in. Greatest weekly total 1.46 in.

Days suitable for fieldwork 4.5. Topsoil moisture 7% very short, 33% short, 58% adequate, 2% surplus. Corn 42% combined, 19% 1987, 8% avg.; 93% silage cut, 88% 1987, 60% avg.; 22% moisture content, 22% 1987, 27% avg. Land plowed 15%, 2% 1987, 1% avg. Soybeans 66% combined, 62% 1987, 23% avg.; 13% moisture content, 11% 1987, 14% avg. Land plowed 21%, 20% 1987, 4% avg. Sugarbeets 6% harvested, 27% 1987, 21% avg. Dry edible beans 78% harvested, 90% 1987, 64% avg. Potatoes 69% harvested, 88% 1987, 69% avg. Sunflowers 55% harvested, 14% 1987, 7% avg.

MISSISSIPPI: Warm, wet at least 1.00 in. rain most locations 30th, 1st. Temperatures 2 to 4° above normal. Extremes 53°; 92°.

Days suitable for fieldwork 4.6, 6.3 1987, 5.7 avg. Soil moisture 20% short, 65% adequate, 15% surplus. Corn 65% harvested, 87% 1987, 78% avg. Sorghum 74% harvested, 93% 1987, 81% avg. Cotton good; 31% harvested, 59% 1987, 37% avg. Soybeans fair; 3% harvested, 16% 1987, 10% avg. Rice 67% harvested, 94% 1987, 78% avg. Silage harvest nearly completed. Rain weekend delayed cotton harvest, slight damage to crop. Sweetpotatoes 55% harvested, 57% avg. Peanuts 75% harvested, 84% avg. Hay 88% harvested, 93% 1987, 92% avg. Late season rains will allow more hay to be cut until frost. Wheat 15% planted, 10% 1987, 12% avg. Pecans good. Pastures good. Livestock good. Hay, roughage 35% short, 65% adequate. Activities: Corn, sorghum, cotton, rice harvest; preparing for soybean harvest.

MISSOURI: Temperatures 1° below normal south, 5° above normal north. Over 3.00 in. rain south, 2.00 in. west central, 1.00 in. east and east central, 0.50 in. north.

Days suitable for fieldwork 4.5. Topsoil moisture 51% short, 41% adequate, 8% surplus; northeast still 100% short. Northern areas need rain to fill ponds. Stockwater supplies 20% critically short, 43% short, 37% adequate; north central 80% critically short. Pasture 13% very poor, 20% poor, 54% fair, 9% good, 4% excellent.

MONTANA: Temperatures normal or above. State received some moisture, heavier amounts west.

Days suitable for fieldwork 5.7. Topsoil moisture 38% short, 62% adequate. Subsoil moisture 84% short, 16% adequate. Potatoes 24% harvested, 39% 1987, 33% avg. Corn silage 93% harvested, 68% 1987, 75% avg. Dry beans 87% harvested, 74% 1987, 65% avg. Cattle, calves moved from summer pasture 76%, 38% 1987, 49% avg. Sheep, lambs moved 80%, 38% 1987, 54% avg.

NEBRASKA: Temperatures 2° below normal Panhandle to 2° above elsewhere. Precipitation occurred midweek with amounts 0.50 in. Panhandle and southwest to over 3.00 in. east central. Extremes 32°; 89°.

Days suitable for fieldwork 3.9. Topsoil moisture 1% short, 80% adequate, 19% surplus. Subsoil moisture 56% short, 43% adequate, 1% surplus. Corn 30% harvest, 16% 1987, 12% avg. Soybeans 30% harvested, 25% 1987, 19% avg. Sorghum 30% harvested, 24% 1987, 16% avg. Sugarbeet harvest active. Dry bean harvest neared completion. Winter wheat 85% planted, 96% 1987, 91% avg.; 60% emerged, 79% 1987, 70% avg. Pasture, range feed supplies 5% very short, 37% short, 58% adequate. Cattle moving to harvested corn fields for grazing.

NEVADA: Week started dry, hot but cold front dropped temperatures, increased wind activity, dropped some rainfall northeast early. High pressure system midweek brought return to sunny skies. Temperatures near record high remainder. Temperature extremes 19°; 103°.

Potato harvest well along. Alfalfa seed, small grain combining windup stage. Late cuttings alfalfa hay some areas. Sixth cuttings alfalfa hay extreme south. Winter grain, garlic planting where irrigation water available. Hay roughage supplies 33% short, 60% adequate, 7% surplus.

NEW ENGLAND: Dry week. Precipitation less than 0.25 in. northern Maine, northern New Hampshire, northern Vermont, none remainder. Temperatures near 50° near Canadian border to low 60s southern coast. Temperatures near normal.

Days suitable for fieldwork 6.5. Fieldwork 1.5 days ahead. Soil moisture 30% short, 70% adequate. Grazing availability 42% short, 58% adequate. Maine potatoes 60% dug, 57% 1987, 62% avg.; good. Rhode Island potatoes 83% harvested, 67% 1987, 83% avg.; good. Connecticut River Valley potatoes fair to good. Field corn 55% harvested, 49% 1987, 53% avg.; good. Second crop hay 97% cut, 98% 1987, 99% avg.; good. Third crop hay 78% cut, 70% 1987, 76% avg.; good. Apples 61% picked, 60% 1987, 54% avg.; good; medium size; color fair to good. Cranberries 25% harvested; color excellent; size variable. Major farm activities: Harvesting corn silage, potatoes, hay.

NEW JERSEY: Temperatures above normal. Extremes 32°; 89°. Rainfall 0.44 in. north, 0.30 in.

central, 0.48 in. south. Heaviest 24-hour total 0.58 in. on 2nd, 3rd. Estimated soil moisture percent field capacity 77% north, 60% central, 66% south. Four inch soil temperatures 59° north, 62° central, 64° south.

Late season crops continued to grow, mature under favorable conditions. Fall vegetable harvest active. Irish potato digging neared completion. Sweetpotato harvest advanced. Apple, cranberry harvest active. Late cutting of hay continued. Corn silage making active. Harvest of corn for grain increased. Soybeans continued to mature. Recently planted pastures, hay, grain, cover crops continued good germination, growth. Hay, roughage supplies 25% short, 75% adequate.

NEW MEXICO: Meager rainfall along northern border, remainder of State dry. Temperatures 19° Quemado to 93° Carlsbad.

Days suitable for fieldwork 6.6. Soil moisture 7% short, 86% adequate, 7% surplus. Cotton 85% bolls open, 1% harvested; 33% fair, 67% good. Wheat 40% fair, 60% good; 85% planted, 75% emerged. Cattle 29% fair, 50% good, 21% excellent. Sheep 17% fair, 58% good, 25% excellent. Ranges 29% fair, 42% good, 29% excellent. Heavy hail damage last week affected lettuce, pecans, cotton, alfalfa, chile, other crops.

NEW YORK: Rainfall variable. Amounts 0.25 in. or less to over 1.00 in.

Days suitable for fieldwork 6.5. Soil moisture adequate. Pastures fair to good. Corn mostly good. Third cutting alfalfa 76%, 74% 1987, 72% avg. Silage corn harvest full swing; 44%, 39% 1987, 32% avg. Grain corn harvest just getting underway. Long Island grape harvest full swing. Lake Ontario mcintosh harvest finished. Bosc pear harvest virtually complete. Vegetable harvest neared completion. Sweet corn harvest virtually finished. Processing tomato harvest progressed well. Onion, potato harvest active. Last cuttings celery, lettuce. Storage cabbage harvest underway.

NORTH CAROLINA: Temperatures none to 3° below normal. Temperature extremes 39°; 92°. Precipitation none to 2.30 in.

Days suitable for fieldwork 5.6. Soil moisture 1% very short, 11% short, 85% adequate, 3% surplus. Pasture 1% poor, 26% fair, 66% good, 7% excellent. Flue-cured tobacco 91% harvested, 90% 1987, 93% avg. Peanuts fair to mostly good. Sweetpotatoes 12% fair, 76% good, 12% excellent; 31% harvested, 31% 1987, 30% avg. Apple 64% harvested, 69% 1987, 66% avg.; 18% fair, 72% good. Corn silage 92% harvested, 96% 1987, 93% avg. Sorghum for grain 51% harvested, 45% 1987, 40% avg.; 6% poor, 35% fair, 57% good, 2% excellent. Burley tobacco 81% harvested, 93% 1987, 89% avg. Major farm activities: Tobacco harvesting, marketing; corn, apple, peanut harvesting. Minor activities: Cotton, sweetpotato, grape, vegetable harvesting; spraying crops, land preparation for fall plantings; planting small grains, cover crops; tending livestock, general farm maintenance.

NORTH DAKOTA: Temperatures normal to 1° below normal. Extremes 29°; 87°. Precipitation midweek 0.14 in. northeast, northwest to 0.54 in. southeast.

Days suitable for fieldwork 6.4. Topsoil moisture 51% very short, 36% short, 13% adequate. Subsoil moisture supplies 80% very short, 18% short, 2% adequate. Midweek rains slowed row crop harvest. Sunflower 29% combined, 4% 1987, 5% avg.; corn for grain 43%, 10% 1987, 13% avg.; flax 91%, 88% 1987, 73% avg.; dry edible beans 91%, 85% 1987, 65% avg.; soybeans 75%, 62% 1987, 37% avg.; corn for silage 97% cut, 82% 1987, 80% avg.; potatoes 84% dug, 95% 1987, 76% avg.; sugarbeets 9% lifted, 31% 1987, 25% avg. Dry conditions held fall planting of winter wheat, rye behind average pace 83%, 84% respectively. Pastures improved slightly; 38% very poor, 47% poor, 13% fair, 2% good; furnished 58% roughage requirements. Hay, roughage supplies 82% very short to short, 18% adequate.

OHIO: Temperatures mild; lows 50s, highs mid 70s. Precipitation generally under 0.33 in.; few areas received 0.50 to 0.75 in.

Days suitable for fieldwork 6.4. Soil moisture 22% short, 77% adequate, 1% surplus. Activities: Planting wheat, harvesting crops. Corn harvest slow; grain moisture 25 to 30%. Soybean harvest slowed by weeds; bean moisture 18 to 20%, poor to fair. Winter wheat planting on schedule. Grasslands fair to good; some hay harvested. Aflatoxin concern but no findings.

OKLAHOMA: Temperatures 6° below normal Panhandle to 2° below normal east central. Precipitation 0.10 in. Panhandle to 1.07 in. south central.

Days suitable for fieldwork 5.0. Topsoil moisture 25% short, 65% adequate, 10% surplus. Subsoil moisture 40% short, 60% adequate. Cotton 40% fair, 40% good, 20% excellent; 60% open bolls, 40% 1987, 50% avg.; 1% harvested, none 1987, 1% avg. Sorghum 2% poor, 25% fair, 70% good, 3% excellent; 30% mature, 65% 1987, 70% avg.; 10% harvested, 10% 1987, 15% avg. Peanuts 80% mature, 65% 1987, 55% avg.; 10% harvested, 3% 1987, 5% avg. Soybeans 20% mature, 40% 1987, 45% avg.; 2% harvested, 5% 1987, 10% avg. Corn 85% harvested, 90% 1987, 85% avg. Pastures fair. Cattle good; marketings average, prices up slightly from last week.

OREGON: Week began cool, damp, ended with record high temperatures. Minimum temperatures below freezing common northeast. Most areas received significant precipitation except portion of south central, southeast. Precipitation 0.50 to 0.75 in. along coast, 0.20 to 0.30 in. western interior valleys, 0.06 to 0.54 in. northeastern areas.

Soil moisture 85% short, 15% adequate. Barley 10% seeded, 9% 1987. Planting, field preparation for grass seed, crimson clover seed Willamette Valley; red clover seed harvest continued. Last hay cutting activities winding up statewide. Spring grain harvest continued eastern high country. Sugarbeet harvest began Malheur County; alfalfa seed 95% harvested; dry bean harvest continued. Pear harvest nearly completed Medford, except bosc still sizing. Anjou pear crop very big Hood River, also picking bosc, comice pears; picking golden delicious, newtown apples, red varieties coloring with cooler weather. Apple, pear picking continued Willamette Valley. Early wine grape harvest underway southwest. Fall bearing raspberry picking continued west. Cranberry harvest started, good color south coast. Filberts falling Willamette Valley. Sweet corn harvest winding up west. Onions 80% harvested Malheur County, good quality. Onion harvest neared completion Willamette Valley, Jackson County, Hermiston area. Potatoes 50% harvested Malheur County; digging underway Willamette Valley, Baker County; harvest continued Hermiston-Boardman. Table beet, cauliflower harvest full swing Willamette Valley. Livestock good. Most calves weaned, in good condition. Most yearling cattle moved. Gathering from allotments continued. Stockwater continued short southeast, central areas. Range, pasture poor to fair awaiting addition fall rains for green up east. New pasture seeding west.

PENNSYLVANIA: Mostly dry. Weak cold front caused scattered showers. Temperature 60°, normal 60°.

Temperature extremes 28°; 85°. Precipitation 0.07 in., 0.74 in. below normal.

Days suitable for fieldwork 5.0. Soil moisture 21% short, 79% adequate. Corn 96% dough, 100% 1987, 100% avg.; 69% dent, 98% 1987, 94% avg.; 19% mature, 63% 1987, 54% avg.; 3% harvested, 8% 1987, 7% avg.; ensilage 43% harvested, 67% 1987; 15% very poor, 30% poor, 36% fair, 14% good, 5% excellent. Soybean none harvested, 11% 1987; 10% very poor, 23% poor, 35% fair, 26% good, 6% excellent. Wheat 35% planted, 36% 1987. Barley 50% planted, 61% 1987. Potato 54% harvested, 68% 1987. Third cutting alfalfa 85%, 76% 1987; 4th cutting 40%, 40% 1987. Second cutting clover-timothy 97%, 97% 1987. Hay, roughage supplies 19% very short, 52% short, 29% adequate. Livestock feed now obtained from pastures 28%. Quality of hay fair. Feed from pastures average. Apple 45% harvested, 55% 1987. Grape 30% harvested, 62% 1987. Fall plowing 63%, 64% 1987. Activities: Harvesting corn grain, corn silage, hay, haylage, tobacco, fruit, potatoes, other vegetables; planting wheat, barley; fall plowing; controlling weeds; caring for livestock; maintaining machinery; spreading manure.

PUERTO RICO: Island rainfall 0.86 in., 0.99 in. below normal. Highest weekly total rainfall 3.53 in. Lares, 3.00 in. Arecibo Observatory, 2.16 in. Yauco. Highest 24-hour total 2.35 in. Lares. Total rainfall since January 1st 48.90 in., 9% above normal. San Juan WSFO temperature 83°, 1° above normal. Total rainfall 0.04 in., 1.34 in. below normal. Divisional temperature 81 to 82° on coasts, 76 to 77° interior. Station temperature 69° Pico Del Este-Luquillo to 83° Guayama. Lowest minimum temperature 53° Adjuntas. Highest maximum temperature 94° Rio Piedras.

SOUTH CAROLINA: Temperatures near normal. Rainfall 0.50 to 1.50 in., few stations less than 0.10 in.

Days suitable for fieldwork 5.8. Soil moisture 31% short, 66% adequate, 3% surplus. Cotton 80% open bolls, 92% 1987, 90% avg.; 8% harvested, 25% 1987, 20% avg.; 2% very poor, 16% poor, 82% fair. Soybeans 27% leaves turning, 36% 1987, 43% avg.; 9% leaves shedding, 13% 1987, 18% avg.; 8% matured, 11% 1987, 8% avg.; 27% fair, 67% good, 6% excellent. Tobacco stalks 56% destroyed, 68% 1987, 67% avg. Corn poor to fair; 71% harvested, 84% 1987, 87% avg. Peanuts fair; 12% harvested, 23% 1987, 29% avg. Sorghum fair to good; 36% harvested, 57% 1987, 47% avg. Pastures fair to good. Livestock fair to good.

SOUTH DAKOTA: Temperatures 3° below to 6° above normal. Extremes 31°; 92°. Rainfall above normal, largest amounts east.

Days suitable for fieldwork 4.0. Topsoil moisture 16% critically short, 28% short, 54% adequate, 2% surplus. Rain should help fall sown grain emergence.

TENNESSEE: Mild, dry early week. Cold front with significant rains late week. Temperatures near normal. Precipitation 0.50 to 0.75 in. middle, east to over 1.50 in. west. Some areas west 3.00 in.

Days suitable for fieldwork 4.7. Soil moisture 2% very short, 18% short, 75% adequate, 5% surplus. Pasture feed normal. Corn 92% mature, 100% 1987, 93% avg.; 44% harvested, 72% 1987, 46% avg. Sorghum 56% harvested, 86% 1987, 62% avg. Burley tobacco 94% harvested, 98% 1987, 94% avg.; 4% stripped, 8% 1987, 3% avg. Primary activities: Fall land preparation, fall seeding, harvest.

TEXAS: Cool front entered State but did not generate much rainfall until north, west central parts State. Eastern, southwestern parts heaviest rains. Dry, cool air west, clearing conditions moved eastward. Temperatures at or below normal most areas except south central. Rainfall below normal west dry south central areas.

Crops: Corn harvest continued full swing High Plains cooler, open weather. Yields good to excellent. Lodging some fields caused harvesting problems. Grain sorghum Plains need warmer temperatures to fully mature. Harvest activities underway, average yields Low Plains. Most fields harvested Cross-Timbers. Sorghum 98% turning color, 99% 1987, 96% avg. Cotton harvest continued Blacklands; operations slowed by scattered showers, yields very good. Harvest approaching many portions Low Plains. Some defoliation occurred. Temperatures remained cool, slowed progress High Plains, Trans-Pecos. Small grain seeding active Plains open weather. Early fields good stands, good growth. Livestock moved some early fields. Rains central, Blacklands should help dry planted fields; many areas still need additional moisture for planting. Insect problems minimal so far. Peanut harvest progressed slowly central, south, scattered showers kept fields wet. Rain help later varieties; early variety yields fair. Harvest continued early week Cross-Timbers, Plains. Recent rains helped improve prospects dryland fields. Soybeans good progress Plains as harvest neared. Late varieties Upper Coast look good. Yields low harvested fields Blacklands, northeast. Sugarbeet harvest got underway High Plains, prospects good. Sugarcane Rio Grande Valley escaped major damage from Hurricane Gilbert, looks good. Harvest begin on schedule, about mid-October. Other Field Crops: Peanuts 19% harvested, 13% 1987, 16% avg. Pecans 1% harvested, 2% 1987, 2% avg. Soybeans 36% harvested, 25% 1987, 21% avg. Sugarbeets none harvested, 5% 1987, 5% avg. Sunflowers 28% harvested, 22% 1987, 24% avg. Oats 20% planted, 36% 1987, 34% avg.

Commercial Vegetables: Rio Grande Valley planting, harvesting resumed as fields dried. Yields, quality good. Harvest early oranges continued. Most citrus Valley looks good, appearance, quality. San Antonio-Winter Garden land preparations, planting continued. Progress good planted fields. East harvest sweetpotatoes, late season peas continued. High Plains harvest all major vegetables continued. Pumpkin harvest underway. Trans-Pecos insects light cucumbers, peppers. Tomato harvest continued. Onion harvest begin Presidio area soon. Pecan harvest increased south some light harvest began east. Crop east, west looks good. Shucks began to open Cross-Timbers, Blacklands. Rains helped crops some areas.

Range and Pasture: Recent rainfall improved conditions, greening, growth. Cooler temperatures slowed growth warm season grasses. Small grains provide grazing Plains. Recent rains insured good early grazing. Livestock conditions improved. Some hay cut east.

UTAH: Precipitation none to light. Temperatures 2° below to 1° above normal.

Days suitable for fieldwork 6.8. Soil moisture 62% short, 38% adequate. Winter wheat 72% seeded, 89% 1987, 79% avg. Corn 74% mature, 80% 1987, 74% avg.; silage 83% harvested, 84% 1987, 66% avg. Alfalfa 3rd cutting 92%, 89% 1987, 79% avg.; 4th cutting 29%, 33% 1987, none avg.; seed 25% harvested, 28% 1987, 35% avg. Onion harvest neared completion. Potato, apple harvests midpoint. Livestock movement from summer range 41% cattle, 33% 1987, 31% avg.; 42% sheep, 24% 1987, 34% avg. Pasture, range 15% very poor, 35% poor, 31% fair, 19% good. Irrigation water supplies 20% very short, 40% short, 40% adequate. Stockwater supplies 13% very short, 50% adequate. Hay,

roughage supplies 3% very short, 31% short, 58% adequate, 8% surplus. Livestock fair to good.

VIRGINIA: Temperatures 2° below normal. Range 41 to 90°. Early period rain 0.50 in. Dry remainder of period.

Days suitable for fieldwork 5.7. Topsoil moisture 9% very short, 41% short, 44% adequate, 6% surplus. Grain corn 50% harvested, 66% 1987, 55% avg.; silage 74% harvested, 90% 1987, 90% avg. Soybeans 3% poor, 48% fair, 42% good, 7% excellent; few acres harvested, late planted soybeans need rain. Peanuts 17% fair, 82% good, 1% excellent; 14% dug, 8% 1987, 38% avg.; 5% combined, 6% 1987, 23% avg.; dry soil hampered digging. Flue-cured tobacco 84% harvested, 74% 1987, 84% avg.; burley 93% harvested, 93% 1987, 93% avg. Barley 20% seeded, 32% 1987, 29% avg. Wheat 6% seeded, 10% 1987, 9% avg.; dry soil impeding progress. Hay cut; hay, pastures reseeded. Pastures improved; 5% poor, 34% fair, 43% good, 18% excellent.

WASHINGTON: Weak frontal systems passed over State 1st, continued through early part of week. Strong ridge high pressure moved in by 28th producing unseasonably warm temperatures. Precipitation variable.

Days suitable for fieldwork 6.2. Soil moisture 60% short, 40% adequate. Rain improved moisture conditions for fall seeding, but caused crusting some areas. Winter wheat seeding continued rapid pace; 68%, 67% 1987, 66% avg.; 45% emergence, 47% 1987, 48% avg. Potato, dry bean, corn silage, corn grain harvests continued. Second cutting timothy hay, 3rd cutting alfalfa hay winding down. Cattle, most areas, being turned into crop aftermath. Red, golden delicious apples being harvested, shipped. Apple sizes down, some areas. Pear harvest winding down Kittitas County. Cranberry harvest underway Pacific County. Raspberry caning, tying underway Whatcom County. Grape harvest activity increased Benton County. Sweet corn, carrot, onion harvests continued major activity among vegetable growers. Pumpkins, winter squash, melons, tomatoes also being picked. Most truck crops already harvested.

WEST VIRGINIA: Temperature 63°, 1 to 3° above normal. Extremes 37° Greenbank, 88° Creston. Precipitation 0.23 in.

Days suitable for fieldwork 5.0. Soil moisture 4% very short, 54% short, 42% adequate. Corn fair to poor; 87% mature, 26% harvested. Apples fair to good. Feed supplies 6% very short, 46% short, 48% adequate. Feed from pasture 86%. Farm activities: General farm maintenance, livestock care, haying, cutting silage.

WISCONSIN: Temperatures 59°, 3° above normal. Extremes 30°; 84°. Precipitation 0.10 to 1.20; most southeast.

Days suitable for fieldwork 4.7. Soil moisture 43% short, 55% adequate, 2% surplus. Crops 5% very poor, 40% poor, 37% fair, 18% good. Corn 17% very poor, 37% poor, 33% fair, 12% good, 1% excellent; 84% mature, 89% 1987, 82% avg.; for grain 20% harvested, 15% 1987, 7% avg.; yields very low. Many strips left for ASCS checks. Corn silo filling 78%, 75% 1987, 43% avg. Newly seeded alfalfa good. Soybeans 13% harvested, 19% 1987, 6% avg.; yields variable, slightly to considerably below normal. Winter wheat, rye good. Fall plowing 18%, 17% 1987, 13% avg. Pastures better; 58%, 88% 1987, 87% avg. Feed, roughage supplies 16% very short, 58% short, 26% adequate.

WYOMING: Temperatures generally above normal. Precipitation below normal except extreme northeast.

Days suitable for fieldwork 7.0. Topsoil moisture 88% short, 12% adequate. Winter wheat 85% seeded, 95% 1987, 95% avg.; 45% emerged, 75% 1987, 80% avg.; mostly fair. Corn none dough, 5% 1987; 30% dented, 30% 1987; 65% mature, 60% 1987; 5% harvested, 5% 1987, 10% avg.; silage 90% harvested, 90% 1987, 90% avg. Dry beans 100% windrowed, 95% 1987, 70% avg.; 85% combined, 75% 1987, 80% avg. Sugarbeets 20% dug, 25% 1987, 20% avg.; sugar content 16%. Potatoes 45% harvested, 60% 1987, 65% avg. Prospects for fall, winter grazing mostly poor to fair. Stockwater short most areas.

CROP PROGRESS 1/

FOR WEEK ENDING OCTOBER 2, 1988

GRAIN SORGHUM
% MATURE

	1988	1987	AVG.
ARK	100	100	NA
ILL	91	100	NA
KANS	70	65	55
LA	100	100	99
MISS	94	98	97
MO	85	91	85
NEBR	100	94	83
OKLA	30	65	70
S DAK	95	88	73
TENN	100	100	100
TEX	78	80	78
11 STATES	79	78	NA
EXCL. STATES WITH NA	78	77	70

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

NA - NOT AVAILABLE.

GRAIN SORGHUM
% HARVESTED

	1988	1987	AVG.
ARK	72	95	82
ILL	27	74	32
KANS	25	25	15
LA	89	97	95
MISS	74	93	81
MO	42	63	43
NEBR	30	24	16
OKLA	10	10	15
S DAK	35	25	12
TENN	56	86	62
TEX	67	60	64
11 STATES	42	42	36

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

RICE
% HARVESTED

	1988	1987	AVG.
ARK	53	90	73
CALIF	30	25	21
LA	92	98	94
MISS	67	94	78
TEX	100	100	100
5 STATES	63	82	72

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

WINTER WHEAT
% PLANTED

	1988	1987	AVG.
ARK	1	8	7
CALIF	0	0	0
COLO	86	91	92
GA	4	4	7
IDAHO	59	60	59
ILL	19	24	15
IND	20	30	19
KANS	55	75	55
MICH	50	30	25
MO	29	32	19
MONT	44	77	51
NEBR	85	96	91
N MEX	85	75	NA
N C	5	3	4
OHIO	26	32	21
OKLA	45	60	40
OREG	26	15	18
S DAK	77	94	92
TEX	65	64	46
WASH	68	67	66
20 STATES	54	64	NA
EXCL. STATES WITH NA	53	64	51

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

NA - NOT AVAILABLE.

WINTER WHEAT
% EMERGED

	1988	1987	AVG.
ARK	0	0	NA
CALIF	0	0	0
COLO	59	43	55
GA	3	2	5
IDAHO	12	30	29
ILL	4	4	3
IND	7	7	5
KANS	20	40	25
MICH	15	15	NA
MO	12	13	7
MONT	9	42	24
NEBR	60	79	70
N MEX	75	63	NA
N C	0	0	0
OHIO	2	3	2
OKLA	20	35	15
OREG	11	2	5
S DAK	44	85	71
TEX	37	38	22
WASH	45	47	48
20 STATES	27	37	NA
EXCL. STATES WITH NA	27	38	27

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

NA - NOT AVAILABLE.

SOYBEANS
% DROPPING LEAVES

	1988	1987	AVG.
ALA	27	47	43
ARK	25	39	32
GA	35	43	51
ILL	97	97	90
IND	94	100	93
IOWA	100	100	94
KANS	85	75	70
KY	49	64	48
LA	34	55	48
MICH	80	97	90
MINN	100	99	97
MISS	33	57	60
MO	73	77	66
NEBR	100	92	87
N C	15	18	16
OHIO	84	98	92
S C	9	13	18
S DAK	100	99	89
TENN	42	67	50
19 STATES	78	83	77

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

SOYBEANS
% HARVESTED

	1988	1987	AVG.
ALA	5	14	8
ARK	1	7	6
GA	1	3	4
ILL	50	64	37
IND	22	58	25
IOWA	48	51	27
KANS	30	15	10
KY	4	14	6
LA	9	20	13
MICH	5	10	5
MINN	66	62	23
MISS	3	16	10
MO	14	23	14
NEBR	30	25	19
N C	1	0	0
OHIO	15	45	26
S C	0	0	0
S DAK	38	51	22
TENN	2	8	3
19 STATES	29	38	20

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

CORN
% MATURE

	1988	1987	AVG.
COLO	79	61	78
GA	100	100	100
ILL	99	100	98
IND	94	100	94
IOWA	100	100	98
KANS	95	97	90
KY	80	98	86
MICH	55	90	80
MINN	100	98	85
MO	97	100	98
NEBR	100	93	90
N C	98	100	100
OHIO	53	98	91
PA	19	63	54
S DAK	100	93	86
TEX	100	100	98
WIS	84	89	82
17 STATES	91	96	91

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

COTTON
% BOLLS OPENING

	1988	1987	AVG.
ALA	96	97	89
ARIZ	99	93	97
ARK	89	98	93
CALIF	97	100	95
GA	80	78	79
LA	95	99	92
MISS	95	99	97
MO	84	100	91
N MEX	85	70	91
N C	91	98	97
OKLA	60	40	50
S C	80	92	90
TENN	92	95	95
TEX	50	41	44
14 STATES	72	69	69

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

COTTON
% HARVESTED

	1988	1987	AVG.
ALA	35	55	26
ARIZ	7	12	10
ARK	20	58	35
CALIF	2	8	3
GA	14	27	17
LA	39	58	40
MISS	31	59	37
MO	11	71	40
N MEX	1	1	1
N C	6	12	10
OKLA	1	0	1
S C	8	25	20
TENN	14	61	33
TEX	22	16	16
14 STATES	19	28	20

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

CORN
% HARVESTED

	1988	1987	AVG.
COLO	9	5	8
GA	90	93	92
ILL	40	62	28
IND	12	48	19
IOWA	50	24	17
KANS	60	55	35
KY	22	67	40
MICH	5	10	5
MINN	42	19	8
MO	62	61	43
NEBR	30	16	12
N C	47	55	66
OHIO	4	33	16
PA	3	8	7
S DAK	23	19	8
TEX	91	87	85
WIS	20	15	7
17 STATES	32	38	22

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

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

International Weather and Crop Summary

September 25 - October 1, 1988

USSR ... In Western USSR, unseasonably warm, dry weather helps fieldwork in southern areas. In the New Lands, dry weather helps spring grain harvesting advance toward completion.

EUROPE ... Moderate to heavy rain delays winter grains planting and summer crop harvest in the northwest. Severe thunderstorms cause localized flooding and crop damage in Spain.

SOUTH ASIA ... Showers in central and southern India benefit filling crops but likely cause local flooding in Maharashtra. Bangladesh continues dry, but flooding continues in northern and far eastern India.

EASTERN ASIA ... Mostly dry weather favors rapid progress in summer crop harvest across central, eastern, and northeastern China. Remnants of Tropical Storm Lee cause torrential rains, flooding, and harvest delays in Japan and the eastern Korean Peninsula.

SOUTHEAST ASIA ... Local flooding continues in southern Thailand near Bangkok and over the Malay Peninsula. Widespread showers continue over the Philippines.

SOUTH AMERICA ... Showers improve conditions for wheat growth and summer crop planting in Argentina. Wetness continues in extreme southern Brazil, but beneficial rain falls in northern coffee areas.

AUSTRALIA ... Heavy rain continues in Western Australia. Above-normal temperatures increase crop growth rates and evapotranspiration losses over eastern crop areas.

MEXICO ... Mostly dry weather in the north favors harvesting, while tropical showers increase over the south.

CANADA ... Drier weather across southern winter wheat areas favors planting. Rain in northern regions improves moisture conditions.

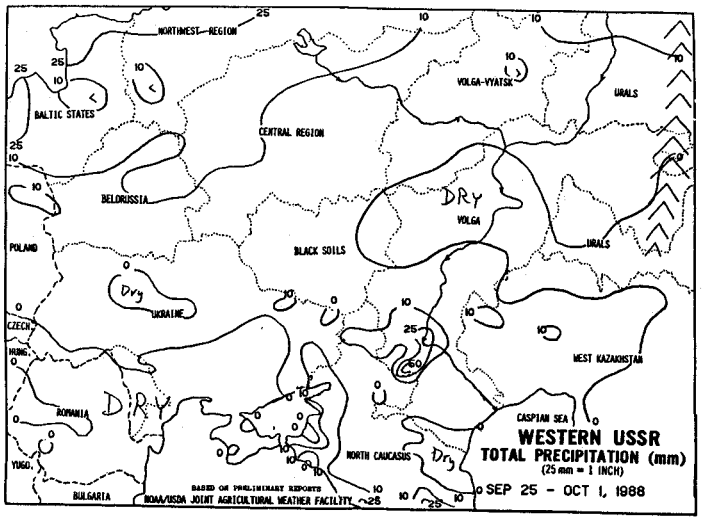
MONTHLY DATA FROM SELECTED FOREIGN CITIES
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
*** = DATA NOT AVAILABLE

September 1988

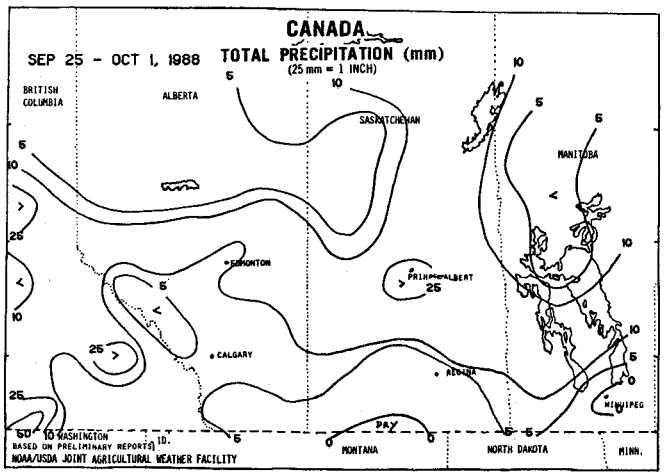
COUNTRY	CITY	TEMPERATURE (C)						PRECIPITATION (MM)	
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
NORWAY	OSLO	15	7	20	2	11	1.7	132.8	40.9
SWEDEN	STOCKHOLM	17	9	21	3	13	0.8	24.5	-28.2
FINLND	HELSINKI	15	8	20	-3	11	0.9	112.3	43.1
U KING	GLASGOW	16	9	21	-1	12	-0.7	102.0	4.2
	EDINBURGH	16	9	23	0	13	0.1	60.5	2.3
	BIRMINGHAM	17	10	25	1	13	0.1	41.8	-14.2
	LONDON	18	10	25	2	14	0.4	67.6	-7.7
IRELND	DUBLIN	16	10	21	3	13	-0.2	45.6	-27.8
ICELND	REYKJAVIK	9	5	14	-5	7	-1.1	34.5	-32.9
DENMRK	COPENHAGEN	17	11	22	5	14	0.1	50.3	-11.7
LUXEMB	LUXEMBOURG	16	10	23	5	13	-0.6	117.6	57.1
SWITZL	ZURICH	18	11	24	6	15	0.6	70.6	-19.8
	GENEVA	21	10	27	6	16	0.7	57.8	-32.3
FRANCE	PARIS	20	12	26	3	16	0.2	54.0	4.6
	STRASBOURG	20	11	27	5	15	0.5	97.2	47.1
	BOURGES	21	12	29	6	16	0.4	37.8	-26.2
	BORDEAUX	24	13	35	6	18	1.3	43.4	-38.9
	TOULOUSE	24	13	33	8	18	0.6	29.6	-26.4
	MARSEILLE	25	14	32	9	20	0.1	18.0	-39.3
SPAIN	VALLADOLID	27	11	38	5	19	1.1	2.2	-27.6
	MADRID	30	12	40	6	21	0.6	0.1	-33.1
	SEVILLE	34	18	43	13	26	2.0	0.1	-17.8
E GRMY	LEIPZIG	19	11	27	7	15	0.9	32.5	-12.7
	DRESDEN	18	11	26	6	15	0.2	46.6	-1.4
W GRMY	HAMBURG	18	10	24	5	14	0.6	55.3	-12.8
	BERLIN	18	11	26	8	15	0.3	25.5	-24.7
	DUSSELDORF	18	12	25	5	15	0.0	74.2	12.2
	STUTTGART	18	10	28	4	14	-0.5	67.1	7.4
	NURNBERG	18	10	27	5	14	0.7	64.9	16.5
	MUNICH	18	10	27	6	14	0.6	63.2	-9.9
AUSTRI	VIENNA	20	12	27	7	16	0.3	76.0	23.9
	INNSBRUCK	19	9	25	6	14	0.1	47.2	-33.1
CZECH	PRAGUE	18	10	26	5	14	0.4	38.0	-2.1
POLAND	WARSAW	18	9	24	3	14	0.4	18.9	-22.2
	LODZ	17	10	24	7	14	0.9	35.2	-17.9
	KATOWICE	18	10	25	7	14	1.2	50.9	-1.2
	PRZEMYSL	17	11	24	6	14	0.4	108.7	53.1
HUNGAR	BUDAPEST	21	11	28	7	16	-0.2	71.3	34.6
YUGOSL	SARAJEVO	22	10	31	6	16	1.5	71.0	-31.1
ROMANI	BUCHAREST	25	11	31	5	18	0.6	44.3	6.8
BULGAR	SOFIA	23	11	30	6	17	0.9	34.9	-2.7
ITALY	MILAN	25	14	32	9	20	1.4	4.9	-63.8
	VERONA	25	15	31	10	20	1.3	19.1	-45.9
	VENICE	24	14	28	9	19	-0.2	39.0	-23.4
	GENOA	24	19	29	15	21	-0.8	24.4	-90.4
	ROME	26	15	30	10	20	-0.6	11.9	-55.4
	NAPLES	26	15	33	10	20	0.0	81.7	-5.6
GREECE	THESSALONIKA	28	16	34	14	22	0.2	2.2	-30.3
	LARISSA	30	15	38	10	22	0.3	10.2	-28.5
	ATHENS	29	20	34	16	24	-0.1	3.4	-11.0
TURKEY	ISTANBUL	25	16	30	12	21	1.0	19.2	-21.8
	ANKARA	24	7	32	2	16	-2.2	4.1	-32.9
CYPRUS	LARNACA	31	20	34	17	25	0.0	0.1	-5.0
USSR	TALLINN	16	9	23	1	12	1.2	86.6	15.8
	LENINGRAD	16	9	23	1	12	1.4	79.9	20.7
	KAUNAS	18	9	23	4	13	1.4	41.7	-12.7
	MINSK	16	9	24	5	13	0.8	71.5	22.4
	KAZAN	14	7	22	-1	11	-0.4	34.8	-7.2
	MOSCOW	15	8	22	-1	12	0.8	50.8	-12.5
	SVERDLOVSK	14	7	21	-3	10	0.6	62.7	26.9
	OMSK	18	8	28	-1	13	1.9	32.7	7.9
	KUSTANAY	19	9	31	-1	14	1.9	18.2	-8.3
	KRASNOYARSK	16	6	27	-7	11	2.2	15.6	-26.3
	NOVOSIBIRSK	17	7	27	-4	12	1.8	8.0	-25.0
	BARNAUL	18	8	28	-2	13	1.7	19.1	-8.9
	KHABAROVSK	20	10	24	3	15	1.8	45.1	-52.0
	VLADIVOSTOK	19	13	24	4	16	0.4	65.0	-68.9
	KIEV	19	11	25	6	15	0.8	49.2	1.2
	LVOV	17	10	25	5	13	0.5	87.2	32.9
	KIROVOGRAD	20	10	27	3	15	0.9	26.7	-9.3

COUNTRY	CITY	TEMPERATURE (C)						PRECIPITATION (MM)	
September 1988		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
USSR	ODESSA	20	14	24	9	17	-0.3	58.4	18.6
	YALTA	22	15	27	11	18	-0.7	65.1	31.1
	VORONEZH	18	9	26	-1	13	0.2	52.1	8.6
	SARATOV	17	11	28	0	14	0.9	53.2	24.5
	KHARKOV	18	10	24	3	14	-0.1	61.0	24.0
	VOLGOGRAD	20	11	29	2	15	0.0	45.0	23.7
	ROSTOV	21	12	28	6	17	0.4	51.2	17.1
	ASTRAKHAN	23	13	30	5	18	1.0	10.6	-9.6
	KRASNODAR	24	13	29	7	18	0.8	24.7	-4.3
	ORENBURG	19	10	31	-1	14	0.9	64.7	36.3
	TSELINOGRAD	20	9	31	-2	14	3.0	14.7	-9.6
	KARAGANDA	20	8	31	-7	14	2.0	12.0	-5.8
	TBILISI	24	14	31	10	19	0.0	17.8	-27.1
	TASHKENT	30	13	36	5	21	1.5	4.3	2.2
	ASHKHABAD	31	16	41	4	23	-0.1	1.0	-4.5
SYRIA	DAMASCUS	33	13	38	9	23	-0.5	0.1	0.1
ISRAEL	JERUSALEM	29	18	36	14	23	0.9	0.1	0.1
PAKIST	KARACHI	36	28	42	23	32	3.4	0.1	-31.4
INDIA	AMRITSAR	33	22	38	19	28	-1.2	303.0	208.4
	NEW DELHI	35	26	39	22	30	0.9	172.3	46.7
	AHMEDABAD	34	26	37	24	30	1.5	68.8	-108.2
	INDORE	32	23	35	21	27	1.8	185.3	-26.4
	CALCUTTA	33	26	35	25	30	0.5	261.8	-42.5
	VERAVAL	32	25	39	22	28	1.1	123.6	16.7
	BOMBAY	31	25	33	22	28	0.9	619.4	310.1
	POONA	29	22	32	21	26	0.6	431.5	313.8
	BEGAMPET	30	23	33	21	26	0.5	141.7	-40.9
	MADRAS	33	25	36	22	29	-0.5	175.2	56.4
	MANGALORE	29	24	31	22	27	0.4	432.1	165.1
H KONG	HONG KONG	30	26	33	22	28	0.4	113.4	-207.1
N KREA	PYONGYANG	24	13	28	6	18	-0.5	35.9	-114.2
S KREA	SEOUL	27	17	31	11	22	1.5	40.3	-101.7
JAPAN	SAPPORO	22	14	26	8	18	1.0	44.4	-98.1
	NAGOYA	28	22	33	18	25	2.1	312.5	103.3
	TOKYO	25	21	31	18	23	0.1	254.6	61.6
	YOKOHAMA	25	21	31	17	23	0.0	306.3	107.2
	KYOTO	28	21	31	19	25	2.0	138.4	-63.2
	OSAKA	29	22	33	20	26	1.6	140.9	-22.0
THAILN	PHETCHABUN	33	24	35	23	29	1.3	82.6	-195.3
	BANGKOK	33	25	36	21	29	0.8	487.7	145.9
MALAYS	KUALA LUMPUR	31	24	33	23	27	1.0	501.3	315.9
VIETNM	HANOI	31	26	36	20	28	0.6	74.9	-179.1
CHINA	HARBIN	21	9	26	-1	15	0.7	70.9	4.6
	HAMI	30	13	35	7	21	2.9	9.1	5.9
	LANCHOW	22	12	28	5	17	1.4	38.9	-6.8
	BEIJING	27	17	31	12	22	2.3	49.2	-7.9
	TIENTSIN	27	18	32	14	22	1.4	108.4	65.0
	LHASA	20	8	24	2	14	-0.2	58.5	-6.0
	KUNMING	22	14	26	10	18	0.5	107.4	-12.2
	CHENGCHOW	27	16	33	10	22	1.0	38.4	-32.7
	YEHCHANG	27	20	31	16	23	0.0	102.4	-8.1
	HANKOW	27	19	32	13	23	0.0	166.2	85.4
	CHIHKIANG	27	19	32	15	23	-0.3	98.7	40.0
	SHANGHAI	26	20	30	15	23	-0.2	266.6	116.0
	NANCHANG	27	21	31	17	24	-1.0	118.0	42.0
	TAIPEI	31	25	36	21	28	1.5	665.8	444.8
	CANTON	31	24	35	21	28	0.8	89.3	-92.5
	NANNING	32	24	34	19	28	1.3	32.6	-86.3
CNRY I	LAS PALMAS	27	21	34	17	24	0.6	4.8	-1.0
MOROCC	CASABLANCA	27	19	33	14	23	1.2	0.8	-5.8
	MARRAKECH	35	21	43	16	28	3.5	0.1	-5.3
ALGERI	ALGER	29	17	36	12	23	0.1	39.7	9.0
	BATNA	28	12	40	7	20	-0.3	16.9	-4.2
TUNISI	TUNIS	30	19	44	14	24	0.6	14.8	-22.4
NIGER	NIAMEY	34	24	39	21	29	0.8	99.2	5.0
MALI	TIMBUKTU	37	26	43	23	32	0.8	45.6	14.4
	BAMAKO	32	21	35	15	27	0.4	213.0	-4.8
MAURIT	NOUAKCHOTT	34	25	40	21	29	0.0	77.0	39.7
SENEGL	DAKAR	30	25	31	22	28	0.1	203.7	47.2
CHAG A	DIEGO GARCIA	28	25	30	23	27	0.4	747.5	509.6
LIBYA	TRIPOLI	32	20	42	15	26	0.2	116.1	99.3
	BENGHAZI	30	21	39	18	26	0.8	11.1	8.8
EGYPT	CAIRO	34	21	39	16	28	1.4	0.1	0.1
	ASWAN	39	25	44	19	32	0.4	0.1	0.1
ETHIOP	ADDIS ABABA	21	10	24	9	16	-0.5	204.3	29.0
KENYA	NAIROBI	25	12	30	8	19	0.4	20.0	-3.3

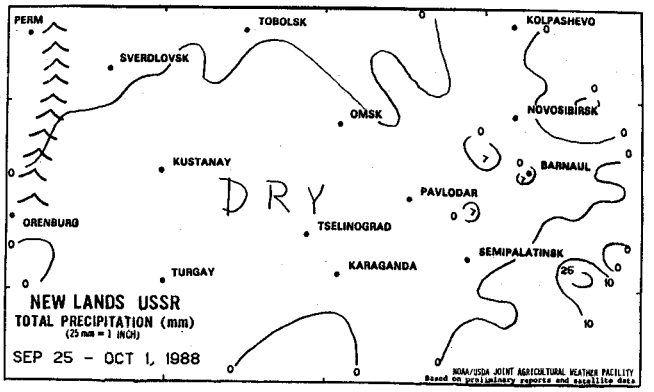
COUNTRY	CITY	TEMPERATURE (C)						PRECIPITATION (MM)	
September 1988		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
TANZAN	DAR ES SALAAM	30	20	33	17	25	0.5	32.9	2.5
GABON	LIBREVILLE	28	23	30	20	25	-0.1	64.1	-42.0
TOGO	LOME	29	24	31	16	26	0.8	141.9	94.0
B FASO	OUAGADOUGOU	32	23	36	20	28	1.0	93.6	-63.0
IVRY C	ABIDJAN	28	23	31	21	25	0.8	70.1	5.7
MOZAMB	MAPUTO	28	17	40	13	23	1.4	9.7	-37.2
ZAMBIA	KABWE	29	15	33	11	22	0.1	0.1	-0.7
ZIMBAB	HARARE	27	13	31	9	20	1.1	0.1	-10.1
S AFRI	PRETORIA	25	12	31	6	18	0.7	48.0	25.5
	KROONSTAD	24	8	32	1	16	0.5	44.4	24.3
	JOHANNESBURG	22	10	28	3	16	0.6	44.4	18.8
	BETHAL	21	7	27	0	14	-0.4	34.9	11.0
	DURBAN	23	16	31	0	19	0.4	27.6	-41.9
	CAPE TOWN	19	8	26	2	14	0.1	44.3	6.8
CANADA	TORONTO	21	10	28	4	16	0.1	70.3	6.8
	MONTREAL	20	9	26	0	14	-0.5	41.4	-47.0
	WINNIPEG	18	7	28	0	13	0.3	59.5	6.2
	REGINA	19	5	32	-2	12	-0.1	15.3	-21.4
	SASKATOON	18	5	34	-1	11	0.2	26.7	-4.7
	LETHBRIDGE	20	5	32	1	13	0.1	27.9	-9.3
	CALGARY	17	4	29	-2	11	0.2	38.4	0.2
	EDMONTON	17	6	31	-2	12	0.6	43.8	4.6
	VANCOUVER	19	10	29	6	15	0.3	71.2	4.1
MEXICO	GUADALAJARA	25	15	29	9	20	-0.3	170.3	10.6
	MEXICO CITY	24	13	30	8	18	2.1	59.5	-57.6
	ACAPULCO	32	24	37	23	28	0.4	147.6	-278.0
BERMUD	ST. GEORGES	31	26	33	22	28	2.6	56.5	-105.7
BAHAMA	NASSAU	32	24	34	20	28	0.9	28.8	-146.6
CUBA	HAVANA	31	24	33	23	28	0.8	68.7	-75.7
JAMAIC	KINGSTON	33	25	34	22	29	0.6	36.7	-75.7
P RICO	SAN JUAN	31	25	33	21	28	0.1	134.7	-17.5
GUADEL	RAIZET	32	23	33	20	27	0.8	85.9	-76.2
MARTNQ	LAMENTIN	31	24	32	21	28	1.5	134.1	-77.7
BARBAD	BRIDGETOWN	30	25	31	17	27	-0.1	96.9	-48.8
TRINID	PORT OF SPAIN	32	23	34	22	28	1.2	72.7	-113.4
COLOMB	BOGOTA	18	8	19	1	13	-0.1	91.8	32.3
VENEZU	CARACAS	32	25	33	23	28	0.9	102.7	52.7
F GUIA	CAYENNE	32	23	33	21	27	0.8	78.0	12.5
BRAZIL	FORTALEZA	31	23	33	20	27	-0.3	24.0	-2.0
	RECIFE	28	23	29	20	25	0.2	78.0	-8.1
	BELO HORIZONTE	30	18	35	13	24	2.6	68.1	32.4
	CAMPO GRANDE	33	20	40	14	26	3.3	7.5	-54.5
	FRANCA	30	17	39	12	24	3.1	16.9	-48.1
	RIO DE JANEIRO	26	20	34	17	23	0.7	54.9	1.9
	LONDRINA	30	16	38	11	23	2.9	53.0	-51.2
	SANTA MARIA	20	13	28	4	16	-0.5	364.7	213.8
PERU	LIMA	19	15	20	13	17	0.5	0.3	-0.7
BOLIVI	LA PAZ	15	0	18	-4	8	-1.0	21.7	-9.4
CHILE	SANTIAGO	19	4	29	-1	11	-0.1	6.2	-17.6
ARGENT	IGUAZU	28	15	34	7	22	***	19.5	****
	FORMOSA	25	15	38	9	20	0.4	163.7	81.7
	CERES	23	9	33	2	16	-0.5	3.9	-37.6
	CORDOBA	21	7	29	0	14	-0.7	24.2	-10.2
	RIO CUARTO	19	7	27	0	13	-0.3	88.0	56.3
	ROSARIO	20	7	28	-1	14	-0.3	89.0	35.3
	BUENOS AIRES	20	6	27	-2	13	-0.3	30.1	-32.4
	SANTA ROSA	19	5	30	-5	12	-0.4	181.4	145.5
	TRES ARROYOS	17	5	24	-2	11	0.7	61.0	-6.3
MIDW I	MIDWAY ISLAND	30	25	32	21	27	1.4	272.7	156.0
N CALD	NOUMEA	26	19	33	16	23	2.0	44.0	-3.2
FIJI	NAUSORI	26	22	30	19	24	0.8	102.4	-83.3
SAMOA	PAGO PAGO	29	25	31	22	27	0.5	171.2	1.4
TAHITI	PAPEETE	30	22	32	20	26	1.1	4.3	-52.2
N ZEAL	AUCKLAND	17	11	21	7	14	1.1	77.3	-21.1
	WELLINGTON	14	9	18	2	12	1.5	138.0	34.4
PA N G	PORT MORESBY	30	24	32	1	27	0.3	24.0	-15.8
AUSTRL	DARWIN	32	26	34	23	29	0.9	47.8	35.9
	MOREE	21	12	31	6	17	1.2	73.6	39.4
	BRISBANE	23	14	30	9	19	0.5	51.6	16.4
	PERTH	19	12	29	7	16	1.3	80.4	15.2
	CEDUNA	21	13	32	4	17	2.9	17.4	-12.8
	ADELAIDE	19	11	29	6	15	1.5	44.4	-15.1
	MELBOURNE	16	9	22	2	13	0.9	41.5	-14.2
	WAGGA	17	7	22	1	12	1.1	37.0	-17.1
	CANBERRA	16	6	20	-2	11	1.5	62.8	7.7
PHILIP	MANILA	33	25	35	24	29	1.1	90.8	-205.9



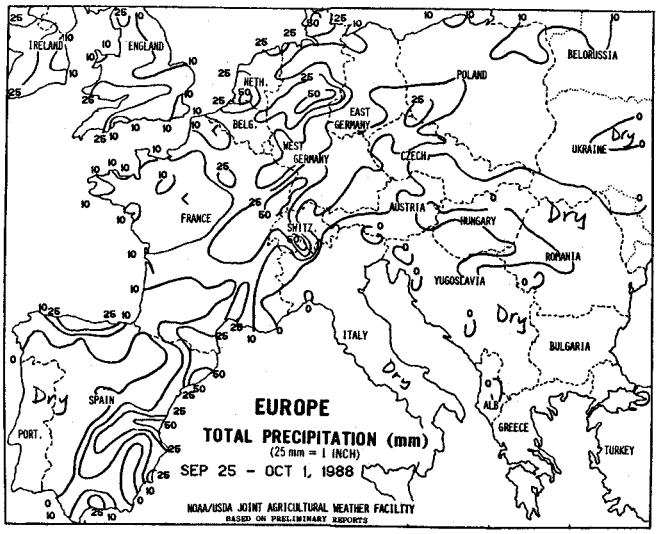
USSR ... In Western USSR, potato, sunflower, sugar beet, and corn harvesting continued in the Ukraine, Black Soils Region, North Caucasus, and lower Volga. Winter wheat planting advanced southward into the southern Ukraine and the southern half of the North Caucasus. Unseasonably warm, dry weather over most of the Ukraine, Black Soils Region, and the North Caucasus allowed fieldwork to progress without delay. However, isolated showers (10-25mm) in the extreme northern tip of the North Caucasus and the lower Volga may have caused some fieldwork delays. Further north, mostly light showers (around 10mm) and unusually warm weather in the Baltic States, Belorussia, the Central Region, and the Volga Vyatsk Region benefited winter grain establishment.



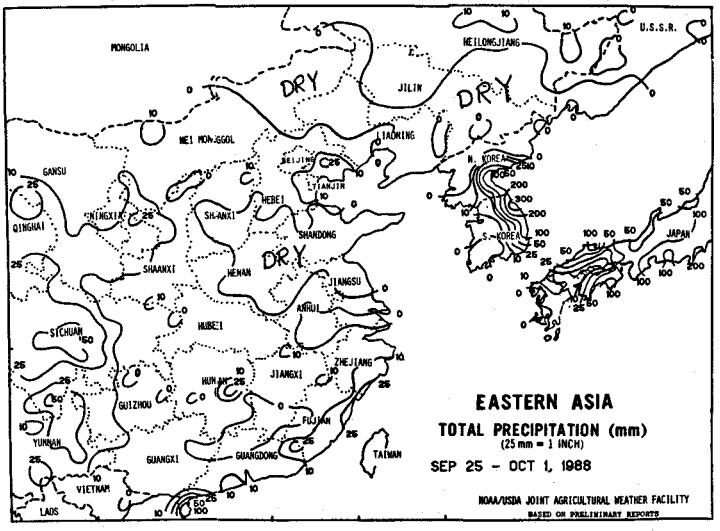
CANADA ... Rainfall was light (1-10mm) over southern Saskatchewan and southern Alberta, favoring winter wheat planting activities. Heavier rain (10-25mm) fell over crop regions of northern Alberta, east of Edmonton, and northern Saskatchewan, improving moisture conditions for planting.



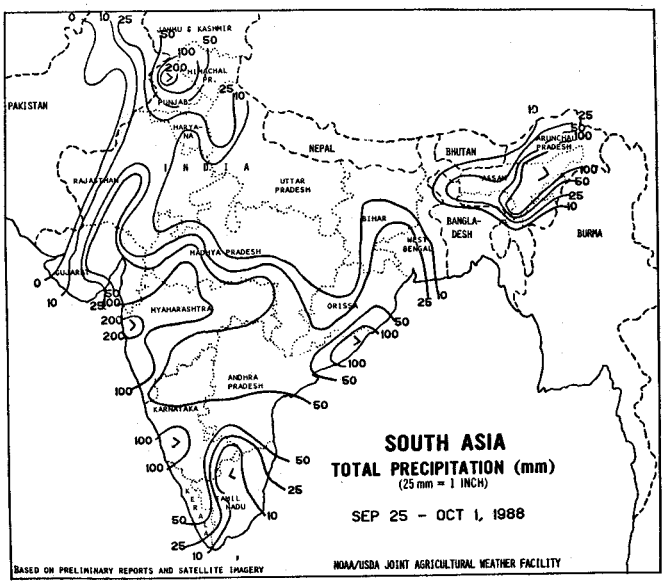
In crop areas east of the Ural mountains (New Lands), dry weather helped spring grain harvesting, which advanced toward completion. Average weekly temperatures were above normal in the west and below normal in the east. In South Central USSR cotton areas, dry weather benefited the cotton harvest.



EUROPE ... Moderate to heavy rain (15-40mm, with isolated rainfall greater than 50mm) fell over the United Kingdom, eastern France, Benelux, and sections of West and East Germany, delaying winter grain planting and summer crop harvest. In southwestern Europe, heavy rain (25-75mm) and hail from severe thunderstorms caused localized flooding and crop damage on Saturday across sections of southern and eastern Spain. Mostly dry weather across southwestern France and Italy's Po Valley favored progress in corn harvest. In the east, mostly light rain (less than 10mm) benefited emerging winter crops across Poland and western Czechoslovakia, while southeastern Europe was mostly dry. Sections of the southern Balkans still remain too dry for normal establishment of winter crops after extended dryness this summer. Mean weekly temperatures, as much as 5 degrees C above normal, favored emerging winter grains across central and eastern growing areas.

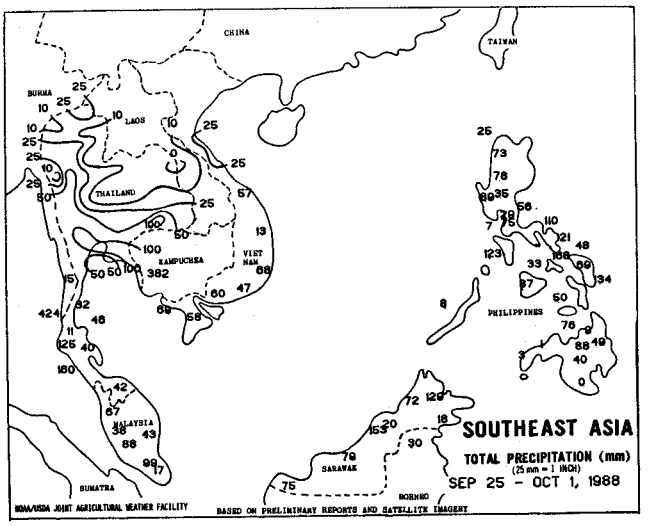


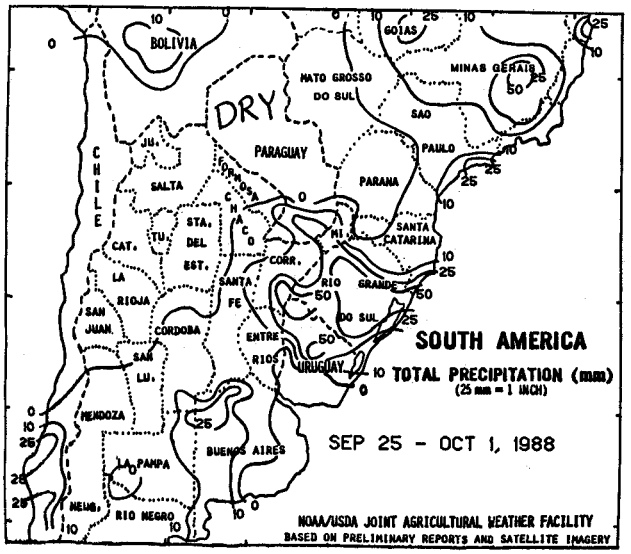
EASTERN ASIA ... Favorably dry weather covered much of central, eastern, and northeastern China, allowing rapid progress in harvest of summer crops and planting of winter grains. Mostly dry weather in the Yangtze Valley over the past 2-3 weeks has allowed soils to dry after persistent heavy rain and flooding during late August and early September. In the northwest, a slow-moving frontal system brought moderate to heavy rain (15-40mm, with scattered rainfall greater than 50mm) from Sichuan northward to western Nei Mongol. Late-week minimum temperatures near 0 degrees C likely caused the first frost of the fall season across sections of Nei Mongol and Manchuria. Light to moderate rain (5-20mm) along southeastern coastal China favored mostly filling late-crop rice. Remnants of Tropical Storm Lee brought torrential rainfall (50-100mm, with scattered amounts greater than 200mm) to the eastern Korean Peninsula and much of Japan early in the week. The rain caused flooding and extensive delays in rice and other summer crop harvesting.



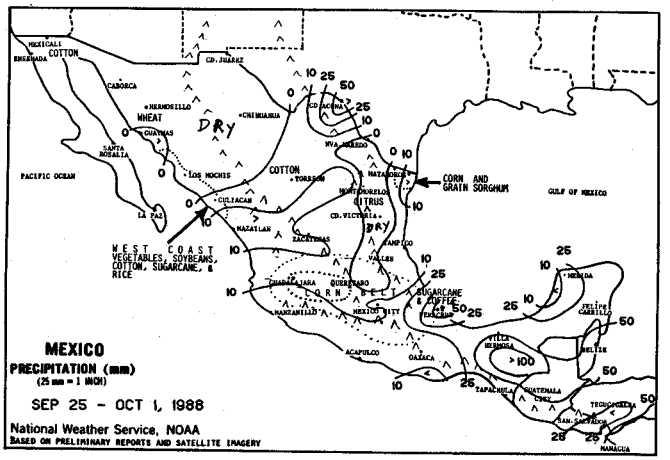
SOUTH ASIA ... Moderate to heavy showers (25-100mm or more) continued in central and southern India from Gujarat and westernmost Madhya Pradesh to northern Tamil Nadu, maintaining favorable conditions for filling summer crops. Rainfall was excessive, however, in parts of central and coastal Maharashtra, likely causing flooding. Drier weather (less than 10mm) returned to central and eastern Madhya Pradesh and most regions of Uttar Pradesh, but showers lingered over flooded regions of northern Pakistan and north-central India, with rainfall exceeding 200mm in western Punjab where unharvested rice was damaged. In the east, rainfall averaged less than 25mm in northern Bihar, West Bengal, and most of Bangladesh. East of Bangladesh, however, rainfall exceeded 100mm over a large area, worsening flooding.

SOUTHEAST ASIA ... Locally heavy rain (100-164mm) continued over south-central Thailand near Bangkok, maintaining high irrigation levels but causing some flooding. Moderate to heavy rain (25-50mm or more) covered the southern Khorat Plateau, benefiting immature rice but likely causing local flooding in central parts of the region. Drier-than-normal weather (1-25mm) continued over Thailand's northern rice regions as well as northern Vietnam and Laos. Heavy rain (50-100mm or more) continued in southern Vietnam, Kampuchea, and Malaysia, with the heaviest rain (100-200mm or more) causing more flooding in Peninsular Thailand. In the Philippines, moderate showers (25-50mm or more) continued over most regions.

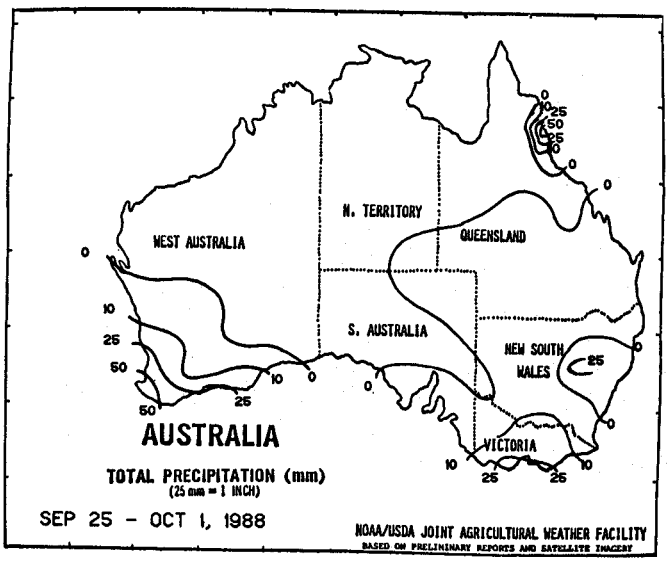




SOUTH AMERICA ... In Argentina, periodic showers brought additional moisture to western Buenos Aires, with 25-43mm of rain in the northwest and 15-23mm in the southwest. The rain helped wheat growth and added moisture for summer crop establishment. Mostly light rain (1-9mm) fell in Cordoba, Santa Fe, and northern cotton areas, allowing progress in corn, sunflower, and cotton planting. In south-central Brazil, more rain (25-69mm) soaked the southern two-thirds of Rio Grande do Sul. Showers diminished rapidly in the north extending into Santa Catarina. Mostly dry weather returned to Parana, favoring early wheat harvesting. Warm weather has promoted crop maturity. Light showers (5-16mm) fell in citrus areas of Sao Paulo, bringing some respite from the long dry season. Significant but variable showers (16-71mm) eased the prolonged hot, dry spell in Goias and the coffee areas of southern Minas Gerais.



MEXICO ... Dry weather in the northwest favored wheat planting, while light, scattered showers caused minimal harvest delays in north-central cotton areas. Mostly dry weather continued to improve conditions for grain and vegetable harvesting in the northeast. Winter vegetable planting also begins soon. Light rain helped immature soybeans in extreme southern portions of the west coast farming region, but sunny skies prevailed over most of the region. Rainfall has diminished over the Southern Plateau corn belt. Weekly rainfall averaged 3-14mm over the western three-fourths of the Plateau, while heavier showers (25-49mm) fell in the extreme east. Tropical showers increased over southern Mexico, producing 50-165mm of rain near Veracruz and in the far south. Rain (8-48mm) fell over the Yucatan peninsula.



AUSTRALIA ... Heavy rain (25-40mm, with scattered amounts greater than 50mm) continued over Western Australia, benefiting winter grains entering moisture sensitive reproductive stages. Light to moderate rain (5-20mm, with isolated rainfall greater than 25mm) also favored winter grains over sections of southeastern South Australia, Victoria, New South Wales, and southeastern Queensland. Mean weekly temperatures as high as 9 degrees C above normal increased winter crop growth rates and evapotranspiration loss rates across most eastern growing areas, although soil moisture remains at mostly favorable levels. Winter grains range from vegetative in Victoria to reproductive in central Queensland.

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(Continued from p. 10)

California. Melon harvest was winding down in some areas. Central coast strawberry harvest continued.

PASTURES AND LIVESTOCK: Pasture condition was mostly fair. Livestock was mostly good. Producers in Nebraska were moving cattle to harvested corn fields.

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