

WEEKLY WEATHER AND CROP BULLETIN

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

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

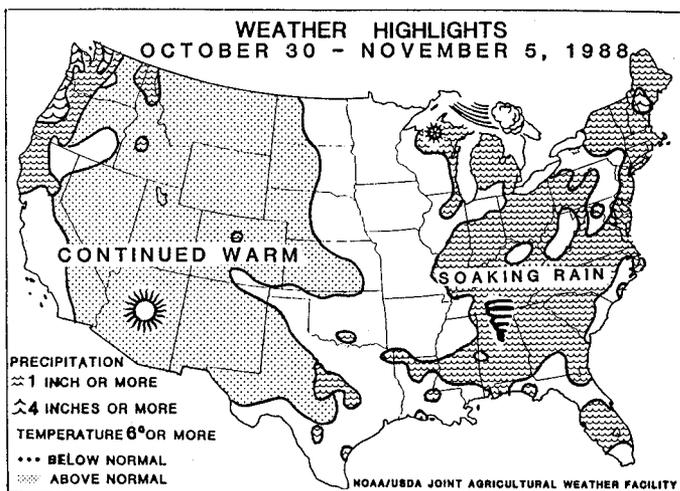
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Nov. 8, 1988

National Weather Summary

October 30 - November 5, 1988



HIGHLIGHTS: Widespread rain covered the eastern third of the Nation and southern Plains, helping to relieve long-term moisture deficits. Storms brought widespread rain to the Pacific Northwest. Indian summer prevailed over the central portions of the country, and warm dry weather persisted in the Southwest.

SUNDAY...A large high pressure system brought crisp, cool weather to the Northeast. Record-low temperatures for the date occurred over the Great Lakes and eastern Corn Belt. Rain was scattered across the southern Plains and Southeast. A Pacific storm brought rain to western Washington, while fair and dry weather again prevailed over the remainder of the Pacific coast and the Southwest.

MONDAY...Showers and thunderstorms developed from an upper level disturbance and caused a wet Halloween in the Southeast and mid-Atlantic Coast States. Cold rain and snow fell as a low-pressure system crossed the upper Great Lakes. Numerous low-temperature records were broken in the Northeast, while high temperature records were set in the West.

TUESDAY...A developing low-pressure system spread wet and windy weather over the Northeast. Heavy rain fell from New Jersey into New England. A cold front caused scattered showers in the Pacific

Northwest and the northern intermountain plateau. The unusually warm weather in the West spread into the Central United States.

WEDNESDAY...The low-pressure system continued to cause rain and high wind over the Northeast. An approaching storm system spread substantial rain along the northern Pacific coast. Indian summer continued over the midsection of the Nation.

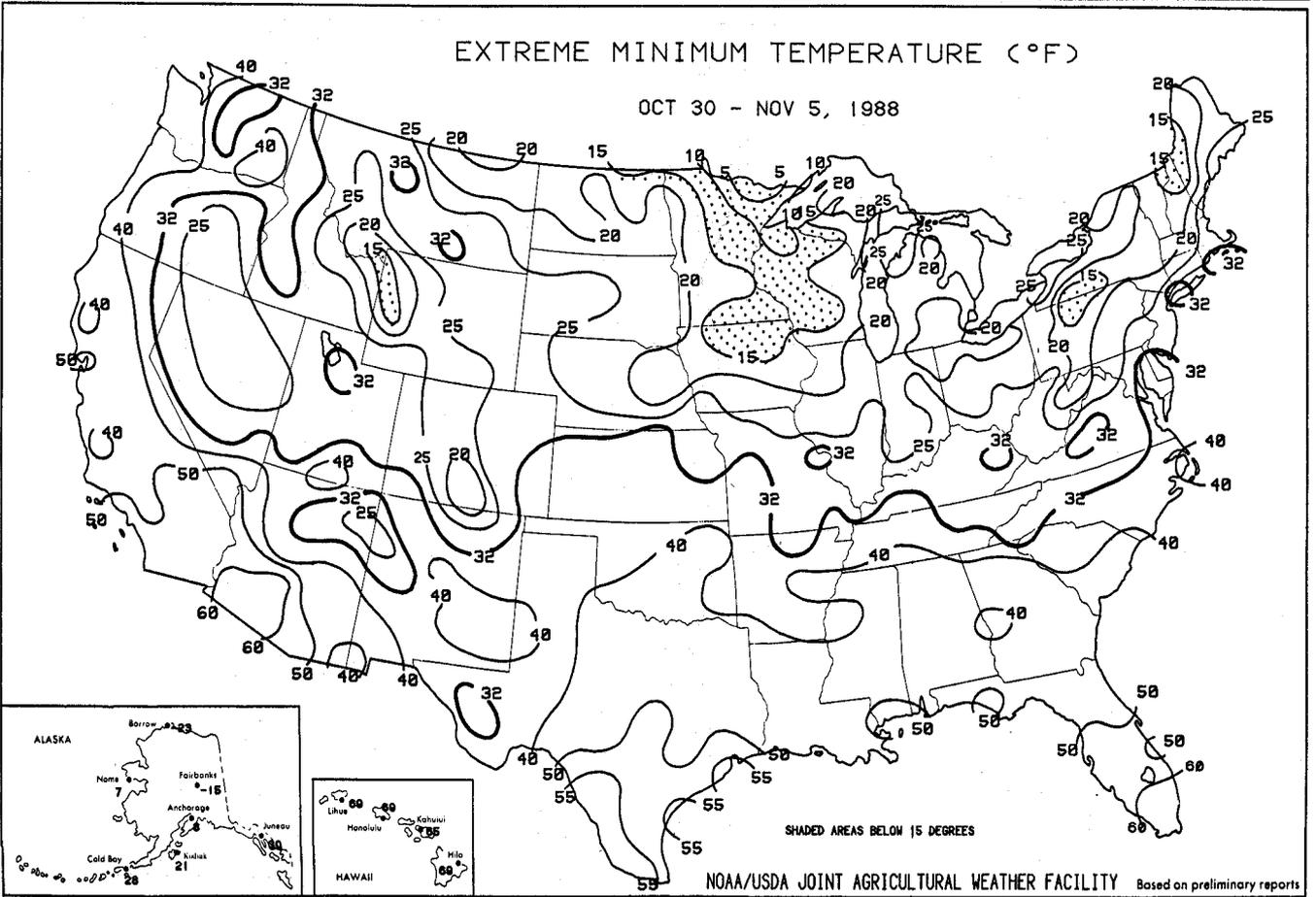
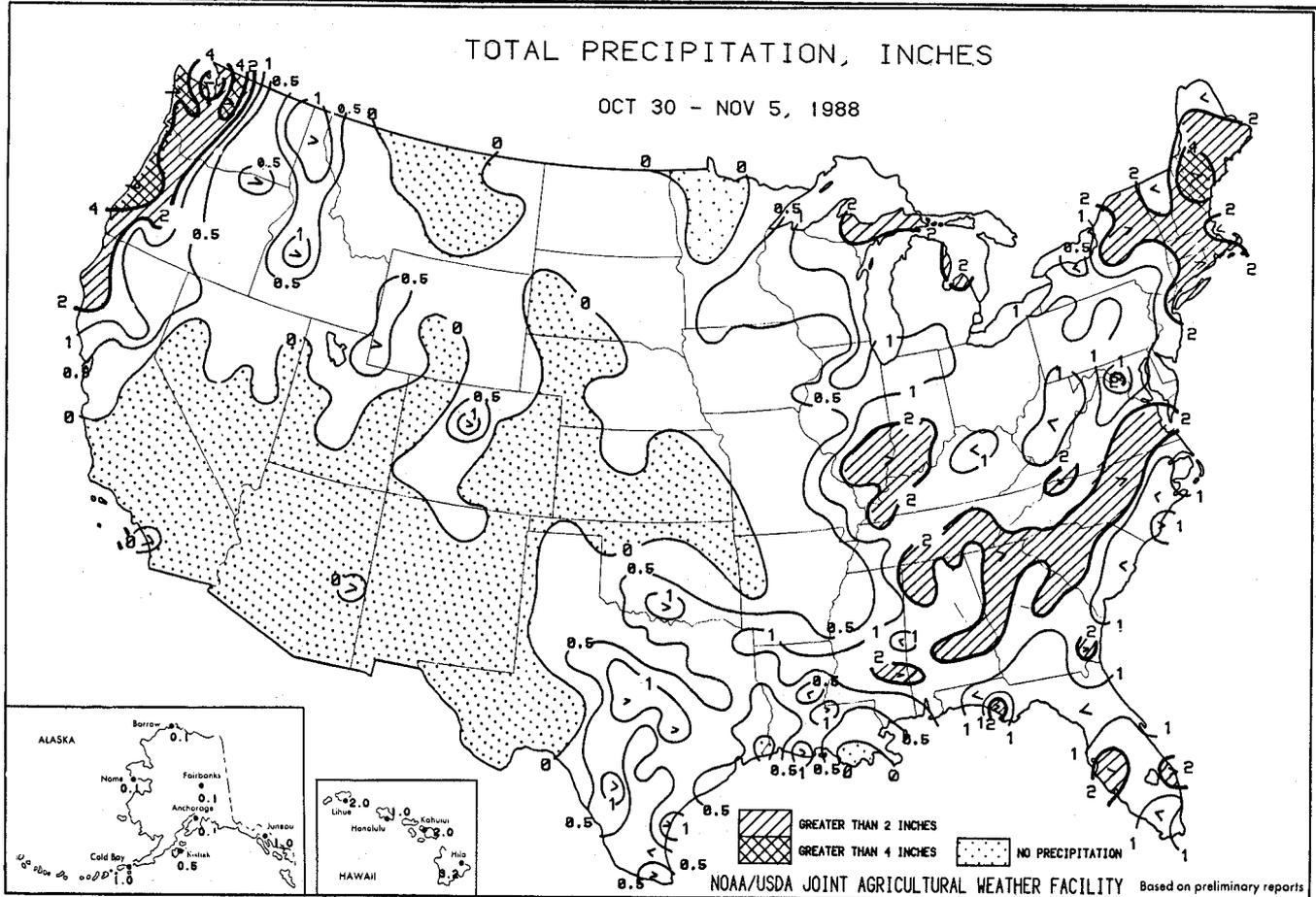
THURSDAY...A fast moving cold front spread showery and windy weather across the Northwestern United States. Snow fell in the higher elevations. Rain showers were scattered from the northern and central Plains to the Appalachians. Thunderstorms were widespread across Florida and scattered in the Delta.

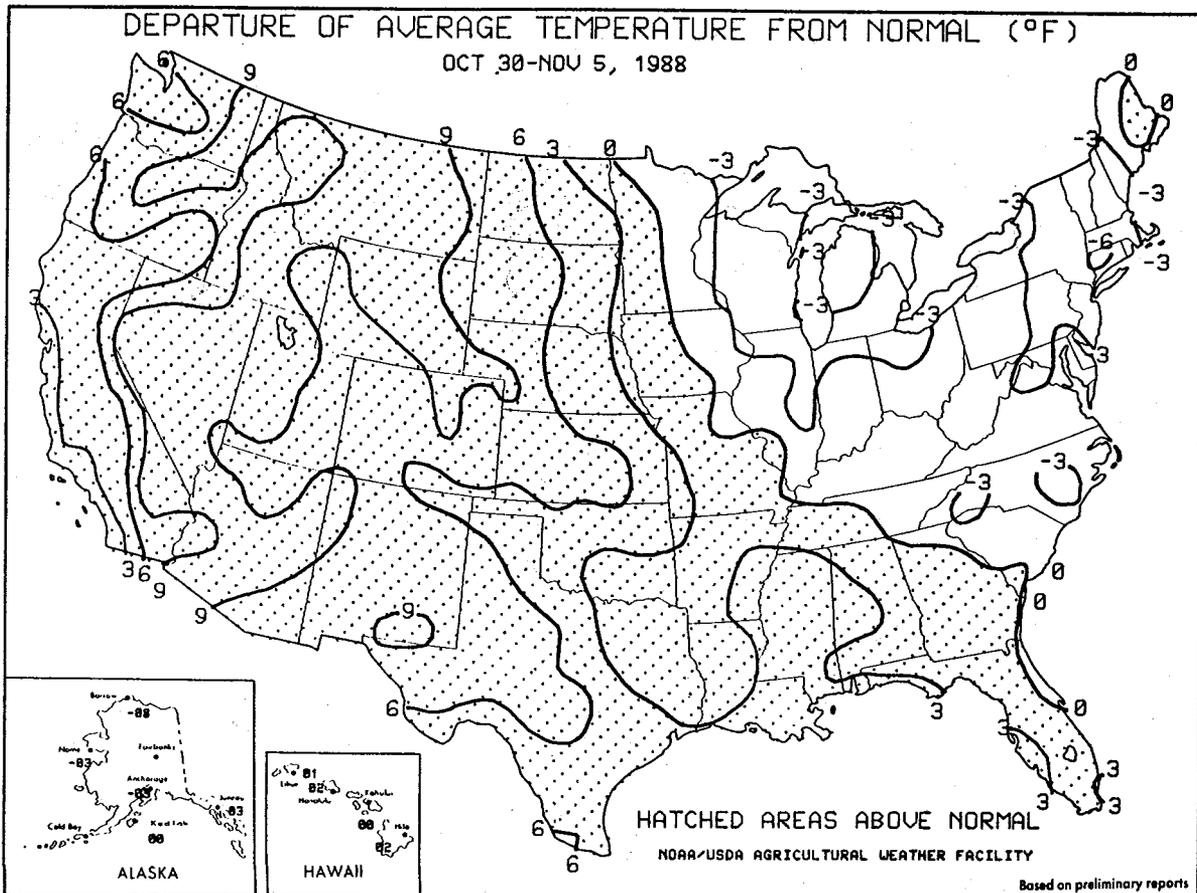
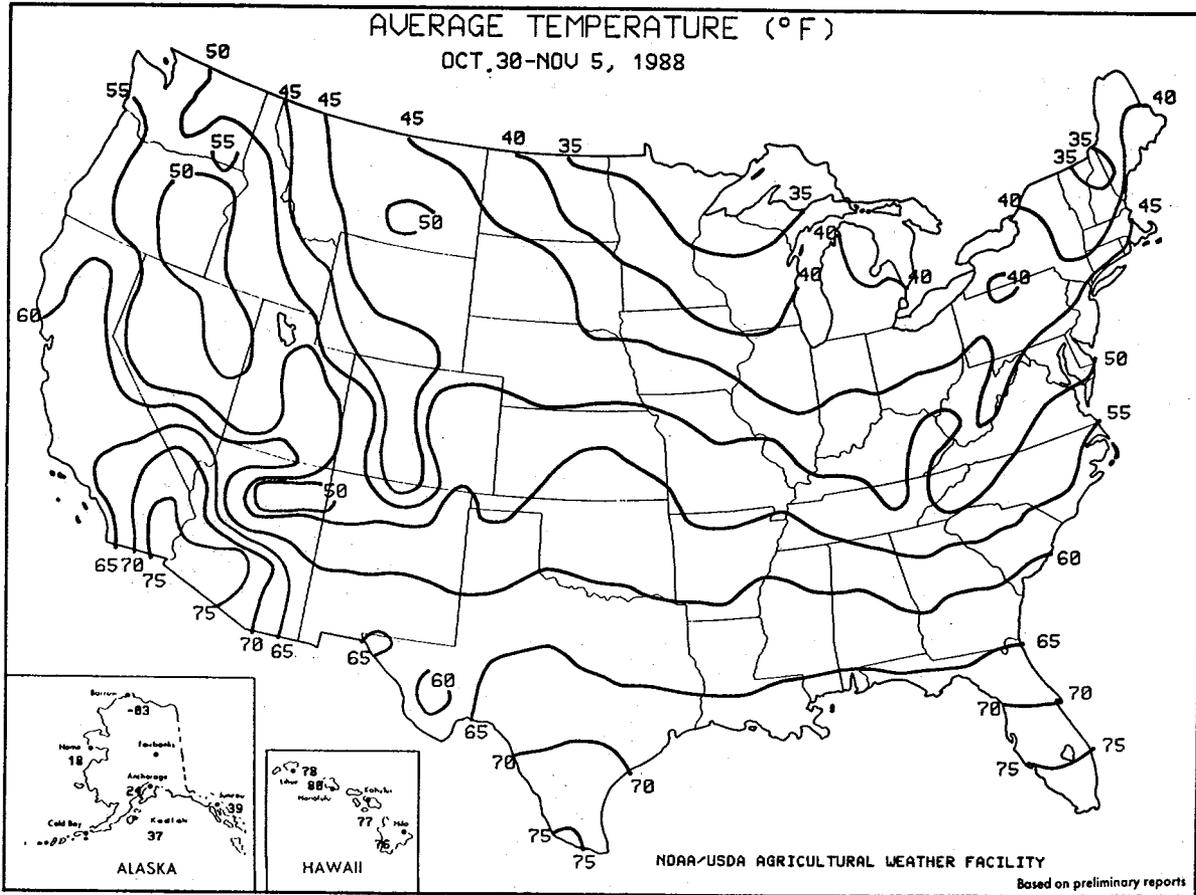
FRIDAY...Widespread rain covered the Nation east of the Mississippi River. Severe thunderstorms struck the Southeast and spawned tornadoes across northern Alabama. Rain was mixed with snow over the northern Plains.

SATURDAY...A strong storm system moved across the Great Lakes producing gusty winds, rain, and snow. Widespread rain covered the Northeast and down the Atlantic Coast States. A Pacific storm brought widespread rain to the Northwest.

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National Weather Data for Selected Cities

Weather Data for the Week Ending November 5, 1988

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	52 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	67	49	74	40	58	2	1.8	1.1	1.6	12.0	162	33.6	73	99	53	0	0	2	1
MOBILE	76	54	80	45	65	3	.6	0	.6	16.5	175	58.8	105	98	52	0	0	1	1
MONTGOMERY	74	49	81	43	61	2	3.0	2.5	2.7	14.5	199	54.4	131	98	48	0	0	2	1
AK ANCHORAGE	32	16	39	8	24	-3	T	-3	T	4.0	94	11.5	89	90	57	0	7	1	0
FAIRBANKS	3	-8	11	-23	-3	-8	T	-1	T	.7	56	3.4	80	86	78	0	7	1	0
BARROW	9	-4	24	-15	3	-10	T	-1	T	1.9	95	9.3	103	89	74	0	7	3	0
JUNEAU	42	36	49	30	39	3	1.5	.1	.5	15.6	103	46.9	106	100	85	0	1	5	1
KODIAK	43	30	48	21	37	0	.5	-1.0	.2	17.0	119	65.7	130	91	63	0	4	5	0
NOME	25	12	28	7	18	-3	.1	-2.2	0	1.6	42	11.3	86	86	64	0	7	2	0
AZ PHOENIX	90	66	96	62	78	13	0	-1.1	0	2.4	183	6.3	111	54	21	4	0	0	0
PRESCOTT	76	41	79	38	59	10	0	-3	0	.5	17	13.2	82	64	19	0	0	0	0
TUCSON	86	66	88	51	71	8	0	-1.1	0	2.9	129	10.9	113	62	17	0	0	0	0
YUMA	91	65	98	60	78	9	0	-1.1	0	.5	92	2.8	141	66	24	4	0	0	0
AR FORT SMITH	71	43	82	38	57	3	T	-8	T	7.2	103	27.9	82	94	37	0	0	0	0
LITTLE ROCK	68	49	78	42	59	3	.1	-8	.1	3.0	39	29.9	73	68	45	0	0	1	0
CA BAKERSFIELD	78	50	85	47	64	3	0	-1.1	0	0	0	3.0	69	94	47	0	0	0	0
BUREKA	63	52	69	46	57	4	2.4	1.3	1.5	2.9	64	18.8	69	94	78	0	0	4	2
FRESNO	77	49	81	45	63	5	0	-2	0	0	0	5.5	71	90	41	0	0	0	0
LOS ANGELES	69	58	74	55	64	0	0	-3	0	.1	13	4.7	52	94	67	0	0	0	0
REDDING	71	50	82	42	61	2	.9	0	.5	1.0	27	18.0	61	91	49	0	0	2	1
SACRAMENTO	72	51	79	45	62	4	T	-4	T	.2	14	7.1	58	95	51	0	0	1	0
SAN DIEGO	69	59	73	56	64	1	T	-2	T	T	0	6.7	92	93	68	0	0	2	0
SAN FRANCISCO	71	54	76	46	63	5	T	-4	T	.5	30	7.8	55	98	58	0	0	0	0
CO DENVER	67	37	78	30	52	8	T	-2	T	1.0	42	13.5	97	70	22	0	1	0	0
GRAND JUNCTION	66	39	72	30	53	7	T	-2	T	.8	46	6.6	98	60	26	0	1	0	0
PUEBLO	72	34	80	28	53	8	0	-1.1	0	1.8	108	10.7	105	63	18	0	3	0	0
CT BRIDGEPORT	53	37	62	26	45	-5	2.3	1.5	1.7	7.8	109	31.9	92	82	53	0	1	3	2
HARTFORD	53	30	65	21	41	-6	2.5	1.6	2.0	6.7	83	33.1	90	88	48	0	5	3	1
DC WASHINGTON	58	42	69	32	50	-3	1.0	.3	.7	4.5	69	26.0	78	86	52	0	1	4	1
FL APALACHICOLA	76	59	82	49	68	3	1.0	.4	.7	13.0	108	58.9	120	95	57	0	0	4	1
DAYTONA BEACH	78	56	83	44	67	-1	.8	.1	.4	8.9	76	34.1	77	99	60	0	0	4	0
JACKSONVILLE	75	53	80	43	64	-1	1.6	1.1	1.3	20.3	194	56.8	119	98	54	0	0	4	1
KEY WEST	84	74	89	68	79	2	.1	-9	.1	4.3	36	35.6	102	89	65	0	0	3	0
MIAMI	86	71	89	67	78	3	.6	-4	.4	5.1	33	44.3	82	92	53	0	0	1	0
ORLANDO	81	60	84	50	70	0	1.1	.6	.6	8.1	85	45.1	98	99	55	0	0	4	1
TALLAHASSEE	76	52	85	41	64	2	.9	.3	.8	7.4	76	44.3	78	97	46	0	0	2	1
TAMPA	82	61	85	50	72	2	1.3	.9	.6	15.0	174	46.1	107	96	54	0	0	3	1
WEST PALM BEACH	83	67	90	60	75	1	3.2	2.0	1.9	8.5	48	62.3	114	95	56	1	0	4	2
GA ATLANTA	65	48	73	45	57	1	2.4	1.7	1.7	13.1	213	41.5	100	89	46	0	0	3	2
AUGUSTA	69	44	75	40	56	-1	2.3	1.9	1.7	11.5	201	39.0	103	98	48	0	0	3	2
MACON	70	48	77	44	59	0	2.0	1.6	1.2	10.6	191	40.3	104	98	46	0	0	2	2
SAVANNAH	71	51	76	46	61	0	.9	.5	.6	13.3	175	46.6	103	93	51	0	0	3	1
HI HILO	83	69	86	69	76	2	3.2	1.1	1.6	22.5	118	103.7	101	93	63	0	0	7	1
HONOLULU	87	73	89	69	80	2	1.0	.3	1.0	2.1	69	9.4	54	84	55	0	0	1	1
KAHULUI	84	69	86	65	77	0	1.8	1.4	1.5	2.8	190	15.7	115	89	59	0	0	3	1
KAHUE	83	72	85	69	78	1	2.2	.9	2.1	5.1	66	30.3	89	90	65	0	0	2	1
ID BOISE	65	42	74	36	54	9	.7	.5	.5	1.0	64	7.9	86	76	35	0	0	3	0
LEWISTON	61	44	72	40	53	9	.2	-1	.1	1.1	58	8.0	76	80	45	0	0	2	0
POCATELLO	61	34	71	28	48	7	.1	-1	.1	.2	9	4.8	53	85	39	0	4	3	0
IL CHICAGO	52	33	62	21	43	-3	1.6	1.1	1.5	10.4	165	26.1	87	90	57	0	3	2	1
MOLINE	54	29	65	16	42	-3	.3	-2	.3	4.7	70	21.4	64	90	47	0	4	2	0
PEORIA	56	32	69	21	44	-2	.6	.1	.5	4.4	69	16.3	52	86	42	0	4	3	1
QUINCY	60	33	74	22	47	-1	.1	-5	.1	2.0	26	14.1	41	84	39	0	3	2	0
ROCKFORD	51	30	62	20	41	-3	.4	-1	.4	4.8	69	19.2	58	93	56	0	4	2	0
SPRINGFIELD	57	34	69	23	45	-3	.1	-4	.1	4.6	76	17.8	59	88	45	0	4	2	0
IN EVANSVILLE	60	35	69	25	48	-2	3.5	2.8	3.5	7.6	134	31.2	88	88	48	0	4	2	1
FORT WAYNE	52	32	60	19	42	-3	.7	.1	.5	5.2	95	28.1	94	92	56	0	4	2	1
INDIANAPOLIS	56	34	61	24	45	-2	1.6	.9	1.5	5.8	102	26.0	78	91	52	0	3	3	1
SOUTH BEND	51	34	60	20	42	-3	.5	-2	.4	11.6	169	30.5	93	90	60	0	2	2	0
IA DES MOINES	57	33	67	20	45	0	.3	-1	.1	3.8	69	18.1	64	79	42	0	3	3	0
SIOUX CITY	57	32	67	20	45	2	.1	-1	.1	5.4	123	20.8	87	88	36	0	2	3	0
WATERLOO	54	28	65	11	41	-1	.2	-3	.1	2.5	42	16.1	53	90	46	0	6	3	0
KS CONCORDIA	65	41	74	37	53	6	0	-3	0	1.1	22	13.4	52	67	32	0	0	0	0
DODGE CITY	70	39	81	34	55	7	T	-2	T	3.4	105	14.8	76	69	26	0	0	0	0
GOODLAND	68	36	79	33	52	9	0	-2	0	2.2	92	20.0	131	69	23	0	0	0	0
TOPEKA	67	37	78	30	52	3	0	-5	0	2.2	34	17.7	58	82	33	0	2	0	0
WICHITA	70	43	81	38	57	7	0	-4	0	1.5	24	15.8	60	83	32	0	0	0	0
KY BOWLING GREEN	60	38	66	31	49	-2	1.7	.9	1.4	11.5	175	34.7	84	95	55	0	1	3	1
LEXINGTON	58	37	71	29	47	-2	.7	.1	.4	8.0	134	30.6	78	87	48	0	2	3	0
LOUISVILLE	60	38	71	29	49	-1	1.2	.5	1.0	4.2	65	29.5	80	82	44	0	1	2	1
LA ALEXANDRIA	73	54	86	44	63	2	T	-8	T	7.4	113	37.0	84	94	56	0	0	1	0
BATON ROUGE	77	56	85	44	67	5	.1	-7	.1	12.4	164	65.1	137	92	49	0	0	2	0
LAKE CHARLES	76	58	83	48	67	3	T	-9	T	10.1	102	50.3	110	93	57	0	0	1	0
NEW ORLEANS	76	59	83	47	67	4	T	-7	T	8.8	98	68.6	135	97	55	0	0	1	0

Based on 1951-80 normals

Weather Data for the Week Ending November 5, 1988

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE SEP 1	PCT. NORMAL SINCE SEP 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	PRECIPITATION		
																		.01 INCH OR MORE	.50 INCH OR MORE	
ME SHREVEPORT	73	52	84	44	62	3	.8	0	.7	6.1	93	26.2	71	92	50	0	0	2	1	
ME CARIBOU	43	31	50	25	37	0	1.3	.6	.9	6.2	88	27.0	88	92	63	0	4	4	1	
ME PORTLAND	50	30	56	21	40	-3	5.0	4.0	2.5	10.0	127	38.6	110	91	51	0	4	4	2	
MD BALTIMORE	58	40	70	27	49	-2	.7	0	.5	4.3	62	27.3	76	87	46	0	1	3	1	
MD SALISBURY	59	41	73	33	50	-2	1.3	.5	1.1	7.3	89	39.9	101	92	51	0	0	3	1	
MA BOSTON	54	39	62	31	47	-3	1.8	1.0	1.6	4.8	65	29.1	81	87	52	0	1	3	1	
MA CHATHAM	53	41	56	31	47	-2	1.3	.3	1.0	8.8	108	32.0	84	84	53	0	1	2	1	
MI ALPENA	45	30	53	19	38	-3	1.5	1.0	1.2	6.4	116	23.8	95	95	70	0	4	5	1	
MI DETROIT	50	33	60	21	41	-3	1.6	1.1	1.3	8.8	188	22.2	84	92	52	0	4	5	1	
MI FLINT	49	33	61	20	41	-3	1.6	1.1	1.3	7.3	153	22.9	91	91	61	0	4	4	1	
MI GRAND RAPIDS	50	32	61	18	41	-3	1.2	.6	.7	14.0	221	30.8	107	94	63	0	4	3	1	
MI HOUGHTON LAKE	45	32	56	24	39	-1	1.3	.8	1.1	8.3	154	24.1	99	93	69	0	4	4	1	
MI LANSING	50	30	62	19	40	-4	1.3	.8	.8	10.5	204	27.1	107	93	61	0	4	4	1	
MI MARQUETTE	36	27	41	19	32	-4	3.5	2.8	1.6	12.3	160	34.5	106	93	69	0	6	5	3	
MI MUSKEGON	51	33	63	22	42	-2	1.8	1.1	.9	12.4	200	28.4	107	94	64	0	4	4	2	
MI SAULT ST. MARIE	42	32	50	25	37	-1	3.0	2.3	2.1	10.4	143	28.4	101	94	70	0	4	4	2	
MN ALEXANDRIA	46	29	58	18	38	1	T	.3	T	4.7	108	20.9	91	88	56	0	5	0	0	
MN DULUTH	40	27	46	10	33	-2	.3	-.2	.3	7.5	132	27.9	104	94	56	0	5	0	0	
MN INT'L FALLS	38	24	49	2	31	-2	T	-.3	T	5.0	97	22.7	102	92	61	0	7	0	0	
MN MINNEAPOLIS	48	30	56	16	39	-1	.9	.6	.6	4.5	99	16.4	68	87	50	0	5	2	1	
MN ROCHESTER	47	27	60	11	37	-3	.7	.3	.6	4.9	82	18.1	69	87	52	0	5	2	1	
MS GREENWOOD	71	51	81	39	61	4	.2	-.7	.2	12.8	189	30.0	68	92	44	0	0	2	0	
MS JACKSON	72	51	84	41	62	3	1.7	1.0	1.3	9.7	151	34.8	81	98	52	0	0	3	1	
MS MERIDIAN	73	49	82	39	61	3	1.0	.3	.6	14.2	215	42.5	95	96	48	0	0	0	1	
MO CAPE GIRARDEAU	62	40	70	30	51	--	1.4	.7	1.3	12.1	182	31.1	82	91	49	0	2	2	1	
MO COLUMBIA	62	36	75	28	49	0	-.1	-.5	0	3.6	49	22.8	69	88	42	0	2	2	0	
MO KANSAS CITY	63	40	70	29	52	1	T	-.5	T	8.7	111	21.4	64	79	38	0	1	1	0	
MO SAINT LOUIS	61	40	73	32	50	1	.7	.2	.7	4.6	85	24.8	84	80	44	0	1	2	1	
MO SPRINGFIELD	64	42	73	34	53	3	T	-.7	T	7.1	90	39.9	115	89	42	0	0	1	0	
MT BILLINGS	62	40	72	32	51	11	T	-.2	T	3.1	123	9.2	69	62	27	0	1	0	0	
MT GLASGOW	59	31	65	20	45	9	.1	0	0	1.1	76	7.0	68	83	38	0	3	2	0	
MT GREAT FALLS	58	40	65	32	49	9	T	-.2	T	3.0	154	10.5	77	69	36	0	1	0	0	
MT HAVRE	60	33	65	19	46	10	0	-.1	0	1.8	110	5.6	52	84	37	0	2	0	0	
MT HELENA	60	33	68	25	47	10	T	-.1	T	2.8	179	9.1	87	83	33	0	4	1	0	
MT KALISPELL	52	35	62	27	44	8	.3	0	-.1	2.8	125	11.8	90	96	48	0	2	5	0	
MT MILES CITY	61	37	67	26	49	11	T	-.2	T	1.9	92	4.3	33	64	28	0	3	0	0	
MT MISSOULA	53	34	62	29	44	7	.1	-.1	-.1	1.1	56	9.8	87	97	51	0	3	4	0	
NE GRAND ISLAND	61	33	70	20	47	3	-.1	-.1	0	3.3	92	20.2	93	81	35	0	3	2	0	
NE LINCOLN	61	35	72	20	48	3	-.1	-.2	-.1	6.3	133	16.8	66	84	36	0	2	2	0	
NE NORFOLK	58	33	67	16	46	3	-.1	-.1	-.1	5.6	159	22.9	102	81	35	0	1	2	0	
NE NORTH PLATTE	66	28	78	24	47	8	T	-.1	T	1.6	63	18.5	100	88	27	0	6	1	0	
NE OMAHA	58	37	69	24	48	2	.1	-.3	-.1	3.8	66	18.8	66	75	44	0	1	2	0	
NE SCOTT'SBLUFF	67	32	78	27	49	8	T	-.1	T	1.1	59	14.5	106	75	21	0	4	1	0	
NE VALENTINE	64	28	75	23	46	6	T	-.1	T	1.8	76	19.2	117	71	27	0	6	0	0	
NV ELY	67	31	71	23	49	10	T	-.1	T	.6	41	6.6	85	73	26	0	4	1	0	
NV LAS VEGAS	83	56	87	53	70	11	0	-.1	0	T	0	2.2	66	47	19	0	0	0	0	
NV RENO	70	38	75	31	54	11	0	-.1	0	.1	10	2.5	45	71	24	0	2	0	0	
NV WINNEMUCCA	68	34	76	22	51	9	.1	-.1	.1	.4	40	4.7	75	63	24	0	4	1	0	
NH CONCORD	51	26	63	17	38	-4	2.4	1.5	1.6	5.2	76	29.6	98	95	54	0	5	3	1	
NJ ATLANTIC CITY	56	35	68	20	46	-5	1.1	-.2	1.0	6.9	106	29.3	83	92	54	0	3	2	1	
NM ALBUQUERQUE	72	43	75	40	58	8	0	-.1	0	3.0	173	12.9	181	55	18	0	0	0	0	
NM CLOVIS	72	43	80	36	57	6	T	-.2	T	2.7	72	19.4	120	74	27	0	0	0	0	
NM ROSWELL	78	50	86	42	64	12	0	-.1	0	1.6	56	13.2	133	58	21	0	0	0	0	
NY ALBANY	50	29	69	18	40	0	1.9	1.2	1.1	4.8	72	25.9	86	96	52	0	4	3	2	
NY BINGHAMTON	48	32	62	19	40	-3	1.0	.3	.8	5.7	83	30.5	97	88	51	0	3	4	1	
NY BUFFALO	53	37	67	26	45	-1	.7	0	.6	8.9	130	33.8	109	90	48	0	2	2	1	
NY NEW YORK	54	43	63	35	49	-3	2.0	1.2	1.6	7.7	106	33.6	94	79	47	0	0	2	1	
NY ROCHESTER	53	33	67	21	43	-3	.2	-.4	.2	4.2	75	22.1	83	89	51	0	3	1	0	
NY SYRACUSE	51	34	68	23	42	-3	2.1	1.3	1.0	7.4	107	30.5	93	91	53	0	3	4	2	
NC ASHEVILLE	59	34	67	27	46	-4	1.2	.5	.5	6.7	90	22.5	59	96	46	0	3	3	0	
NC CHARLOTTE	64	43	72	40	54	-1	2.1	1.4	1.7	9.0	134	31.0	83	91	36	0	0	4	1	
NC GREENSBORO	62	37	71	30	49	-3	1.7	1.0	1.4	7.6	106	30.8	84	93	45	0	2	3	1	
NC HATTERAS	67	53	76	48	60	0	1.8	.7	1.6	7.6	66	39.4	83	87	55	0	0	4	1	
NC NEW BERN	67	44	77	34	56	-3	1.3	.7	.9	5.4	56	45.4	97	94	51	0	0	3	1	
NC RALEIGH	62	40	71	31	51	-3	2.8	2.1	1.2	12.1	189	34.8	96	96	48	0	1	3	2	
NC WILMINGTON	67	45	76	37	56	-3	1.2	.5	.6	5.9	65	55.4	117	95	51	0	0	4	1	
ND BISMARCK	55	27	70	17	41	5	.1	-.1	.1	.9	39	9.0	63	90	48	0	4	2	0	
ND FARGO	49	29	55	22	39	3	.1	-.2	.1	3.8	116	12.3	68	81	49	0	5	1	0	
ND GRAND FORKS	47	25	53	19	36	2	T	-.2	T	2.3	70	11.3	66	86	49	0	7	1	0	
ND WILLISTON	56	28	64	17	42	6	T	-.1	T	1.8	83	9.3	74	87	44	0	6	1	0	
OH AKRON-CANTON	53	34	67	22	44	-2	1.9	1.4	1.2	9.5	171	29.5	95	94	48	0	4	5	1	
OH CINCINNATI	57	35	69	26	46	-2	1.3	.6	.8	6.1	104	33.6	98	87	46	0	3	3	1	
OH CLEVELAND	53	34	65	19	44	-3	1.9	1.3	1.5	6.1	106	24.4	81	92	48	0	3	5	1	
OH COLUMBUS	56	34	70	25	45	-2	1.4	.8	.9	6.6	131	31.9	100	88	40	0	4	4	1	

Weather Data for the Week Ending November 5, 1988

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F			
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	55	34	65	23	44	-3	1.6	1.1	.8	9.3	196	29.3	98	88	51	0	3	3	2
TOLEDO	51	31	60	16	41	-4	1.9	1.4	1.1	8.0	168	24.2	90	95	55	0	4	3	2
YOUNGSTOWN	53	34	65	20	43	-2	1.1	.5	.6	7.2	118	27.8	87	93	49	0	3	5	1
OK OKLAHOMA CITY	67	48	75	45	57	3	.2	-1.3	.1	7.2	113	28.1	99	91	50	0	0	2	0
TULSA	69	50	78	44	59	5	0	-1.7	0	6.8	83	27.0	78	88	43	0	0	0	0
OR ASTORIA	60	50	63	47	55	6	4.1	2.0	2.2	7.3	66	38.7	78	96	82	0	0	6	3
BURNS	59	31	71	24	45	5	.4	.1	.2	.5	32	5.4	70	80	42	0	4	2	0
MEDFORD	67	44	74	34	55	8	.6	.1	.4	1.0	34	7.8	57	94	47	0	0	4	0
PENDLETON	65	45	70	41	55	10	.7	.4	.5	1.1	61	8.4	91	79	42	0	0	3	1
FORTLAND	61	50	69	46	56	7	2.1	1.1	.9	4.0	74	23.5	89	97	75	0	0	6	2
SALEM	63	46	73	40	55	7	2.2	1.1	.8	3.3	57	22.2	78	95	70	0	0	5	1
PA ALLENTOWN	54	34	65	21	44	-3	.5	-1.3	.5	5.9	78	34.0	91	85	45	0	3	2	1
ERIE	54	38	66	25	46	-1	.7	-1.2	.3	12.1	149	33.9	101	85	48	0	2	4	0
HARRISBURG	55	36	68	24	45	-3	.8	.1	.8	5.5	81	30.6	92	86	45	0	2	1	1
PHILADELPHIA	56	39	67	28	48	-3	1.0	.3	.7	5.8	85	33.2	95	86	48	0	1	2	1
PITTSBURGH	56	35	72	24	46	-1	1.3	.7	.7	5.0	89	23.4	74	91	48	0	3	5	1
SCRANTON	52	34	67	22	43	-3	.6	-1.1	.5	4.4	68	27.6	92	87	42	0	2	3	0
RI PROVIDENCE	55	34	66	26	45	-3	2.6	1.7	2.4	6.7	85	32.4	87	90	53	0	4	2	1
SC CHARLESTON	69	51	75	45	60	0	.5	0	.5	11.0	136	41.3	89	94	51	0	0	3	0
COLUMBIA	68	44	75	39	56	-2	2.7	2.1	2.3	11.6	164	41.5	95	93	42	0	0	2	1
FLORENCE	67	45	75	40	56	-2	.7	.2	.3	8.4	126	35.8	91	94	45	0	0	3	0
GREENVILLE	64	40	71	38	52	-3	2.1	1.4	.8	9.5	112	33.6	76	96	43	0	0	3	3
SD ABERDEEN	53	31	64	23	42	4	T	-1	T	5.5	212	16.9	101	81	47	0	3	2	0
HURON	55	31	64	23	43	4	.1	-2	0	3.8	134	17.7	101	83	40	0	3	2	0
RAPID CITY	64	35	72	26	49	9	T	-1	T	1.3	70	9.7	63	72	25	0	2	0	0
SIOUX FALLS	55	29	63	23	42	2	.2	-1	.1	4.6	104	16.9	75	87	42	0	5	3	0
TN CHATTANOOGA	63	42	72	36	52	-1	2.1	1.3	1.1	10.8	138	37.6	86	96	48	0	0	4	2
KNOXVILLE	63	39	77	31	51	-2	1.3	.5	.8	5.5	87	27.2	69	96	50	0	2	4	1
MEMPHIS	69	48	79	40	58	2	.2	-6	.1	8.4	129	33.9	79	89	48	0	0	3	0
NASHVILLE	63	44	71	37	53	0	1.0	.4	.8	5.0	75	23.0	56	92	52	0	0	2	1
TX ABILENE	77	52	87	45	65	7	.8	.4	.4	2.8	49	15.4	72	83	35	0	0	2	0
AMARILLO	70	42	80	36	56	6	T	-2	T	3.9	121	24.3	135	72	29	0	0	1	0
AUSTIN	78	59	89	54	69	6	.3	-3	.2	2.1	29	17.7	64	91	49	0	0	2	0
BEAUMONT	75	57	82	48	66	2	0	-9	0	12.0	125	43.2	92	94	56	0	0	0	0
BROWNSVILLE	86	61	97	54	74	3	.8	.3	.8	9.3	103	22.9	99	100	47	1	0	1	1
CORPUS CHRISTI	82	61	98	49	72	3	1.2	.8	1.2	8.9	94	18.2	63	94	48	1	0	1	1
DEL RIO	80	56	95	51	68	4	.1	-2	.1	4.8	94	15.2	94	86	43	1	0	2	0
EL PASO	80	51	86	39	65	9	0	-1	0	2.1	100	10.4	149	57	19	0	0	0	0
FORT WORTH	72	52	85	45	62	2	.2	-4	.2	5.7	84	20.3	73	89	52	0	0	2	0
GALVESTON	76	64	85	58	70	3	T	-6	T	10.3	114	36.1	105	86	54	0	0	1	0
HOUSTON	78	58	89	51	68	4	.5	-3	.5	2.5	26	21.3	54	91	50	0	0	1	1
LUBBOCK	75	45	82	37	60	7	T	-2	T	2.3	58	12.3	73	70	25	0	0	1	0
MIDLAND	79	49	89	37	64	8	T	-2	T	5.1	143	17.7	141	77	28	0	0	0	0
SAN ANGELO	81	49	88	41	65	6	T	-3	T	3.2	61	13.3	80	87	30	0	0	0	0
SAN ANTONIO	81	58	94	51	70	6	.4	-3	.4	1.5	21	18.3	71	91	40	1	0	1	0
VICTORIA	80	60	93	52	70	4	.6	0	.6	3.5	36	13.5	41	93	48	1	0	1	1
WACO	74	55	86	49	65	3	.7	.1	.7	6.5	98	20.9	77	93	54	0	0	1	1
WICHITA FALLS	72	49	83	41	61	4	.7	.2	.7	7.8	125	21.9	90	90	46	0	0	1	1
UT BLANDING							0	-2	0	1.1	43	9.3	96	***	***	0	0	0	0
CEDAR CITY	69	38	73	31	53	9	0	-2	0	.8	42	11.0	124	78	28	0	1	0	0
SALT LAKE CITY	66	43	73	35	54	10	.4	.1	.4	.5	22	6.9	54	80	32	0	0	1	0
VT BURLINGTON	47	30	66	20	39	-3	1.7	1.0	.8	5.3	82	23.0	80	86	48	0	4	4	2
VA NORFOLK	63	44	74	35	54	-2	1.9	1.2	1.6	6.4	78	35.8	91	92	48	0	0	5	1
RICHMOND	61	40	71	31	51	-2	2.1	1.3	1.5	6.5	83	34.1	90	94	47	0	1	3	1
ROANOKE	60	39	69	34	49	-2	1.6	1.0	1.0	5.5	78	27.5	81	88	41	0	0	4	1
WA QUILLAYUTE	57	49	59	45	53	7	6.9	4.2	2.7	18.9	101	76.3	98	99	88	0	0	7	5
SEATTLE-TACOMA	58	48	66	45	53	6	3.5	2.4	1.1	7.1	112	24.2	88	99	76	0	0	6	3
SPOKANE	57	40	67	33	49	10	1.1	.7	.4	2.8	133	11.4	93	92	53	0	0	3	0
YAKIMA	61	36	68	31	48	6	.3	.2	.2	.5	54	4.0	70	97	50	0	3	2	0
WV BECKLEY	55	35	68	28	45	-1	.7	0	.7	8.7	129	29.5	80	87	45	0	3	2	1
CHARLESTON	62	38	78	26	50	0	1.0	.4	1.0	6.4	105	24.8	68	90	37	0	4	2	1
HUNTINGTON	62	37	76	26	50	-1	1.1	.5	1.1	5.7	99	28.6	81	87	38	0	3	2	1
PARKERSBURG	60	36	76	25	48	-1	1.5	1.0	1.4	6.9	122	27.1	82	83	36	0	4	3	1
WI GREEN BAY	45	31	55	16	38	-3	1.4	.9	.9	7.3	133	20.0	80	94	65	0	4	3	1
LACROSSE	48	29	60	14	39	-4	.6	.2	.6	6.5	113	22.8	82	88	51	0	5	2	1
MADISON	50	27	60	13	38	-3	.3	-1	.2	5.3	95	19.7	71	89	56	0	4	2	0
MILWAUKEE	49	34	57	20	42	-2	1.3	.8	1.0	9.2	170	25.1	92	88	63	0	2	2	1
WAUSAU	43	29	50	16	36	-3	.9	.5	.8	6.1	96	19.7	68	94	61	0	5	3	1
WY CASPER	62	35	70	26	49	10	T	-2	T	.9	51	5.6	54	63	20	0	3	1	0
CHEYENNE	60	38	69	31	49	10	T	-1	T	1.7	96	14.8	118	67	24	0	1	1	0
LANDER	61	34	70	25	48	11	0	-2	0	.9	41	6.8	57	59	20	0	2	0	0
SHERIDAN	62	35	70	30	48	11	T	-2	T	1.2	49	8.7	64	76	27	0	3	1	0
PR SAN JUAN	89	74	91	72	81	0	.3	-1.1	.3	9.6	77	50.7	112	92	66	1	0	1	0

October Weather and Crop Summary

Weather

HIGHLIGHTS: A series of cold fronts brought surges of cold Canadian air into the eastern half of the United States. The cold in the East was in contrast to the persistent warmth in the West. Showers and thunderstorms brought substantial rain to the Southeast and Southwest. Storm systems caused wet and windy weather over the Great Lakes. Little rain fell over the winter wheat areas of the Great Plains and Northwest.

OCTOBER 1...Heavy to moderate rain reached from the central Gulf coast to the Great Lakes. Sunshine prevailed over the western half of the nation.

OCTOBER 2-8...A large, cold Canadian air mass spread over the central and eastern portions of the Nation. Numerous stations reported freezing and/or record-low temperatures for the date. The West enjoyed pleasant, warm weather. A storm system brought substantial rain to the Southeast early in the week, and persistent rain covered the central Plains. The Corn Belt and northern and central Great Plains had dry harvest weather.

OCTOBER 9-15...The second surge of cold air of the season brought record-low temperatures of the date and/or autumn's first freeze to the eastern third of the Nation. Unseasonable, low temperatures in the East contrasted with the unseasonable, high temperatures in the West. Favorable harvest weather prevailed as light or no rain fell over most of the Nation.

OCTOBER 16-22...Heavy rain relieved long-term moisture deficits in the eastern Corn Belt, upper Delta, and middle Atlantic Coast States. Persistent showers covered the southern portions of the Southwest. Much above-normal temperatures again prevailed in the West.

OCTOBER 23-29...Cold Canadian air plunged into the north-central United States during the latter half of the week as temperatures dropped into the teens and single digits. Thunderstorms produced heavy

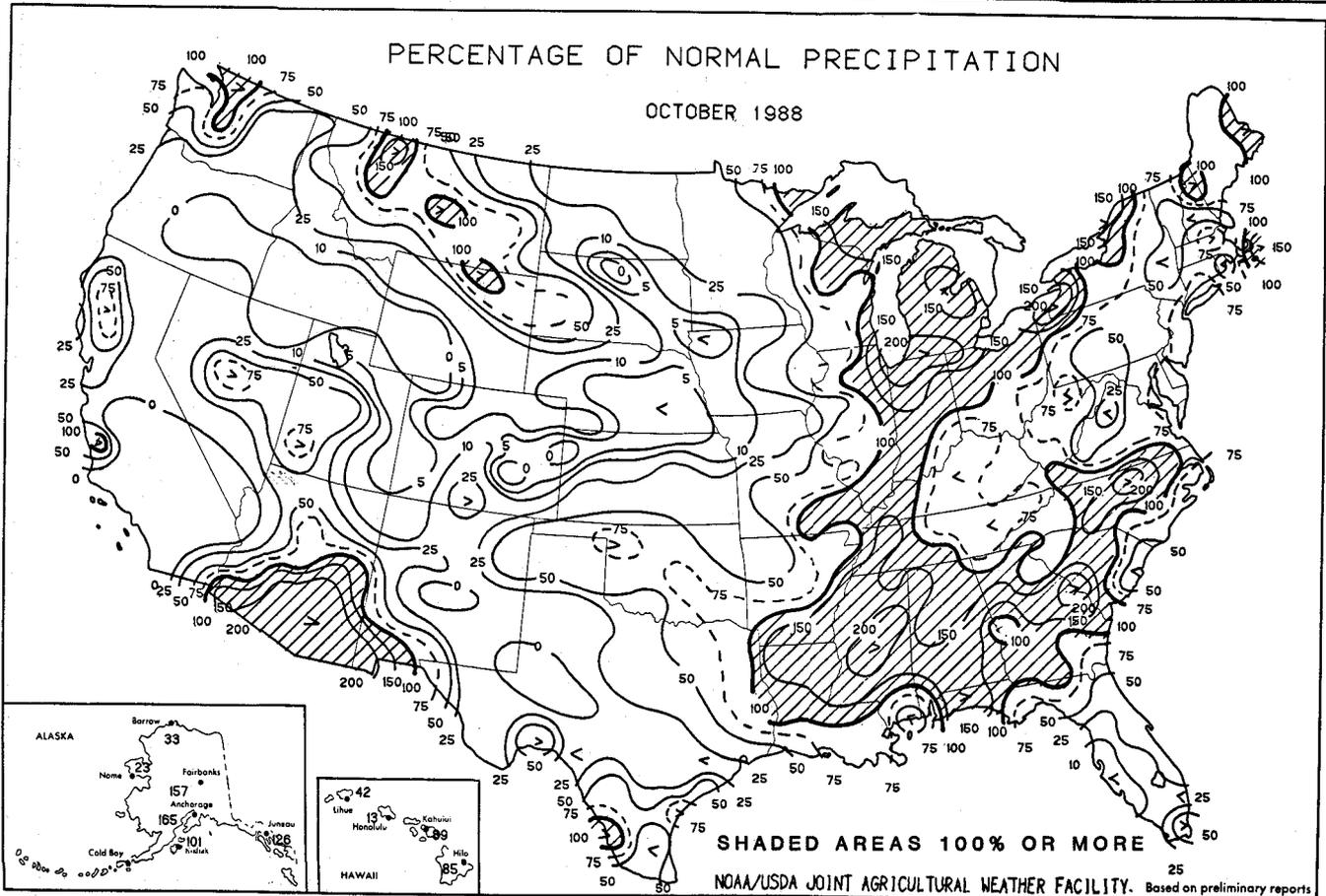
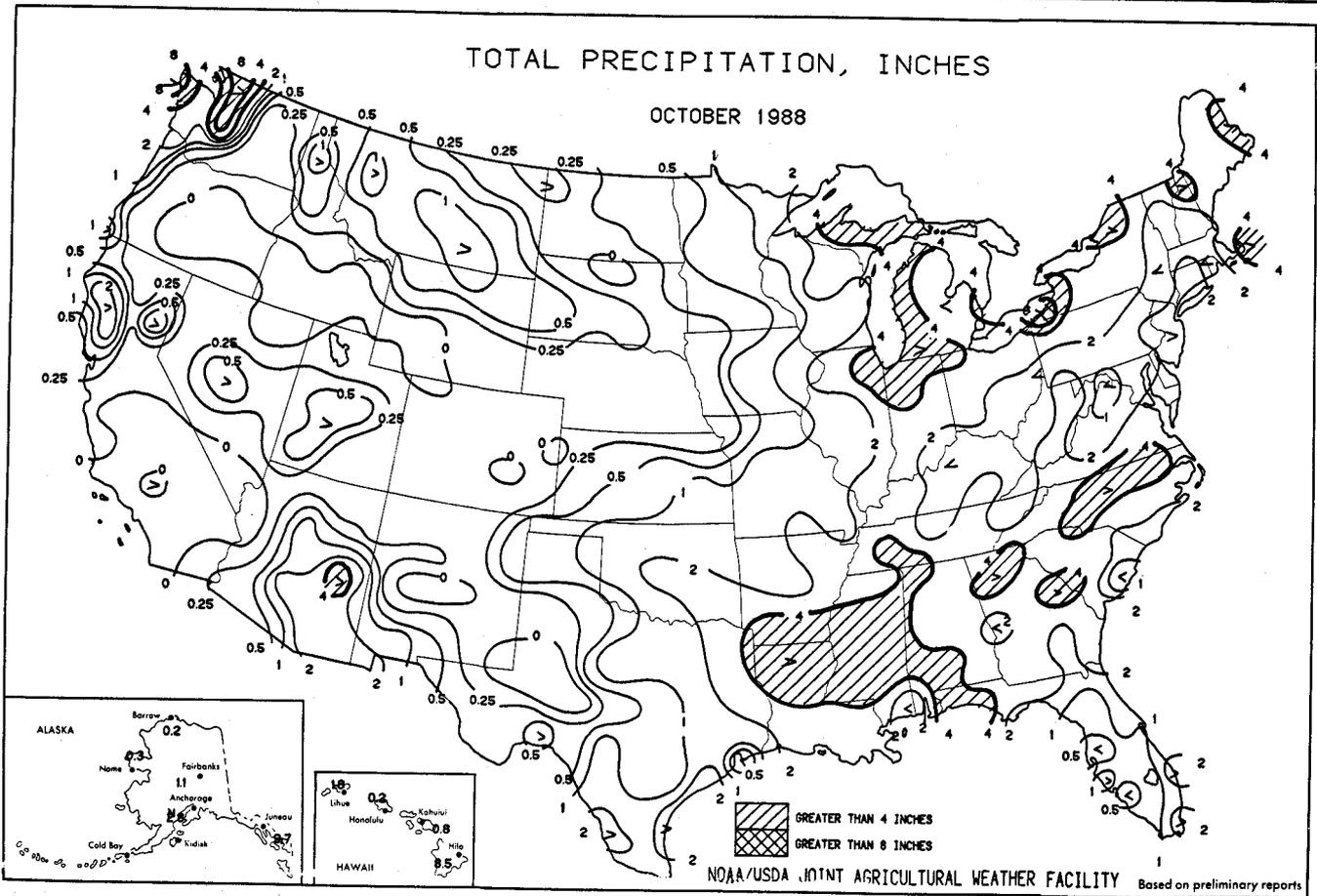
rain in the eastern southern Plains, and lower Mississippi and Tennessee Valleys. Storms caused high winds, rain, and snow over the Great Lakes. Warm weather again persisted in the West and the southern Plains.

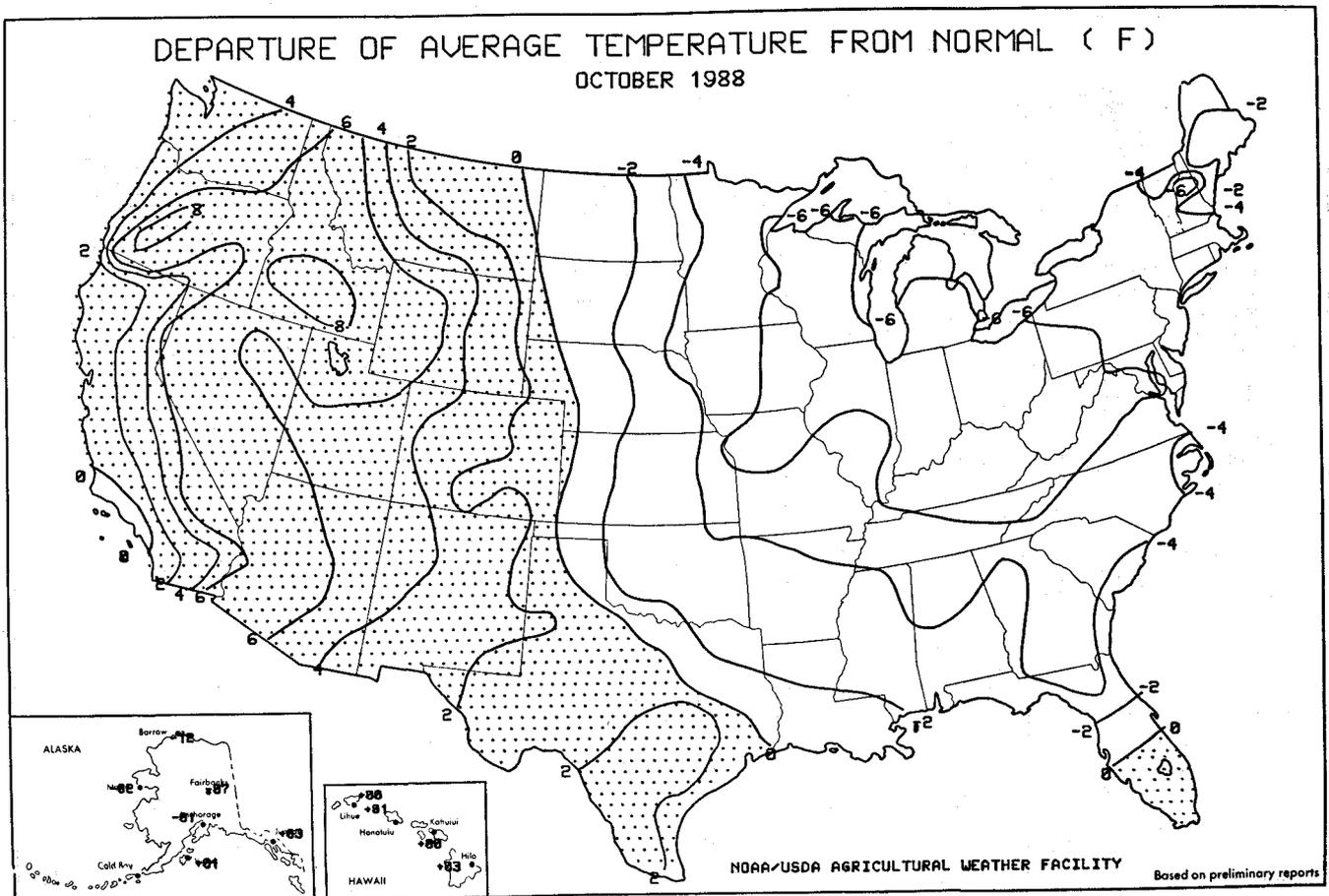
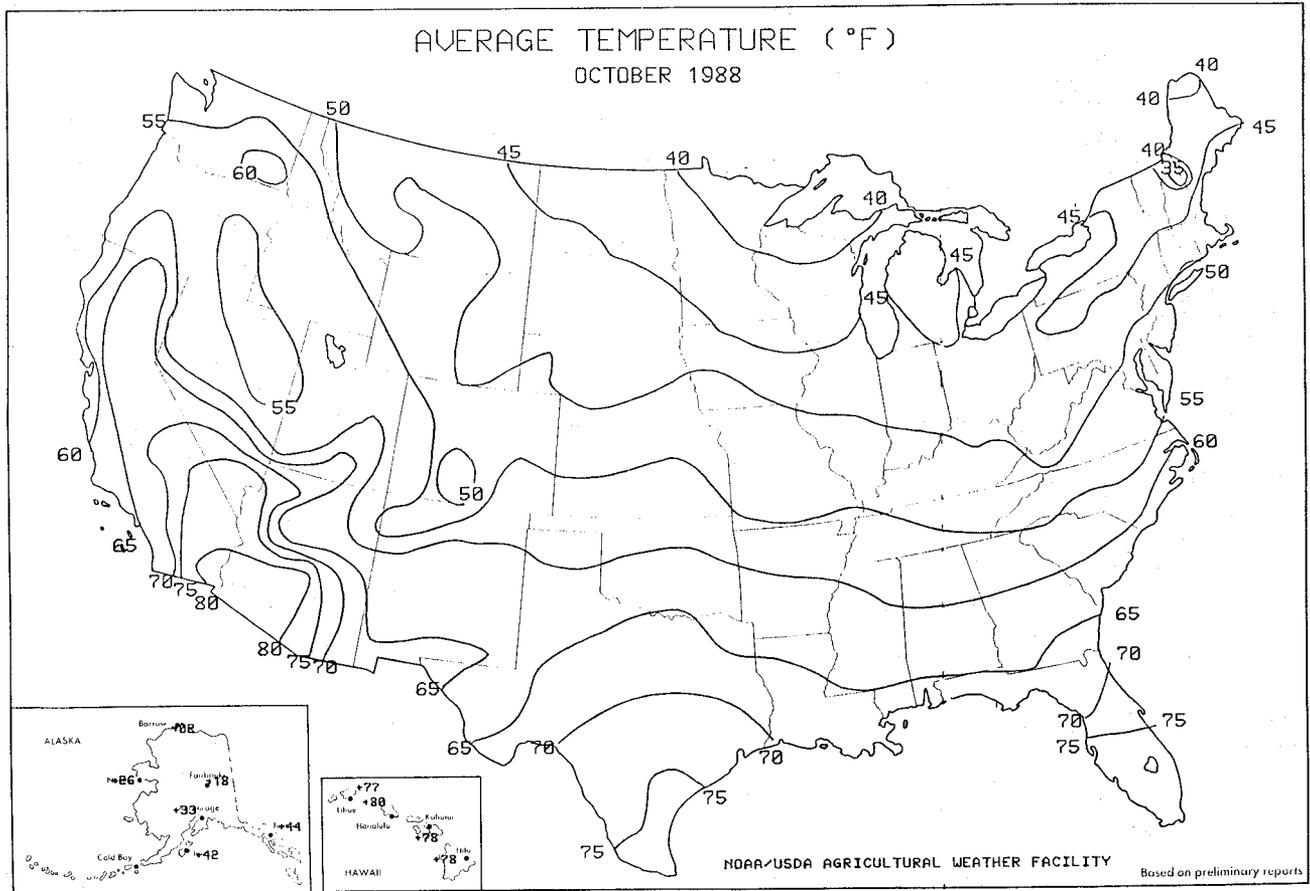
OCTOBER 30-31...Widespread rain covered the eastern third of the Nation. Severe thunderstorms struck the Southeast and spawned tornadoes across northern Alabama. A Pacific storm brought widespread rain to the Northwest.

Wheat

Dry weather during October allowed winter wheat seeding to progress at a normal pace. At the beginning of October, seeding was 8 percentage points ahead of the 5-year average. By month's end, progress reached 92% completion, 7 points ahead of normal. Dry soil conditions slowed seeding and germination in the Plains and the Pacific Northwest. By mid-month, seeding was complete in Nebraska and nearly complete in Colorado and South Dakota. Emergence and early growth were good in most areas. At the end of October, seeding was over 90% complete in 14 of the 20 major producing States. On October 30th, 81% of the crop was emerged, 2 points behind 1987 but 11 points ahead of the 70% average. Warm, dry weather contributed to insect problems in the central and southern Plains and the Pacific Northwest. The crop was mostly good to fair except in Missouri, Montana, Oregon, South Dakota, and Texas where it was mostly fair to good.

By month's end Kansas' seeding was 98% complete, 8 points ahead of normal. Emergence and early growth were good. Producers utilized some early seeded fields for grazing. Oklahoma's seeding was 15 points ahead of the 80% average. Seeding was complete in Colorado, Montana, Nebraska, and South Dakota. Russian wheat aphids continued to be a problem in Idaho and Oregon. Cooler temperatures late in October reduced aphid activity in Washington. Texas Blacklands producers were spraying for greenbugs in newly emerged fields. Seeding was 11 points and 6 points behind normal in California and Georgia, respectively.





Temperature and Precipitation Data for October 1988

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
AL BIRMINGHAM	58	-5	3.1	0.5	BATON ROUGE	67	-1	2.8	0.2	DAYTON	47	-8	3.0	1.0
MOBILE	65	-3	1.8	-0.8	LAKE CHARLES	68	-1	2.4	-1.3	TOLEDO	45	-7	4.4	2.4
MONTGOMERY	62	-4	3.5	1.3	NEW ORLEANS	68	-1	2.9	0.2	YOUNGSTOWN	45	-6	2.6	0.0
AK ANCHORAGE	33	-1	2.8	1.1	SHREVEPORT	64	-3	4.4	1.8	OK OKLAHOMA CITY	59	-3	2.0	-0.7
BARROW	3	-12	0.2	-0.3	ME CARIBOU	41	-2	3.1	0.0	TULSA	59	-4	1.4	-2.0
FAIRBANKS	18	-7	1.1	0.3	PORTLAND	46	-2	3.5	-0.3	OR ASTORIA	56	3	2.1	-4.1
JUNEAU	44	2	9.7	2.0	MD BALTIMORE	51	-6	1.6	-1.5	BURNS	53	5	0.0	-0.8
KODIAK	41	1	10.1	3.2	MA SALSIBURY	52	-5	3.3	-0.4	MEDFORD	62	8	0.1	-1.5
NOME	26	-2	0.3	-1.0	MA BOSTON	51	-4	1.6	-1.7	PENDLETON	59	6	0.1	-0.8
AZ FLAGSTAFF	53	6	1.2	0.3	MI CHATHAM	51	-3	6.1	2.4	PORTLAND	59	4	0.2	-2.8
PHOENIX	83	9	2.4	1.8	MI ALPENA	43	-5	3.4	1.4	SALEM	57	4	0.1	-3.2
PRESCOTT	62	7	0.4	-0.8	MI DETROIT	46	-6	3.6	1.5	PA ALLENTOWN	48	-5	2.2	-0.9
TUCSON	75	5	2.1	1.2	MI FLINT	45	-6	2.8	0.7	ERIE	48	-4	8.3	4.6
WINSLOW	61	4	0.6	-0.3	MI GRAND RAPIDS	44	-7	5.4	2.7	HARRISBURG	50	-5	1.8	-0.9
YUMA	83	7	0.4	0.2	MI HOUGHTON LAKE	43	-4	3.4	1.1	PHILADELPHIA	52	-5	2.2	-0.7
AR FORT SMITH	60	-2	1.5	-1.8	MI LANSING	44	-6	3.4	1.5	PITTSBURGH	46	-6	1.4	-1.1
LITTLE ROCK	60	-3	1.5	-1.3	MI MARQUETTE	37	-7	5.0	1.8	SCRANTON	46	-5	1.9	-0.9
CA BAKERSFIELD	70	2	0.0	-0.3	MI MUSKOGON	45	-6	4.8	2.0	RI PROVIDENCE	49	-5	1.8	-1.9
EUREKA	55	1	0.4	-2.3	MI SAULT ST. MARIE	41	-4	4.5	1.7	SC CHARLESTON	63	-3	0.7	-2.2
FRESNO	69	4	0.0	-0.4	MN ALEXANDRIA	42	-4	0.5	-1.4	COLUMBIA	59	-5	3.7	1.1
LOS ANGELES	66	0	T	-0.3	MN DULUTH	39	-6	1.1	-1.1	FLORENCE	59	-5	1.7	-0.7
REDDING	68	2	0.1	-1.9	INT'L FALLS	38	-5	1.0	-0.7	GREENVILLE	55	-6	3.4	0.0
SACRAMENTO	87	3	0.2	-0.7	MINNEAPOLIS	44	-6	0.8	-1.0	SD ABERDEEN	44	-4	0.1	-0.9
SAN DIEGO	87	1	T	-0.5	ROCHESTER	42	-7	0.4	-2.0	SD HURON	45	-4	0.1	-1.3
SAN FRANCISCO	61	1	0.4	-0.6	ST. CLOUD	41	-6	0.7	-1.4	RAPID CITY	50	0	0.8	0.0
STOCKTON	66	1	T	-0.6	MS GREENWOOD	61	-3	5.1	2.3	SIoux FALLS	45	-5	T	-1.5
CO DENVER	54	2	0.1	0.9	JACKSON	62	-3	6.1	3.8	TN BRISTAL	50	-7	1.8	-0.7
GRAND JUNCTION	59	4	T	-0.8	MERIDIAN	60	-4	4.3	1.7	CHATTANOOGA	55	-5	2.1	-0.8
PUEBLO	55	1	T	-0.8	MO COLUMBIA	51	-7	1.3	-2.0	KNOXVILLE	52	-7	1.5	-1.2
CT BRIDGEPORT	51	-5	3.3	-0.1	KANSAS CITY	52	-7	0.2	-3.1	MEMPHIS	59	-4	3.6	1.3
HARTFORD	47	-5	2.3	-1.2	SAINT LOUIS	54	-4	1.9	-0.4	NASHVILLE	54	-6	1.5	-1.0
DC WASHINGTON	54	-5	1.8	-1.1	SPRINGFIELD	53	-5	1.9	-1.3	TX ABILENE	66	1	1.0	-1.3
FL APALACHICOLA	68	-2	1.8	-1.4	MT BILLINGS	52	3	1.0	-0.1	AMARILLO	59	0	0.7	-0.7
DAYTONA BEACH	71	-3	1.2	-3.4	GLASGOW	47	1	0.1	-0.4	AUSTIN	73	3	0.7	-2.7
FT MYERS	77	0	0.4	-3.5	GREAT FALLS	50	2	0.7	-0.1	BEAUMONT	69	-1	1.7	-2.0
JACKSONVILLE	67	-4	2.4	-1.5	HAVRE	47	0	0.3	-0.3	BROWNSVILLE	76	1	1.8	-1.7
KEY WEST	80	0	0.8	-4.2	HELENA	50	5	0.7	0.0	CORPUS CHRISTI	75	1	2.6	-0.1
MIAMI	79	1	1.5	-5.6	KALISPELL	49	6	0.5	-0.5	DEL RIO	71	0	0.3	-2.0
ORLANDO	74	-1	1.4	-1.6	MILES CITY	50	1	0.8	-0.1	EL PASO	67	3	0.6	-0.1
TALLAHASSEE	64	-4	2.5	-0.5	MISSOULA	51	6	0.5	-0.3	FORT WORTH	66	-2	1.6	-1.4
TAMPA	73	-1	0.1	-2.2	NE GRAND ISLAND	50	-4	T	-1.1	GALVESTON	74	1	0.5	-2.1
WEST PALM BEACH	78	0	3.5	-4.2	LINCOLN	51	-3	T	-1.7	HOUSTON	72	2	1.3	-2.5
GA ATLANTA	59	-3	5.0	2.5	NORFOLK	48	-4	T	-1.3	LUBBOCK	63	2	T	-1.8
AUGUSTA	59	-5	5.4	3.4	NORTH PLATTE	49	-2	0.1	-0.8	MIDLAND	65	0	T	-1.4
MACON	61	-4	3.7	1.7	OMAHA	50	-4	0.1	-2.0	SAN ANGELO	66	0	T	-2.0
SAVANNAH	64	-3	2.8	0.5	SCOTTSBLUFF	51	0	0.1	-0.6	SAN ANTONIO	73	3	0.6	-2.2
HI HILO	78	3	8.5	-1.5	VALENTINE	48	-2	0.1	-0.8	VICTORIA	74	3	0.8	-2.5
HONOLULU	80	1	0.2	-1.6	NV ELKO	53	5	T	-0.6	WACO	68	0	1.0	-2.1
KAHULUI	77	0	0.8	-0.1	ELY	52	6	0.4	-0.2	WICHITA FALLS	64	-2	0.8	-1.8
LIHUE	77	0	1.9	-2.6	LAS VEGAS	75	7	0.0	-0.2	UT CEDAR CITY	58	6	0.7	-0.1
ID BOISE	60	8	0.0	-0.7	RENO	58	8	T	-0.3	MILFORD	55	5	0.4	-0.3
LEWISTON	59	7	0.2	-0.9	WINNEMUCCA	55	6	T	-0.5	SALT LAKE CITY	60	7	T	-1.1
POCATELLO	55	7	0.0	-0.9	NH CONCORD	45	-3	1.2	-1.9	VT BURLINGTON	44	-4	2.1	-0.7
IL CAIRO	-	-	3.5	1.0	NJ ATLANTIC CITY	50	-7	2.8	-0.3	LYNCHBURG	51	-6	1.8	-1.6
CHICAGO	46	-7	5.1	3.1	NM ALBUQUERQUE	61	4	0.3	-0.5	VA NORFOLK	57	-5	2.9	-0.5
MOLINE	47	-6	2.4	-0.3	CLOVIS	60	1	T	-1.8	RICHMOND	53	-5	2.7	-1.0
PEORIA	48	-6	1.1	-1.4	ROSWELL	64	4	T	-1.0	ROANOKE	51	-6	1.3	-2.2
QUINCY	50	-6	0.6	-2.7	NY ALBANY	46	-5	1.4	-1.5	WA COLEVILLE	51	5	0.3	-0.9
ROCKFORD	45	-7	2.1	-0.8	BINGHAMTON	43	-6	2.6	-0.5	QUILLAYUTE	53	3	8.1	-2.4
SPRINGFIELD	50	-6	1.7	-0.9	BUFFALO	47	-5	6.1	3.2	SEATTLE-TACOMA	56	3	2.2	-1.2
EVANSVILLE	51	-6	2.9	0.4	NEW YORK	53	-5	3.1	-0.1	SPOKANE	53	6	0.1	-1.0
FORT WAYNE	46	-7	2.7	0.1	ROCHESTER	46	-6	2.3	-0.2	WALLA WALLA	61	7	0.1	-1.3
INDIANAPOLIS	48	-7	3.1	0.6	SYRACUSE	47	-5	3.6	0.4	YAKIMA	55	5	0.1	-0.4
SOUTH BEND	46	-8	6.7	3.5	NC ASHEVILLE	50	-6	3.1	0.0	BECKLEY	46	-6	2.1	-0.6
IA DES MOINES	48	-6	0.6	-1.6	CHARLOTTE	56	-5	4.1	1.4	CHARLESTON	49	-7	1.9	-0.7
DUBUQUE	45	-6	1.7	-1.2	GREENSBORO	53	-5	4.1	0.9	ELKINS	44	-7	2.0	-1.0
SIoux CITY	47	-5	0.1	-1.7	HATTERAS	61	-4	3.5	-1.3	HUNTINGTON	49	-7	1.9	-0.4
WATERLOO	44	-6	0.7	-1.7	NEW BERN	60	-4	1.7	-1.7	PARKERSBURG	48	-8	1.5	-1.0
KS CONCORDIA	54	-3	T	-1.8	RALEIGH	54	-5	5.7	3.0	WI GREEN BAY	42	-6	2.0	-0.1
DODGE CITY	55	-2	0.6	-0.7	WILMINGTON	59	-6	1.8	-0.2	LACROSSE	45	-6	0.6	-1.4
GOODLAND	53	0	T	-0.9	ND BISMARCK	44	-2	0.2	-0.6	MADISON	44	-6	1.6	-0.6
TOPEKA	53	-5	0.3	-2.6	FARGO	43	-3	0.5	-0.8	MILWAUKEE	46	-5	3.0	0.8
WICHITA	57	-3	0.9	-1.6	GRAND FORKS	41	-4	0.3	-0.8	WAUSAU	41	-6	2.1	-0.2
KY BOWLING GREEN	51	-7	1.9	-0.9	WILLISTON	44	-1	0.3	-0.4	WY CASPER	50	3	0.1	-0.7
JACKSON	51	-4	1.9	-0.2	OH AKRON-CANTON	46	-7	2.6	0.4	CHEYENNE	50	3	0.1	-0.6
LEXINGTON	50	-7	1.3	1.0	CINCINNATI	48	-7	1.9	-0.7	LANDER	54	7	0.0	-1.2
LOUISVILLE	52	-5	1.5	-1.1	CLEVELAND	47	-7	2.5	0.1	SHERIDAN	51	4	1.3	0.1
LA ALEXANDRIA	65	-2	3.9	0.9	COLUMBUS	47	-7	1.7	-0.2	PR SAN JUAN	82	0	4.1	-1.7

Based on 1951-80 normals.

Heating Degree Days (Base 65° F.)

October 1988

AL. Birmingham . . .	218	MD. Baltimore . . .	424	OK. Okla. City . . .	196
Mobile . . .	53	MA. Boston . . .	443	Tulsa . . .	218
Montgomery . . .	126	Chatham . . .	427	OR. Astoria . . .	289
AK. Anchorage . . .	979	MI. Alpena . . .	673	Burns . . .	371
Barrow . . .	1956	Detroit . . .	590	Medford . . .	115
Fairbanks . . .	1469	Flint . . .	626	Pendleton . . .	208
Nome . . .	1212	Grand Rapids . . .	639	Portland . . .	208
AZ. Flagstaff . . .	381	Houghton Lake . . .	692	Salem . . .	264
Phoenix . . .	0	Lansing . . .	644	PA. Allentown . . .	515
Tucson . . .	0	Marquette . . .	833	Erie . . .	528
Winslow . . .	118	S. Ste. Marie . . .	733	Harrisburg . . .	475
Yuma . . .	0	MN. Duluth . . .	812	Philadelphia . . .	408
AR. Fort Smith . . .	179	Internatl Falls . . .	834	Pittsburg . . .	570
Little Rock . . .	179	Minneapolis . . .	646	Scranton . . .	574
CA. Bakersfield . . .	18	Rochester . . .	706	RI. Providence . . .	491
Eureka . . .	295	St. Cloud . . .	744	SC. Charleston . . .	107
Fresno . . .	20	MS. Jackson . . .	134	Columbia . . .	218
Los Angeles . . .	16	Meridian . . .	179	Greenville . . .	308
Redding . . .	30	MO. Columbia . . .	434	SD. Aberdeen . . .	634
Stockton . . .	40	Kansas City . . .	394	Huron . . .	603
San Diego . . .	4	St. Louis . . .	354	Rapid City . . .	470
San Francisco . . .	128	Springfield . . .	385	Sioux Falls . . .	628
CO. Denver . . .	333	MT. Billings . . .	395	TN. Chattanooga . . .	312
Pueblo . . .	308	Glasgow . . .	557	Knoxville . . .	384
CT. Bridgeport . . .	449	Great Falls . . .	468	Memphis . . .	172
Hartford . . .	539	Havre . . .	564	Nashville . . .	343
DC. Washington . . .	330	Helena . . .	449	TX. Abilene . . .	33
FL. Apalachicola . . .	16	Kalispell . . .	506	Amarillo . . .	197
Jacksonville . . .	34	Miles City . . .	477	Austin . . .	3
Key West . . .	0	Missoula . . .	451	Beaumont . . .	10
Miami . . .	0	NE. Grand Island . . .	474	Brownsville . . .	0
Orlando . . .	0	Lincoln . . .	438	Corpus Christi . . .	0
W. Palm Beach . . .	0	Norfolk . . .	520	Del Rio . . .	0
Tallahassee . . .	80	North Platte . . .	498	El Paso . . .	17
Tampa . . .	0	Omaha . . .	448	Fort Worth . . .	51
GA. Atlanta . . .	188	Valentine . . .	544	Galveston . . .	0
Augusta . . .	209	NV. Ely . . .	395	Houston . . .	5
Macon . . .	152	Las Vegas . . .	0	Lubbock . . .	95
Savannah . . .	84	Reno . . .	202	Midland . . .	54
ID. Boise . . .	178	Winnemucca . . .	305	San Angelo . . .	35
Lewiston . . .	208	NH. Concord . . .	622	San Antonio . . .	0
Pocatello . . .	295	NJ. Atlantic City . . .	476	Victoria . . .	0
IL. Chicago . . .	583	NM. Albuquerque . . .	118	Waco . . .	20
Moline . . .	544	NY. Albany . . .	584	Wichita Falls . . .	89
Peoria . . .	517	Binghamton . . .	674	UT. Milford . . .	298
Rockford . . .	605	Buffalo . . .	560	Salt Lake City . . .	158
Springfield . . .	475	New York . . .	376	VT. Burlington . . .	636
Fort Wayne . . .	588	Rochester . . .	596	VA. Lynchburg . . .	412
Indianapolis . . .	517	Syracuse . . .	574	Norfolk . . .	267
South Bend . . .	581	NC. Asheville . . .	453	Richmond . . .	361
IA. Des Moines . . .	524	Charlotte . . .	279	Roanoke . . .	423
Dubuque . . .	611	Greensboro . . .	368	WA. Quillayute . . .	366
Souix City . . .	542	Hatteras . . .	144	Seattle-Tacoma . . .	291
KS. Concordia . . .	347	Raleigh . . .	336	Spokane . . .	361
Dodge City . . .	301	Wilmington . . .	202	Walla Walla . . .	158
Goodland . . .	375	ND. Bismark . . .	651	Yakima . . .	303
Topeka . . .	383	Fargo . . .	677	WV Beckley . . .	580
Wichita . . .	265	Williston . . .	632	Charleston . . .	484
KY. Lexington . . .	471	OH. Akron-Canton . . .	599	Huntington . . .	485
Louisville . . .	398	Cincinnati . . .	509	WI. Green Bay . . .	694
LA. Baton Rouge . . .	20	Cleveland . . .	557	Madison . . .	661
Lake Charles . . .	12	Columbus . . .	547	Milwaukee . . .	587
New Orleans . . .	12	Dayton . . .	549	WY Casper . . .	464
Shreveport . . .	75	Toledo . . .	613	Cheyenne . . .	449
ME. Caribou . . .	752	Youngstown . . .	618	Lander . . .	347
Portland . . .	568			Sheridan . . .	424

National Agricultural Summary

October 31-November 6, 1988

HIGHLIGHTS: Rain late in the week slowed harvest progress in portions of the Delta and the East. Soil moisture was mostly adequate to short in the Eastern half of the Nation. In the Plains and the West, soil moisture was mostly short to adequate. There were 4-5 days suitable for fieldwork in the East and 6-7 days in the West.

Winter wheat remained mostly good to fair. Seeding was 95 percent (%) complete, the same as in 1987 but 6 percentage points ahead of the 5-year average. Seeding was complete or neared completion in 13 of the 20 major producing States. Eighty-nine percent of the crop was emerged, 11 points ahead of normal. Corn harvest was 90% finished, 5 points behind 1987 but 12 points ahead of normal. Soybean harvest was 85% complete, 8 points behind last year but 8 points ahead of the average. Sorghum harvest was 89% complete, 4 points ahead of 1987 and 11 points ahead of the 78% normal. Harvest was complete or neared completion in 8 of the 11 major producing States. Cotton harvest was 57% finished, slightly behind last year's 58% but 5 points ahead of the average. Rain delayed harvest in portions of the Southeast and the Delta. Florida's citrus and vegetable growing areas benefited from rain late in the week. The citrus groves were in good condition. Pastures and livestock were in mostly good condition.

SMALL GRAINS: Winter wheat was mostly good to fair. Seeding was 95% finished, the same as 1987 but 5 points ahead of normal. Seeding was complete or neared completion in 13 of the 20 major producing States. Eighty-nine percent of the crop was emerged, 11 points ahead of the 78% average. Kansas' seeding was essentially complete except for fields to be seeded following corn harvest. Emergence and early growth continued good despite dry soil moisture. Producers continued to fight Russian wheat aphid infestations in Idaho, Oregon, and Washington. Dry soil moisture forced some reseeding in the Columbia Basin of Oregon. Texas producers continued to spray for greenbugs in newly emerged fields. In the Plains, dryland fields needed rain.

CORN: Corn harvest was 90% complete, behind 1987's 95% but 12 points ahead of the average. Rain delayed harvest in some areas of the East late in the week. Harvest was complete in Iowa and Texas and neared completion in Georgia, Illinois, Kansas, Minnesota, and Missouri. Ohio's harvest advanced 22 points. Harvest was 64% complete, far behind last year's 96% but only slightly behind the 67% normal. Pennsylvania's harvest progressed well, reaching 47% completion, 8 points behind normal. Harvest was 99% complete, 12 points ahead of the average in Illinois. Iowa's harvest was complete, 19 points ahead of normal.

SOYBEANS: Soybean harvest was 85% finished, 8 points behind 1987 but 8 points ahead of the average. Harvest was slowed by rain late in the week in Eastern areas. Harvest was complete in Iowa, Nebraska, and South Dakota and neared completion in Illinois, Kansas, and Minnesota. Unharvested fields consisted mostly of double crop soybeans in Kansas. Harvest was 31 points ahead of the 65% normal. Hail damaged some fields in northeastern Louisiana. Illinois' harvest was 99% complete, 10 points ahead of normal. Missouri's harvest was 29 points ahead of the 62% normal. Iowa's harvest was complete, 10 points ahead of the average.

SORGHUM: Sorghum harvest was 89% finished, 4 points and 11 points ahead of last year and normal, respectively. Harvest was complete or neared completion in all the major producing States except Oklahoma and Texas. Harvest was complete in Louisiana, South Dakota, and Tennessee. Oklahoma's harvest advanced 20 points but was still 10 points behind the 55% average. Harvest was 92% complete, 10 points ahead of normal in Texas. Kansas' harvest was 85% finished, 15 points ahead of the average. Frost was needed to dry down remaining fields in south-central and western areas.

COTTON: Cotton harvest was 57% complete, slightly behind last year's 58% but 5 points ahead of the average. Harvest was ahead of normal in all the major producing States except Arizona, Georgia, and South Carolina. Favorable weather allowed Arizona's harvest to reach the halfway mark, 12 points behind the average. Rain delayed harvest in Georgia, Louisiana, and South Carolina. Hail damaged some fields in northeastern Louisiana. Oklahoma growers were waiting for a killing frost to complete defoliation. Boll weevils were present in southwestern areas. Regrowth forced some Texas producers to apply defoliant a second time. Above-normal temperatures accelerated boll opening in the Plains area.

OTHER FIELD CROPS: Rice harvest neared completion in California. Favorable winds aided dissipation of smoke from stubble burning.

Peanut harvest neared completion in Georgia. Alabama's harvest was 98% complete, slightly ahead of the 96% normal. Harvest was 12 points ahead of the 53% average in Texas. Harvest was complete in Virginia.

Burley tobacco stripping was 24% complete, slightly behind the 26% average. Moisture was needed to bring the crop to proper case for stripping. Houseburn damage was below average and quality was good to excellent. Stripping was 56% finished, 11 points ahead of normal in Tennessee.

FRUIT AND NUTS: Florida's citrus groves were in good condition. Beneficial rains during the last half of the week made irrigation unnecessary. Fresh fruit harvest gained momentum. Lemon and grapefruit harvests continued in western Arizona. Navel oranges and a few algerian tangerines were harvested in the central area. Citrus harvest continued in Texas. Pecan harvest continued with better than expected yields in the Cross-Timbers and Hill Country. Nut droppage increased in the northern areas. Desert lemon harvest continued with good yields and quality in California. Walnut harvest was nearly complete. Pecan harvest was in full swing. Harvest of desert grapefruit and tangerines was active. New crop navel oranges were picked. Table grape harvest continued and wine grape harvest neared completion.

VEGETABLE: Winter crop plantings progressed well in Florida. Harvest activity increased as crops became mature. Harvest activity included cucumbers, squash, peppers, sweetcorn, and tomatoes. Fall lettuce harvest continued in Arizona. Cauliflower harvest began in Rainbow Valley. Other harvest activities included asparagus, broccoli, pumpkins, and winter squash. Winter crop plantings and fall harvests continued without delay in the Rio Grande Valley of Texas.

(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 1.00 to 2.00 in.; 3.00 in. local areas. Temperatures near normal.

Days suitable for fieldwork 5.1. Soil moisture 24% short, 69% adequate, 7% surplus. Soybeans 93% dropping leaves, 99% 1987, 97% avg.; 78% mature, 96% 1987, 91% avg.; 53% harvested, 78% 1987, 60% avg.; 4% poor, 35% fair, 57% good, 4% excellent. Corn 98% harvested, 100% 1987, 99% avg. Sorghum 90% harvested, 93% 1987, 91% avg. Peanuts 98% combined, 99% 1987, 96% avg. Wheat 57% seeded, 55% 1987, 48% avg. Pastures, livestock mostly good. Primary activities: Harvesting row crops, fall vegetables, pecans; seeding small grains, winter grazing crops; soil testing; applying fertilizer to cropland, pastures; clipping pastures; building fences, repairing equipment; routine care of livestock, poultry.

ARIZONA: Sunny skies, unseasonably warm temperatures statewide 30th. Temperatures 10 to 15° above normal south. High pressure 1st, 2nd; few showers, thunderstorms extreme north. High pressure weakened 5th; temperatures cooled north, remained high south. Temperatures 6 to 12° above normal.

Cotton harvest full swing, favorable weather returned statewide. Cotton 50% 1st picked; 70% 1987. Fields dried southeast; harvest continued normal pace, defoliation active west, central. Stalk shredding, plow down underway west, southeast. Seedbed preparation for wheat, barley underway; majority activity west. Growers pre-irrigated fields, nitrogen applications. Continued seedbed preparation for wheat, barley plantings expected. Alfalfa hay harvest winding down; most growers on final cuttings. Sheeping off occurred many areas. New, renovated stands growing well. Western areas lemon, grapefruit harvest, packing continued. Fall lettuce, asparagus, cauliflower, broccoli harvested. Some winter vegetables still being planted. Central areas harvest, packing of lemons, grapefruit, navel oranges, few algerian tangerines continued. Fall lettuce harvest underway Salt River Valley; watermelons harvested. Cauliflower harvest began Rainbow Valley. Broccoli harvest continued along with assorted vegetables. Apple packing continued east; some juice processing. Fall lettuce harvest still active; few chilies, pumpkins, winter squash harvested.

ARKANSAS: Warm dry. Isolated light rainfall, heaviest southwest. Temperature extremes 30°; 82°. Rainfall none to 1.31 in.

Days suitable for fieldwork 5.0. Soil moisture 27% short, 64% adequate, 9% surplus. Major activities: Soybean, cotton, rice harvest; wheat seeding; fertilizing, liming pastures; vegetable harvest; worming, vaccinating, weaning calves. Last week rains hampered soybean harvest. Cotton, rice yields better than expected. Soybean 75% mature, 93% 1987, 80% avg. Wheat 62% planted, 81% 1987, 62% avg. Oats 75% planted, 78% 1987, 65% avg. Pecan yield, quality good. Pasture, range 22% poor, 61% fair, 17% good. Hay, roughage 77% short, 23% adequate. Stockwater 25% short, 70% adequate, 5% surplus. Some acorn poisoning, cattle.

CALIFORNIA: High pressure weakened allowing storms to brush north. Light rainfall around middle week. Temperatures cooled from above normal to near or slightly below normal by weekend.

Rice harvest nearly complete. Stubble burning good progress, stormy, good smoke dissipation.

Cotton harvest full swing. Shredding, disking rapid after harvest. Boll weevil controls active Riverside County, trap counts high. Seeding winter grains gaining momentum. Dry bean, corn, alfalfa harvests tapered off. Sugarbeet harvest normal. Seed corn Riverside County dough stage. Ground preparation next year's crop active. Harvesting of late variety apples winding down. Table grape harvest continued. Wine grape harvest nearly complete. Vineyards pruned, pulled, sprayed. Harvesting avocados, Wonderful pomegranates, kiwifruit continued. Hachiya, fuyu persimmon varieties packed. Olive, date harvest progressed. Walnut harvest nearly complete. Pecan harvest full swing. Post harvest activities continued. Picking of desert grapefruit, tangerines active. Desert lemon harvest progressed good yields, quality. New crop navel oranges picked. Small quantity old crop valencia oranges packed. Broccoli harvest increased Huron area, generally good quality. Cauliflower good supply, quality. Celery good supply. Desert iceberg head lettuce harvest started. Carrots moderate supply, good quality. Planting garlic, spring onions continued. Livestock fair to good. Rain some areas, much more needed. Range, pasture conditions poor. Cattle returned to dry, winter rangelands or moved to market. Supplemental feeding active. Water supplies very low most areas.

COLORADO: Dry, windy conditions over State most of week. Only traces of precipitation except northern, central mountains, higher elevations up to 1 ft. of snow. Temperatures mostly 5 to 9° above normal.

Days suitable for fieldwork 6.5. Soil moisture 33% very short, 50% short, 17% adequate. Fourth cutting alfalfa 66%. Corn 80% harvested. Sorghum 57% harvested. Sugarbeet harvest complete. Winter wheat all planted, 95% emerged. Livestock mostly good to excellent. Range, pasture mostly good to fair.

FLORIDA: Welcome rains 1.00 to 3.00 in. latter half week. Stormy nights 3rd, 4th, again on 5th very windy. Above normal temperatures south, below normal north.

Soil moisture generally short. Scattered late week rains helped many areas. Cotton, soybean, sugarcane harvest active. Peanut harvest, sugarcane planting winding down. Small grain planting active where adequate moisture available. Haymaking active southern areas. Dry topsoils higher ground pastures further reduced grazing. Late week rains variable over most of State, however, very beneficial, both permanent pastures, establishing winter grazing crops. Pastures mostly fair, varied widely from poor to good. Cattle, calves mostly good; only fair few areas largely due to dry conditions. Rain most citrus areas. Irrigation discontinued. Trees good. Fresh harvest early fruit increased. Caretakers very busy preparing young trees for winter. Few sprays continued. Warm days, cool nights vegetable producing areas. Scattered showers welcomed. Planting winter crops good progress. Harvest fall crops increased seasonally. Volume leaders: Cucumbers, squash, peppers, sweet corn, tomatoes. Lesser supplies snap beans, eggplant, lettuce, radishes available. First fall belle glade sweet corn pulled.

GEORGIA: Rain 1.00 to 3.00 in. Extreme south less than 1.00 in. Greatest rain 3.50 in. Hartwell.

Rain 2 or 3 days. Temperatures 1 to 3° cooler than normal. Warmest temperatures near 70s mountains, mid 80s extreme southwest. Coldest temperatures mid 20s to low 30s extreme north, mid, upper 30s central, south except mid 40s extreme southeast.

Days suitable for fieldwork 5.4. Soil moisture 3% very short, 38% short, 55% adequate, 4% surplus. Cotton harvest delayed by rain early week. Peanuts final stage of harvest. Soybean harvest full swing. Land preparation; seeding of rye, other small grains very active. Rain beneficial for germination. Pecans fair to good, harvest activity increased. Pasture, hay fair to good. Cattle, hogs good.

HAWAII: Variable weather. Mostly sunny, humid early week. Rain storm engulfed State on 3rd through weekend. Heavy rains, strong, gusty winds start of storm. Agricultural losses expected to be light to moderate. Crops adversely affected by weather. Temperatures low 70s to upper 80s. Rainfall 0.69 to 8.92 in.

Days suitable for fieldwork 7.0. Farming slowed by wet conditions. Chinese cabbage production steady, moderate volume. Head cabbage output steady, good quality. Cucumber production down slightly. Tomato supplies expected to increase before storm occurred. Banana production heavy, Cavendish varieties. Papaya production heavy. Green pepper production expected to increase before storm arrived.

IDAHO: Temperatures 5 to 10° above normal. Precipitation above normal southwest, otherwise varied.

Winter wheat fair to good. Sugarbeet, grain corn harvest continued. Other activities included plowing, disking, shipping hay, shop work, attending seminars. Wheat farmers spraying for Russian wheat aphid infestation. Livestock good. Livestock activities include weaning calves, pregnancy testing, marketing. Hay, roughage supplies adequate.

ILLINOIS: Temperature lows 5° below normal to normal, highs 4° below normal to normal. Precipitation 1.00 to 3.00 in. parts south, east; 0.25 to 0.60 in. northwest, west central. Above normal 1.00 in. south, east; below normal 0.25 to 0.50 in. northwest. Snow in parts on weekend.

Winter wheat mostly good, benefiting from precipitation. Livestock mostly good.

INDIANA: Temperatures 1 to 3° below normal. Lows 30s to 50s, highs 50s to 60s. Precipitation 1.00 in. to more than 3.00 in.

Days suitable for fieldwork 5.7. Topsoil moisture 14% short, 79% adequate, 7% surplus. Subsoil moisture 67% short, 31% adequate, 2% surplus. Pastures 1% very poor, 24% poor, 56% fair, 19% good. Tobacco 10% processed for sale, 10% 1987. Spring tilling 40%, 54% 1987, 28% avg. Hay, roughage for feeding 1% very short, 40% short, 58% adequate, 1% surplus. Harvesting, tilling advanced, but rains halted field activities by weekend.

IOWA: Temperatures near normal, weekly extremes from morning low of 19° Decorah on 2nd to afternoon high of 70° Ottumwa on 3rd. Precipitation above normal only in extreme north, extreme southeast; measurable snowfall of season on 5th.

Farmers just about deserted fall field activities. Soil temperatures dropped enough for application of anhydrous ammonia. Light rain, snow some slight relief to dry soils. Livestock mostly good.

KANSAS: Temperatures 54 to 56° west, 53 to 57° central, 52 to 56° east; 3° above normal northeast

to 11° above normal west. Ellsworth only significant precipitation 3rd, 0.15 in. Elsewhere, only trace to 0.02 in.

Days suitable for fieldwork 7.0. Topsoil moisture 85% short, 15% adequate. Subsoil moisture 75% short, 25% adequate. Warm, dry weather ideal for harvest corn, sorghum, soybeans. Corn harvest complete except few fields northwest, south central. Some farmers burning stubble, planting wheat behind corn on irrigated land. Sorghum harvest excellent progress, freeze needed south central, western areas to dry down remaining stands. Soybean harvest neared completion, few fields left southeast where some double cropping behind wheat occurred. Wheat seeding essentially complete except few more fields irrigated wheat following corn harvest. Wheat emergence, early growth good even with short moisture most areas. Wheat pasture available; more livestock moving off pastures, onto wheat, grain stubble or into feedlots. Feed grain, hay, forage generally adequate to short.

KENTUCKY: Lows 39°, near normal, except 5° above normal over southeast. Highs near 59°, none to 5° below normal. Extreme temperatures Grayson. Low 31st, 21°, high 4th, 78°. Most rain 4th, 1.00 to 3.00 in.

Days suitable for fieldwork 5.0. Soil moisture 18% very short, 48% short, 33% adequate, 1% surplus. Moisture conditions improved with rains later week. Soybean harvest rapid progress. Late bean yields generally poor. Burley tobacco 24% stripped, 24% 1987, 26% avg. Moisture needed to bring crop in proper case for stripping. Houseburn damage below average, quality mostly good to excellent. Wheat 78% seeded, 82% 1987, 62% avg. Stands 2% poor, 30% fair, 64% good, 4% excellent. Pastures mostly fair to good.

LOUISIANA: Temperatures 1 to 3° above normal. Temperature extremes 38°; 85°. Rainfall none to 1.03 in.

Days suitable for fieldwork 3.8. Soil moisture 10% short, 53% adequate, 37% surplus. Soybeans 100% turning color, 96% dropping leaves. Sweetpotatoes 92% harvested, slightly ahead of average. Sugarcane good; 98% planted, 35% harvested. Some lodging due to heavy rain. Hay final cutting 99%. Hay, roughage 29% short, 67% adequate, 4% surplus. Winter wheat fair to good; 27% planted, 18% emerged, both below average. Pecans 13% harvested, 10 points below average. Livestock good. Pastures, vegetables fair to good. Rain, cloudy skies slowed harvesting again. Hail, high winds damaged cotton, soybeans in northeast corner. Main activities: Harvesting cotton, hay, soybeans, sugarcane, sweetpotatoes, vegetables, 2nd crop rice; planting sugarcane, wheat, winter pastures; fertilizing pastures.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.65 in. Temperature 46°, normal 51°. Temperature extremes 19°; 73°.

Days suitable for fieldwork 4.9. Topsoil moisture 5% short, 95% adequate. Subsoil moisture 15% short, 85% adequate. Hay 10% short, 90% adequate. Corn grain 90% harvested, 90% avg. Soybeans 65% harvested, 55% avg. Apples 98% harvested, 99% avg. Winter wheat 85% seeded, 85% avg. Barley 97% seeded, 95% avg. Rye 85% planted, 95% avg.

DELAWARE: Precipitation 1.17 in. Temperature 46°, normal 51°. Temperature extremes 24°; 73°.

Days suitable for fieldwork 4.9. Topsoil moisture 100% adequate. Subsoil moisture 100% adequate. Hay 100% adequate. Corn grain 97% harvested, 97% avg. Soybeans 60% harvested, 55% avg. Apples 97% harvested, 100% avg. Winter wheat 70% seeded, 70%

avg. Barley 97% seeded, 95% avg. Rye 100% seeded, 80% avg.

MICHIGAN: Temperatures 1° above to 3° below normal. Temperature extremes 16°; 63°. Precipitation 0.51 to 3.48 in.

Days suitable for fieldwork 4.0. Soil moisture 40% adequate, 60% surplus. Corn 60% harvested, 80% 1987, 60% avg. Soybeans 70% harvested, 90% 1987, 75% avg. Winter wheat 98% planted, 97% 1987, 95% avg.; 85% emerged, 85% 1987, none avg.; 1% very poor, 5% poor, 19% fair, 45% good, 30% excellent. Dry beans 80% harvested, 90% 1987, 96% avg. Major activities: Corn for grain, sugarbeet, soybean, dry bean harvesting, winterizing equipment. Some winter wheat seeding possible.

MINNESOTA: Temperatures near normal to 2° above normal. Temperatures extremes 13°; 65°. Precipitation 0.01 to 0.83 in. Greatest weekly total 1.10 in. More snow during week.

Soybeans 99% combined, 99% 1987, 94% avg. Corn 99% combined, 99% 1987, 78% avg. Freezing temperatures ended fall tillage work. Combining continued. Most dairy cattle inside for winter. Forage supplies very short to adequate.

MISSISSIPPI: Mostly sunny, warm, dry. Rainfall 0.10 in. below normal. Temperatures 2° above normal. Extremes 33°; 85°.

Days suitable for fieldwork 3.6, 6.5 1987, 4.6 avg. Soil moisture 5% short, 50% adequate, 40% surplus, 5% excessive. Corn 94% harvested, 99% 1987, 96% avg. Sorghum 98% harvested, 100% 1987, 98% avg. Cotton 84% harvested, 99% 1987, 81% avg. Soybeans fair; 44% harvested, 84% 1987, 54% avg. Pecans fair to good; 12% harvested, 14% 1987, 22% avg. Harvest virtually complete for other crops. Wheat fair to good; 51% planted, 43% 1987, 42% avg.; 45% emerged. Pastures good. Livestock good. Activities: Cotton, soybean harvest, wheat planting.

MISSOURI: Temperatures 3° below normal. Bootheel none to 3° above normal west. Rainfall none to 0.25 in. or less except Bootheel near 1.00 in.

Days suitable for fieldwork 6.2. Topsoil moisture 75% short, 19% adequate, 6% surplus; most northern counties short. Soybean harvest nearly complete northern areas, least advanced southern counties. Winter wheat 81% seeded southeast to 97% northeast. Rain needed for wheat, pastures, farm ponds. Pastures 17% very poor, 28% poor, 36% fair, 19% good. Livestock water 34% critically short, 39% short, 27% adequate.

MONTANA: Mild, temperatures 5 to 10° above normal. Precipitation spotty, most western mountains.

Days suitable for fieldwork 6.0. Topsoil moisture 60% short, 40% adequate. Subsoil moisture 90% short, 10% adequate. Cattle, calves moved from summer pastures 95%, 85% 1977, 87% avg. Sheep, lambs moved 97%, 85% 1987, 89% avg. Grazing open, forage limited.

NEBRASKA: Light showers midweek; otherwise mild weather prevailed. Rainfall mostly less than 0.10 in. Temperatures 3 to 8° above normal. Extremes 14°; 78°.

Days suitable for fieldwork 6.8. Topsoil moisture 87% short, 13% adequate. Subsoil moisture 76% short, 24% adequate. Corn 96% harvested, 92% 1987, 87% avg. Soybean, sugarbeet harvests completed. Winter wheat 3% poor, 20% fair, 77% good. Limited moisture for wheat. Pasture, range feed 4% very short, 32% short, 63% adequate, 1% surplus.

NEVADA: Persistent high pressure system produced near record high temperatures early. Pacific storm midweek produced significant precipitation across north. Although remainder areas dry, gusty winds, cooler temperatures widespread. Strong ridge rebuilt over west last half week brought return to much above normal temperatures all areas. Temperature extremes 14°; 92°.

Seventh cuttings alfalfa hay about completed extreme south; other areas finished for season. Nearly all winter wheat, barley planted for 1989 harvest. Growing season about ended. Ranchers, farmers preparing for winter.

NEW ENGLAND: Precipitation 3.00 to 4.00 in. southern Maine, coastal Massachusetts, Connecticut except northwest portion, 2.00 to 3.00 in. remainder. Temperatures mid 30s near Canadian border to mid 40s southern coast. Temperatures near normal.

Major farm activities: Preparations for winter, machinery maintenance, fall clean-up.

NEW JERSEY: Temperatures below normal, 45° north, 50° south, coastal. Extremes 20°; 71°. Precipitation above normal; 1.44 in. north, 1.36 in. south, 1.19 in. coastal. Heaviest 24-hour total 1.66 in. on 5th, 6th.

Hardy fall vegetable harvest clean-up stage. Apple, cranberry harvest neared completion. Soil moisture adequate for fall sown grains, cover crops. Combining of corn for grain, soybeans active as soil conditions permitted. Pastures very little growth.

NEW MEXICO: Temperatures 6 to 14° above normal; traces of precipitation over southeastern plains.

Days suitable for fieldwork 6.9. Soil moisture 50% short, 50% adequate. Some light to moderate freeze damage. Cotton 100% bolls open, 40% harvested; 14% fair, 86% good. Wheat 54% fair, 46% good; planting virtually complete, 98% emerged, moisture needed. Cattle 22% fair, 78% good. Sheep 25% fair, 75% good. Ranges 40% fair, 60% good.

NEW YORK: Week began with well below normal temperatures. Temperature lows mid teens to mid 20s, highs upper 30s, 40s. Precipitation heavy, storm midweek. Storm brought snow Adirondacks, St. Lawrence Valley 5 to 10 in. Rain elsewhere, 2nd storm occurred weekend.

Corn harvest active. Farmers plowing under residue, seeding cover crops. Wet conditions slowed progress of all field activities, including grain corn harvest; little fruit, vegetable harvest remaining.

NORTH CAROLINA: Temperatures 1 to 4° below normal, statewide. Temperature extremes 25°; 75°. Precipitation 0.44 to 3.15 in.

Days suitable for fieldwork 4.3. Soil moisture 2% very short, 12% short, 60% adequate, 26% surplus. Pasture 6% poor, 29% fair, 60% good, 5% excellent. Peanuts 15% very poor, 16% poor, 46% fair, 23% good; 95% dug, 95% 1987, 93% avg.; 86% threshed, 89% 1987, 84% avg. Sweetpotatoes 4% very poor, 9% poor, 26% fair, 57% good, 4% excellent; 92% harvested, 88% 1987, 89% avg. Apples 100% harvested, 94% 1987, 94% avg. Sorghum for grain 84% harvested, 82% 1987, 79% avg. Small grain plantings: Oats 72%, 74% 1987, 69% avg.; barley 74%, 83% 1987, 70% avg.; rye 60%, 72% 1987, 66% avg.; wheat 45%, 52% 1987, 52% avg. Wheat 2% very poor, 4% poor, 27% fair, 61% good, 6% excellent. Major activities: Planting small grains, cover crops; fall land preparation; corn for grain harvest, soybean harvest. Other activities: Digging, threshing peanuts; harvesting cotton; tagging, shearing Christmas trees; tending livestock, general farm maintenance.

NORTH DAKOTA: Temperatures 1 to 6° above normal. Light precipitation statewide; 0.06 in. southwest to 0.48 in. north central.

Soil moisture below average. Mostly adequate hay, feed supplies. Some calves weaned. Very little fall fieldwork, some herbicide, anhydrous application being done. Working cattle, moving hay other activities.

OHIO: Temperatures few degrees of normal, lows 30s, highs 50s. Precipitation mostly 1.00 to 2.00 in. statewide; some snow 6th. Soil temperatures few degrees subnormal; lows upper 30s to low 40s, highs upper 40s to low 50s.

Days suitable for fieldwork 5.7. Soil moisture 29% short, 62% adequate, 9% surplus. Corn, soybean harvest near average. Moisture in harvested grain: Corn 23%, unchanged from last week; soybeans 14%, down 1 point. Winter wheat mostly good; needs warmer, sunnier conditions before winter. Pasture mostly fair. Tobacco stripping began.

OKLAHOMA: Weather data not available.

Days suitable for fieldwork 6.1. Topsoil moisture 60% short, 40% adequate. Subsoil moisture 35% short, 65% adequate. Wheat 50% fair, 45% good, 5% excellent; 98% planted, 98% 1987, 85% avg.; 85% emerged, 90% 1987, 65% avg. Cotton 30% harvested, 15% 1987, 15% avg. Growers await killing frost to defoliate plants. Boll weevils infesting southwest areas. Sorghum 45% harvested, 45% 1987, 55% avg. Soybeans 40% harvested, 40% 1987, 45% avg. Peanuts 65% harvested, 80% 1987, 55% avg. Pastures good to fair. Cattle good; marketings average, prices slightly lower than last week.

OREGON: Heavy rains across western sections. North Cascades 4.80 in., coast 4.20 in., high plateau 3.60 in., western valleys 1.00 to 2.00 in. East of Cascades rainfall 0.40 to 0.60 in. except extreme northeast only 0.10 in. Above normal temperatures across State, 7° above normal west, 10° above normal east side.

Soil moisture 79% short, 21% adequate. Barley 49% seeded. Most grain seeding finished west, rains should help even up spotty stands. Columbia Basin growers dusting in last of grain seedings or awaiting rain, some reseeding of poor stands due to marginal soil moisture. Russian wheat aphid present in all emerged fields east, some spraying. Aphid also spotted central area. Mint planting progressed Jefferson County. Filbert harvest winding up west, walnut harvest continued. Still processing cauliflower, carrots Willamette Valley. Potato harvest winding up Hermiston-Boardman. Sorting, bagging potatoes, onions from storage. Livestock mostly good. Fall cattle movement to low elevation pastures completed. Pasture good along coast, fair to good western interior, poor to fair east. Fall grass growth got good start with rains coast, much of west. Regrowth very limited east.

PENNSYLVANIA: Wide variations in temperatures, general weather patterns. Temperature 46°, 1° below normal. Temperature extremes 11°; 82°. Precipitation 0.83 in., 0.15 in. above normal.

Days suitable for fieldwork 5.0. Soil moisture 40% short, 52% adequate, 8% surplus. Corn 47% harvested, 63% 1987, 55% avg.; ensilage 96% harvested, 98% 1987, 100% avg.; 14% very poor, 27% poor, 33% fair, 22% good, 4% excellent. Soybean 44% harvested, 65% 1987, 54% avg.; 11% very poor, 20% poor, 31% fair, 31% good, 7% excellent. Potato 94% harvested, 97% 1987, 100% avg. Fall plowing 95%, 94% 1987, 95% avg. Winter wheat 94% planted, 92% 1987, 96% avg. Fourth cutting alfalfa 87%, 84% 1987. Hay fair. Amount of feed being obtained from pastures average. Apples 92% harvested, 94% 1987. Activities: Harvesting corn grain, corn silage, soybeans, hay, haylage, fruit, potatoes,

other vegetables; planting wheat, barley, rye; fall plowing; spreading manure, fertilizer; caring for livestock; maintaining machinery.

PUERTO RICO: Island rainfall 1.19 in., 0.46 in. below normal. Highest total rainfall 5.65 in. Arecibo, 4.63 in. Negro-Corozal, 3.34 in. Toro Negro. Highest 24-hour 2.05 in. Negro-Corozal. Total rainfall since January 1st 56.09 in., 4% above normal. San Juan WSFO temperature 82°, 1° above normal. Total rainfall 0.56 in., 0.77 in. below normal. Divisional temperature 80 to 81° on coasts, 74 to 77° interior. Station temperature 68° Pico Del Este-Luquillo to 83° San Juan WSFO. Lowest minimum temperature 52° Adjuntas. Highest maximum temperature 94° several places.

SOUTH CAROLINA: Temperatures 30s to upper 60s. Rainfall 4.00 in. isolated areas to less than 2.00 in. most areas.

Days suitable for fieldwork 5.3. Soil moisture 2% very short, 56% short, 42% adequate. Cotton 66% harvested, 94% 1987, 78% avg.; 2% very poor, 3% poor, 95% fair. Soybeans 85% leaves shedding, 92% 1987, 90% avg.; 80% matured, 85% 1987, 70% avg.; 21% harvested, 28% 1987, 20% avg.; 50% fair, 45% good, 5% excellent. Tobacco stalks 91% destroyed, 100% 1987, 92% avg. Peanuts fair to good; 90% harvested, 92% 1987, 88% avg. Sweetpotatoes fair to good; 80% harvested, 81% 1987, 77% avg. Apples fair to good; 97% harvested, 95% 1987, 98% avg. Sorghum fair to good; 69% harvested, 82% 1987, 76% avg. Pastures fair to good. Livestock good.

SOUTH DAKOTA: Temperatures 1 to 13° above normal. Extremes 14°; 77°. Precipitation light, trace amounts of snow.

Days suitable for fieldwork 6.1. Topsoil moisture 33% critically short, 43% short, 24% adequate. Row crop harvest virtually complete, well ahead of normal.

TENNESSEE: Warm, cold fronts moved through State. Rain eastern half 31st. On 3rd warm front brought rain west. Active cold front 4th caused rain statewide; severe weather west, middle. Patchy light rain continued east 6th. Temperatures 2° above normal west, normal middle, 4° below normal east. Precipitation 1.25 in. east, Plateau; 0.50 to 0.75 in. middle, west.

Days suitable for fieldwork 5.1. Soil moisture 2% very short, 38% short, 59% adequate, 1% surplus. Pasture feed normal. Burley tobacco 56% stripped, 45% 1987, 45% avg. Wheat 80% seeded, 75% 1987, 61% avg. Primary activities: Harvesting cotton, soybeans, sweetpotatoes, fall vegetables, catfish; planting small grains, annual forage crops; soil testing; building fish ponds; routine care of livestock, poultry.

TEXAS: Weather data not available.

Crops: Grain sorghum good harvest progress High Plains. Yields very good. Sorghum 100% mature, 97% 1987, 98% avg. Cotton harvest progressed rapidly Plains. Unusually warm temperatures allowed bolls to open. Some producers defoliating 2nd time because regrowth. Harvest continued northern Blacklands, Cross-Timbers. Harvest increased Trans-Pecos excellent yields. Cotton 92% open bolls, 78% 1987, 80% avg. Small grain planting increased Blacklands, central. Rainfall helped increase growth planted fields; more moisture needed. Plains, dryland fields declined need moisture. Irrigated fields good. Producers continued spray greenbugs. Peanut harvest continued across State dryland yields below average. Irrigated yields good. Producers continued haying. Soybean harvest continued Plains. Some producers winding down. Harvest

continued Upper Coast mostly good yields. Harvest 2nd rice continued Upper Coast. Yields fair. Sugarbeet harvest continued average to above average yields. Sugarcane harvest continued Rio Grande Valley. Other Field Crops: Peanuts 65% harvested, 49% 1987, 53% avg. Pecans 25% harvested, 25% 1987, 25% avg. Soybeans 76% harvested, 60% 1987, 52% avg. Sugarbeets 46% harvested, 41% 1987, 46% avg. Sunflowers 66% harvested, 64% 1987, 69% avg. Oats 61% planted, 85% 1987, 80% avg.

Commercial Vegetables: Rio Grande Valley planting harvesting continued without much delay. Citrus harvest continued. Fruit yield quality good. San Antonio-Winter Garden cabbage harvest continued, carrot harvest began. Normal planting operations continued. High Plains pepper harvest winding down. Harvest carrots broccoli continued. Trans-Pecos below average yields on peppers. Lettuce harvest neared. Pecan harvest continued better than expected yields Cross-Timbers, Hill Country. Quality good central, south. Nut droppage increased northern areas. East continued very good.

Range and Pasture: Range, pasture central, south very poor before recent rains; moisture helped but not enough carry through winter. Small grains providing good grazing Plains. Recent rain east benefited pastures. Many producers fertilizing pastures. Livestock remained mostly good. Feeding continued steady.

UTAH: Precipitation light to moderate. Temperatures 9 to 11° above normal.

Fall harvests completed. Winter ranges continued dry. Livestock fair to good. Major activities: Working livestock, marketing calves, lambs, winterizing equipment, fencing, cutting wood.

VIRGINIA: Cool temperatures. Variable rainfall, heavy rain many areas with strong winds. Temperatures 4 to 5° below normal. Range 16 to 73°. Rainfall 0.10 in. southwest to 1.71 east, 1.77 south.

Days suitable for fieldwork 4.4. Topsoil moisture 7% very short, 29% short, 50% adequate, 14% surplus. Grain corn 82% harvested, 90% 1987, 86% avg. Soybeans 44% harvested, 44% 1987, 39% avg. Peanut harvest completed. Striped burley tobacco. Marketed flue-cured tobacco. Wheat 62% seeded, 75% 1987, 66% avg. Barley 88% seeded, 92% 1987, 92% avg. Cattle marketed. Some lambing, calving began. Winter grains, grazing crops 3% very poor, 18% poor, 41% fair, 35% good, 3% excellent. Pastures 19% poor, 46% fair, 34% good, 1% excellent.

WASHINGTON: Moist air covered State, several weather systems crossed leaving copious amounts measurable precipitation over western portion, mountainous terrain. Eastern area also received measurable precipitation. Temperatures above average.

Days suitable for fieldwork 5.9. Light showers improved dry soil moisture conditions, stress continued on fall cereals. Spraying Russian wheat aphids continued. Winter wheat 98% seeded, 1987 94%, 99% avg. Winter wheat 88% emerged, 78% 1987, 90% avg. Range, pasture 45% short, 55% adequate. Short range conditions located mostly south, southeast area. Cattle mostly off pastures, on winter feeding programs. Hay, other roughage feed mostly adequate to surplus. Silage corn harvest completed, potato digging winding down. Grain corn harvest interrupted by rain, continued weather permitting. Apple harvest completed, pruning crews waiting for leaves to fall. West of Cascades pruning, tying raspberries continued. Processing carrot harvest winding down Grant, Franklin Counties. Carrot harvest western area delayed by wet weather. Other vegetable harvests completed. Onion shipments from storage continued.

WEST VIRGINIA: Temperature 47°, near normal. Extremes 80° Weston, Creston; 16° Elkins. Precipitation 1.10 in.

Days suitable for fieldwork 3.7. Soil moisture 17% very short, 33% short, 50% adequate. Corn poor to fair; 81% harvested. Livestock good to fair. Feed 13% very short, 47% short, 40% adequate. Farm activities: Livestock care, haying, corn harvesting.

WISCONSIN: Temperatures 39°, 1° below normal. Extremes 16°; 64°. Precipitation 0.40 to 1.30 in. First widespread snow. Snowfall 1 in. south to 5 in. east central, north.

Days suitable for fieldwork 4.7. Soil moisture 71% short, 29% adequate. Subsoil moisture short. Corn for grain 88% harvested, 91% 1987, 59% avg. Stalks baled, stacked for bedding. Soybeans 91% harvested, 97% 1987, 70% avg. Hay good, needs insulating snow cover. Winter wheat, rye good to very good. Fall plowing 65%, 64% 1987, 41% avg. Hay, feed 14% very short, 70% short, 16% adequate.

WYOMING: Temperatures above normal. Precipitation below normal except northwest.

Corn harvest continued. Most dry beans, sugarbeets harvested. Winter wheat mostly fair to good. Livestock movement to winter pastures, markets continued. Livestock fair to mostly good. Hay for wintering livestock short many areas.

Crop Progress 1/

FOR WEEK ENDING NOVEMBER 6, 1988

SOYBEANS
% HARVESTED

	1988	1987	AVG.
ALA	53	78	60
ARK	54	84	52
GA	40	67	47
ILL	99	100	89
IND	94	100	88
IOWA	100	100	90
KANS	96	95	65
KY	70	87	55
LA	65	91	66
MICH	70	90	75
MINN	99	99	94
MISS	44	84	54
MO	91	96	62
NEBR	100	99	90
N C	16	33	24
OHIO	89	99	87
S C	21	28	20
S DAK	100	100	94
TENN	70	87	52

19 STATES 85 93 77

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

WINTER WHEAT
% PLANTED

	1988	1987	AVG.
ARK	62	81	62
CALIF	35	35	31
COLO	100	100	99
GA	21	19	30
IDAHO	100	97	100
ILL	99	100	86
IND	93	100	89
KANS	98	99	95
MICH	98	97	95
MO	90	93	68
MONT	100	100	97
NEBR	100	100	100
N MEX	100	100	NA
N C	45	52	52
OHIO	97	98	93
OKLA	98	98	85
OREG	83	77	88
S DAK	100	100	100
TEX	97	94	86
WASH	98	94	99

20 STATES 95 95 NA

EXCL. STATES WITH NA 95 95 89

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

NA - NOT AVAILABLE.

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

CORN
% HARVESTED

	1988	1987	AVG.
COLO	80	74	75
GA	98	100	99
ILL	99	100	87
IND	85	99	78
IOWA	100	98	81
KANS	98	99	90
KY	82	95	80
MICH	60	80	60
MINN	99	99	78
MO	98	99	82
NEBR	96	92	77
N C	93	95	95
OHIO	64	96	67
PA	47	63	55
S DAK	95	100	73
TEX	100	100	100
WIS	88	91	59

17 STATES 90 95 78

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

WINTER WHEAT
% EMERGED

	1988	1987	AVG.
ARK	46	64	NA
CALIF	5	10	10
COLO	95	96	93
GA	12	11	18
IDAHO	88	82	84
ILL	91	91	73
IND	80	85	80
KANS	95	97	85
MICH	85	85	NA
MO	73	78	54
MONT	95	100	85
NEBR	100	100	100
N MEX	98	98	NA
N C	40	30	NA
OHIO	74	82	79
OKLA	85	90	65
OREG	70	34	64
S DAK	100	100	100
TEX	91	85	72
WASH	88	78	90

20 STATES 87 88 NA

EXCL. STATES WITH NA 89 89 78

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

NA - NOT AVAILABLE.

GRAIN SORGHUM
% HARVESTED

	1988	1987	AVG.
ARK	99	100	97
ILL	97	100	78
KANS	85	85	70
LA	100	100	100
MISS	98	100	98
MO	96	97	78
NEBR	99	96	87
OKLA	45	45	55
S DAK	100	100	85
TENN	100	100	100
TEX	92	77	82

11 STATES 89 85 78

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

COTTON
% HARVESTED

	1988	1987	AVG.
ALA	87	97	83
ARIZ	50	70	62
ARK	86	98	81
CALIF	70	80	66
GA	61	80	69
LA	90	99	82
MISS	84	99	81
MO	89	100	82
N MEX	40	30	29
N C	67	75	62
OKLA	30	15	15
S C	66	94	78
TENN	84	96	83
TEX	35	24	28

14 STATES 57 58 52

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

Crop Condition

FOR WEEK ENDING NOVEMBER 6, 1988

STATE	WINTER WHEAT				
	VP	P	F	G	EX
ARK	0	0	17	57	26
CALIF	0	0	0	100	0
COLO	0	5	23	62	10
GA	0	3	41	54	2
IDAHO	3	7	43	31	16
ILL	0	0	17	75	8
IND	0	3	44	49	4
KANS	0	9	27	41	23
MICH	1	5	19	45	30
MO	0	10	48	39	3
MONT	0	15	40	40	5
NEB	0	3	20	77	0
N MEX	0	0	54	46	0
N C	2	4	27	61	6
OHIO	2	6	34	51	7
OLKA	0	0	50	45	5
OREG	0	5	75	20	0
S DAK	5	13	38	35	9
TEX	2	9	45	37	7
WASH	0	5	45	50	0
19 STATE	1	6	36	47	10

International Weather and Crop Summary

October 30 - November 5, 1988

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

HIGHLIGHTS

WESTERN USSR ... Unseasonable cold induces winter grains into dormancy in the north and halts further vegetative growth in the south.

EUROPE ... Much colder weather covers all but the southwest. Moderate to heavy rain and snow favor previously dry areas of the southeast.

SOUTH ASIA ... Light rain benefits some boll forming cotton. Showers along the southeast coast slow the rice harvest.

EASTERN ASIA ... Heavy rain continues harvest delays in southern China and northern Japan.

SOUTHEAST ASIA ... Dry weather benefits maturing Thai rice. Inundating rain hits the Malay Peninsula and, from a tropical low, continues over the central Philippines.

SOUTH AMERICA ... Beneficial rain improves soybean planting conditions in south-central Brazil. Mostly dry, warm weather in Argentina promotes summer crop planting but reduces topsoil moisture in the west.

AUSTRALIA ... Scattered rain and cooler weather help relieve heat and dryness in South Australia and Victoria but cause harvest delays in Queensland and New South Wales.

MEXICO ... Mostly dry weather favors wheat planting in the northwest and summer crop harvesting in the Southern Plateau.

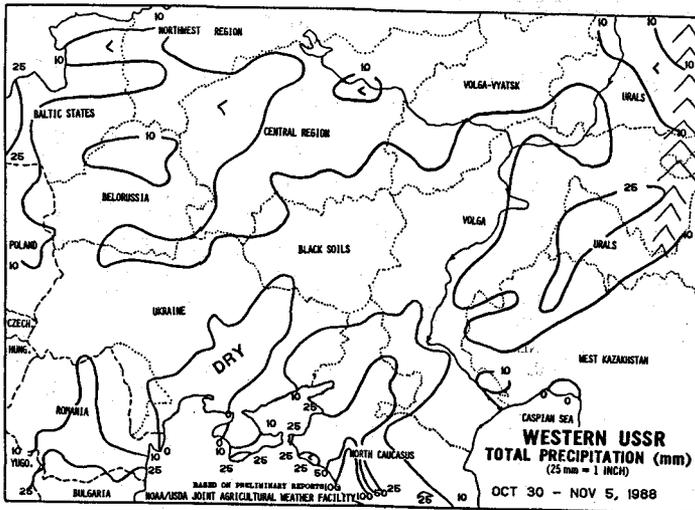
SOUTH AFRICA ... Cool, wet weather continues, slowing corn planting.

NORTHWESTERN AFRICA ... A slow start in the autumn rains keeps topsoils too dry for winter grain planting.

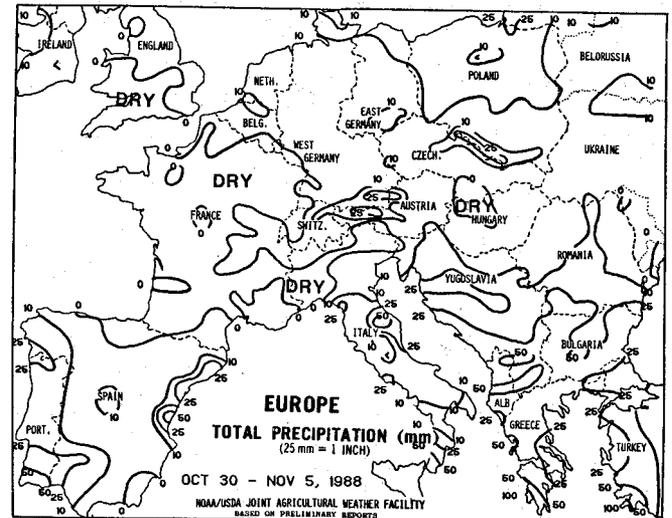
October 1988

COUNTRY CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
	AVG MAX	AVG MIN	HI	LO	DPART	F/NRM	TOTAL	DPART
NORWAY OSLO	7	0	12	-11	4	-0.8	80.3	-12.7
SWEDEN STOCKHOLM	9	3	15	-7	6	-1.5	43.1	-8.3
FINLND HELSINKI	8	1	14	-11	5	-0.9	89.2	22.9
U KING GLASGOW	12	6	17	-4	9	-0.4	135.8	5.8
EDINBURGH	13	6	16	-3	9	-0.4	53.3	-4.0
BIRMINGHAM	14	7	18	-4	10	0.1	34.0	-17.7
LONDON	15	8	20	-2	12	1.0	59.4	-2.3
IRELND DUBLIN	13	8	17	2	11	0.2	78.4	10.1
ICELND REYKJAVIK	7	3	13	-6	5	-0.1	104.7	9.5
DENMRK COPENHAGEN	11	6	16	-3	9	-0.4	41.7	-17.2
LUXEMB LUXEMBOURG	13	8	18	0	10	1.2	96.6	38.7
SWITZL ZURICH	14	9	21	0	11	2.4	115.5	43.5
GENEVA	16	9	23	3	12	2.3	163.6	91.8
FRANCE PARIS	17	9	21	1	13	1.6	65.3	18.3
STRASBOURG	15	9	24	0	12	2.2	88.3	50.1
BOURGES	18	9	26	1	14	2.2	45.9	-12.2
BORDEAUX	21	11	26	2	16	2.6	50.8	-31.4
TOULOUSE	22	11	26	4	16	3.1	18.4	-31.7
MARSEILLE	22	14	28	6	18	2.9	53.0	-31.0
SPAIN VALLADOLID	21	8	27	1	14	1.8	24.8	-15.9
MADRID	22	9	30	4	16	1.0	74.3	21.0
SEVILLE	27	15	33	10	21	1.5	114.9	46.6
E GRMY LEIPZIG	14	7	20	-2	11	1.2	15.7	-27.5
DRESDEN	13	7	19	-2	10	1.2	10.9	-41.1
W GRMY HAMBURG	13	7	19	-1	10	0.5	57.1	-1.1
BERLIN	14	7	20	-2	11	0.7	18.4	-23.1
DUSSELDORF	15	9	20	0	12	1.7	55.9	3.8
STUTTGART	15	8	22	-2	11	1.5	61.4	20.0
NURNBERG	14	8	22	-4	11	2.5	61.1	17.1
MUNICH	14	7	22	-2	11	2.5	46.7	-10.9
AUSTRI VIENNA	14	7	22	-2	11	0.8	11.0	-39.0
INNSBRUCK	18	7	24	2	12	3.4	34.7	-25.4
CZECH PRAGUE	13	6	19	-4	9	1.1	16.8	-20.8
POLAND WARSAW	13	3	19	-10	8	-0.2	2.7	-36.5
LODZ	13	5	21	-5	9	0.8	5.9	-33.2
KATOWICE	14	4	25	-7	9	1.1	15.4	-38.7
PRZEMYSL	13	4	20	-5	8	-0.4	13.4	-33.8
HUNGAR BUDAPEST	15	6	23	-3	11	-0.4	13.9	-25.3
YUGOSL SARAJEVO	17	5	25	-5	11	1.2	41.4	-88.6
ROMANI BUCHAREST	16	4	25	-7	10	-1.7	42.3	12.6
BULGAR SOFIA	16	5	24	-5	10	-0.4	38.4	11.6
ITALY MILAN	19	13	25	8	16	3.6	211.0	97.3
VERONA	20	13	26	7	16	3.2	94.9	20.7
VENICE	19	12	27	6	15	1.8	70.2	-7.9
GENOA	22	17	26	12	20	1.9	148.4	-23.6
ROME	23	14	27	10	19	2.3	116.2	33.8
NAPLES	25	14	29	9	20	3.6	96.0	-26.8
GREECE THESSALONIKA	21	10	29	-5	15	-0.8	13.4	-36.9
LARISSA	22	9	30	-2	15	-0.8	32.2	-28.1
ATHENS	22	15	28	8	19	-1.0	2.3	-62.5
TURKEY ISTANBUL	18	12	26	7	15	-0.3	50.9	-13.1
ANKARA	15	5	26	-1	10	-1.5	80.1	62.1
CYPRUS LARNACA	26	16	29	12	21	-0.7	36.8	10.9
USSR TALLINN	10	3	17	-9	7	0.3	56.8	-1.7
LENINGRAD	9	4	17	-10	6	1.0	41.9	-18.6
KAUNAS	11	3	18	-8	7	-0.4	13.9	-34.5
MINSK	10	2	17	-7	6	0.2	15.6	-31.6
KAZAN	8	1	20	-10	4	0.9	22.4	-20.8
MOSCOW	8	2	16	-5	5	0.3	22.0	-33.5
SVERDLOVSK	7	0	18	-11	4	2.4	8.9	-27.8
OMSK	7	-2	19	-11	3	1.3	16.6	-13.4
KUSTANAY	10	-1	21	-12	5	2.0	9.0	-16.7
KRASNOYARSK	6	0	14	-6	3	2.2	38.5	4.0
NOVOSIBIRSK	6	0	20	-8	3	2.3	56.5	26.0
BARNAUL	8	-1	21	-11	4	1.3	43.2	-1.9
KHABAROVSK	9	1	19	-6	5	0.7	61.3	18.8
VLADIVOSTOK	13	6	18	0	10	1.2	68.5	6.2
KIEV	12	3	21	-5	8	-0.4	15.0	-24.1
LVOV	13	3	19	-8	8	0.0	10.8	-37.7
KIROVOGRAD	12	2	22	-8	7	-1.3	29.5	-2.0

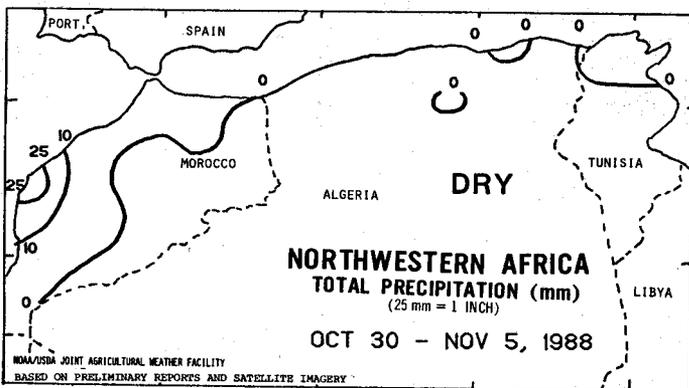
COUNTRY CITY		TEMPERATURE (C)					PRECIPITATION (MM)			COUNTRY CITY		TEMPERATURE (C)					PRECIPITATION (MM)		
October 1988		AVG	AVG	HI	LO	DPART	DPART		DPART	October 1988		AVG	AVG	HI	LO	DPART	DPART		DPART
		MAX	MIN	MAX	MIN	AVG	F/NRM	TOTAL	F/NRM			MAX	MIN	MAX	MIN	AVG	F/NRM	TOTAL	F/NRM
USSR	ODESSA	13	7	23	-1	10	-1.2	63.9	44.1	ANZAN	DAR ES SALAAM	31	20	33	17	26	0.6	7.3	-49.9
	YALTA	17	11	23	1	14	-0.6	58.0	11.0	GABON	LIBREVILLE	28	23	29	22	26	-0.1	461.6	55.2
	VORONEZH	11	2	21	-9	6	0.5	12.6	-27.0	TOGO	LOME	31	24	34	22	28	1.5	53.0	-45.2
	SARATOV	11	3	20	-6	7	2.1	8.9	-28.1	B FASO	OUAGADOUGOU	36	23	38	20	30	0.7	22.6	-16.9
	KHARKOV	12	3	21	-8	7	-0.2	9.9	-23.4	IVRY C	ABIDJAN	30	23	32	21	27	1.0	193.4	25.2
	VOLGOGRAD	12	2	21	-7	7	-0.2	0.6	-30.1	MOZAMB	MAPUTO	27	19	35	15	23	0.7	76.9	16.3
	ROSTOV	14	5	24	-3	10	0.6	11.6	-25.0	ZAMBIA	KABWE	30	17	37	14	24	-0.6	134.1	112.8
	ASTRAKHAN	16	5	25	-3	11	1.3	7.9	-7.9	ZIMBAB	HARARE	27	16	33	13	21	0.2	99.8	62.9
	KRASNODAR	16	7	25	-1	12	0.7	61.6	26.0	S AFRI	PRETORIA	25	15	32	9	20	0.0	74.5	3.4
	ORENBURG	12	0	20	-12	6	1.7	2.0	-39.7	KROONSTAD		24	10	33	5	17	-2.3	128.5	73.4
	TSELINOGRAD	9	-1	20	-12	4	1.1	10.8	-6.8	JOHANNESBURG		22	12	29	4	17	-0.3	76.5	8.0
	KARAGANDA	10	-2	21	-13	4	1.3	15.5	-12.6	BETHAL		21	10	29	3	15	-2.0	134.3	58.4
	TBILISI	18	11	24	3	14	0.7	53.4	12.4	DURBAN		24	17	30	11	21	0.6	88.6	-2.2
	TASHKENT	21	7	26	3	14	0.8	6.3	-26.4	CAPE TOWN		20	10	27	4	15	-0.4	20.0	-15.7
	ASHKHABAD	25	9	32	5	17	1.2	0.1	-17.7	CANADA	TORONTO	12	3	27	-4	7	-2.1	67.4	5.6
SYRIA	DAMASCUS	26	10	30	4	18	-1.3	4.2	-5.5	MONTREAL		11	2	23	-7	6	-2.4	89.1	13.6
ISRAEL	JERUSALEM	23	14	27	8	18	-2.0	6.1	-16.4	WINNIPEG		10	-3	29	-17	4	-2.3	27.2	-3.6
PAKIST	KARACHI	34	23	39	17	29	0.7	0.1	0.1	REGINA		13	-4	28	-21	4	-0.8	9.3	-9.5
INDIA	AMRITSAR	30	14	34	10	22	-2.2	5.1	-19.7	SASKATOON		12	-3	24	-16	5	0.1	7.7	-8.7
	NEW DELHI	33	19	35	17	26	-0.5	0.1	-35.3	LETHBRIDGE		17	1	28	-13	9	1.6	15.3	-2.6
	AHMEDABAD	34	23	37	18	28	0.0	1.0	-9.8	CALGARY		14	-1	24	-13	7	1.3	8.2	-9.4
	INDORE	31	17	39	13	24	-1.0	113.2	77.6	EDMONTON		13	1	24	-11	7	1.5	3.1	-13.5
	CALCUTTA	32	24	35	20	28	0.3	66.4	-65.6	VANCOUVER		14	8	23	1	11	1.3	108.6	-5.5
	VERAVAL	33	23	37	20	28	-0.1	0.1	-26.5	MEXICO	GUADALAJARA	26	13	30	9	20	0.8	80.0	10.2
	BOMBAY	33	23	37	20	28	0.2	111.4	-5.6	MEXICO CITY		24	10	30	5	17	2.0	12.4	-22.1
	POONA	31	17	33	11	24	-1.8	0.4	-76.0	ACAPULCO		34	25	36	24	29	1.0	0.4	-159.4
	BEGAMPET	31	21	33	18	26	0.7	31.2	-57.8	BERMUD	ST. GEORGES	28	23	31	19	25	0.7	360.2	198.9
	MADRAS	33	25	36	23	29	0.6	132.9	-145.8	BAHAMA	NASSAU	30	22	39	17	26	0.4	34.1	-172.5
	MANGALORE	31	23	33	22	27	0.2	137.3	-68.7	CUBA	HAVANA	29	23	34	21	26	0.6	222.6	46.0
H KONG	HONG KONG	27	23	30	15	25	-0.2	62.9	-58.3	JAMAIC	KINGSTON	34	25	36	21	29	1.8	4.8	-173.4
N KREA	PYONGYANG	18	4	23	-7	11	-0.2	8.7	-43.4	P RICO	SAN JUAN	31	24	33	22	28	0.3	98.9	-41.7
S KREA	SEOUL	21	10	26	2	15	1.9	8.9	-40.1	GUADEL	RAIZET	30	24	31	22	27	0.6	101.2	-67.1
JAPAN	SAPPORO	15	8	21	2	11	0.7	105.0	-10.4	MARTNQ	LAMENTIN	31	24	32	22	27	1.7	133.6	-97.5
	NAGOYA	21	13	26	6	17	0.2	70.2	-50.8	BARBAD	BRIDGETOWN	29	25	31	23	27	-0.4	134.1	-33.7
	TOKYO	21	15	29	9	18	0.5	62.3	-118.8	TRINID	PORT OF SPAIN	32	23	35	22	28	1.5	185.2	19.8
	YOKOHAMA	20	14	23	8	17	0.3	74.6	-112.1	COLOMB	BOGOTA	19	9	20	1	14	0.7	178.2	64.9
	KYOTO	21	13	26	6	17	0.7	59.4	-65.0	VENEZU	CARACAS	32	24	33	22	28	0.8	164.7	120.2
	OSAKA	22	15	26	8	18	0.2	43.7	-70.3	F GUIA	CAYENNE	32	23	33	21	27	0.7	44.2	-24.3
THAILN	PHETCHABUN	31	23	38	20	27	0.4	212.9	117.9	BRAZIL	FORTALEZA	31	24	32	22	28	0.3	14.7	1.3
	BANGKOK	31	24	34	20	28	-0.1	382.6	165.1	RECIFE		30	23	31	21	26	0.7	35.2	-11.2
MALAYS	KUALA LUMPUR	32	24	35	23	28	1.8	139.6	-129.6	BELO HORIZONTE		28	18	33	15	23	0.9	65.4	-73.5
VIETNM	HANOI	27	23	31	16	25	-0.2	255.7	156.6	CAMPO GRANDE		32	19	37	14	25	1.9	88.8	-73.3
CHINA	HARBIN	13	0	20	-10	6	1.0	14.5	-13.2	FRANCA		26	16	30	12	21	-0.1	230.2	99.1
	HAMI	18	3	22	-2	11	0.6	0.1	-1.5	RIO DE JANEIRO		26	20	34	18	23	-0.1	140.0	55.2
	LANCHOW	15	7	22	1	11	1.4	19.4	-5.3	LONDRINA		28	17	34	12	22	1.1	179.0	-1.9
	BEIJING	20	9	27	3	15	2.0	22.4	-1.7	SANTA MARIA		24	12	33	6	18	-0.8	148.6	-28.4
	TIENTSIN	20	11	27	4	16	1.9	40.0	15.1	PERU	LIMA	20	15	23	13	18	0.7	1.6	1.6
	LHASA	19	1	23	-3	10	1.1	0.1	-7.4	BOLIVI	LA PAZ	17	1	20	-1	9	-0.9	20.9	-16.5
	KUNMING	20	12	23	5	16	1.4	45.6	-38.2	CHILE	SANTIAGO	24	6	32	2	15	1.2	0.1	-10.7
	CHENGCHOW	21	11	27	3	16	0.9	47.9	3.9	ARGENT	IGUAZU	28	15	36	7	21	***	182.1	***
	YEHCHANG	22	14	28	8	18	-0.3	34.8	-42.3	FORMOSA		28	16	35	9	22	0.1	169.0	26.0
	HANKOW	22	14	28	5	18	0.6	28.7	-33.5	CERES		27	12	35	4	20	0.0	27.8	-48.9
	CHIHKIANG	23	15	29	11	19	1.1	59.6	-37.5	CORDOBA		27	11	36	2	19	0.9	40.0	-30.3
	SHANGHAI	23	16	26	6	20	1.5	4.9	-45.4	RIO CUARTO		24	10	37	4	17	0.8	2.4	-89.2
	NANCHANG	24	17	29	10	20	0.8	24.4	-31.1	BUENOS AIRES		23	10	30	2	16	-0.8	42.1	-55.8
	TAIPEI	27	23	32	19	25	2.0	138.5	16.6	SANTA ROSA		22	8	31	1	15	-0.4	6.7	-66.9
	CANTON	29	21	35	12	25	1.2	149.7	80.9	TRES ARROYOS		18	7	26	1	12	-1.1	65.4	-1.5
	NANNING	27	20	33	12	24	0.3	178.4	109.3	MIDW I	MIDWAY ISLAND	29	24	30	22	26	2.3	11.4	-171.1
CNRY I	LAS PALMAS	26	19	29	17	23	0.5	11.5	-3.8	N CALD	NOUMEA	28	21	30	19	24	2.2	0.1	-46.6
MOROCC	CASABLANCA	25	16	35	12	20	1.1	15.3	-22.2	FJI	NAUSORI	28	22	30	17	25	0.6	136.7	-62.2
	MARRAKECH	27	16	33	12	21	0.7	11.5	-10.1	SAMOA	PAGO PAGO	29	24	31	23	27	0.2	234.8	-45.9
ALGERI	ALGER	28	16	36	9	22	3.1	25.1	-83.7	TAHITI	PAPEETE	29	22	30	21	26	0.3	80.3	-4.5
	BATNA	26	9	32	2	17	2.6	9.1	-19.9	N ZEAL	AUCKLAND	18	12	23	7	15	0.5	72.7	-18.1
TUNISI	TUNIS	28	17	35	13	23	3.3	32.4	-45.3	WELLINGTON		16	10	19	6	13	1.2	41.9	-59.1
NIGER	NIAMEY	39	23	40	20	31	0.4	3.0	-13.1	PA N G	PORT MORESBY	30	25	32	23	27	0.1	18.7	-14.3
MALI	TIMBUKTU	38	23	41	20	31	-0.3	0.7	-2.1	AUSTRAL	DARWIN	32	26	35	23	29	0.2	162.0	82.4
	BAMAKO	35	23	39	20	29	1.4	20.2	-44.1	MOREE		30	18	39	12	24	4.1	7.6	-41.3
MAURIT	NOUAKCHOTT	37	23	43	20	30	1.2	0.1	-9.5	BRISBANE		28	18	34	13	23	1.9	19.6	-78.7



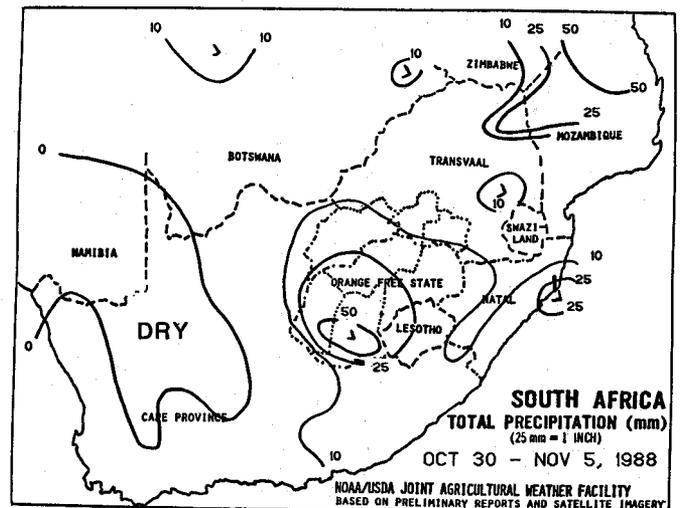
WESTERN USSR ... Unseasonable cold continued over the region, inducing winter grains into dormancy at usual dates in the north but halting further vegetative growth in the Ukraine and North Caucasus. Many locations in the Ukraine and North Caucasus experienced minimum temperatures as low as those in the Central and Volga Vyatsk Regions where the weather is usually much colder. The cold wave brought light to moderate snow in the Baltic States, Belorussia, the Central Region, Volga Vyatsk Region, parts of the Ukraine, northern North Caucasus, and the Volga, where precipitation ranged from 5 to 25mm. Moderate rain and occasional thunderstorms in the western North Caucasus produced rainfall ranging from 25 to 100mm. Persistent dryness since mid-September and the recent cold wave have likely limited plant establishment in parts of the Ukraine, northern North Caucasus, and the Black Soils Region, making the crop more susceptible to potential winterkill.



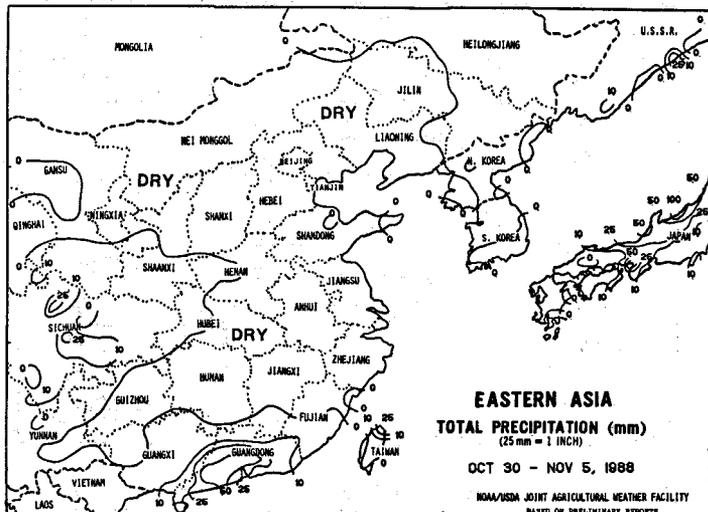
EUROPE ... Much colder air covered all but southwestern Europe, and brought the first widespread freeze to the northwestern and north-central crop areas. Mean temperatures for the week were as much as 9 degrees Celsius (C) below normal in the southeast. The cold weather halted growth of winter grains in the northwest while continuing the cold hardening process of those in the east. Moderate to heavy rain and snow (10-40mm, with isolated amounts greater than 40mm) favored previously dry crop areas in southeastern Europe, although the benefit of the precipitation to winter grains was limited by cold and freezing temperatures. In southwestern Europe, scattered mostly light rain (less than 10mm) and above-normal temperatures favored establishing winter grains in interior growing areas, while moderate to heavy rain (10-60mm) fell over Portugal and coastal eastern Spain.



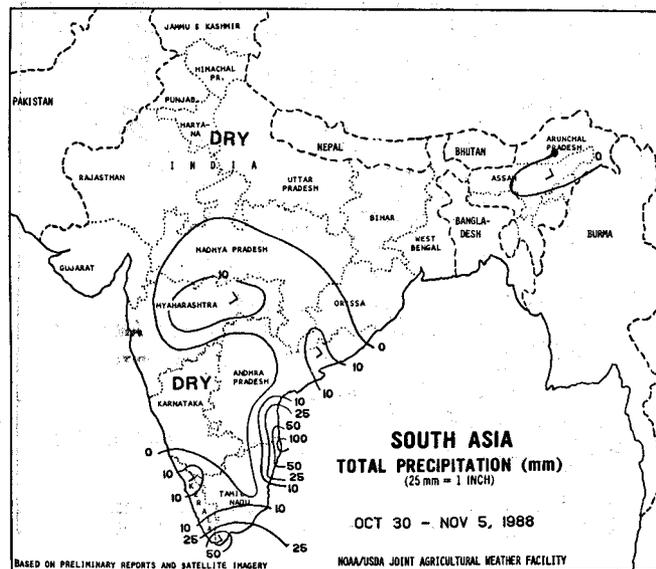
NORTHWESTERN AFRICA ... Unseasonable warm, dry weather continued over Morocco, Algeria, and Tunisia, keeping topsoils too dry for winter grain planting. Light showers (less than 10mm) in western Morocco were insufficient for planting. Although the autumn rainy season is off to a slow start, substantial time remains for planting. Usually, planting begins in November and continues well into December. In Algeria, planting often extends into early January. Weekly average temperatures across the region were 3-6 degrees C above normal.



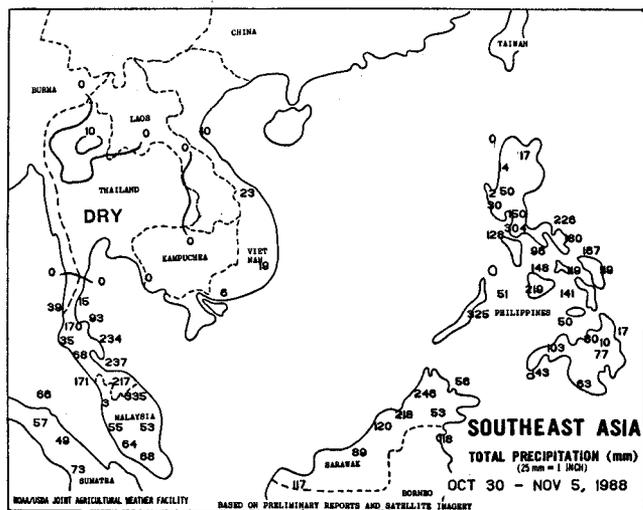
SOUTH AFRICA ... Cool, wet weather continued over the central and western Maize Triangle as rainfall exceeded 25mm over the western half of the Orange Free State. Light to moderate rain (3-22mm) continued over the eastern Triangle and most grain regions of Natal and the Cape Province, causing some planting delays. Temperatures averaged 1-3 degrees C below normal over most regions, lowering evaporation rates. Drier, warmer weather is needed, especially over the western half of the Maize Triangle, for corn planting and germination.



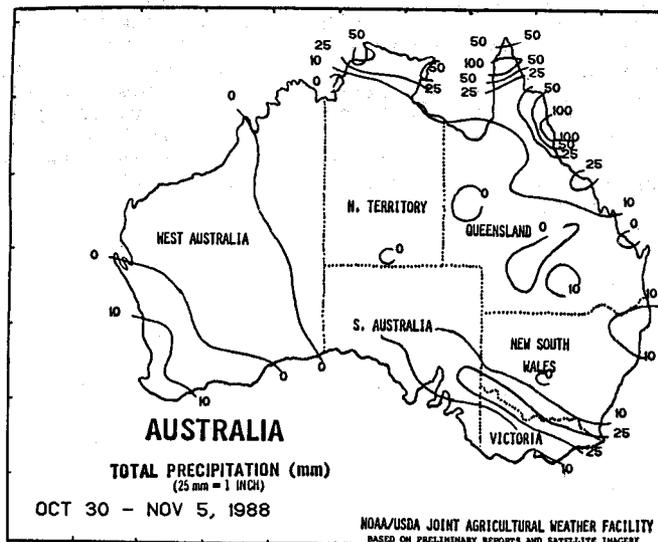
EASTERN ASIA ... Moisture from the remains of Tropical Storm Ruby caused heavy rain (25-75mm) across sections of Guangxi, Guangdong, and northern Taiwan. The rain continued delays in the late double-crop rice harvest, which is normally in full swing across much of southeastern China. Heavy rain (25-75mm, with scattered amounts greater than 75mm) also caused delays in harvest of single season rice and summer crops across Honshu and Hokkaido in Japan. Elsewhere, scattered light to moderate rain (5-20mm, with isolated amounts greater than 25mm) favored fall planted crops across Manchuria, the Korean Peninsula, and western Chinese growing areas. Mostly dry weather covered the North China Plain and Yangtze Valley. Above-normal temperatures continued over most winter crop areas, accelerating crop growth.



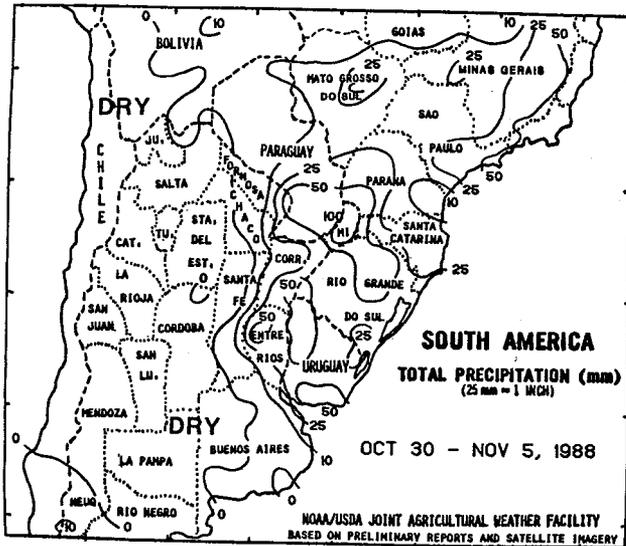
SOUTH ASIA ... Light to moderate rain (4-19mm) benefited boll forming cotton over western Madhya Pradesh and Maharashtra, but dry weather persisted to the south. Variable rain (37-151mm) fell along the southern coast from Tamil Nadu to central Andhra Pradesh, slowing the rice harvest. Dry weather in the north and east favored harvesting and fieldwork for winter grain planting.



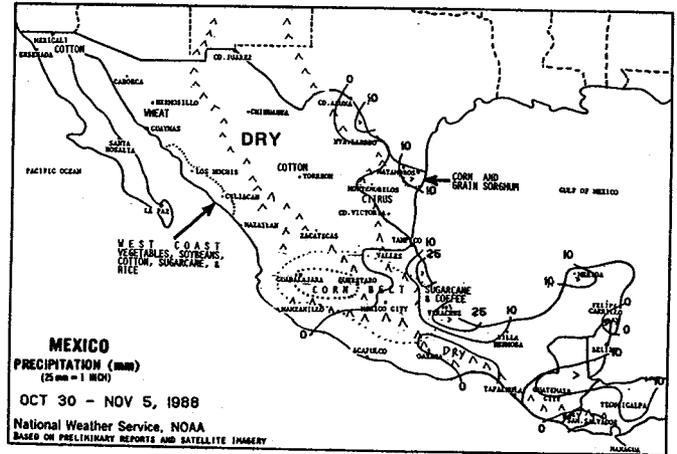
SOUTHEAST ASIA ... Dry, seasonably warm weather covered most Thai grain regions, benefiting maturing rice. Light rain (1-23mm) fell along Vietnam's coast. Inundating rain (100-335mm) fell along the eastern half of the Malay Peninsula with moderate to heavy showers (50-100mm or more) falling elsewhere in Malaysia and over most rice regions in Java. In the Philippines, inundating rain (100-304mm) from a tropical low caused more flooding from southern Luzon to western Mindanao. Light rain (6-17mm) covered northern grain regions of Luzon.



AUSTRALIA ... Hot, dry weather continued over sections of South Australia, Victoria, New South Wales, and southern Queensland early in the week, followed by a frontal system on the 3rd and 4th that brought cooler temperatures and scattered rain (5-25mm, with isolated amounts greater than 35mm) to much of the region. The rain favored late planted winter grains across southern growing areas but caused harvest delays in New South Wales and Queensland. The rain also benefited recently planted summer crops in Queensland and New South Wales. Most winter grains in southern and eastern growing areas are phenologically ahead of normal due to persistent warm weather during much of the fall, winter, and spring seasons. Elsewhere, light to moderate rain (5-15mm) persisted over crop areas in Western Australia, maintaining generally favorable conditions for filling winter cereals.



SOUTH AMERICA ... Beneficial rain fell over most of south-central Brazil, southern Paraguay, Uruguay, and extreme eastern Argentina, while dryness prevailed in Argentina's western crop areas. In south-central Brazil, locally heavy rain (50-100mm or more) soaked northern Rio Grande do Sul and an isolated area of southern Mato Grosso do Sul. Otherwise, weekly rainfall averaged 10-25mm in most crop areas, especially benefiting northern and western areas which were dry prior to the previous week's rain. Topsoils have improved for soybean planting. In Argentina, mostly light showers (10mm or less) fell in the primary cotton, corn, and soybean areas, causing little interference to crop planting. Early soybean planting has begun in southern Santa Fe, while wheat harvesting is underway in northern areas. Topsoils have dried out in western fringes of the primary summer crop area, hampering crop planting and establishment.



MEXICO ... Dry weather covered much of Mexico, except along the east coast and in the south where mostly light, scattered showers fell. Weekly rainfall averaged 10mm or less, except for coastal areas near Veracruz where 10-42mm of rain moistened soils. Sunny skies prevailed over the northwest, favoring wheat planting and over most of the Southern Plateau corn belt, benefiting summer crop harvesting.

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(Continued from p. 12)

High Plains pepper harvest was nearly completed. Carrot harvest began in the San Antonio-Winter Garden area. Broccoli harvest increased in the Huron area of California. Desert iceberg head lettuce harvest began. Garlic and spring onion plantings continued.

PASTURES AND LIVESTOCK: Pastures were mostly fair to good. Livestock was mostly good. Supplemental feeding continued to increase in many areas.

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