

WEEKLY WEATHER AND CROP BULLETIN

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

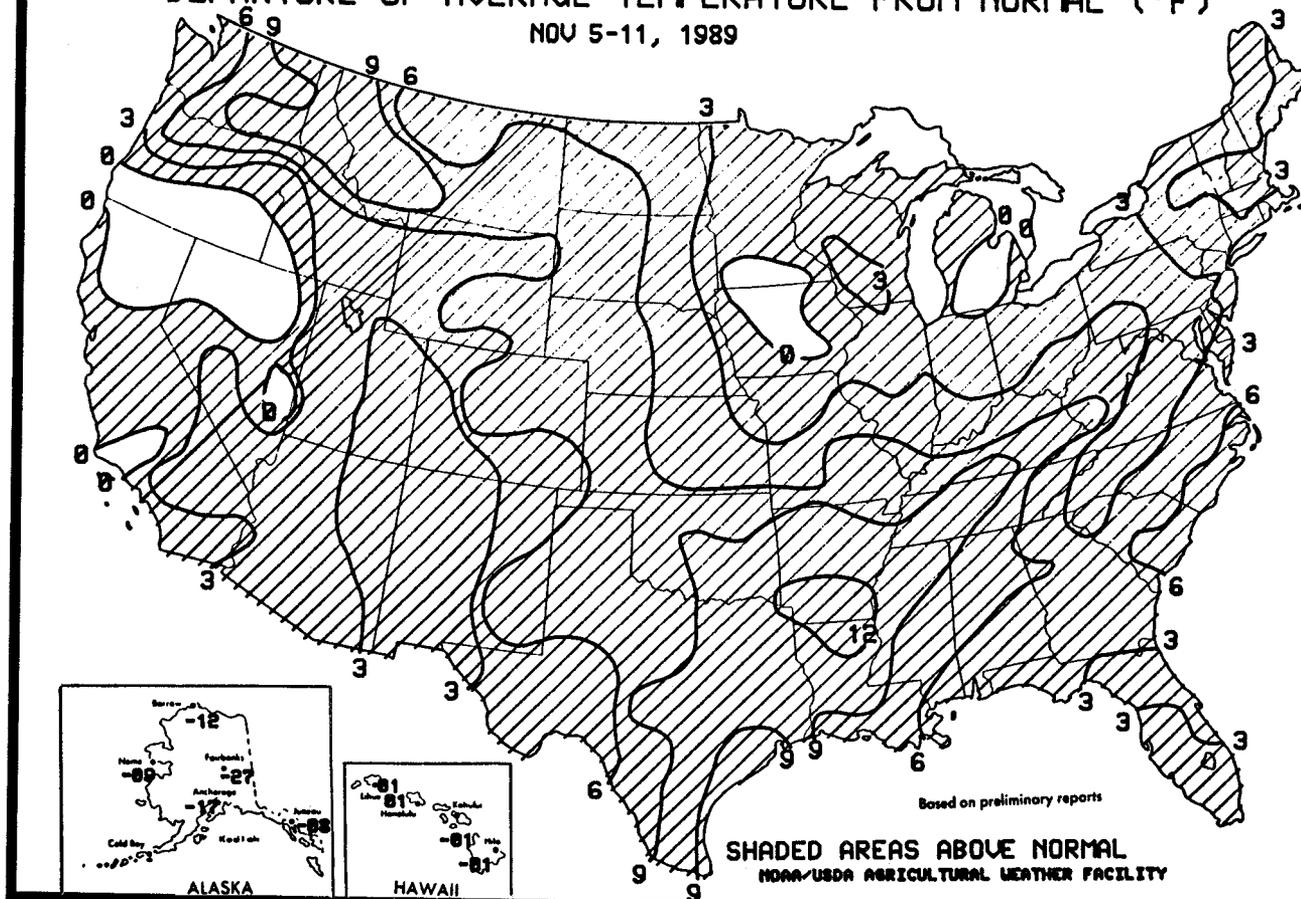
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DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F) NOV 5-11, 1989



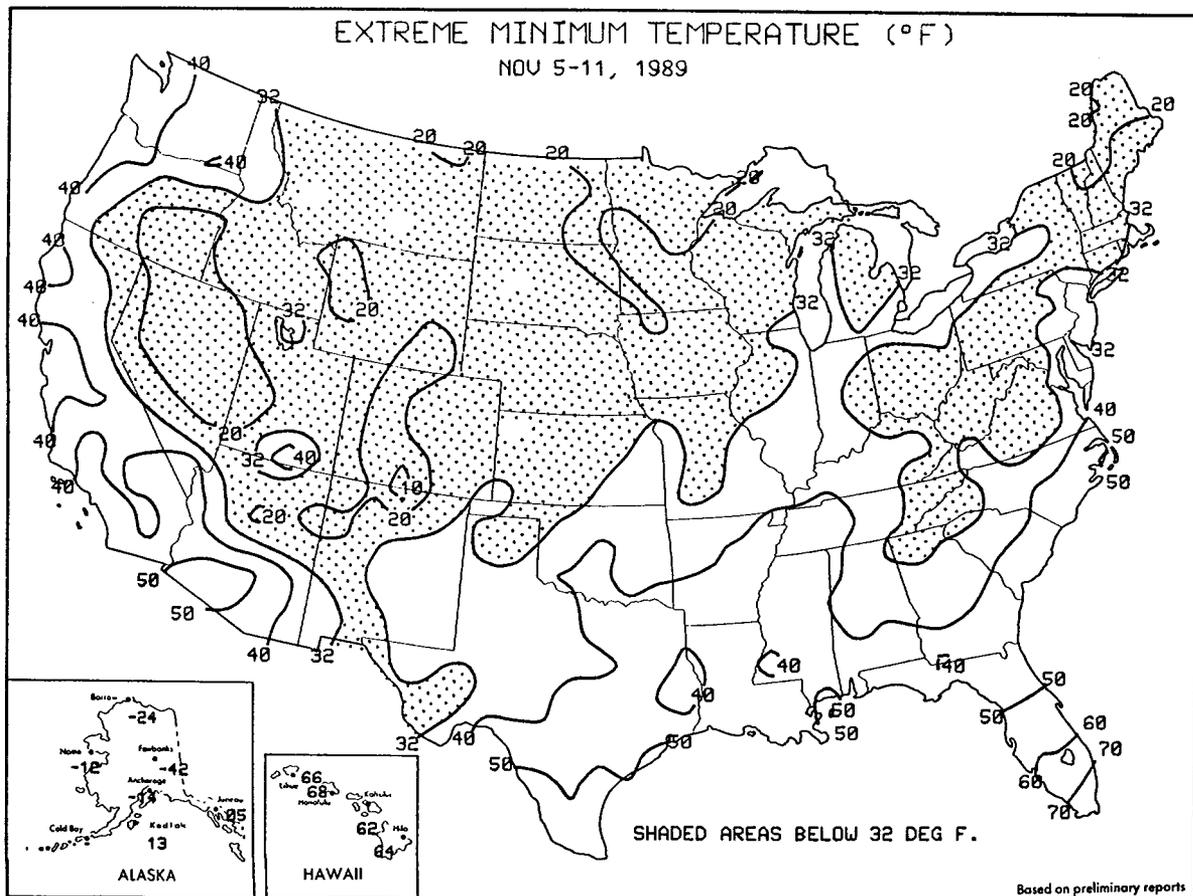
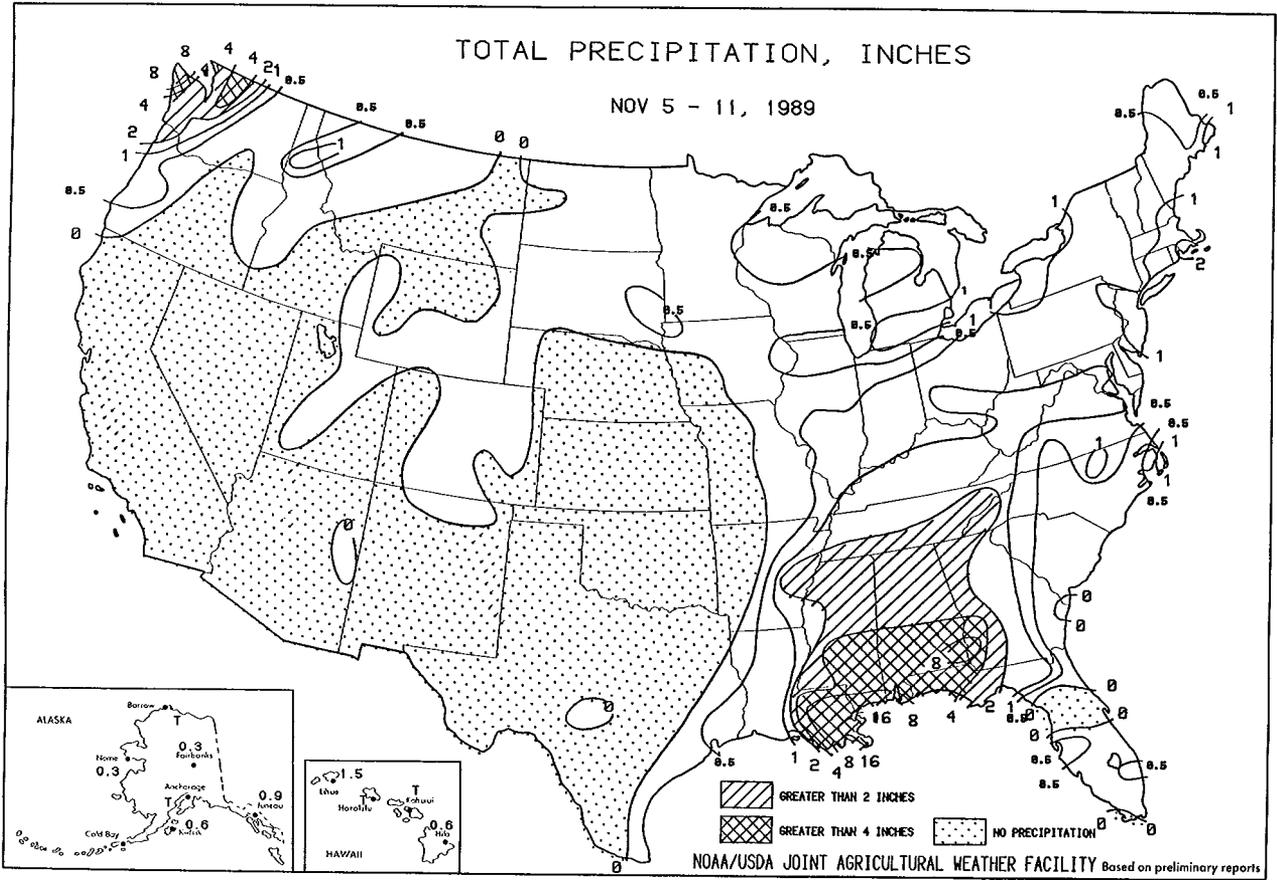
HIGHLIGHTS

November 5-11, 1989

Warm weather prevailed as temperatures averaged above normal across nearly the entire contiguous United States. At week's end, 27 cities reported record-high temperatures for the date from Oregon to Texas and North Carolina. In contrast, bitter polar air settled over central Alaska, where temperatures in Fairbanks, AK, averaged 27 degrees below normal and dropped to -42 degrees Fahrenheit. Early in the week, an upper level disturbance caused torrential rain along the central Gulf coast. Nearly 13 inches inundated New Orleans, LA, on Monday and Tuesday. The rains moved slowly northward into the Great Lakes and Northeast during the remainder of the week. With the exception of the northern Pacific coast, dry conditions again covered much of the western half of the Nation and the upper and middle Mississippi Valley.

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ALASKAN COLD WAVE

Alaska experienced its first cold wave of the season. A number of stations remained under 0 degrees F for the entire week. Temperatures averaged more than 20 degrees F below normal over much of interior Alaska (fig. 1). The lowest temperature for the week of -51 degrees F was recorded at Nenana on November 9 (fig. 2).

Figure 1
DEPARTURE OF AVERAGE TEMPERATURE
FROM NORMAL (F)

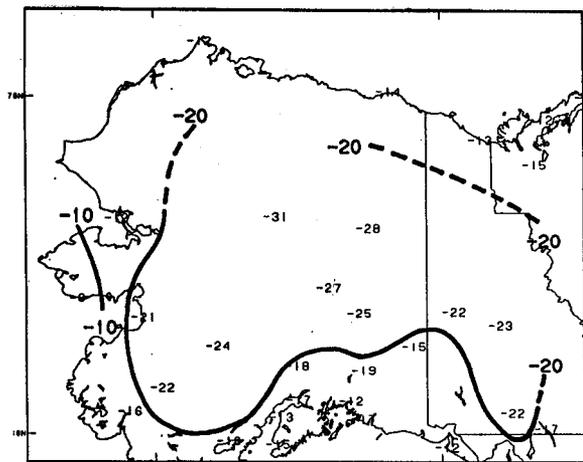
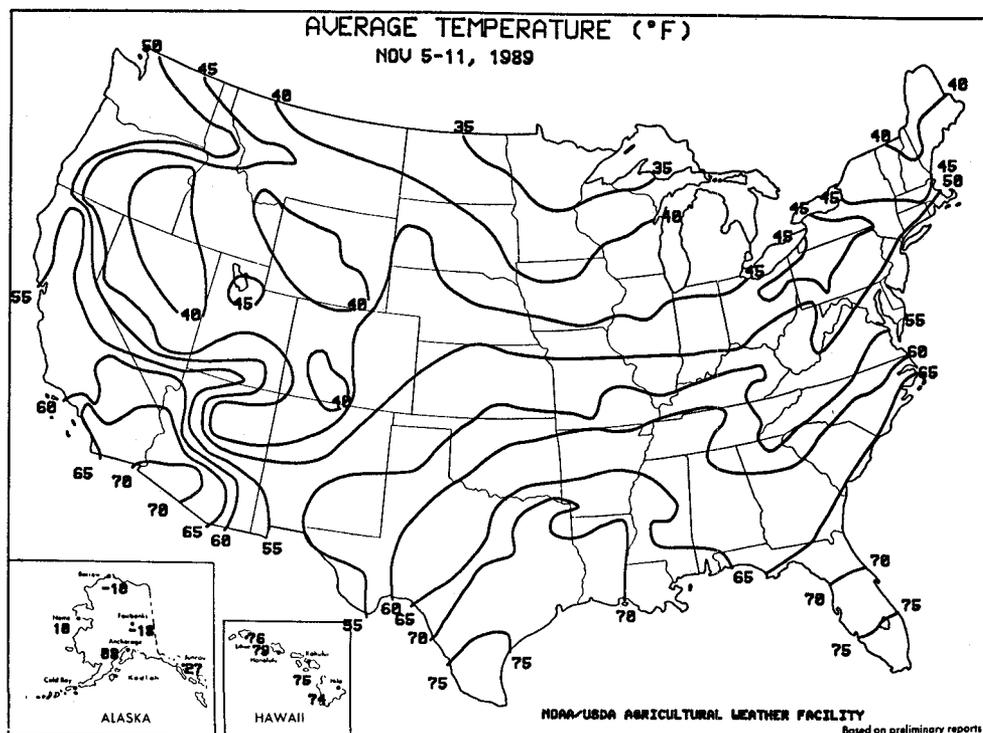
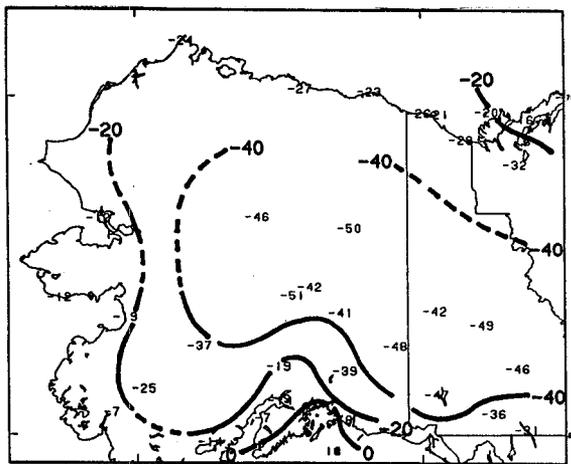


Figure 2
EXTREME MINIMUM TEMPERATURE (F)



National Weather Data for Selected Cities

Weather Data for the Week Ending November 11, 1989

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		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	71	49	78	39	60	6	2.0	1.2	1.5	9.3	115	54.6	117	94	53	0	0	2	1
MOBILE	76	55	81	44	65	5	7.1	6.4	4.5	12.9	128	52.9	94	99	59	0	0	3	1
MONTGOMERY	74	47	81	35	61	3	3.9	3.3	3.1	12.4	159	63.0	150	99	55	0	0	3	1
AK ANCHORAGE	14	3	39	-14	8	-17	T	T	T	8.0	175	25.6	195	66	43	0	0	0	0
BARROW	-4	-15	7	-24	-10	-12	T	T	T	.9	73	7.1	167	89	76	0	0	0	0
FAIRBANKS	-11	-25	20	-42	-18	-27	T	T	T	2.5	119	9.3	101	81	69	0	0	3	0
JUNEAU	31	23	44	5	27	-8	1.0	-3	1.2	22.1	136	42.9	95	93	75	0	5	6	0
KODIAK	32	19	45	13	26	-10	.6	-8	1.6	14.1	92	44.4	86	68	44	0	7	2	1
NOME	19	2	22	-12	10	-9	.3	.1	.2	3.8	96	19.1	143	89	67	0	7	3	0
AZ PHOENIX	85	54	90	52	69	6	0	-1	0	.9	65	4.5	77	42	13	2	0	0	0
PRESCOTT	70	33	76	28	51	5	0	-3	0	1.3	40	9.4	58	57	14	2	3	0	0
TUCSON	83	47	88	43	65	4	0	-1	0	1.9	78	6.2	64	44	13	0	0	0	0
YUMA	86	56	90	52	71	4	0	0	0	.4	63	7.2	361	51	17	0	0	0	0
AR FORT SMITH	80	42	85	30	61	8	0	-8	0	4.3	56	46.1	133	95	29	1	0	0	0
LITTLE ROCK	75	55	82	41	65	11	1.3	.4	1.1	7.3	85	46.7	112	70	46	0	0	3	1
CA BAKERSFIELD	74	42	79	41	58	-1	0	-1	0	.5	84	2.8	63	83	37	0	0	0	0
EUREKA	58	48	63	46	53	1	T	-1.3	T	3.8	68	23.1	82	94	73	0	0	0	0
FRESNO	71	42	78	41	57	1	0	-3	0	1.5	163	6.4	80	97	36	0	0	0	0
LOS ANGELES	75	56	86	52	65	2	0	-3	0	.6	71	3.8	41	86	43	0	0	0	0
REDDING	71	40	75	36	56	-1	0	-1.1	0	8.5	179	28.4	94	96	38	0	0	0	0
SACRAMENTO	72	43	76	38	57	2	0	-5	0	4.6	256	13.7	110	96	40	0	0	0	0
SAN DIEGO	72	56	82	51	64	1	0	-2	0	.7	79	2.7	36	83	49	0	0	0	0
SAN FRANCISCO	67	48	74	45	57	1	0	-5	0	2.6	137	10.0	70	98	47	0	0	0	0
CO DENVER	62	35	76	26	49	8	T	-2	T	2.5	102	14.7	105	68	22	0	3	1	0
GRAND JUNCTION	58	31	67	21	44	1	0	-2	0	.5	25	5.5	79	61	23	0	5	0	0
PUEBLO	67	29	77	21	48	5	0	-1	0	1.1	63	6.9	67	58	17	0	5	0	0
CT BRIDGEPORT	59	44	63	34	51	3	.8	-1	.1	11.4	144	47.5	135	89	60	0	0	4	1
HARTFORD	56	39	59	28	47	2	1.0	.1	.3	13.7	156	51.6	138	92	57	0	1	4	1
DC WASHINGTON	61	46	66	35	54	2	1.1	.4	.6	13.4	190	47.1	139	94	62	0	0	2	2
FL APALACHICOLA	76	57	80	49	67	4	2.7	2.0	1.6	15.7	123	50.0	101	96	59	0	0	3	2
DAYTONA BEACH	81	57	86	48	69	2	0	-7	0	16.8	136	40.0	89	99	52	0	0	0	0
JACKSONVILLE	80	54	84	45	67	3	.1	-3	.1	15.9	145	47.6	99	96	47	0	0	1	0
KEY WEST	84	75	87	71	80	3	T	-9	T	5.9	46	23.0	64	91	66	0	0	0	0
MIAMI	86	73	89	71	79	5	.1	-7	.1	8.6	52	41.1	76	92	56	0	0	1	0
ORLANDO	84	62	88	52	73	4	T	-5	T	12.0	118	39.7	86	98	46	0	0	0	0
TALLAHASSEE	78	49	81	38	63	3	2.4	1.7	1.3	10.3	97	56.8	99	100	52	0	0	3	2
TAMPA	83	61	86	52	72	4	.7	-3	.7	8.7	94	37.5	87	97	49	0	0	1	1
WEST PALM BEACH	84	71	89	70	78	4	.1	-9	.1	10.2	55	35.9	65	87	56	0	0	1	0
GA ATLANTA	70	51	78	42	61	6	1.4	.6	1.2	14.7	217	56.2	134	87	50	0	0	4	1
AUGUSTA	76	47	80	38	62	5	.1	-4	0	6.2	100	43.5	114	95	46	0	0	2	0
MACON	75	48	80	35	62	4	1.1	.7	1.1	5.9	99	40.8	105	97	45	0	0	1	1
SAVANNAH	77	53	81	45	65	5	T	-4	T	12.8	157	40.3	88	90	46	0	0	0	0
HI HILO	81	66	83	64	74	-1	.6	-2.8	.4	24.0	110	160.2	152	93	63	0	0	3	0
HONOLULU	85	72	87	68	79	1	T	-7	T	5.8	165	21.1	119	83	55	0	0	0	0
KAHULUI	84	66	86	62	75	-1	T	-4	T	4.8	265	33.5	239	87	59	0	0	0	0
LIHUE	81	72	82	66	77	1	1.5	.2	1.0	10.5	121	51.6	148	91	61	0	0	3	1
ID BOISE	56	32	68	26	44	2	T	-3	T	2.5	146	9.8	105	92	45	0	4	2	0
LEWISTON	60	46	70	39	53	11	T	-3	T	1.3	59	12.7	118	66	44	0	0	0	0
POCATELLO	54	34	66	29	44	6	0	-2	0	1.3	68	8.4	92	72	38	0	3	0	0
IL CHICAGO	50	39	61	33	45	1	.7	.3	.4	6.2	91	27.6	91	85	56	0	0	3	0
MOLINE	53	35	65	30	44	2	.5	0	.3	7.1	99	30.9	92	86	53	0	1	4	0
PEORIA	55	36	66	31	45	2	.1	-4	.1	4.5	65	20.8	66	88	57	0	2	3	0
QUINCY	59	37	71	30	48	3	T	-5	T	4.9	59	17.3	50	82	40	0	1	1	0
ROCKFORD	51	37	60	33	44	3	.3	-2	.2	3.1	41	25.2	76	88	58	0	0	3	0
SPRINGFIELD	57	38	73	32	48	2	.5	0	.4	7.0	107	27.1	88	87	50	0	2	2	0
IN EVANSVILLE	62	41	75	33	52	4	.8	0	.6	5.2	82	45.1	126	89	53	0	0	2	1
FORT WAYNE	52	37	62	30	45	2	.3	-3	.3	6.5	108	32.4	107	93	67	0	1	2	0
INDIANAPOLIS	55	37	69	32	46	1	.9	.2	.5	11.9	189	46.8	138	89	57	0	3	4	1
SOUTH BEND	49	39	61	32	44	0	1.0	.4	.5	6.4	86	31.9	96	88	57	0	1	3	0
IA DES MOINES	54	30	62	25	42	0	T	-4	T	7.7	132	28.4	99	89	47	0	5	1	0
ST LOUIS	55	28	58	25	41	1	T	-2	T	4.5	97	18.6	77	82	37	0	7	0	0
WATERLOO	49	32	58	29	41	1	.3	-1	.3	6.5	101	19.2	63	91	58	0	3	1	0
KS CONCORDIA	63	39	77	32	50	6	0	-3	0	5.3	101	24.3	94	77	35	0	1	0	0
DODGE CITY	68	36	82	30	52	6	0	-2	0	2.4	71	20.2	104	73	22	0	2	0	0
GOODLAND	63	34	75	30	49	8	0	-2	0	1.4	55	17.8	116	70	24	0	3	0	0
TOPEKA	62	34	78	29	48	2	0	-5	0	12.1	173	37.8	122	93	35	0	4	0	0
WICHITA	69	36	80	32	52	5	0	-4	0	7.7	119	34.2	128	83	26	0	1	0	0
KY BOWLING GREEN	70	46	79	34	58	9	1.8	1.0	.9	7.3	100	55.7	133	86	51	0	0	3	2
LEXINGTON	62	42	69	33	52	4	1.3	.6	.9	9.7	146	50.3	127	85	46	0	0	3	1
LOUISVILLE	64	42	73	33	53	4	1.2	.4	1.0	6.3	88	48.2	128	86	47	0	0	2	1
LA ALEXANDRIA	82	58	86	42	70	11	.4	-5	.3	1.6	22	53.8	120	88	46	0	0	3	0
BATON ROUGE	80	58	84	44	69	9	8.4	7.6	6.2	16.1	193	76.9	160	99	62	0	0	3	3
LAKE CHARLES	82	58	87	43	70	8	.7	-2	.6	2.5	23	55.8	121	99	51	0	0	3	1
NEW ORLEANS	78	56	84	45	67	6	14.4	13.5	10.9	19.9	204	56.2	109	100	57	0	0	3	3

Based on 1951-80 normals

Weather Data for the Week Ending November 11, 1989

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	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE, Sep 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	82	55	87	39	68	11	T	T	2.6	36	55.3	148	88	39	0	0	0	0	
ME CARIBOU	44	32	48	17	38	3	.5	-.3	6.5	84	28.0	90	89	67	0	2	4	0	
PORTLAND	51	38	55	25	45	3	.6	-.4	11.1	128	37.2	104	93	63	0	1	3	0	
MD BALTIMORE	60	41	63	29	51	2	.8	0	5.5	9.3	48.5	134	96	65	0	1	2	1	
SALISBURY	64	41	69	32	53	3	.5	-.2	13.1	149	49.2	124	97	57	0	1	2	0	
MA BOSTON	56	44	62	35	50	2	1.3	.3	12.7	155	39.8	109	90	62	0	0	2	1	
CHATHAM	56	47	61	37	51	4	1.5	.5	11.7	130	42.5	109	90	71	0	0	6	1	
MI ALPENA	49	32	53	26	40	2	.1	-.4	4.4	74	18.4	72	94	58	0	3	3	0	
DETROIT	50	36	60	33	43	1	1.0	.5	5.8	112	26.5	99	92	69	0	0	5	1	
FLINT	48	35	57	28	42	0	.7	.2	6.7	128	28.1	110	88	66	0	1	6	0	
GRAND RAPIDS	48	37	59	32	43	1	1.5	.9	8.0	116	29.7	102	92	63	0	1	5	1	
HOUGHTON LAKE	46	34	53	28	40	2	.1	-.5	2.5	42	17.4	71	90	61	0	1	1	0	
LANSING	46	32	54	26	39	-3	.8	-.3	5.7	101	27.1	105	96	72	0	4	4	0	
MARQUETTE	39	29	44	26	34	0	.8	.1	6.0	72	25.0	76	91	71	0	5	6	0	
MUSKEGON	48	37	56	34	42	0	.7	0	5.0	74	22.1	82	85	60	0	0	5	0	
SAULT ST. MARIE	43	33	45	29	38	2	1.3	.6	5.3	67	21.7	76	96	71	0	3	6	0	
MN ALEXANDRIA	45	27	49	24	36	3	.2	-.1	5.1	109	20.4	88	94	70	0	6	3	0	
DULUTH	38	28	44	19	33	0	.5	.1	6.3	103	25.5	94	90	63	0	6	4	0	
INT'L FALLS	39	26	50	19	33	3	.3	0	3.7	68	20.1	89	93	66	0	6	4	0	
MINNEAPOLIS	46	30	50	22	38	1	.4	.1	2.5	51	22.2	90	84	57	0	5	4	0	
ROCHESTER	45	30	52	24	37	0	.4	0	3.2	45	22.0	82	90	67	0	5	4	0	
MS GREENWOOD	77	54	79	47	65	10	.7	-.3	8.4	110	60.0	135	89	54	0	0	3	0	
JACKSON	78	51	85	41	64	7	4.5	3.7	2.4	10.2	46.1	105	96	46	0	0	3	3	
MERIDIAN	77	50	84	40	63	7	4.3	3.6	2.5	14.1	195	62.0	137	100	51	0	0	3	3
MO CAPE GIRARDEAU	67	44	76	36	56	—	1.0	.2	5.4	73	47.9	125	96	50	0	0	2	1	
COLUMBIA	63	36	80	31	50	3	T	-.6	3.0	38	33.5	100	85	33	0	1	1	0	
KANSAS CITY	62	37	77	31	49	2	T	-.4	11.7	141	37.1	110	86	43	0	2	0	0	
SAINT LOUIS	63	43	85	38	53	5	.2	-.4	2.8	47	27.5	92	82	37	0	0	3	0	
SPRINGFIELD	66	38	80	30	52	4	0	-.7	3.5	41	30.5	87	86	32	0	1	0	0	
MT BILLINGS	55	35	66	30	45	7	T	-.2	2.8	101	13.5	100	67	30	0	4	0	0	
GLASGOW	49	30	65	23	40	6	.1	0	1.2	76	9.9	96	91	45	0	5	1	0	
GREAT FALLS	49	32	64	27	40	3	.1	-.1	2.6	126	20.9	151	80	48	0	5	1	0	
HAVRE	47	32	63	27	39	5	.2	.1	2.2	79	10.5	97	87	50	0	3	1	0	
HELONA	54	39	67	30	47	12	T	-.1	1.9	115	11.7	112	69	37	0	2	1	0	
KALISPELL	49	37	59	30	43	9	.9	.6	3.9	158	18.2	137	87	57	0	3	3	1	
MILES CITY	52	34	71	27	43	8	T	-.1	1.1	49	13.5	102	81	40	0	1	1	0	
MISSOULA	51	39	64	29	45	10	.1	-.1	1.7	76	12.4	109	87	54	0	1	2	0	
NE GRAND ISLAND	59	33	67	27	46	5	0	-.2	7.4	193	21.5	98	81	33	0	2	0	0	
LINCOLN	58	34	67	25	46	4	T	-.3	9.1	181	23.2	90	81	33	0	2	0	0	
NORFOLK	56	31	63	23	43	4	0	-.2	3.9	106	15.8	70	80	34	0	6	0	0	
NORTH PLATTE	61	32	72	20	45	7	T	-.1	1.2	43	13.7	74	84	27	0	5	0	0	
OMAHA	55	35	63	34	45	2	T	-.3	7.4	121	21.8	76	79	41	0	0	0	0	
SCOTTSBLUFF	60	31	74	23	46	7	T	-.1	2.3	115	9.3	67	80	24	0	4	0	0	
VALENTINE	56	31	72	25	43	6	T	-.1	2.6	106	12.0	73	69	31	0	4	0	0	
NV ELY	60	19	73	12	39	3	0	-.1	0	.8	51	6.5	84	78	19	0	7	0	0
LAS VEGAS	75	46	80	43	61	4	0	-.1	0	T	1	2.2	64	33	14	0	0	0	0
RENO	61	25	69	22	43	1	0	-.1	0	1.6	230	6.8	122	83	23	0	7	0	0
WINNEMUCCA	58	20	68	16	39	-1	0	-.2	0	1.5	129	4.7	74	86	25	0	7	0	0
NH CONCORD	51	34	56	26	43	2	1.1	.3	8	11.0	147	36.0	117	98	59	0	4	4	1
NJ ATLANTIC CITY	61	44	66	32	52	4	1.4	.5	7	11.9	164	47.5	133	95	63	0	2	3	2
NM ALBUQUERQUE	64	35	69	32	49	2	0	-.1	0	1.3	71	4.7	66	51	16	0	1	0	0
CLOVIS	71	39	76	35	55	6	0	-.1	0	1.5	38	14.1	87	41	14	0	0	0	0
ROSWELL	76	39	80	33	57	8	0	-.1	0	2.2	73	6.2	62	37	11	0	0	0	0
ALBANY	53	37	59	27	45	3	.6	-.1	.3	9.3	129	38.0	124	95	62	0	3	4	0
NY BINGHAMTON	51	38	60	31	44	3	.6	-.1	8.4	113	35.9	113	92	64	0	1	6	0	0
BUFFALO	51	39	57	35	45	1	2.2	1.4	9.1	121	36.3	115	87	57	0	0	7	2	2
NEW YORK	60	49	66	42	54	4	.8	0	11.8	147	52.3	143	83	59	0	0	4	1	1
ROCHESTER	52	39	59	32	46	2	.7	.1	6.8	110	30.1	111	86	63	0	1	6	0	0
SYRACUSE	54	39	61	33	47	3	.6	-.2	11.0	144	33.0	99	89	59	0	0	6	0	0
NC ASHEVILLE	64	38	74	28	51	2	.8	.1	12.0	149	53.8	139	98	51	0	4	3	1	1
CHARLOTTE	69	47	73	38	58	4	.4	-.2	11.8	163	43.5	116	96	51	0	0	3	0	0
GREENSBORO	65	41	69	31	53	2	.3	-.3	11.5	148	44.5	119	94	54	0	2	2	0	0
HATTERAS	73	60	79	55	66	8	1.1	-.1	29.9	241	80.5	167	94	62	0	0	2	1	0
NEW BERN	74	52	79	44	63	6	.1	-.6	14.7	143	57.2	120	95	45	0	0	1	0	0
RALEIGH	70	44	74	33	57	5	.9	.2	9.4	134	48.8	133	94	50	0	0	2	1	0
WILMINGTON	76	52	79	43	64	6	T	-.7	14.9	152	58.4	122	96	44	0	0	1	0	0
ND BISMARCK	49	30	67	25	40	7	.1	-.1	0	1.7	72	10.7	74	89	45	0	5	3	0
FARGO	44	27	49	23	36	3	.1	-.1	2.7	78	18.0	98	93	65	0	7	2	0	0
GRAND FORKS	43	27	48	20	35	4	.2	0	1.2	34	11.3	66	90	62	0	6	3	0	0
WILLISTON	48	29	65	23	38	6	T	-.1	2.4	105	10.8	85	90	50	0	7	1	0	0
OH AKRON-CANTON	54	38	61	33	45	1	.9	.3	6.9	115	35.9	114	92	61	0	0	6	0	0
CINCINNATI	60	39	68	30	49	3	1.0	.2	7.1	110	45.6	131	83	51	0	2	5	0	0
CLEVELAND	54	38	61	32	46	2	.7	.1	9.9	117	39.4	128	88	59	0	1	6	0	0
COLUMBUS	58	37	67	30	48	3	.9	.3	5.6	101	40.3	124	85	56	0	2	6	0	0

Weather Data for the Week Ending November 11, 1989

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		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	56	38	65	33	47	2	1.4	-.8	.6	8.6	163	45.2	149	89	60	0	0	5	2
TOLEDO	52	37	62	32	44	1	.2	-.3	.1	4.9	94	34.6	127	87	61	0	2	4	0
YOUNGSTOWN	54	37	61	31	45	1	.7	0	.3	9.8	147	40.2	124	89	56	0	1	5	0
OK OKLAHOMA CITY	75	47	81	43	61	10	0	-.4	0	7.9	115	40.5	141	67	23	0	0	0	0
TULSA	75	45	85	39	60	8	0	-.7	0	6.1	70	29.3	83	72	23	0	0	0	0
OR ASTORIA	57	50	57	43	53	5	2.3	.1	.7	8.7	68	44.1	86	96	81	0	0	6	1
BURNS	57	22	68	15	40	1	.1	-.2	.1	1.1	63	9.0	115	96	37	0	7	1	0
MEDFORD	55	33	65	29	44	-2	T	-.6	T	2.6	79	13.5	95	99	60	0	4	0	0
PENDLETON	61	43	69	38	52	9	T	-.3	T	1.0	48	10.9	116	68	42	0	0	0	0
PORTLAND	59	50	65	46	55	7	.2	-.9	.1	3.7	58	23.4	86	92	71	0	0	6	0
SALEM	59	46	64	39	52	6	.3	-.9	.1	4.0	59	21.2	73	96	73	0	0	4	0
PA ALLENTOWN	58	40	65	32	49	4	.6	-.2	.2	11.0	132	42.6	112	93	60	0	1	4	0
ERIE	54	40	61	36	47	3	1.1	-.2	.5	8.4	94	36.6	107	85	54	0	0	5	1
HARRISBURG	58	39	64	30	49	2	.3	-.5	.2	8.6	115	44.0	130	91	58	0	2	2	0
PHILADELPHIA	60	44	65	36	52	3	1.0	-.2	.5	9.6	129	46.8	131	95	64	0	0	2	0
PITTSBURGH	57	37	62	29	47	3	.5	-.1	.3	7.3	120	39.2	122	90	52	0	1	3	0
SCRANTON	55	41	61	33	48	4	1.0	.3	.7	9.8	138	35.6	117	91	57	0	0	3	1
RI PROVIDENCE	58	41	63	30	50	3	2.0	1.0	1.3	15.7	179	52.4	138	94	57	0	1	4	2
SC CHARLESTON	77	55	80	47	66	7	.1	-.4	.1	18.2	212	49.6	106	93	48	0	0	1	0
COLUMBIA	76	49	79	38	63	6	.1	-.5	.1	8.0	105	45.3	103	97	46	0	0	2	0
FLORENCE	76	50	80	39	63	6	.7	-.5	.1	9.9	138	45.3	115	91	44	0	0	1	0
GREENVILLE	68	45	73	35	57	3	T	0	.6	9.3	101	42.8	95	93	53	0	0	4	1
SD ABERDEEN	48	29	57	20	38	4	T	-.1	T	3.1	113	17.9	107	88	51	0	5	1	0
HURON	51	31	62	27	41	5	.5	.3	.5	2.5	82	13.8	79	86	48	0	6	2	0
RAPID CITY	57	33	73	30	45	7	T	-.1	T	4.7	233	12.4	81	79	31	0	4	1	0
TN CHATTANOOGA	49	26	55	22	37	0	.5	.3	.3	4.1	88	15.2	67	92	56	0	7	2	0
KNOXVILLE	68	46	78	32	57	6	2.6	1.7	1.5	15.5	181	65.2	146	99	51	0	1	4	2
MEMPHIS	67	43	73	31	55	4	2.0	1.2	.9	12.6	183	50.5	126	99	56	0	1	4	1
NASHVILLE	73	54	81	43	64	10	2.3	1.5	1.9	10.8	148	55.6	127	80	45	0	0	3	1
TX ABILENE	72	49	83	40	61	10	1.7	1.0	.8	11.7	158	52.9	128	81	42	0	0	3	2
AMARILLO	80	46	86	37	63	7	0	-.4	0	5.1	85	27.3	126	67	18	0	0	0	0
AUSTIN	71	37	81	32	54	6	0	-.2	0	2.5	76	19.0	105	60	14	0	1	0	0
BEAUMONT	83	60	88	47	72	11	T	-.6	T	2.5	32	24.5	88	87	37	0	0	0	0
BROWNSVILLE	84	60	88	40	72	10	T	-.9	T	3.3	32	60.8	128	98	49	0	0	0	0
CORPUS CHRISTI	86	68	95	59	77	8	.1	-.4	.1	5.6	59	18.6	80	98	59	1	0	1	0
DEL RIO	86	65	93	53	75	8	T	-.4	T	2.2	22	15.5	54	99	50	1	0	1	0
EL PASO	80	53	85	47	66	4	0	-.2	0	1.7	32	7.5	46	79	35	0	0	0	0
FORT WORTH	74	38	77	27	56	2	0	-.1	0	.7	32	7.1	101	46	14	0	2	0	0
GALVESTON	82	51	89	36	67	9	0	-.5	0	4.4	61	39.0	139	90	26	0	0	0	0
HOUSTON	78	67	82	58	73	8	T	-.7	T	4.2	43	39.2	113	95	61	0	0	0	0
LUBBOCK	83	59	89	44	71	9	.7	-.1	.5	5.2	50	55.4	138	93	40	0	0	2	1
MIDLAND	76	40	81	37	58	7	0	-.2	0	3.8	91	14.7	87	45	12	0	0	0	0
SAN ANGELO	78	41	81	33	60	5	0	-.2	0	3.0	79	7.9	62	56	15	0	0	0	0
SAN ANTONIO	82	44	88	32	63	6	0	-.3	0	3.2	59	16.9	100	84	19	0	1	0	0
VICTORIA	83	59	90	45	71	9	T	-.6	T	7.4	98	19.8	76	93	40	1	0	0	0
WACO	84	62	89	48	73	8	.1	-.5	.1	6.4	62	22.9	68	95	46	0	0	2	0
WICHITA FALLS	84	53	89	35	69	9	T	-.6	T	1.2	17	27.6	100	88	31	0	0	0	0
UT CEDAR CITY	76	45	87	39	61	6	0	-.4	0	7.6	115	36.3	148	77	23	0	0	0	0
SALT LAKE CITY	62	31	70	23	46	4	0	-.2	0	.7	36	6.2	69	70	23	0	4	0	0
VT BURLINGTON	57	35	65	30	46	3	T	-.3	T	2.3	95	9.9	76	77	34	0	2	0	0
VA NORFOLK	50	39	57	30	44	4	.6	-.1	.2	10.3	146	33.5	114	89	61	0	1	6	0
RICHMOND	70	47	75	39	58	4	.4	-.3	.3	9.5	109	51.4	129	94	53	0	0	2	0
ROANOKE	65	44	69	31	55	3	1.4	.6	.9	10.8	128	46.1	120	94	57	0	1	3	1
WA QUILLAYUTE	62	39	67	26	51	2	-.1	-.5	.1	13.2	174	48.0	139	94	51	0	2	3	0
SEATTLE-TACOMA	53	46	56	39	49	4	9.0	6.2	3.5	21.6	103	71.5	89	100	86	0	0	7	4
SPOKANE	54	47	58	41	51	4	2.3	1.1	1.0	6.7	91	26.9	95	97	78	0	0	5	2
YAKIMA	51	40	59	34	45	8	.2	-.3	.1	2.1	85	11.7	92	91	67	0	0	2	0
WV BECKLEY	63	41	73	32	52	11	T	-.2	T	.7	64	4.5	78	85	48	0	1	1	0
CHARLESTON	59	42	65	29	51	6	.6	0	.3	9.2	126	39.8	107	88	49	0	2	3	0
HUNTINGTON	64	42	72	30	53	5	1.2	.5	.8	12.6	190	54.5	147	96	46	0	1	5	1
PARKERSBURG	64	40	71	29	52	4	.5	-.2	.4	11.2	177	55.9	156	93	44	0	2	3	0
WI GREEN BAY	62	38	67	30	50	2	.2	-.3	.2	11.3	184	50.3	150	92	43	0	2	2	0
LACROSSE	46	34	56	29	40	2	.3	-.2	.2	5.7	96	18.9	75	88	57	0	3	3	0
MADISON	50	35	59	30	43	3	.3	-.1	.1	5.1	84	21.6	77	87	55	0	3	3	0
MILWAUKEE	49	35	58	30	42	3	.3	-.2	.2	3.1	53	23.5	84	86	51	0	3	3	0
WAUSAU	48	38	58	32	43	2	.1	-.3	.1	6.2	106	28.4	103	85	55	0	1	3	0
WY CASPER	43	31	52	28	37	1	.7	-.3	.5	4.7	69	21.0	72	91	63	0	4	5	0
CHEYENNE	53	33	68	22	43	7	T	-.2	T	4.4	239	13.1	127	76	31	0	4	0	0
LANDER	54	34	69	21	44	6	.1	0	.1	2.1	108	12.0	95	77	28	0	4	3	0
SHERIDAN	52	28	67	21	40	6	0	-.2	0	3.4	144	14.8	123	79	32	0	4	0	0
PR SAN JUAN	55	30	71	23	43	7	T	-.2	T	3.6	136	12.4	90	83	31	0	5	0	0
	86	74	87	73	80	0	1.1	-.4	.5	2.7	19	11.6	25	91	70	0	0	5	1

National Agricultural Summary

November 6-12, 1989

HIGHLIGHTS: Rain slowed harvests in the eastern Corn Belt and the Delta. The Great Plains and the West remained dry except for the Pacific Northwest. Soil moisture was mostly adequate to surplus in the East and short to adequate in the Great Plains and the West. The number of days suitable for fieldwork averaged 3-4 in the Delta and the East and 6-7 in the Great Plains and the West.

Winter wheat was mostly good to fair with 88 percent (%) of the acres emerged, 4 percentage points ahead of the 5-year average. Planting was 95% complete, 3 points ahead of normal. Corn harvest was 93% complete, 7 points ahead of normal. Soybean harvest was 91% complete, 9 points ahead of normal. Cotton harvest was 64% complete, 7 points ahead of normal. Sorghum harvest was 95% complete, 9 points ahead of normal.

SMALL GRAINS: Winter wheat was mostly good to fair with 88% of the acres emerged, 4 points ahead of normal. Planting was 95% complete, 3 points ahead of normal. Planting was complete or nearly complete in 15 of the 19 major producing States. Planting continued to lag behind normal in Georgia and North Carolina. In the Great Plains, moisture was needed to promote growth and emergence. Condition was good to fair in Kansas and Oklahoma, fair in Texas, and fair to good in Nebraska. In western Nebraska, high winds damaged the crop. Moisture was needed Statewide. In Kansas, Oklahoma, and Texas, some of the better established fields were being used for pasture. Condition was good to fair in Colorado, Montana, and the Pacific Northwest. Russian wheat aphids were a problem in a few areas of Oregon. In the Corn Belt, condition was mostly good. In North Carolina, planting lagged 13 points behind normal and crop condition was mostly fair. Georgia's planting lagged 21 points behind normal and condition was good to fair.

CORN: Corn harvest was 93% complete, 7 points ahead of normal. Harvest was nearly complete in 12 of the 17 major producing States. Harvest lagged 13 points behind normal in both Ohio and Pennsylvania. Harvest advanced 15 points in Colorado, Michigan, and Wisconsin. In Michigan, harvest was 25 points ahead of normal. Harvest was ahead of normal and nearly complete in Illinois, Iowa, and Nebraska. Harvest was complete in Georgia, South Dakota, and Texas.

SOYBEANS: Soybean harvest was 91% complete, 8 points ahead of normal. Harvest lagged behind normal in the Southeast. Harvest was complete in Illinois, Iowa, Minnesota, Nebraska, and South Dakota. Rain slowed harvest in the eastern Corn Belt and the Delta.

COTTON: Cotton harvest was 64% complete, 7 points ahead of normal. In Texas, harvest was 45% complete, 25 points ahead of normal. Earlier freeze damage was becoming more evident and some of the worst fields may not be harvested. Mississippi's harvest was 83% complete, 3 points behind normal. Stalk shredding and disking were active in California and Arizona. California's harvest was 90% complete, 6 points ahead of normal. In southeastern Arizona, some producers began picking the second crop.

SORGHUM: Sorghum harvest was 95% complete, 9 points ahead of normal. Harvest was over 90% complete in the major producing States except Oklahoma. Oklahoma's harvest was 70% complete, 10 points ahead of normal.

OTHER FIELD CROPS: Peanut harvest was complete in the Southeast but continued in Oklahoma and Texas. Harvest was 62% complete in Texas and 80% complete in Oklahoma. Burley tobacco stripping continued in Kentucky and Tennessee. Quality of the stripped crop was good to fair in Kentucky. In Louisiana, rain and high winds caused some lodging in unharvested sugarcane.

FRUIT AND NUTS: Florida's citrus groves were in good condition but rain was needed. Irrigation was active in all areas. Early fruit sizes were good. In Georgia, pecans were fair with harvest 38% complete, 2 points behind normal. Pecan harvest continued ahead of normal in Louisiana and Mississippi, and began in Arkansas. In Texas, pecan harvest was 24% complete, 9 points behind normal. In the Rio Grande Valley, small fruit sizes continued to slow citrus harvest. In central and western Arizona, lemon, grapefruit, and tangerine harvests were active. Apple harvest and packing continued in eastern Arizona. In California, almond harvest was virtually complete. In the Desert area, lemon, grapefruit and tangerine harvests continued.

VEGETABLES: In Florida, winter crop planting was active. Fall crop harvests increased seasonably. Harvest volume leaders included tomatoes, cucumbers, and squash. Celery harvest began in the central and Everglades areas. Sweetpotato harvest continued in Louisiana, Mississippi, and North Carolina. In Texas, fall vegetables were growing well in the Rio Grande Valley. Limited supplies of tomatoes and peppers were available. Carrot harvest was nearly complete in the High Plains. Fall lettuce harvest continued in Arizona. Broccoli supplies were heavy and of good quality in the Salinas area of California. In the Westside area, head lettuce and sweet corn supplies were heavy. Sweetpotato harvest was nearly complete.

PASTURES AND LIVESTOCK: Pasture condition remained good to fair in the East. In the central and northern Great Plains, producers utilized crop residue for grazing. Livestock was in good condition.

Crop Progress

FOR WEEK ENDING NOVEMBER 12, 1989

WINTER WHEAT
% PLANTED

	1989	1988	AVG.
ARK	84	71	63
CALIF	40	40	40
COLO	100	100	100
GA	15	27	36
IDAHO	100	100	100
ILL	100	100	91
IND	98	96	92
KANS	100	99	95
MICH	100	98	97
MO	95	93	76
MONT	100	100	100
NEBR	100	100	100
N C	46	59	59
OHIO	99	99	96
OKLA	98	98	99
OREG	98	91	91
S DAK	100	100	100
TEX	94	99	92
WASH	99	99	99
19 STATES	95	95	92

THESE 19 STATES PRODUCED 87% OF THE 1989 WINTER WHEAT CROP.

WINTER WHEAT
% EMERGED

	1989	1988	AVG.
ARK	69	51	NA
CALIF	20	10	18
COLO	99	96	96
GA	11	19	23
IDAHO	96	95	95
ILL	93	98	82
IND	86	89	86
KANS	95	90	90
MICH	100	90	80
MO	81	79	69
MONT	92	95	90
NEBR	100	100	100
N C	31	46	NA
OHIO	78	80	84
OKLA	85	85	75
OREG	90	78	74
S DAK	100	100	100
TEX	75	95	83
WASH	98	91	92
19 STATES	86	87	NA

EXCL. STATES WITH NA 88 89 84

THESE 19 STATES PRODUCED 87% OF THE 1989 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

SOYBEANS
% HARVESTED

	1989	1988	AVG.
ALA	63	58	70
ARK	80	63	62
GA	49	52	62
ILL	100	100	93
IND	97	97	92
IOWA	100	100	95
KANS	95	97	75
KY	73	81	66
LA	96	77	75
MICH	98	70	80
MINN	100	99	98
MISS	74	59	63
MO	95	94	73
NEBR	100	100	97
N C	28	34	31
OHIO	93	88	92
S C	26	31	32
S DAK	100	100	97
TENN	82	81	65
19 STATES	91	88	83

THESE 19 STATES PRODUCED 95% OF THE 1988 SOYBEANS CROP.

CORN
% HARVESTED

	1989	1988	AVG.
COLO	86	91	84
GA	100	100	99
ILL	98	100	92
IND	83	89	83
IOWA	99	100	89
KANS	99	99	95
KY	93	91	86
MICH	95	70	70
MINN	98	99	89
MO	97	100	87
NEBR	97	97	84
N C	93	96	96
OHIO	59	70	72
PA	48	53	61
S DAK	100	93	81
TEX	100	100	100
WIS	89	91	73
17 STATES	93	94	86

THESE 17 STATES PRODUCED 94% OF THE 1988 CORN CROP.

GRAIN SORGHUM
% HARVESTED

	1989	1988	AVG.
ARK	100	100	98
ILL	92	99	86
KANS	96	95	85
LA	100	100	100
MISS	99	100	99
MO	96	99	86
NEBR	99	99	93
OKLA	70	70	60
S DAK	100	100	91
TENN	100	100	100
TEX	92	94	85
11 STATES	95	95	86

THESE 11 STATES PRODUCED 96% OF THE 1988 GRAIN SORGHUM CROP.

COTTON
% HARVESTED

	1989	1988	AVG.
ALA	79	89	88
ARTZ	69	62	70
ARK	85	90	85
CALIF	90	85	84
GA	69	76	81
LA	98	92	87
MISS	83	90	86
MO	95	92	86
N MEX	50	50	38
N C	62	71	65
OKLA	15	35	20
S C	71	76	80
TENN	90	89	87
TEX	45	39	30
14 STATES	64	62	57

THESE 14 STATES PRODUCED 99% OF THE 1988 COTTON CROP.

Crop Condition

PERCENT

FOR WEEK ENDING NOVEMBER 12, 1989

WINTER WHEAT

STATE	VP	P	F	G	EX
ARK	0	0	22	60	18
CALIF	NA				
COLO	2	5	28	62	3
GA	0	1	40	58	1
IDAHO	0	3	9	70	18
ILL	0	0	8	77	15
IND	0	0	15	81	4
KANS	0	7	40	45	8
MICH	0	3	12	60	25
MO	1	9	48	42	0
MONT	1	4	31	58	6
NEB	0	11	48	41	0
N C	1	17	62	20	0
OHIO	0	2	24	62	12
OKLA	0	10	25	60	5
OREG	0	15	20	65	0
S DAK	0	7	25	54	14
TEX	2	31	41	20	6
WASH	0	0	40	60	0
19 STATE	0	10	33	50	7
PREV WEEK	0	6	31	54	9
PREV YEAR	1	8	39	45	7

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

Crop Production Highlights

CORN FOR GRAIN production, as of November 1, is forecast at 7.59 billion bushels, up 2 percent from last month and up 54 percent from the drought-reduced crop of 1988. The U.S. average yield per acre is forecast at 116.6 bushels, up 2.2 bushels from last month and 32 bushels above last year. Harvest progressed rapidly in the 17 major producing States during October and was 88 percent complete by November 5.

SORGHUM FOR GRAIN production is forecast at 629 million bushels, down 4 percent from October 1, but up 9 percent from 1988. Yield expectations are down 2.6 bushels from October 1 and 4.0 bushels from 1988. As of November 5, harvest was 85 percent complete in the 11 major production States, slightly ahead of average.

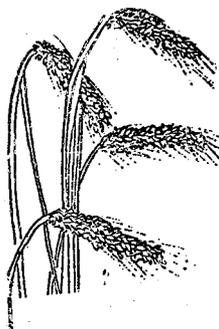
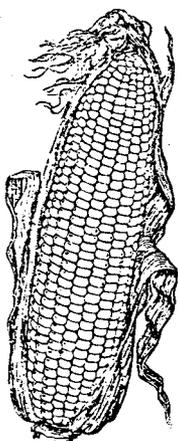
SOYBEAN production is forecast at 1.94 billion bushels, 1 percent above October 1 and 25 percent higher than the 1988 production. Average yield at 32.8 bushels per acre is 0.2 bushels higher than October 1 and 5.9 bushels above 1988. Excellent October harvest conditions prevailed in many States. Harvest progress was 87 percent complete by the week ending November 5, 1989.

COTTON production is forecast at 12.1 million bales, down 21 percent from 1988. Area for harvest, down 20 percent from last year, and slightly lower yields account for this big production decrease. The crop remains in good condition in the Western producing areas and harvest in California is a little ahead of normal. Freezing temperatures, however, slowed boll development and caused damage in some Delta States, while harvest in the Southeastern States continues to lag behind normal.

ALL TOBACCO production is forecast at 1.47 billion pounds, 7 percent above last year's level. Flue-cured is up 3 percent and Burley is up 14 percent from a year ago.

PEANUT production is forecast at 4.13 billion pounds, up 4 percent from last year, but down 5 percent from the October 1 forecast.

FALL POTATO production is forecast at 323 million hundredweight, up 3 percent from last year, but 6 percent below 2 years ago.



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: Rain 2.00 to 4.00 in. central, south; some south 7.00 to 10.00 in.; 1.00 to 2.00 in. north. Temperatures 4 to 7° above normal.

Days suitable for fieldwork 3.4. Soil moisture 2% short, 58% adequate, 40% surplus. Crop harvest slowed, wet conditions prevailed. Cotton 80% harvested, 89% 1988, 88% avg.; 1% poor, 62% fair, 37% good. Soybeans 99% dropping leaves, 95% 1988, 99% avg.; 95% mature, 83% 1988, 93% avg.; 65% harvested, 58% 1988, 70% avg.; 16% poor, 46% fair, 38% good. Sorghum 94% harvested, 95% 1988, 93% avg. Winter wheat 63% seeded, 59% 1988, 56% avg. Livestock good. Pastures fair to good. Primary activities: Harvesting row crops, fall vegetables; shredding cotton stalks; preparing land, planting wheat, winter annuals; applying fertilizer, lime to cropland; general care of livestock, poultry, catfish.

ARIZONA: Sunny, warm days; clear, cool nights across State 5th to 11th. Minimum temperatures 20s, lower 30s higher elevations; 40s, 50s lower deserts. Afternoon temperature 50s, 60s mountains; 80s lower deserts. Warm upper level high pressure centered over State 10th, 11th; western, central areas registered 90° both days. Second consecutive week without rain, snow. Temperatures 1 to 6° above normal.

Cotton harvest progressed; 69% acreage first picked, 62% 1988. Harvest progressed rapidly, growers southeast second picking. Weevil control applied central. Stalk shredding, disking, plow down advanced west, south central, southeast. Alfalfa harvest slowing down. New renovated stands progressing normally. Sheeping off continued west, south central, southeast. Wheat, barley seedbed preparation advanced west, south central; planting limited. Lemon, grapefruit, tangerine harvest active west. Asparagus harvest limited west. Fall lettuce, cantaloupe, honeydew, mixed melons harvested west. Harvest, packing lemons, grapefruit, navel oranges, tangerines active central. Cantaloupe, fall lettuce harvest continued central. Harvest of broccoli, pecans, leeks, mixed greens, bok choy, beets, spinach, green onions, sweet corn, rapini, cabbage, parsley progressed. Apple packing continued east. Fall lettuce harvest continued east.

ARKANSAS: Warm week. Rain early in week, mainly east. Extremes 19°; 90°. Rainfall none to 4.21 in.

Days suitable for fieldwork 6.0. Soil moisture 50% short, 41% adequate, 9% surplus. Soybeans 99% shedding, 92% 1988, 94% avg.; mature 94%, 84% 1988, 86% avg.; 2% poor, 78% fair, 20% good. Cotton 91% fair, 9% good. Oats 87% planted, 82% 1988, 74% avg. Main activities: Cotton, soybean harvest; wheat, oat seeding; disking rice, soybean stubbles; fertilizing fall pastures; marketing calves; repairing fences, machinery. Cotton gins caught up after rains slowed harvest. Stem canker continued to drop yields on some soybean fields. Emerged wheat stands good to excellent. Pecan harvest started, slowed western areas due lack of moisture. Small grain pastures making good growth. Livestock good.

CALIFORNIA: Mild temperatures. No rain.

Rice harvest approached completion by weekend. Stubble burning progressed air quality regulations permitting. Preparation for, seeding small grains

gained momentum. Cotton harvest wound down. Shredding, disking rapid after harvest, pink bollworm quarantine regulations. Corn, dry bean, sugarbeet, grain sorghum harvests active. Alfalfa harvest seasonal. Apple volume diminishing. Date harvest continued. Raisin processing, reconditioning progressed. Late table grapes packed. Packing figs, kiwi, persimmons, pomegranates continued. Almond, pistachio, walnut harvests virtually complete. Pecan, olive harvests active. Old crop valencia orange harvest near completion. Navel orange harvest progressed. Fall cultural practices active. Desert grapefruit, lemons, tangerine harvests ongoing. Broccoli fairly heavy supply, good quality, Salinas area; moderate supply, variable quality Santa Maria district. Cauliflower moderate supply, variable quality Central Coast. Head lettuce supplies fairly heavy Westside, Kern districts, variable quality. Desert cantaloupe, honeydew harvests continued, fair quality. Sweet corn from westside moderate to heavy supply, good quality. Harvest sweet potatoes nearing completion. Livestock good. Movement feedlots active. Increased calving, lambing activity. Range, pasture need more moisture. Supplemental feeding necessary.

COLORADO: Windy, warm weather was predominant over State. No precipitation. Temperatures 4 to 8° above normal.

Days suitable for fieldwork 6.2. Soil moisture 33% very short, 53% short, 14% adequate. Alfalfa 4th cutting 58% complete. Corn 86% harvested. Grain sorghum 82% harvested. Sugarbeets 95% harvested. Winter wheat 99% emerged, remains mostly good. Livestock good. Ranges, pastures fair to good.

FLORIDA: Heavy rains fell across Panhandle early, midweek. Rains 2.00 to 5.00 in. occurred with locally heavier amounts over western Panhandle; 1.00 in. northwest Peninsula; elsewhere generally under 0.50 in. Warm week with temperatures 3 to 6° above normal. Nearly all areas highs into 80s; a few low 90s Peninsula. Coldest readings in upper 30s to low 40s northwest, 40s, 50s central, southern interior, low 70s lower southeast coast.

Soil moisture adequate to surplus, Panhandle; mostly short to adequate Peninsula. Heavy rains, Panhandle, damaged cotton, soybeans. Cotton, soybean harvest continued. Haying winding down. Sugarcane harvest active. Small grain land preparation, seeding continued. Pastures improved Panhandle, northern Peninsula, both fair to good; declined central Peninsula, fair to good; remained good to excellent southern Peninsula. Cattle declined somewhat, fair to mostly good. Citrus groves, trees good. Rain needed; irrigation all areas. Good growing conditions producing new foliage. Good sizes early bloom fruit. Fresh utilization good all areas. Caretakers busy cutting cover crops. Weather major vegetable areas near ideal for field work, seed germination. Precipitation light except none southwest. Temperatures unseasonably warm until passage of weekend cold front. Planting many winter crops continued active most areas, some ended. Fall harvests increased. Volume leaders: Tomatoes, cucumbers, squash, peppers, sweet corn, snap beans, radishes, eggplant. Also available:

Carrots, escarole, specialty lettuce, radishes. First celery harvested central, Everglades areas.

GEORGIA: Wet 6th through 8th, dry weather 9th through weekend. Rain 1.00 to 2.00 in., southwest over 3.00 in. Only southeast under 0.33 in. Lows upper 20s mountain locations, low, mid 30s elsewhere. Central, south low 40s, mid 30s colder locations. Highs mid, upper 70s north, low, mid 80s central, south. Temperatures 4 to 7° above normal.

Days suitable for fieldwork 4.2. Soil moisture 1% very short, 26% short, 62% adequate, 11% surplus. Cotton 21% fair, 78% good, 1% excellent; harvest active. Sorghum grain 3% poor, 33% fair, 64% good; 93% harvested, 89% 1988, 90% avg. Soybeans 1% very poor, 12% poor, 39% fair, 47% good, 1% excellent; 100% dropping leaves, 100% 1988, 100% avg.; harvest progress good. Wheat seeding slow. Rye fair to good, seeding ahead of average. Apples 95% harvested, 100% 1988, 100% avg. Pecans 4% very poor, 13% poor, 69% fair, 14% good; 38% harvested, 28% 1988, 40% avg. Pasture 3% poor, 35% fair, 61% good, 1% excellent. Cattle, hogs good.

HAWAII: Favorable weather continued to benefit agriculture. Warm, sunny days, cool evening temperatures dominated the weeks weather. Winds variable 10 to 25 mph with temperatures mid 60s to high 80s. Rainfall none to 1.80 in.

Days suitable for farm work 7.0. Papaya production active. Sugar, pineapple harvesting continuous. Ginger root harvesting underway. Coffee, macadamia nut harvesting full swing.

IDAHO: Temperatures well above normal. Precipitation was below normal Statewide. South central, southeast received no precipitation. Very light in southwest. North 0.04 to 1.53 in.

Winter wheat good. Sugarbeet, corn for grain harvest continued. Russian wheat aphids monitored in north, east. Other activities: Fall plowing, bedding, planting, fertilizing. Livestock good to excellent. Other activities: Weaning calves, selling culled cows, calves. Hay, forage adequate, short in far north.

ILLINOIS: Temperatures normal to 4° above normal. Scattered showers 0.50 in. or less north, less than 1.00 in. south.

Winter wheat good. Weather good for livestock.

INDIANA: Temperatures up to 5° above normal. Lows upper 20s to low 30s, highs mid to upper 70s. Precipitation 0.25 to 1.25 in.

Days suitable for fieldwork 4.0. Topsoil 7% short, 69% adequate, 24% surplus. Subsoil 13% short, 82% adequate, 5% surplus. Corn 18% moisture content, soybeans 13% moisture content. Spring tilling of land 41%, 44% 1988, 33% avg. Pasture 8% poor, 40% fair, 48% good, 4% excellent. Corn, soybean harvest continue to make good progress.

IOWA: Temperatures near normal. Extremes 18°; 66°. Rainfall none to 0.49 in., average 0.08 in.

Days suitable for fieldwork 6.1. Topsoil 63% short, 37% adequate. Subsoil 96% short, 4% adequate. Row crop acreage fall tilled 50%, NA 1988, 40% avg. Row crop acreage with fall fertilizer applied 40%, NA 1988, 32% avg. Livestock good. Winter wheat 5% poor, 30% fair, 55% good, 10% excellent.

KANSAS: Temperatures mid 50s, 6 to 11° above normal. No precipitation.

Days suitable for fieldwork 6.5. Moisture concern many areas, especially where wheat needs

to establish good growth before winter. Topsoil 73% short, 25% adequate, 2% surplus. Subsoil 30% short, 70% adequate. Corn, sorghum, soybean harvest good progress, on schedule with last year. Supplies hay, forage, feed grains adequate across State. Cattle continue to be moved off pastures onto corn, sorghum stubble. Wheat grazing underway where stands established.

KENTUCKY: Unseasonably warm, above normal rainfall. Daytime highs mid 60s, some 5° above normal; lows mid 40s, about 7° above mean. Rain widespread, most areas 1.00 to 1.50 in., about twice normal.

Days suitable for fieldwork 3.3. Soil moisture 3% short, 83% adequate, 14% surplus. Corn harvest virtually complete west, west central; yields excellent. Combining soybeans slowed by rain, active early, late in week. Burley tobacco 33% stripped, 33% 1988, 35% avg. Stripped tobacco quality 1% poor, 24% fair, 69% good, 6% excellent. Winter wheat 84% seeded, 86% 1988, 75% avg.; emerged wheat good to excellent. Fall pastures very good.

LOUISIANA: Temperatures 6 to 10° above normal across north, 5 to 8° above normal across south. Extremes 33°; 88°. Rainfall 0.24 to 6.08 in.

Days suitable for fieldwork 4.5. Soil moisture 23% short, 43% adequate, 34% surplus. Cotton harvested 98%, 92% 1988, 87% avg. Pecans harvested 44%, 20% 1988, 34% avg. Soybeans harvested 96%, 77% 1988, 75% avg. Sugarcane harvested 45%, 46% 1988, 39% avg. Lodging occurred in some southeast parishes due to heavy rains, high winds. Sweet potatoes harvested 93%, 93% 1988, 91% avg. Wheat planted 63%, 45% 1988, 41% avg.; emerged 32%, 29% 1988, 28% avg. Recent showers should improve stands. Livestock 39% fair, 61% good. Pasture 32% poor, 40% fair, 28% good. Vegetable 5% very poor, 18% poor, 57% fair, 20% good.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 0.84 in. Temperature 50°, normal 49°. Extremes 17°; 70°.

Days suitable for fieldwork 3.5. Topsoil 26% surplus, 74% adequate. Subsoil 78% adequate, 22% surplus. Field corn good; harvested for grain 98%, 93% 1988, 93% avg. Soybeans good; 59% harvested, 65% 1988, 62% avg. Pasture good. All hay supplies adequate. Wheat 83% seeded, 83% 1988, 87% avg. Rye 81% seeded, 94% 1988, 94% avg. Oats 53% seeded, 100% 1988, 97% avg.

DELAWARE: Precipitation 1.29 in. Temperature 52°, normal 49°. Extremes 30°; 60°.

Days suitable for fieldwork 3.2. Topsoil 60% adequate, 40% surplus. Subsoil 60% adequate, 40% surplus. Field corn fair to good. Soybeans good; 43% harvested, 67% 1988, 62% avg. Pasture good. All hay supplies short to adequate. Wheat 71% seeded, 78% 1988, 83% avg. Barley 92% seeded, 96% 1988, 97% avg. Rye 93% seeded, 71% 1988, 82% avg.

MICHIGAN: Temperatures normal to 4° above normal. Extremes 22°; 60°. Precipitation 0.05 to 1.52 in. across State.

Days suitable for fieldwork 4.5. Soil moisture 5% short, 85% adequate, 10% surplus. Corn 95% harvested, 70% 1988, 70% avg. Soybeans 98% harvested, 70% 1988, 80% avg. Winter wheat 100% planted, 98% 1988, 97% avg.; 100% emerged, 90% 1988, 80% avg.; 3% poor, 12% fair, 60% good, 25% excellent. Major activities: Corn, soybean harvest, fall tillage.

MINNESOTA: Temperatures none to 2° below normal. Extremes 13°; 55°. Precipitation 0.02 to 0.42 in. Greatest weekly total 0.68 in.

Corn 98% harvested, 99% 1988, 89% avg. Soybeans 100% harvested 99% 1988, 98% avg.

MISSISSIPPI: Thunderstorms produced flash flooding, hail, high winds, above normal rainfall. Rainfall 3.31 in., 2.43 in. above normal. Extremes 27^o; 85^o. Departure from normal 1.7^o above normal at Pascagoula to 11.1^o above normal at Belzoni.

Days suitable for fieldwork 2.0, 4.2 1988, 4.1 avg. Soil moisture 32% adequate, 61% surplus, 7% excessive. Corn 97% harvested, 96% 1988, 97% avg. Cotton 83% harvested, 90% 1988, 86% avg. Pecans fair to poor; 35% harvested, 23% 1988, 32% avg. Rice, sorghum harvest nearly complete. Soybeans fair; 74% harvested, 59% 1988, 63% avg. Sweet potatoes 81% harvested, 94% 1988, 94% avg. Wheat 73% planted, 62% 1988, 52% avg. Livestock good. Pastures fair to good. Main activities: Harvesting cotton, soybeans, planting wheat, fall tillage when weather permitted.

MISSOURI: Temperatures 3^o above normal. Mostly dry except southeast 1.00 in., northeast 0.10 in.

Days suitable for fieldwork 5.9. Topsoil 49% short, 48% adequate, 3% surplus. Pasture 7% very poor, 14% poor, 48% fair, 28% good, 3% excellent. Corn harvest 95% northwest to 100% southeast. Soybean harvest 88% southwest to 99% northeast. Grain sorghum harvested 87% southwest to 100% southeast. Wheat seeding 88% southwest to 98% northeast, east central; emerged 76% to 86%. Ground worked at least once for spring crops 47%, 48% 1988, 41% avg.

MONTANA: Temperatures above average, especially west. Substantial precipitation west, up to 0.91 in.

Days suitable for fieldwork 5.7. Topsoil 20% short, 78% adequate, 2% surplus. Subsoil 37% short, 58% adequate, 5% surplus. Range, pasture feed 1% very poor, 10% poor, 37% fair, 48% good, 4% excellent. Cattle, calves moved from summer ranges 85%, 94% 1988, 95% avg. Sheep, lambs moved from summer ranges 83%, 95% 1988, 95% avg. Cattle, calves receiving supplemental feed 10%, 31% 1988. Sheep, lambs receiving supplemental feed 12%, 34% 1988.

NEBRASKA: Temperatures 3 to 11^o above normal. Extremes 20^o; 80^o. No measurable precipitation.

Days suitable for fieldwork 6.9. Topsoil 88% short, 12% adequate. Subsoil 90% short, 10% adequate. High winds west caused soil erosion, problems with the corn harvest such as ear droppage. Winter wheat also hurt by high winds as well as by dry soil conditions. Crop in need of moisture statewide. Operators finished with harvest were working fall tillage, applying fertilizer, mending fences, moving winter feed to lots, working livestock. Those through with fall tillage were preparing equipment for storage. Pasture, range feed supplies 15% very short, 74% short, 11% adequate. Hay, roughage supplies 9% very short, 49% short, 42% adequate. Cattle grazing stalks statewide, excellent gains southwest.

NEVADA: Week began with partly cloudy skies north. High pressure ridge mid week brought mostly sunny warm days, clear, cool nights. Temperatures varied from mild early to near record levels late.

Harvesting operations completed for 1989 season. All of garlic, about 96% winter grains planted for harvest in 1990. Potato prices encouraging. Cattle good. Open weather facilitated feeding operations so far this season.

NEW ENGLAND: Precipitation 1.00 to 1.50 in. Temperatures around 40^o Canadian border to around 50^o south coast.

Limited farm activity included fall clean up, scattered late vegetable harvest.

NEW JERSEY: Temperatures near normal north, below normal south, coastal; 46^o north, 50^o south, 54^o coastal. Extremes 25^o; 68^o. Precipitation normal north, above normal south, coastal; 0.86 in. north, 1.26 in. south, 1.86 in. coastal. Heaviest 24-hour total 1.26 in on 8th, 9th.

Excess soil moisture hampered harvest of soybeans, corn for grain. Light movement of hardy vegetables continued. Fall sown grain, cover crop seeding continued. Early planted fields continued good growth. Apple, cranberry harvest in clean up stage. Cider making active.

NEW MEXICO: Temperatures averaged generally above normal Statewide. No measurable precipitation.

Days suitable for fieldwork 7.0. Soil moisture 100% short. Cotton 50% harvested. Wheat planted 100%; 100% emerged; 13% very poor, 13% poor, 59% fair, 15% good. Cattle 20% fair, 80% good. Sheep 38% fair, 62% good. Ranges, pastures 20% poor, 50% fair, 30% good.

NEW YORK: No weather data available.

Grain corn harvest continued as weather permitted. Apple harvest winding down. Vegetable season over, growers now disking under remaining crop residue.

NORTH CAROLINA: No weather data available.

Days suitable for fieldwork 3.8. Soil moisture 2% short, 73% adequate, 25% surplus. Pasture 1% very poor, 14% poor, 63% fair, 17% good, 5% excellent. Livestock feed from pasture 76%. Crop condition: Wheat 1% very poor, 17% poor, 62% fair, 20% good; oats 10% poor, 66% fair, 24% good; barley 12% poor, 66% fair, 22% good; rye 12% poor, 68% fair, 20% good; Hay, roughage 3% short, 85% adequate, 12% surplus. Feed grain supplies 1% short, 96% adequate, 3% surplus. Harvesting completed: sorghum 77%, 88% 1988, 84% avg.; sweet potatoes 91%, 98% 1988; peanuts dug 100%, 99% avg.; peanuts threshed 100%, 93% 1988, 96% avg. Plantings completed: wheat 46%, 59% 1988, 59% avg.; oats 70%, 82% 1988, 79% avg.; barley 82%, 82% 1988, 79% avg.; rye 66%, 62% 1988, 64% avg. Major activities: Planting small grains, cover crops; fall land preparation; corn for grain harvest, soybean harvest. Other activities included: Digging peanuts, sweet potatoes; harvesting cotton, apples; cutting hay; preparing Christmas trees for sale; tending livestock, general farm maintenance.

NORTH DAKOTA: Temperatures 3 to 6^o above normal. Extremes 17^o; 71^o. Precipitation 0.07 to 0.20 in. across State.

Soil moisture very short. Harvesting complete. Pastures poor condition.

OHIO: High temperatures upper 50s to upper 60s; 2 to 4^o above normal. Low temperatures mid 30s to low 40s; freezing or lower in most areas early in period. Precipitation evenly distributed; 0.25 in to 0.50 in. common. Soil temperatures above 50^o in all areas except north.

Days suitable for fieldwork 3.6. Soil moisture 2% short, 70% adequate, 28% surplus. Moisture in harvested corn 24%; in soybeans 14%. Soybean harvest advanced to 93% complete; corn 59% complete. Winter wheat seeding virtually complete.

OKLAHOMA: Temperatures 3^o above normal north central to 8^o above normal southwest. No precipitation.

Days suitable for fieldwork 6.2. Topsoil 53% short, 45% adequate, 2% surplus. Subsoil 35% short, 65% adequate. Subsoil lowest since mid May. Wheat 10% poor, 25% fair, 60% good, 5% excellent; 98% planted, 98% 1988, 99% avg.; 85% emerged, 85% 1988, 75% avg. Rain needed for wheat pasture development. Cotton 30% very poor, 20% poor, 48% fair, 2% good; 85% open bolls, 97% 1988, 95% avg.; 15% harvested, 35% 1988, 20% avg. Cool temperatures, hail, early frost reduced crop. Sorghum 70% harvested, 70% 1988, 60% avg. Soybeans 70% harvested, 55% 1988, 45% avg. Peanuts 80% harvested, 80% 1988, 70% avg. Pastures good to fair. Cattle good; marketings stable, prices up slightly from preceding week.

OREGON: Record high temperatures latter part of week many areas. Willamette Valley, northeast 7 to 14° above normal. South central was normal. Elsewhere 3 to 6° above normal. Precipitation widespread. Northeast wettest with some areas having more than 2.00 in. Elsewhere mostly less than 0.10 in. Dry at Heppner, Hermiston, Morrow, Lakeview.

Soil moisture mostly adequate to surplus; except those areas which received no rain last week. Field spraying for Russian wheat aphid Columbia Basin counties, most fields do not need treatment. Last of field corn harvested Hermiston Boardman. Other harvest activities around State mainly completed. Some late season vegetables harvested Willamette Valley. Livestock mostly good. Range, pasture fair to good.

PENNSYLVANIA: Numerous fronts swept across State causing showers, few thunderstorms. Precipitation slightly above normal. Temperature 46°, 2° above normal. Extremes 22°; 68°. Precipitation 0.79 in., 0.06 in. above normal.

Days suitable for fieldwork 5. Soil moisture 10% short, 80% adequate, 10% surplus. Corn 94% mature, 95% 1988, 99% avg.; 48% harvested, 53% 1988, 61% avg. Ensilage corn 95% harvested, 97% 1988, 99% avg.; 2% very poor, 9% poor, 24% fair, 42% good, 23% excellent. Soybean harvest 54% complete, 58% 1988, 62% avg.; 1% very poor, 6% poor, 29% fair, 49% good, 15% excellent. Fall plowing 95% complete, 97% 1988, 99% avg. Fourth cutting alfalfa 86% complete, 90% 1988. Quality of hay made during week fair. Amount of feed being obtained from pastures average. Activities: Harvesting hay, haylage, corn, corn silage, soybeans; fall plowing; maintaining machinery, caring for livestock.

SOUTH CAROLINA: Temperatures 6 to 8° above normal. Rainfall varied 0.10 in. northeast to 1.00 in. mountains, northwest parts of State.

Days suitable for fieldwork 5.2. Soil moisture 33% short, 67% adequate. Cotton 1% very poor, 5% poor, 73% fair, 21% good, 71% harvested, 76% 1988, 80% avg. Soybeans 6% poor, 76% fair, 18% good, 94% shedding leaves, 90% 1988, 93% avg.; 89% matured, 88% 1988, 87% avg.; 26% harvested, 31% 1988, 32% avg. Tobacco 92% stalks destroyed, 94% 1988, 95% avg. Sorghum fair to good, 65% harvested, 74% 1988, 78% avg. Peanuts fair to good, 94% harvested, 93% 1988, 92% avg. Pasture, hay fair to good. Livestock good.

SOUTH DAKOTA: Temperatures normal to 8° above normal. Extremes 15°; 73°. Precipitation for the year was above normal parts of northwest, northeast, below normal elsewhere. Rainfall 3.65 in. above normal to 7.95 in. below normal. Precipitation widespread, heaviest central, east central, maximum 0.91 in.

TENNESSEE: Moist, unstable air mass combined with approaching cold front bringing thunderstorms

early week. Front moved east late week ending rains. Rapid warm up over weekend, record high temperatures in many areas. Temperatures above normal Statewide. Precipitation above normal most areas.

Days suitable for fieldwork 3.3. Soil moisture 2% short, 75% adequate, 23% surplus. Burley tobacco 62% stripped, 67% 1988, 56% avg. Wheat 84% seeded, 87% 1988, 69% avg. Harvest regained strength late in week. Wheat, grasses emerging well. Pastures, herds good.

TEXAS: Weather generally mild, punctuated by one cold front. Front basically dry, went through State by 9th. Warmer temperatures returned by weekend. Most areas 4° above normal. Only spotty rainfall, all areas below normal.

Crops: Corn harvest completed. Irrigated corn Plains very good yields. Grain sorghum harvest very active. Plains under favorable weather conditions. Some yields less than expected because freeze damage. Early maturing fields produced good yields. Sorghum 99% mature, 100% 1988, 99% avg. Cotton harvest rapid progress. Many areas freeze damage more apparent as bolls fail to open. Some fields with extreme freeze damage, low yield prospects may not be harvested. Cotton 96% open bolls, 97% 1988, 84% avg. Small grain seeding continued scattered areas across State. Rainfall helped some areas south central, other areas remained dry. Small grains emerge where helped by moisture, additional moisture needed Statewide help roots tie down. Irrigated fields provide some grazing, forage from dryland fields limited. Peanut harvest active Low Plains, Cross Timbers. Yields dryland fields poor, grades varied. Soybean harvest moved ahead, some areas near completion. Sugarbeet harvest active High Plains. Other crops: Peanuts harvested 62%, 71% 1988, 61% avg. Pecans 24%, 30% 1988, 33% avg. Soybeans harvested 80%, 81% 1988, 65% avg. Sugarbeets 61%, 59% 1988, 52% avg. Sunflowers harvested 55%, 72% 1988, 72% avg. Oats planted 84%, 75% 1988, 82% avg.

Commercial Vegetables: Rio Grande Valley, irrigation provide needed moisture. Fall vegetables growing well. Limited supplies tomatoes, peppers available. Onions, lettuce, celery progressing well. Citrus harvest slow. Fruit slow to size. San Antonio Winter Garden, fall vegetables normal progress. Irrigation continued. High Plains, carrot harvest winding down. Trans Pecos, bell pepper harvest completed. Some chiles harvested at El Paso. Some onions planted. Pecan harvest continued. Light crops many areas.

Range and Livestock: Cold temperatures, dry conditions stopped growth of summer forage. Some forage available from irrigated small grains, cattle moved to available pastures. Supplemental feeding continuing most areas help maintain cattle. Producers ship hay into drier areas.

UTAH: Temperatures 2° above normal except Dixie area which was about normal. Precipitation was mostly zero.

Weather generally favorable for fieldwork throughout State. Soil moisture remained mostly dry. Fall fieldwork continued. Orchard clean up underway. More precipitation needed for good crop prospects in 1990. Grazing livestock continued on crop aftermath. Other major farm activities: Tax preparation, other financial management, livestock care.

VIRGINIA: Mild temperatures, moderate rainfall. Precipitation 0.06 to 1.59 in. Extremes 75°; 19°. Days suitable for fieldwork 3.3. Topsoil 6% short, 51% adequate, 43% surplus. Grain corn 88% harvested, 81% 1988, 84% avg. Soybeans 49%

harvested, 42% 1988, 37% avg. Wheat 64% seeded, 59% 1988, 62% avg. Barley 94% seeded, 86% 1988, 89% avg. Oats 98% seeded, 94% 1988, 94% avg. Winter grains, grazing crops 4% poor, 18% fair, 54% good, 24% excellent. Pastures 7% fair, 55% good, 38% excellent. Forage from pastures, winter grazing crops dairy cattle 20%, beef cattle 91%, sheep 89%. Stripped, graded burley tobacco. Marketed feeder cattle. Small grains seeded. Building, fence repair.

WASHINGTON: Temperatures 3 to 10° above normal, east; 5 to 6° above normal, west. Precipitation none to 0.23 in., east; 1.48 to 6.08 in., west.

Days suitable for fieldwork 5.2. Soil moisture 20% short, 80% adequate. Range, pasture 50% short, 50% adequate. Hay, other roughage 5% short, 90% adequate, 5% surplus. Seeding, reseeding of winter wheat was almost finished. Emerged wheat crops look good. Some counties dry, needed rain. Winter wheat planted 99%, 99% 1988, 99% avg.; emerged 98%, 91% 1988, 92% avg. Other crop harvests: Potatoes 100%, 99% 1988, 99% avg.; corn for grain 42%, 67% 1988, 77% avg. Major activities: Cleaning orchards; pruning caneberry fields; applying fertilizers, herbicides,

rodenticides; harvesting cranberries, carrots; beginning winter feeding programs; marketing calves.

WEST VIRGINIA: Temperatures 50°, 5° above normal. Extremes 19°; 71°. Precipitation above normal, average 0.85 in.

Days suitable for fieldwork 3.3. Soil moisture 75% adequate, 25% surplus. Corn good; 61% harvested. Wheat seeding 78% complete. Hay good to fair; 3rd cut 87% harvested. Pastures good to fair. Cattle, calves good to fair. Sheep lambs fair to good. Damp conditions causing some health problems in livestock. Farm activities: Corn, hay harvest; tobacco stripping, marketing cattle.

WISCONSIN: Temperature 39°, 3° above normal. Extremes 18°; 58°. Precipitation 0.10 to 0.50 in., most south.

Days suitable for fieldwork 4.5. Soil moisture 55% short, 43% adequate, 2% surplus. Corn grain 89% harvested, 91% 1988, 73% avg. Soybeans 98% harvested, 94% 1988, 81% avg. Fall plowing 59% complete, 70% 1988, 50% avg.

WYOMING: Temperatures above normal. Precipitation below normal. Corn harvest continues. Winter wheat fair to good, some wind damage. Livestock good. Shipping of livestock to markets continues.

International Weather and Crop Summary

HIGHLIGHTS

November 5-11, 1989

USSR ... Dry weather accompanies a gradual cooling trend. Winter grains are easing into dormancy in central and eastern areas about 2 weeks later than usual.

EUROPE ... Beneficial rains continue in the northwest. Widespread rain in the east maintains favorable conditions for winter grains.

SOUTH ASIA ... Tropical Cyclone Gay hits rice areas of southeastern India.

EASTERN ASIA ... Heavy rain causes possible flooding in sections of the Korean Peninsula. Cooler temperatures slow growth of winter grains in northern growing areas.

SOUTHEAST ASIA ... Showers over Thailand favor immature rainfed crops and secondary plantings. Beneficial rain continues over Indonesia and Malaysia.

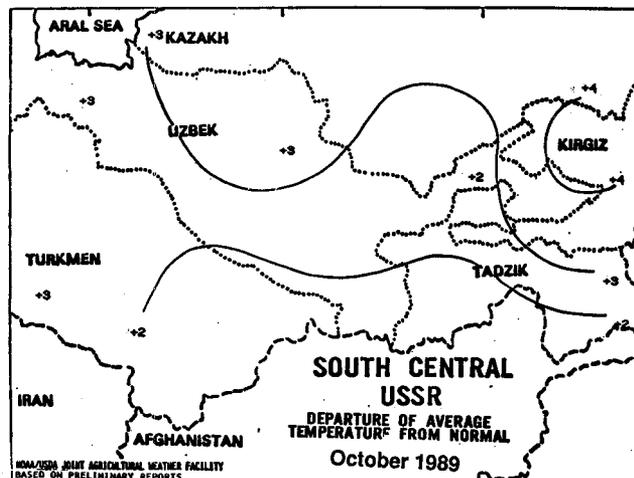
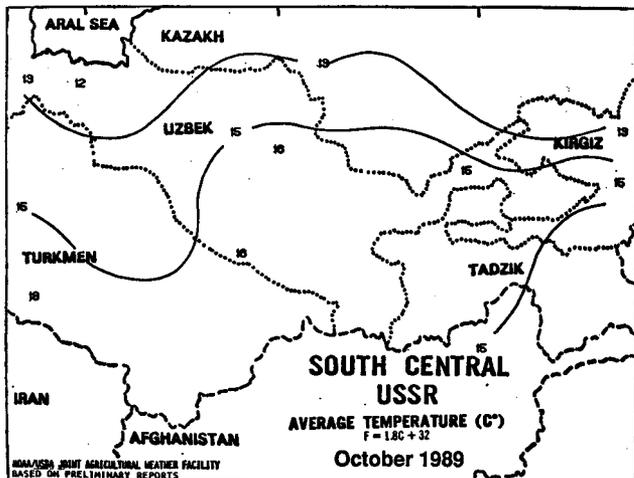
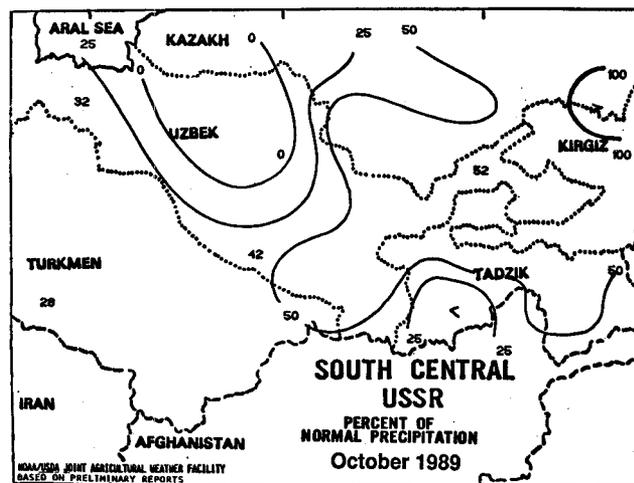
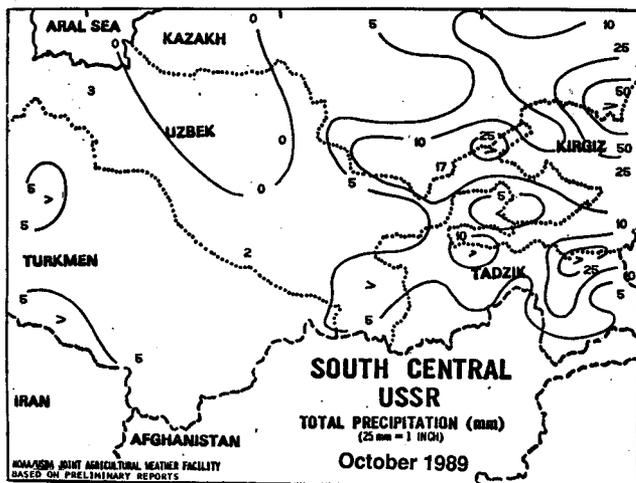
SOUTH AFRICA ... Above-normal rain covers most primary corn regions, improving planting conditions.

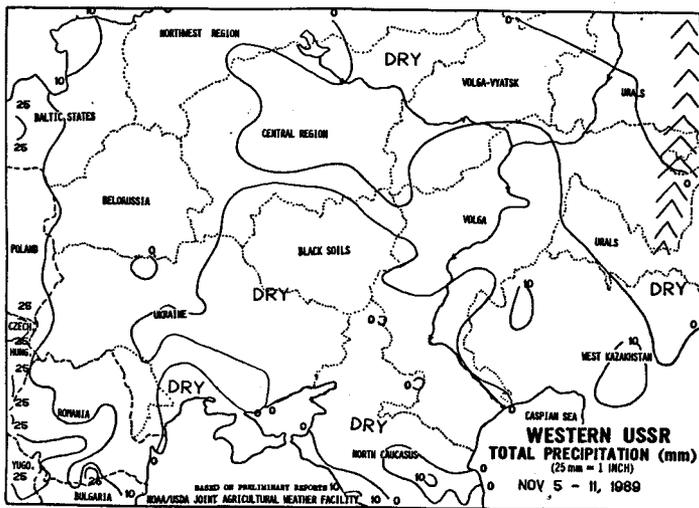
SOUTH AMERICA ... Beneficial rain in Argentina improves planting conditions, while showers in south-central Brazil maintain adequate planting moisture.

AUSTRALIA ... Rain continues harvest delays in the east. Light to moderate rain favors winter grains across the south.

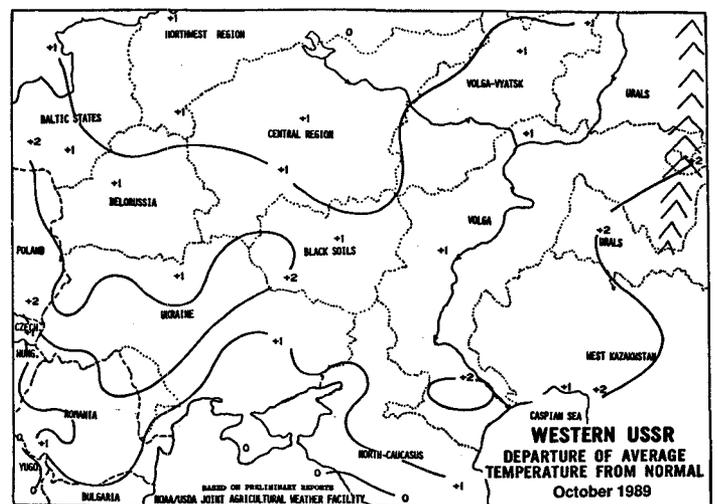
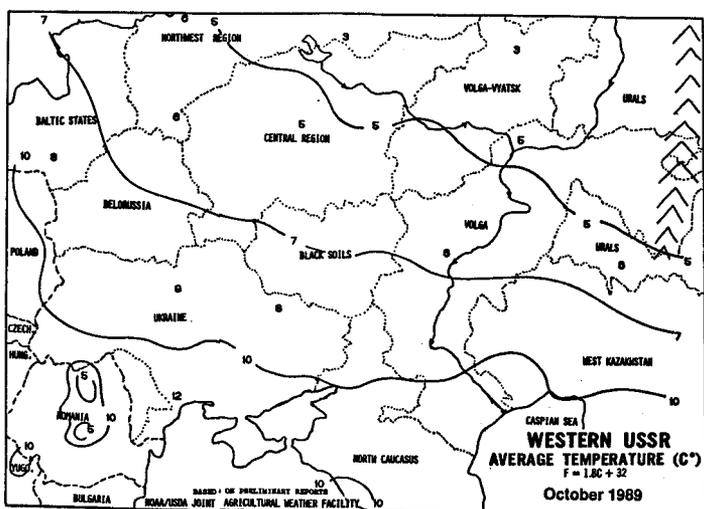
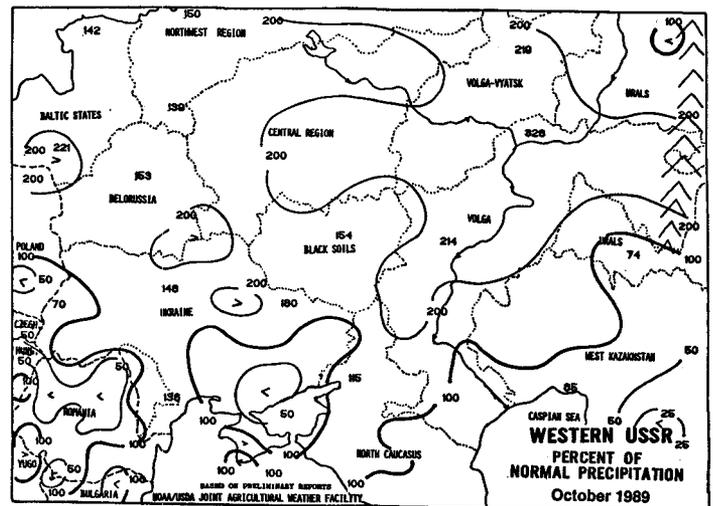
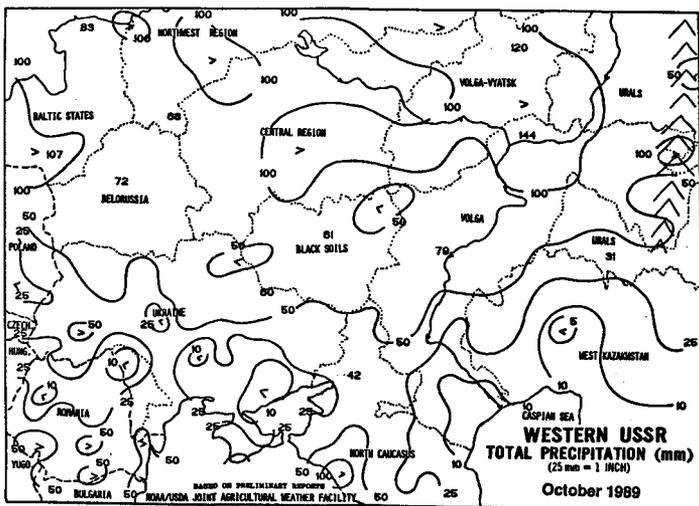
MEXICO ... Dry weather prevails across the north. Isolated showers are scattered over eastern and southern areas.

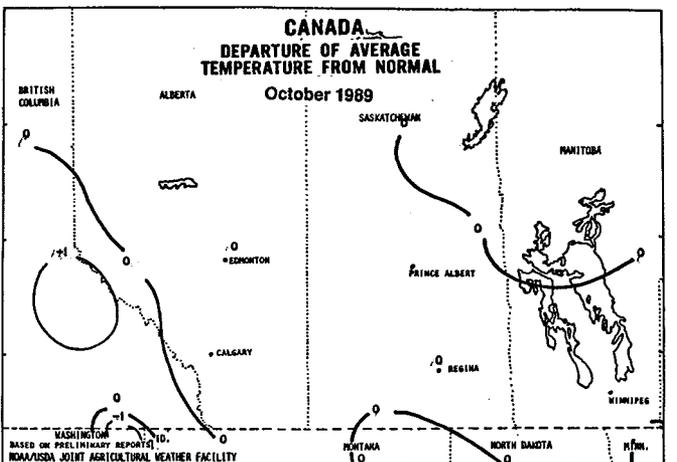
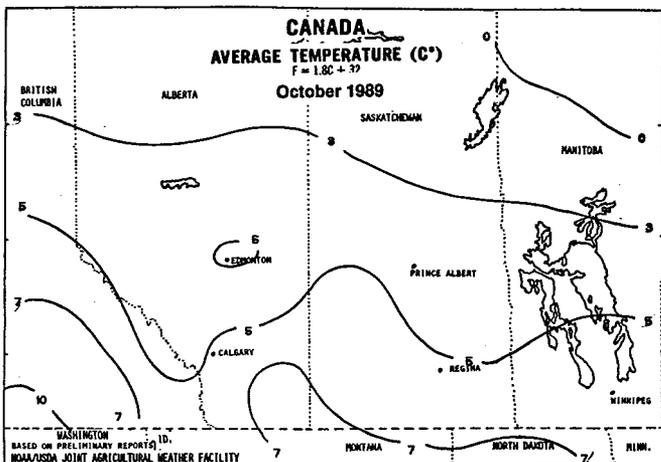
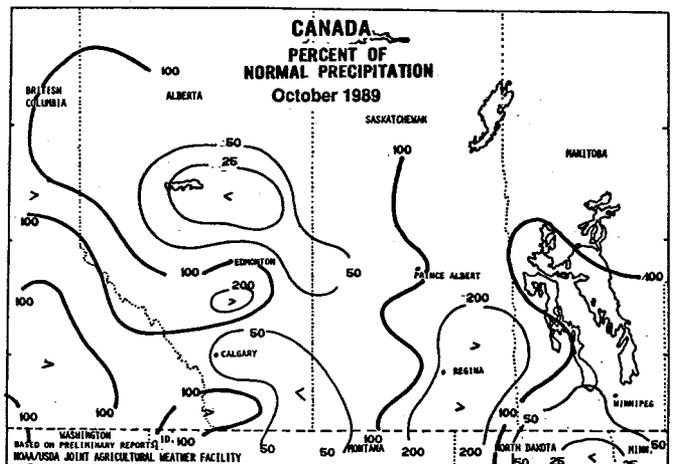
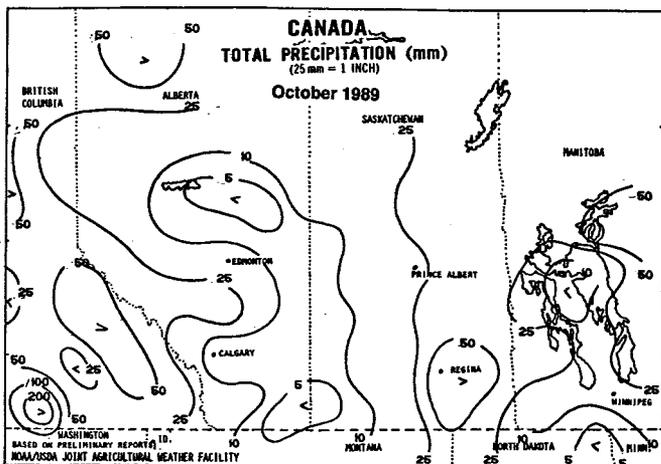
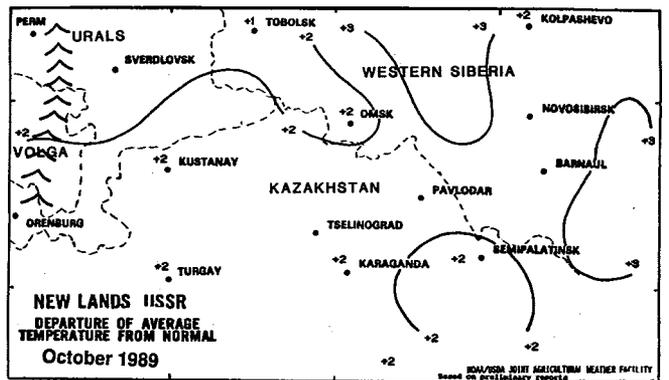
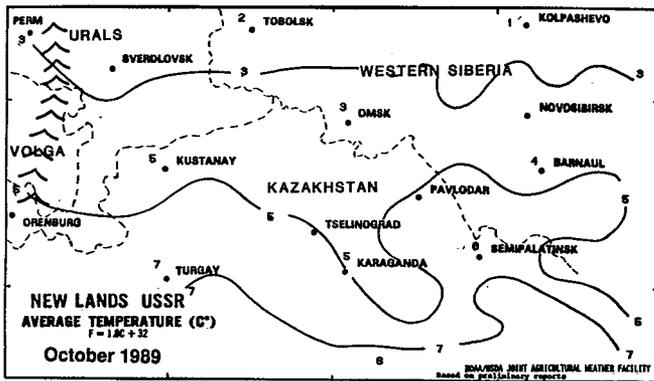
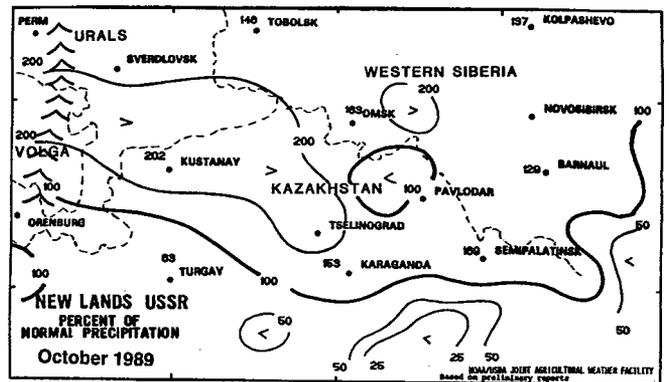
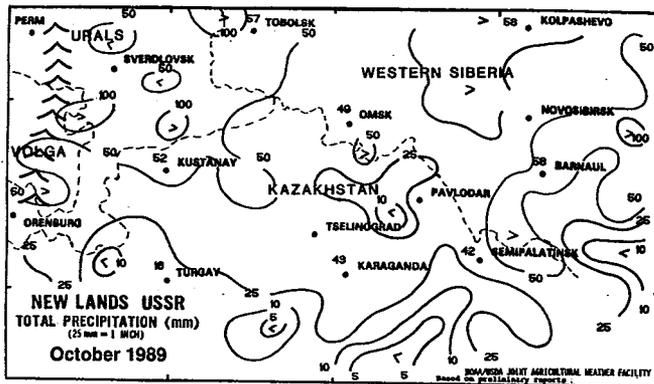
NORTHWESTERN AFRICA ... Minimal rain keeps topsoils too dry for widespread winter grain planting. Substantial time remains for planting.



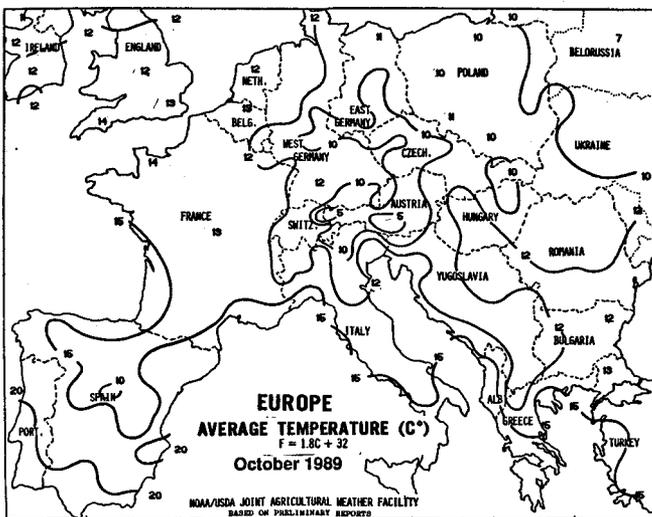
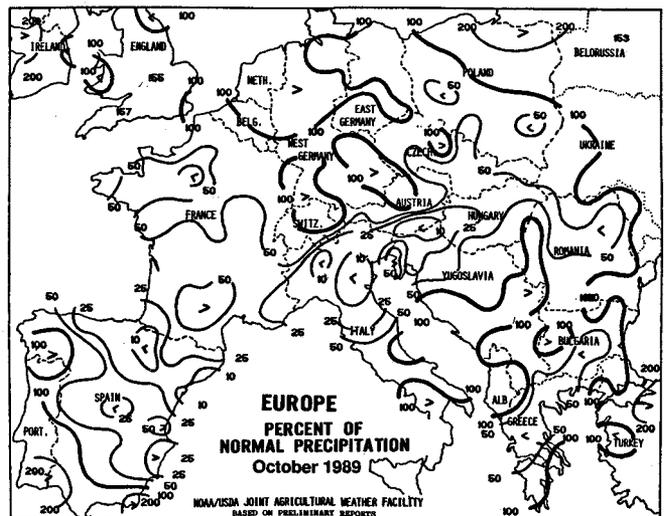
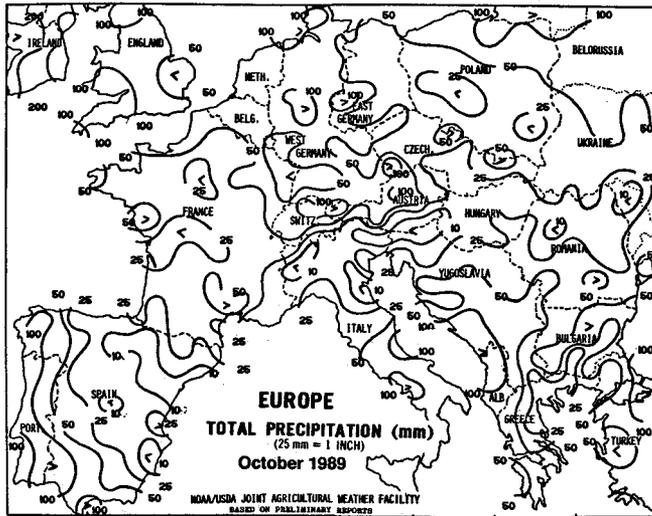
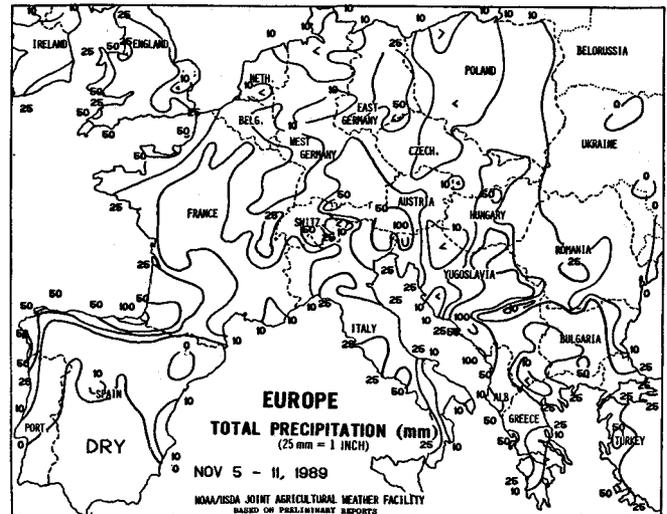


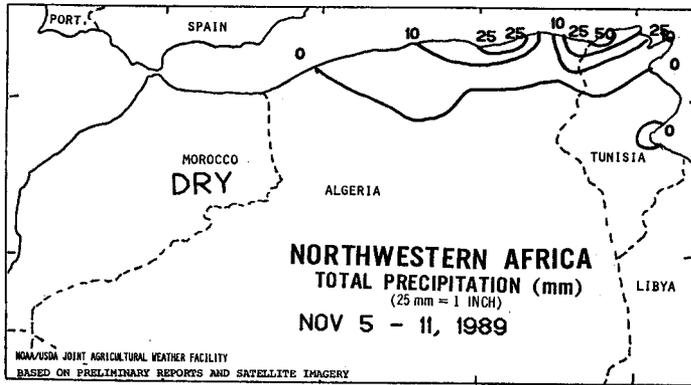
WESTERN USSR ... Mostly dry weather covered the region, helping late harvest activities. Although a gradual cooling trend occurred, the weather continued unusually mild, with weekly average temperatures at most locations ranging 1-3 degrees Celsius (C) above normal. Winter grains in the Baltic States, northern Belorussia, the Black Soils Region, and the Volga began easing into dormancy about 2 weeks later than usual. In October, winter grain planting was nearly complete early in the month, while corn, sunflower, and sugarbeet harvests continued throughout the month. Unseasonably warm weather covered winter grain areas, promoting continued vegetative growth. Above-normal precipitation over the upper Volga, the northern Black Soils Region, and the Central Region reversed September's unfavorably dry weather pattern in these areas, improving conditions for winter grain establishment. Although precipitation in October over most of the Ukraine and the North Caucasus was above normal, periodic dryness prevented significant delays in corn harvesting.



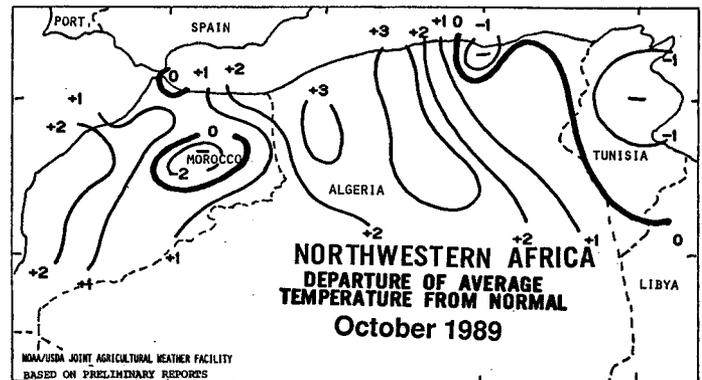
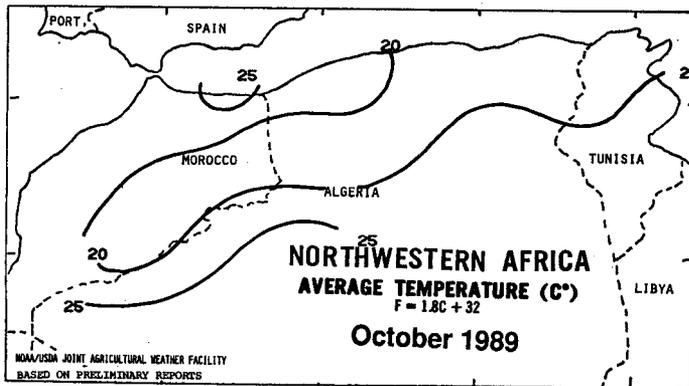
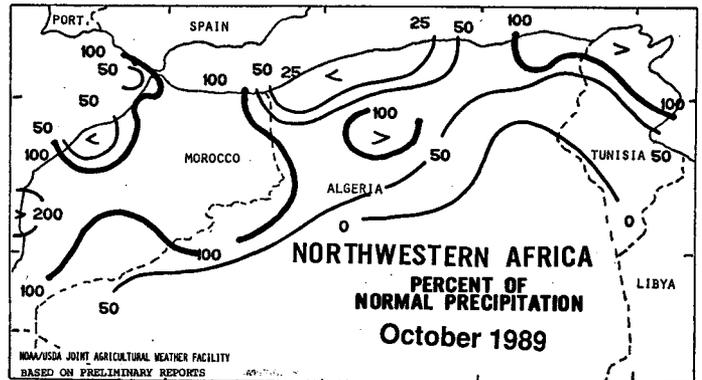
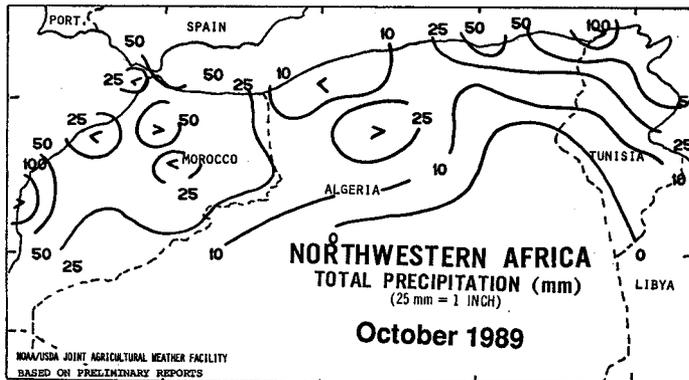


EUROPE ... Moderate to heavy rain (15-40mm, with scattered amounts in excess of 40mm) continued across northwestern Europe, further replenishing soil moisture for vegetative winter crops. Abnormal dryness across sections of western and southern Europe during October delayed planting of rapeseed, slowed growth of winter grains, and will make many crops more susceptible to potential winterkill damage. In the east, widespread rain (5-40mm, with isolated rainfall greater than 40mm) maintained favorable soil moisture for winter grains. Heavy seasonal rains (25-118mm) fell in sections of extreme northern Spain, central Italy, and Yugoslavia, while southern Spain and Portugal remained mostly dry. Temperatures in all but eastern Europe cooled to near normal, slowing growth of winter crops. Above-normal temperatures continued across the east, continuing a warmer-than-normal trend during much of October and early November.

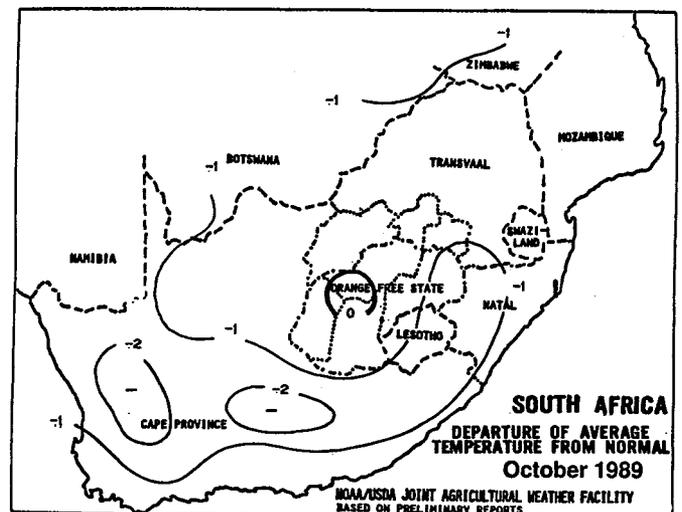
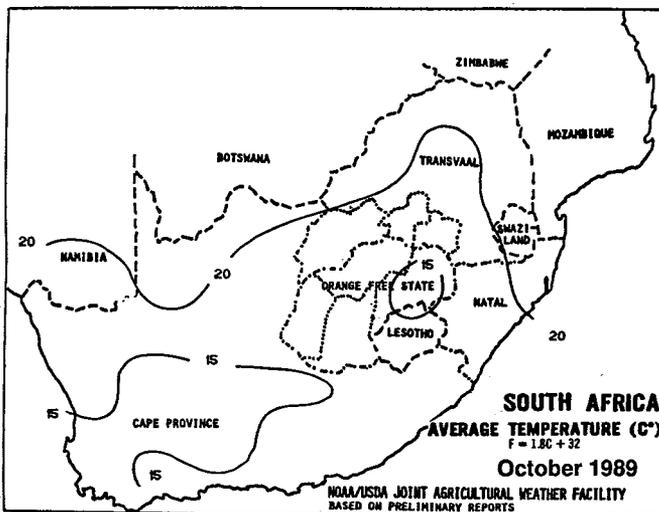
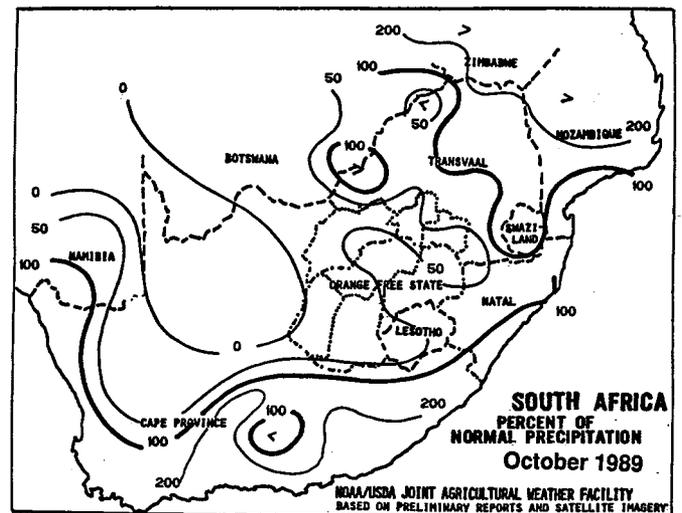
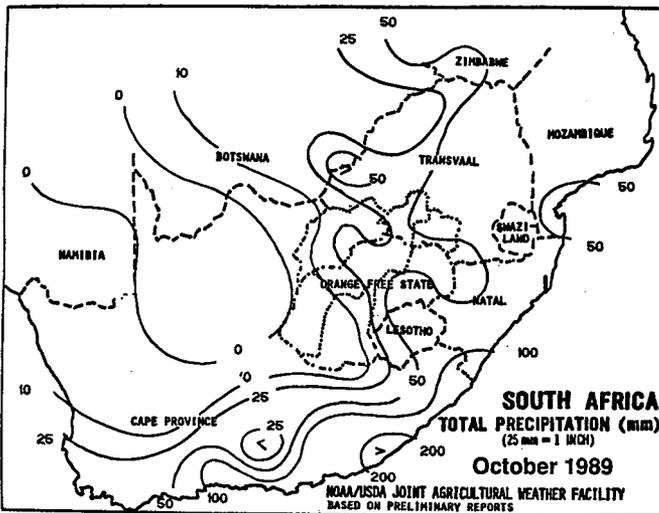
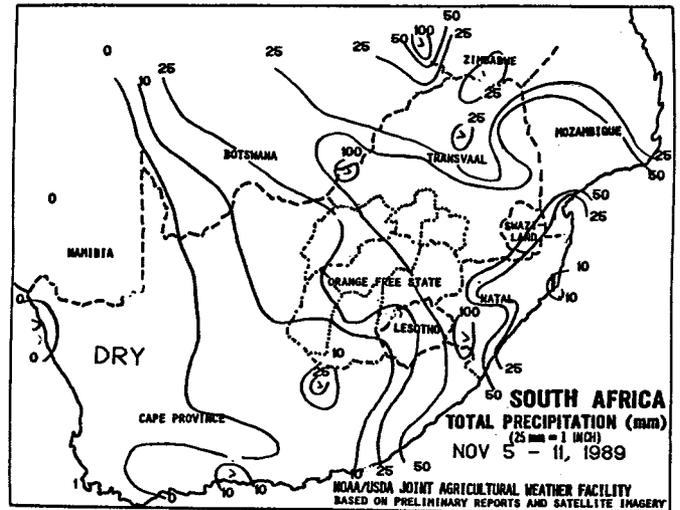


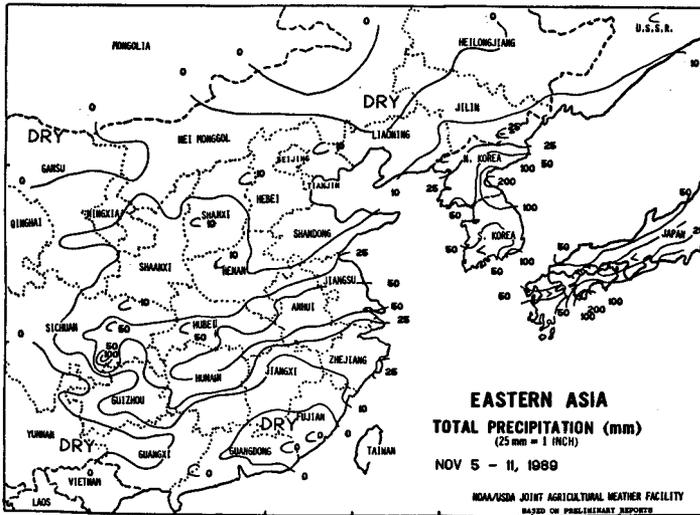


NORTHWESTERN AFRICA ... Minimal rain covered most winter grain areas except for those near the coast of eastern Algeria and Tunisia, where precipitation ranged from 10 to 25mm. Although above-normal October precipitation in Morocco likely prompted early season fieldwork, dry weather since the beginning of November has likely slowed planting. In western Algeria, the autumn rainy season has not yet begun, and farmers continued to await the onset of significant rain before planting can begin. In eastern Algeria and Tunisia, above-normal precipitation in October over northern crop areas provided sufficient moisture for early winter grain planting. In contrast, rainfall in southern areas has been insufficient for widespread planting. Although the autumn rainy season is off to a slow start in many areas, substantial time remains for planting. Planting usually begins in November and continues well into December. In Algeria, planting often extends into early January.

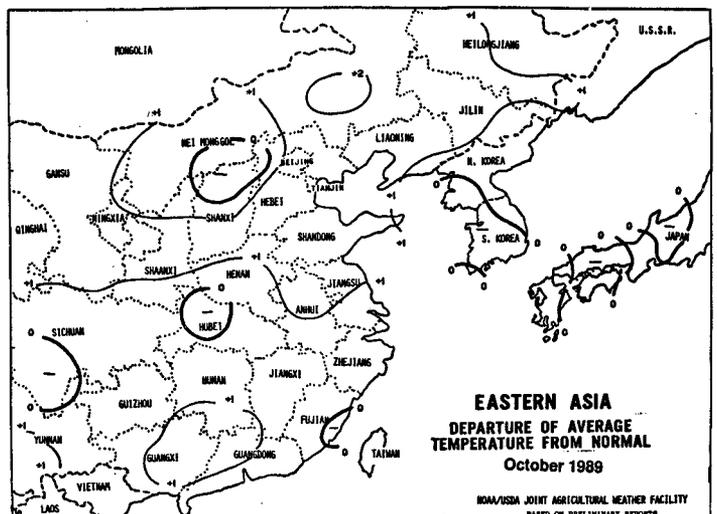
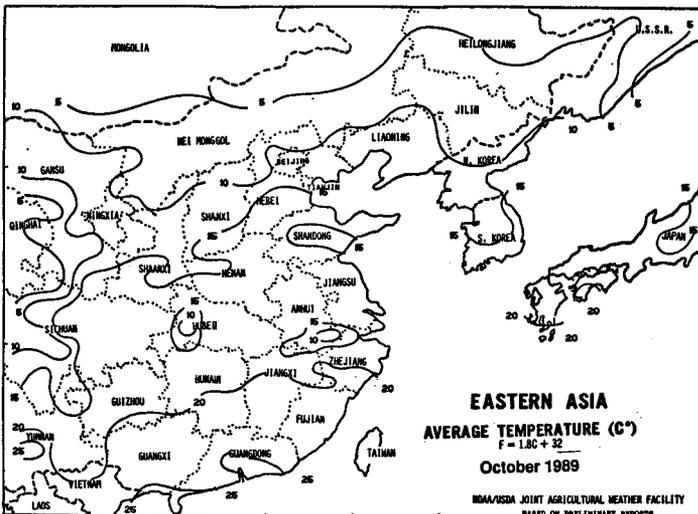
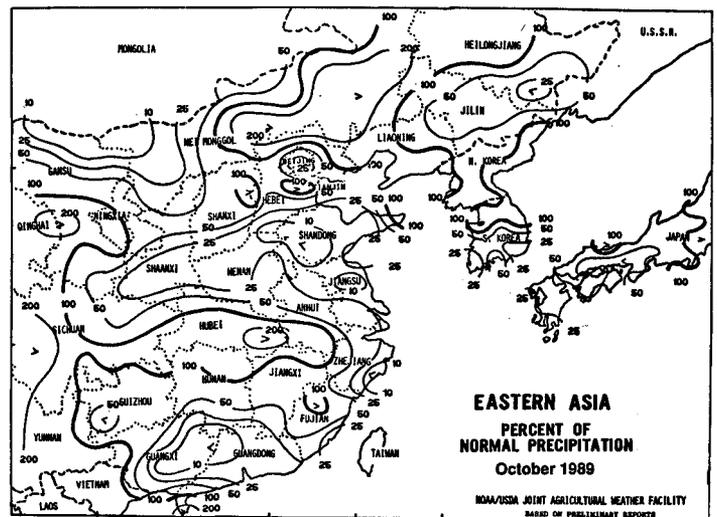
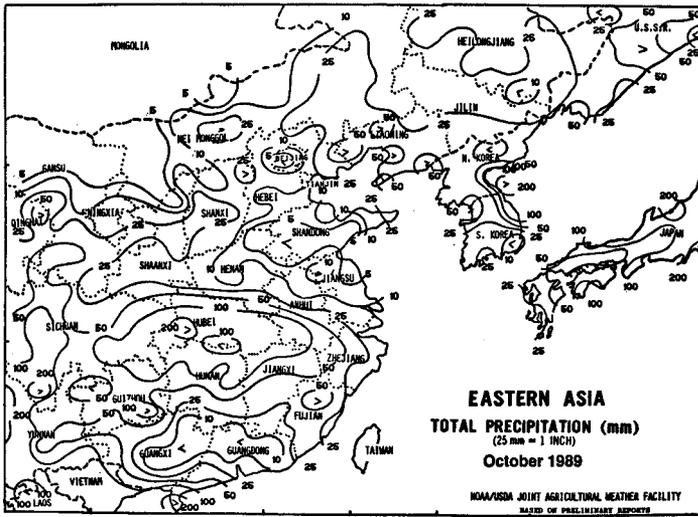


SOUTH AFRICA ... Widespread, moderate to heavy rain (25-50mm or more) swept across primary corn regions of the Maize Triangle, Natal, and the eastern Cape Province. Showers were lighter (15-20mm) over portions of the southern Triangle and the extreme northwestern tip. The rainfall in the west was timely for corn planting which is usually underway at this time. In the east, however, heavy showers (50-84mm) likely left some areas too wet for fieldwork following recent weeks of above-normal rainfall. In October, rainfall was below-normal over the western and central triangle but near to above normal over other primary crop regions, improving pre-planting moisture conditions. Temperatures averaged below normal but, by month's end, had warmed to seasonable levels.

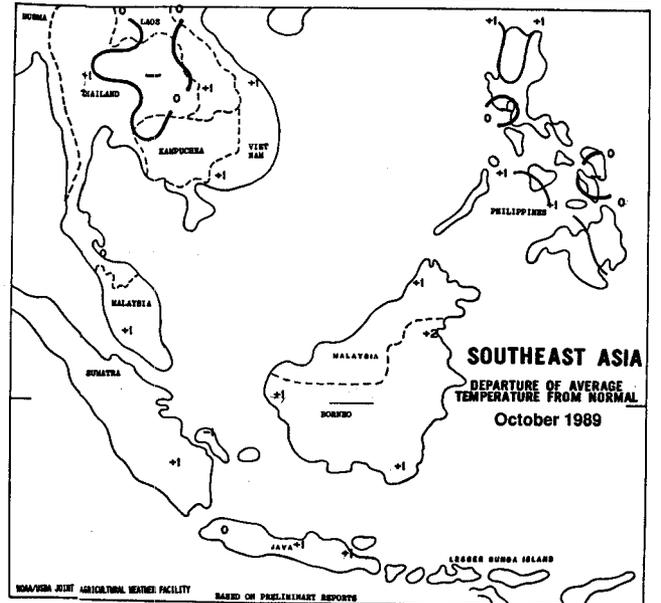
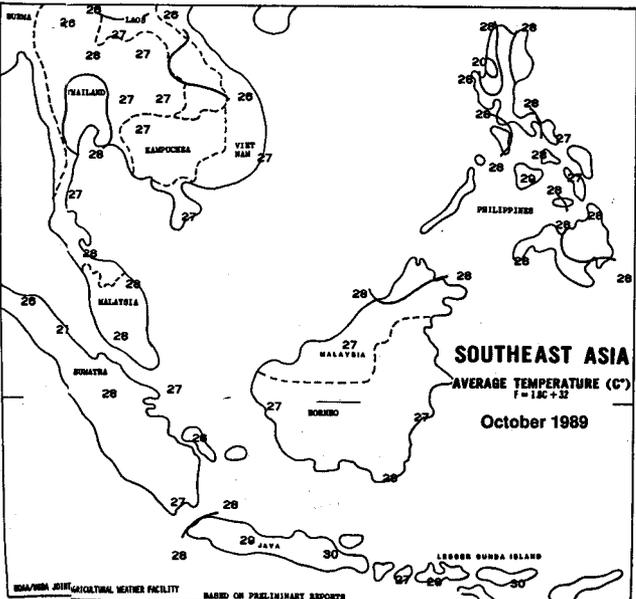
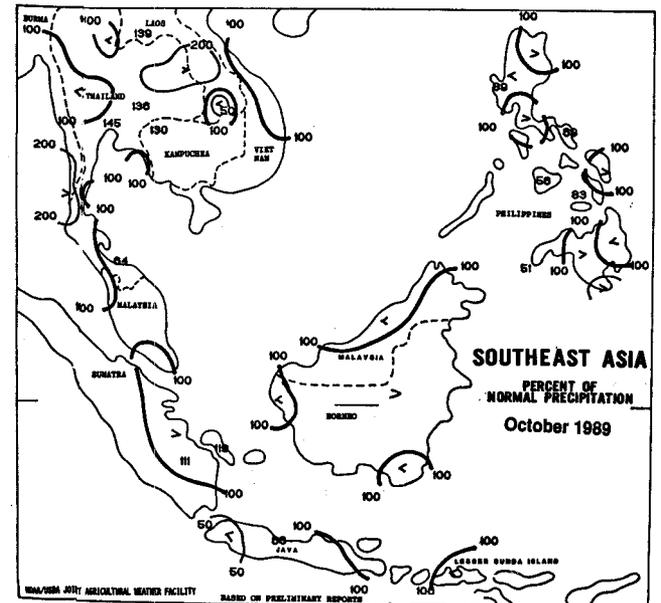
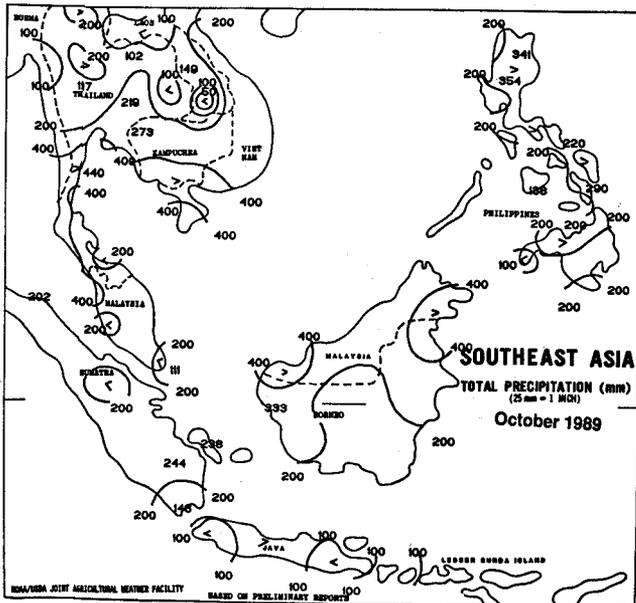
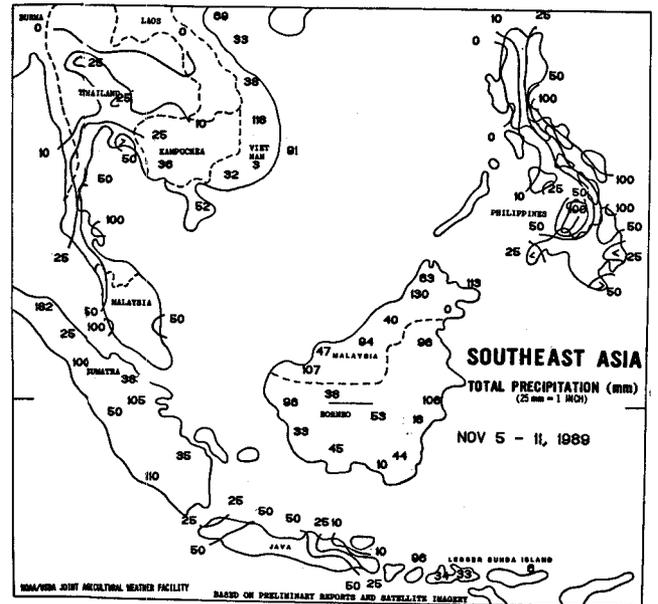


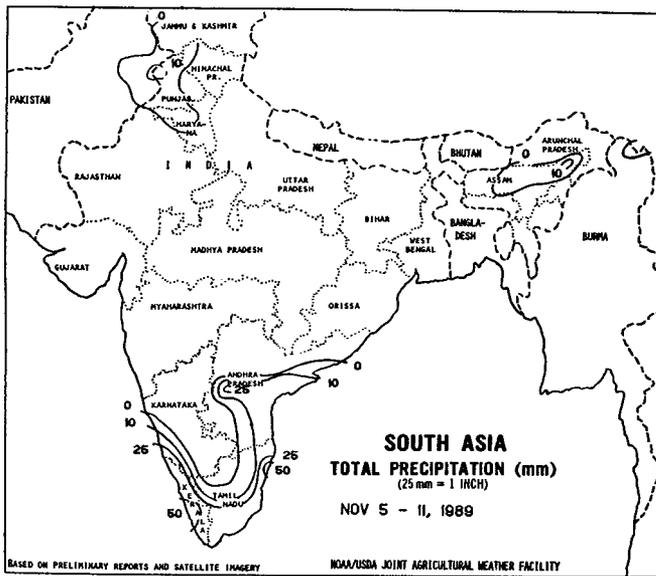


EASTERN ASIA ... Heavy rain (25-80mm, with scattered amounts in excess of 100mm) fell across much of the Korean Peninsula and Japan, causing delays in late rice harvest. Very heavy rain (100-251mm) caused possible localized flooding in sections of southeastern North Korea and northeastern South Korea. Heavy rain (25-85mm) also fell in the Yangtze Valley, continuing a wetter-than-normal trend during the past 3 weeks. Light to moderate rain (5-20mm, with isolated amounts in excess of 20mm) in the North China Plain favored vegetative winter grains. Colder temperatures (1-2 degrees C below normal for the week) in northern China slowed growth of winter grains, reversing a trend of above-normal temperatures during October. Precipitation during the month was above normal in the Yangtze Valley, scattered sections of Manchuria, and the Korean Peninsula, while below-normal precipitation fell in the North China Plain and sections of southern China.

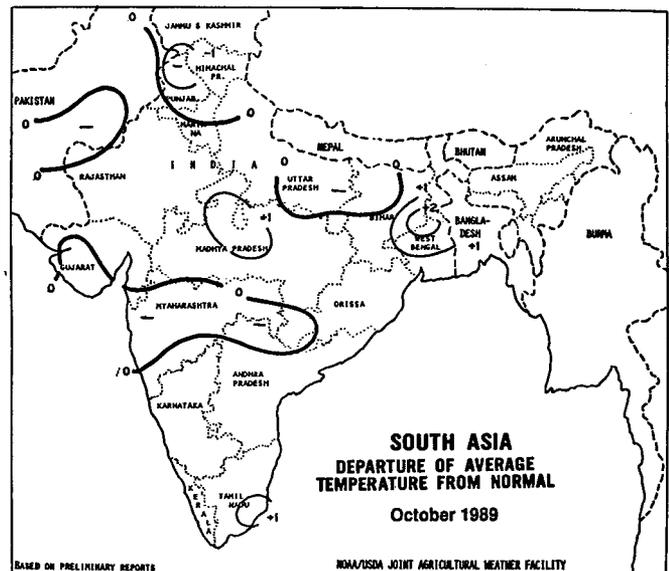
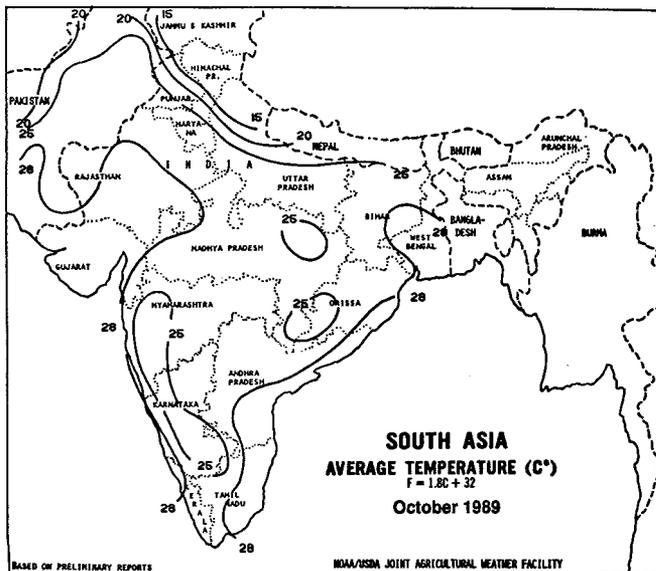
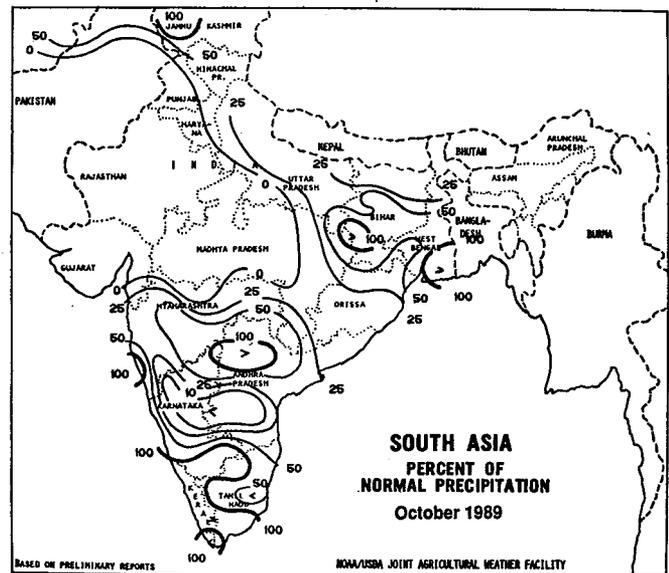
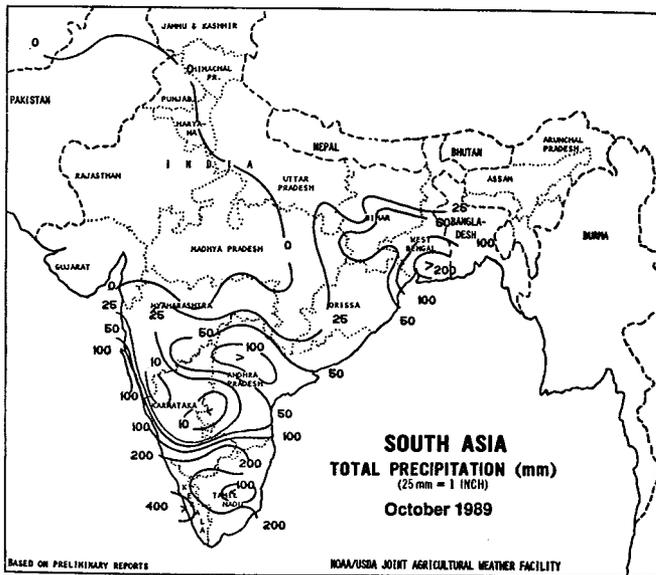


SOUTHEAST ASIA ... Scattered rain (10-25mm or more) boosted local moisture reserves across the southern half of Thailand's rainfed rice areas, while seasonably drier weather covered the north. Excessive rain (50-100mm or more) continued over peninsular Thailand. During October, near- to above-normal rainfall maintained favorable conditions for main season crops and secondary rice plantings. Typhoon activity in early October, however, caused flooding and crop damage in northern Vietnam. In the Philippines, scattered moderate to heavy showers (50-100mm or more) continued from southern Luzon southward as seasonably drier weather continued from northwestern Luzon to the west-central islands. Rainfall was near to above normal across the islands in October, due partly to Typhoons Angela, Dan, and Elsie which caused varying amounts of flooding and crop damage. Moderate to heavy rain (25-50mm or more) continued over Malaysia and Indonesia, including Java, where planting conditions continue to improve following a late start to the rainy season.

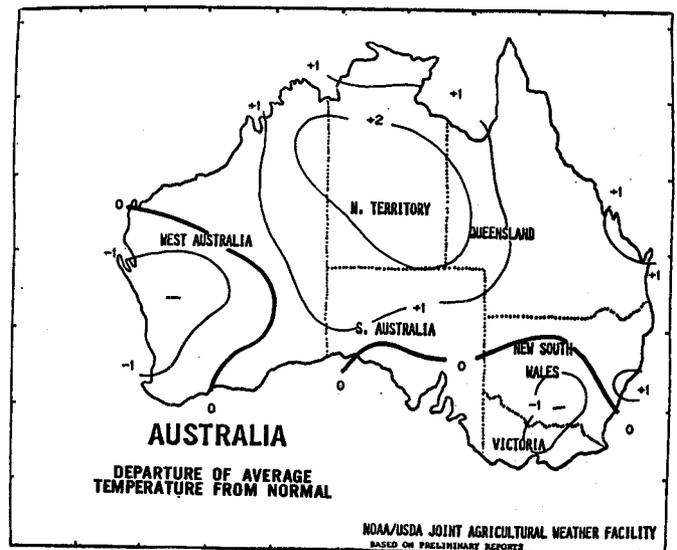
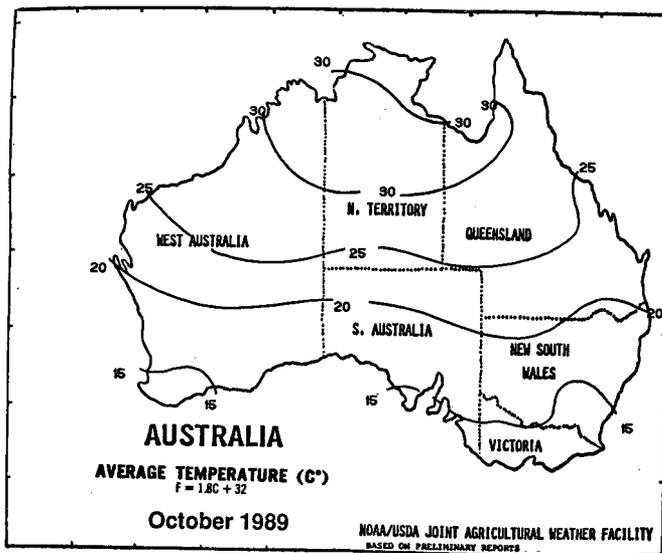
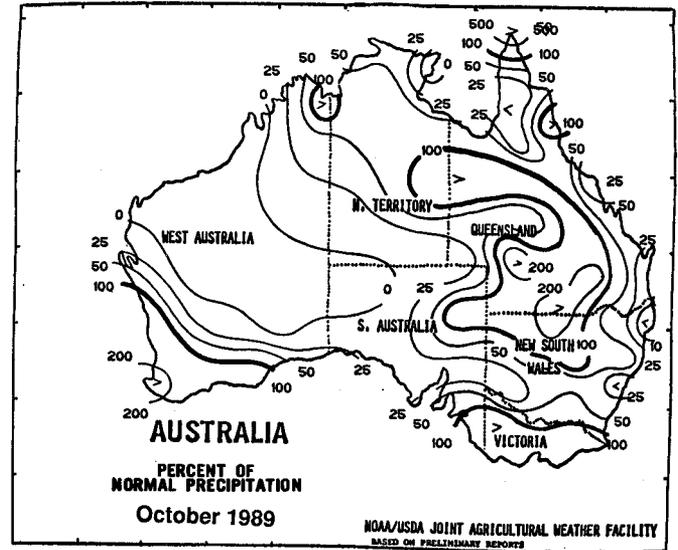
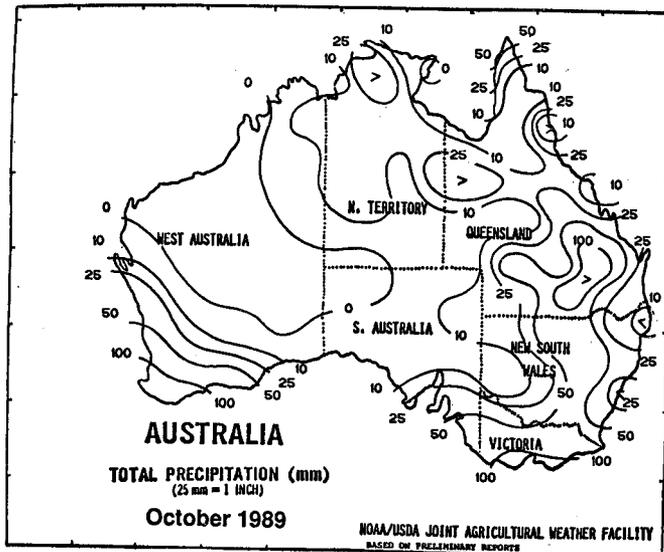
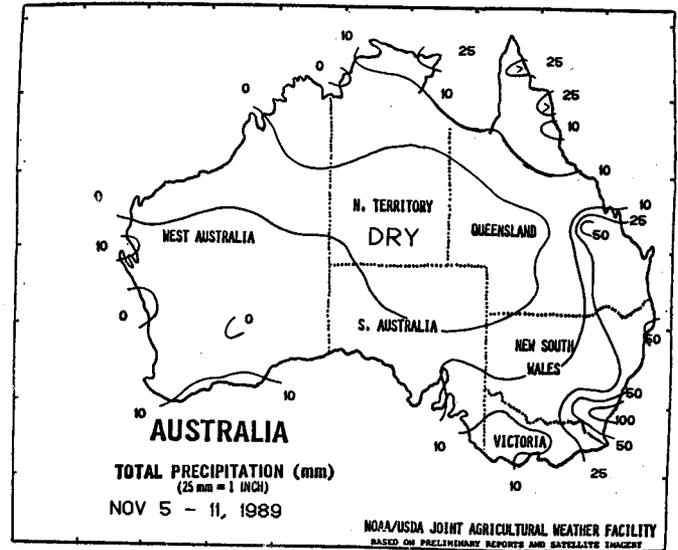


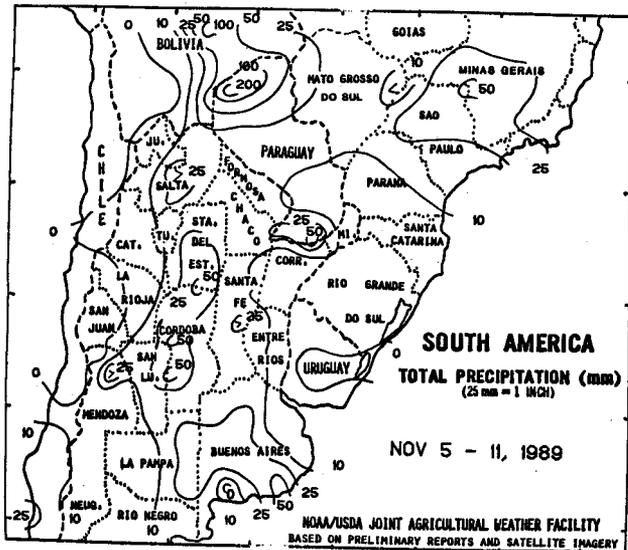


SOUTH ASIA ... Tropical Cyclone Gay struck the coast of Andhra Pradesh on November 8 with sustained winds of over 80 knots, causing local flooding and damage to unharvested main season rice. Rainfall reports ranged from 15 to 72mm in southern Andhra Pradesh and northeastern Tamil Nadu, but no rain was reported over the cotton regions from Karnataka northward. Dry, warm weather elsewhere favored summer crop harvests. In October, continued rainfall in the east and over India's southern tip maintained favorable conditions for immature rice and boosted moisture reserves for secondary crop planting. Dry, warm weather dominated central and northern India and Pakistan, benefiting maturing summer crops but reducing moisture reserves for reproductive cotton.

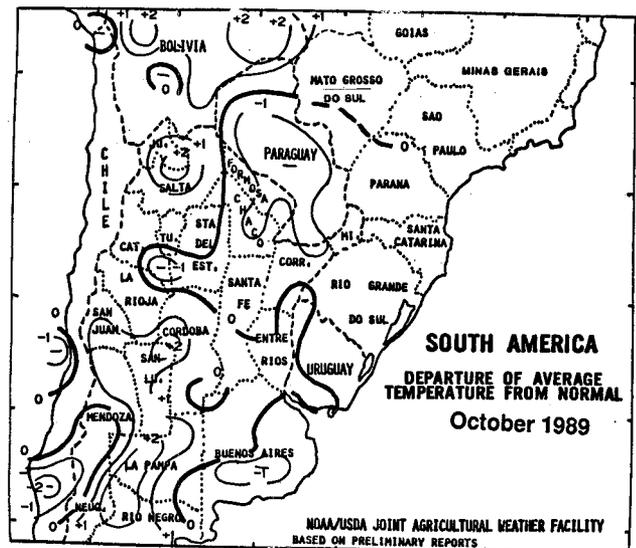
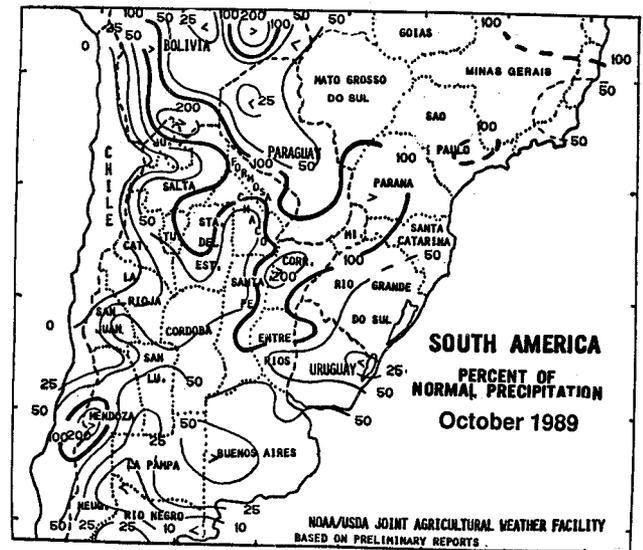
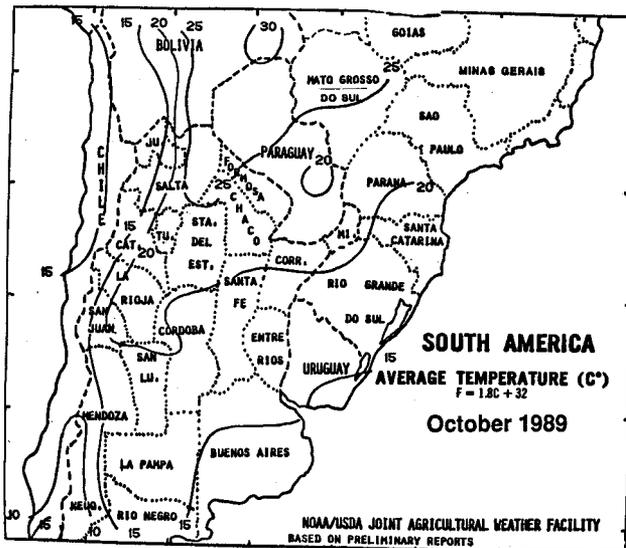


AUSTRALIA ... Moderate to heavy rain (15-75mm) continued across southeastern Queensland and northern New South Wales for the third consecutive week, favoring vegetative summer crops but delaying harvest of winter grains. The ripening period of maturing crops was lengthened by below-normal temperatures and low drying rates. In the south, light to moderate rain (5-20mm, with isolated amounts in excess of 20mm) benefited filling winter grains in most crop areas. Persistent below-normal rainfall during October in crop areas of southeastern Queensland, New South Wales, and extreme northwestern Victoria likely led to reductions in yield potential for winter grains. In contrast, above-normal rainfall covered most crop areas of Western Australia.

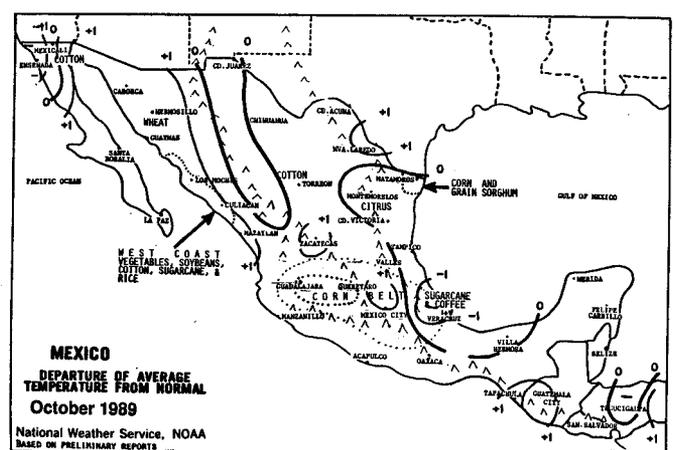
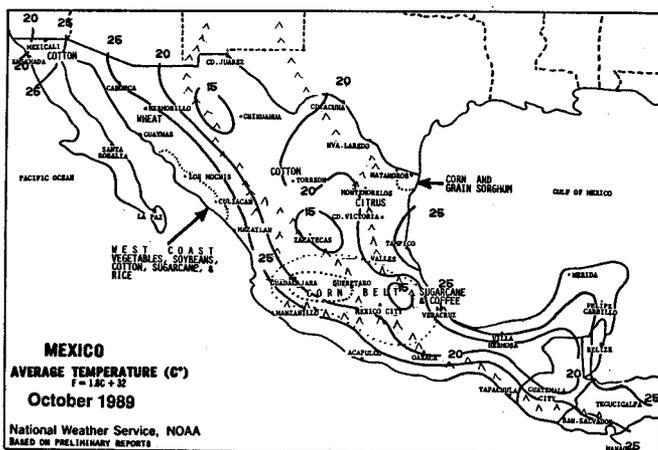
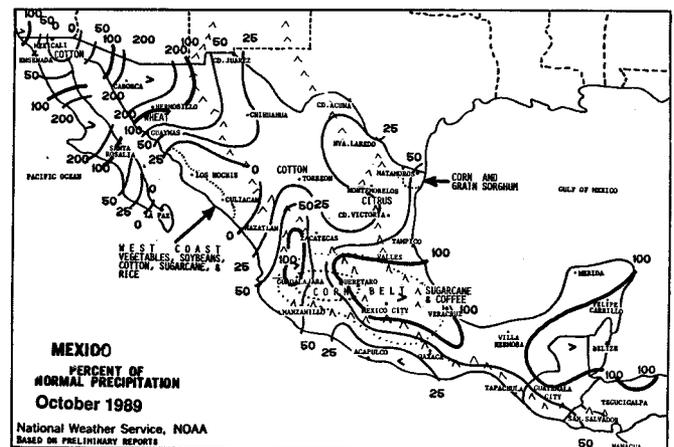
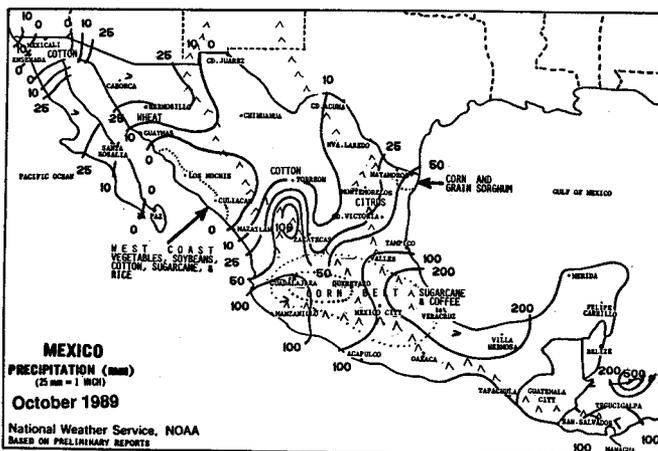
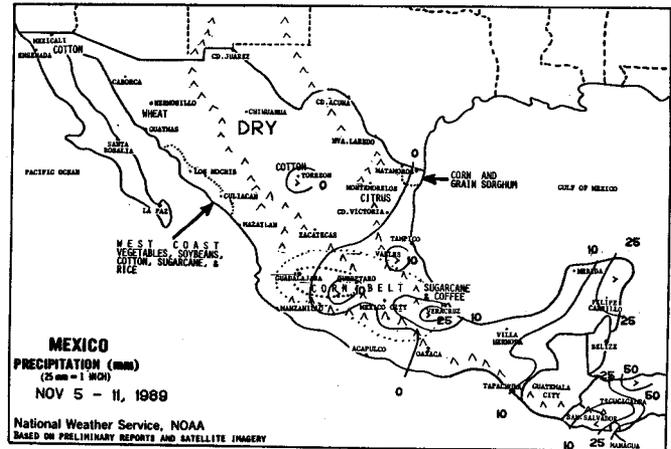




SOUTH AMERICA ... Widespread, beneficial rain fell throughout Argentina's summer crop areas, improving topsoils for planting and establishment of corn, sorghum, and soybeans. The moisture was especially welcomed in Cordoba, where weekly amounts ranged 18-62mm. Much-below-average October rainfall throughout the principal corn and soybean region continued the drying trend which began in September. Dry topsoils had delayed plantings. Weekly rainfall averaged 12-33mm in Santa Fe, 10-55mm in Buenos Aires (except extreme eastern portions), and 16-25mm in northern cotton areas. In south-central Brazil, data are missing in Rio Grande do Sul due to a strike, but satellite imagery and rainfall from adjacent areas suggest adequate moisture in western soybean areas for early planting. Weekly rainfall averaged 10-21mm in northern Parana, 25-56mm in Sao Paulo and Minas Gerais, and 10-49mm in Mato Grosso do Sul, moistening topsoils for early soybean planting throughout the region.



MEXICO ... Dry weather prevailed across northern Mexico. The wheat crop must rely on irrigation reserves for most of its growing season moisture requirements. October rainfall was mostly below average throughout the north, except for isolated, above-average monthly rainfall in the extreme northwest. Virtually dry October weather continued through early November along the west coast farming region, favoring the harvest of summer crops but increasing the need for irrigation of winter crop plantings. In the Southern Plateau, variable October rainfall signaled the retreat of the summer wet season with scattered showers covering the central and eastern Plateau this past week. Below-average October rainfall in much of the south reversed September's wet weather pattern. Weekly summaries will be discontinued until next spring, coinciding with the onset of the wet season.



TROPICAL CYCLONE GAY STRIKES PENINSULAR THAILAND AND SOUTHERN INDIA

A tropical depression formed on November 2 in the Gulf of Thailand and subsequently intensified into Tropical Storm Gay within 12 hours and into Typhoon Gay on November 4. Typhoon Gay made landfall on the peninsula at about 0600 Greenwich mean time (G.m.t.), Saturday, November 4 with approximately 95-105 mph winds (fig. 1). Gay remained over land for less than 6 hours. The major damage occurred over water where reportedly nearly 200 ships were capsized or sunk with over 1,000 persons dead or missing. Some damage might have occurred to crops such as rubber, tobacco, and tropical fruits.

Gay then entered the Bay of Bengal, passed over the Andaman Islands and rapidly intensified into a dangerous tropical cyclone with maximum sustained winds of about 160 mph and gusts in excess of 190 mph. Gay made landfall at 1800 G.m.t. on Wednesday, November 8, near the city of Nellore in Andhra Pradesh Province in southern India (fig 2). Fortunately, Gay weakened considerably before making landfall with maximum sustained winds of approximately 100 mph. Nearly 85,000 people were homeless and 21 deaths were reported. There is some concern about damage to winter rice due to Gay since portions of the crop may have been mature. Gay subsequently dissipated over south-central India within a day. (Note that all tropical cyclone positions on the figures are approximately at 0000 G.m.t. that day.)

Figure 1. Path of Tropical Cyclone Gay over Peninsular Thailand

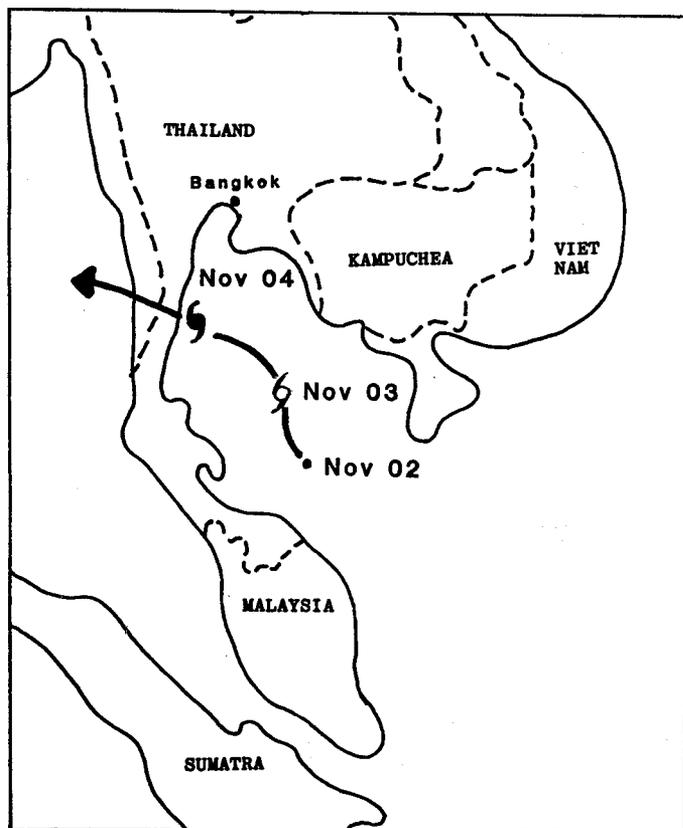
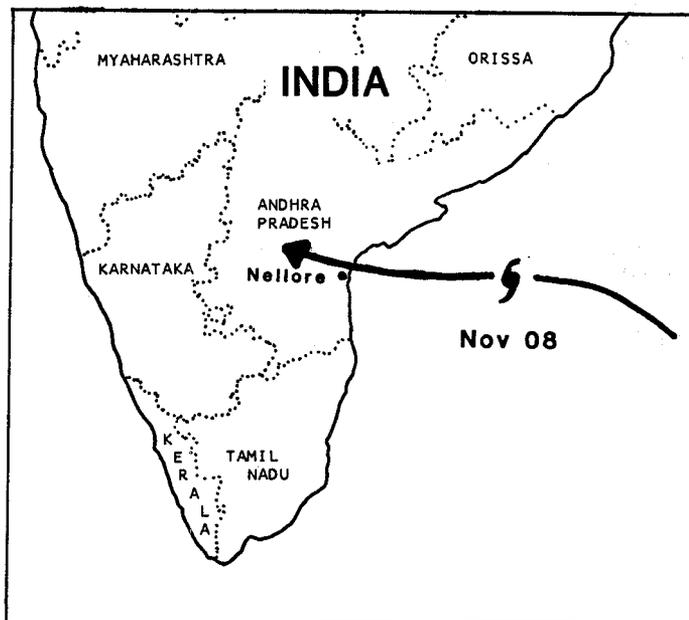


Figure 2. Path of Tropical Cyclone Gay across southern India's coast



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