

WEEKLY WEATHER AND CROP BULLETIN

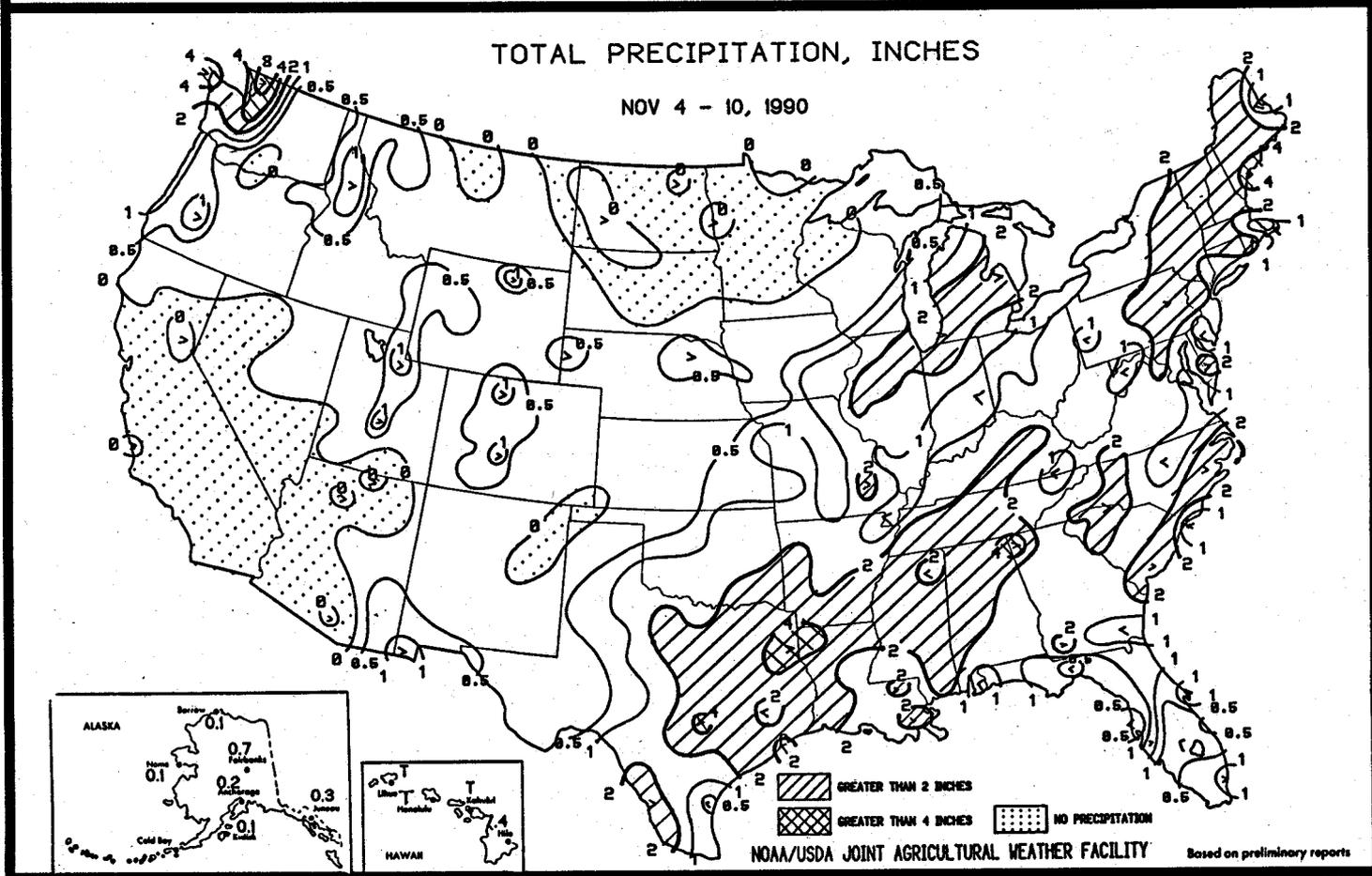
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HIGHLIGHTS

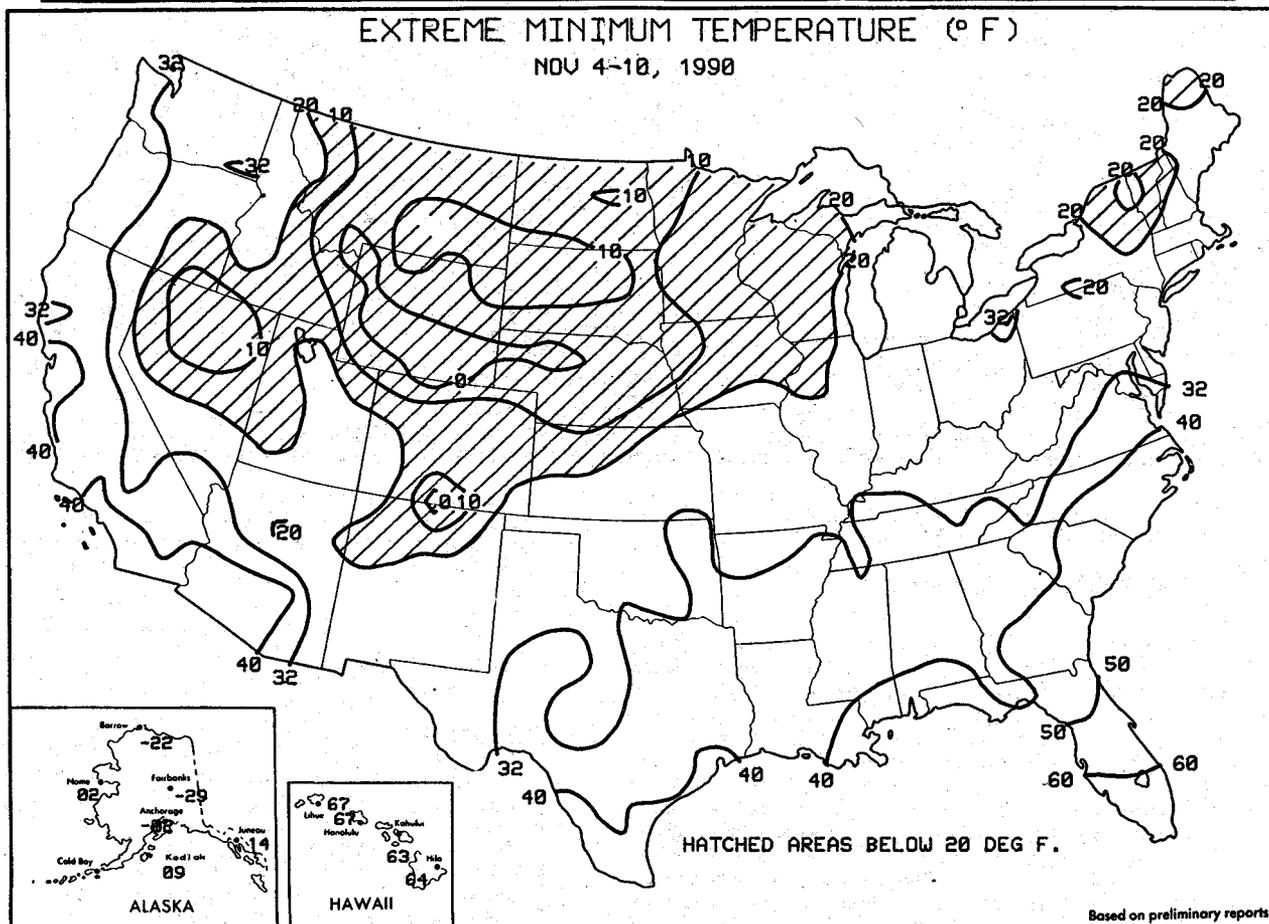
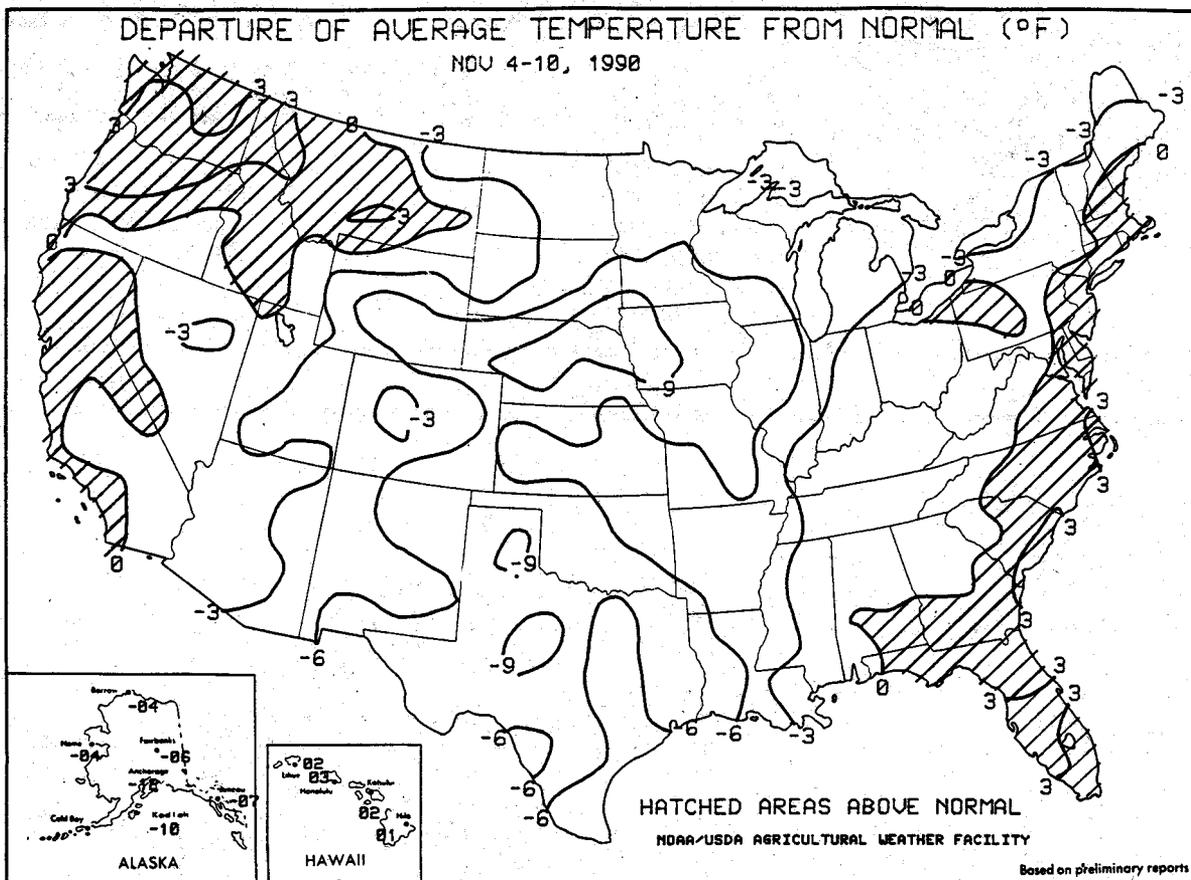
November 4-10, -1990

Early in the week, a strong frontal system swept eastward, spreading heavy precipitation from the **southern Plains** to the **Great Lakes** and **Northeast**. The system dumped heavy snow over the **western Corn Belt** and **Great Lakes**, while a second winter storm brought more snow over the **Rockies** to the **Great Lakes** and **Northeast** on Monday into Wednesday. During the latter part of the week, a low pressure system trekked across the **Rio Grande Valley**, **lower Mississippi Valley**, and up the **eastern seaboard**, causing drenching rain. Amounts of 1 to 4 inches soaked most of the **Gulf** and **Atlantic-Coast States**, producing local flooding. At week's end, persistent heavy rains left many rivers in **western Washington State** at flood stage. Abnormally cold air settled over much of the Nation as temperatures averaged above normal only

along the **Atlantic** and **Pacific** coasts and in the **northern Rockies**. A number of record-low temperatures were broken in the **central Rockies** and **central Plains** on Wednesday morning as temperatures dropped to single digits.

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National Weather Data for Selected Cities

Weather Data for the Week Ending November 10, 1990

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	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	65	43	79	36	54	-1	2.7	2.0	2.3	7.8	97	40.1	86	89	43	0	0	2	1
MOBILE	72	46	82	39	59	-2	1.6	.9	1.4	5.5	54	50.6	90	93	44	0	0	1	1
MONTGOMERY	71	42	84	33	57	-1	1.1	.5	.8	4.2	54	49.7	118	97	46	0	0	1	1
AK ANCHORAGE	18	8	31	-2	13	-12	.2	.0	.2	7.4	165	15.4	118	70	45	0	0	4	0
BARROW	9	-10	30	-22	-1	-4	.1	.0	.0	1.1	89	4.5	106	87	72	0	0	7	0
FAIRBANKS	12	-4	35	-29	4	-5	.7	.5	.5	2.9	139	14.9	162	85	65	0	0	4	0
JUNEAU	33	23	42	14	28	-7	.7	-6	.4	17.7	111	49.4	110	93	59	0	0	3	0
KODIAK	32	20	51	9	26	-10	.1	-1.3	.0	15.6	103	59.9	117	85	47	0	0	2	0
NOME	23	9	37	2	16	-4	.1	-1.1	.1	4.5	115	19.8	149	86	61	0	0	2	0
AZ PHOENIX	77	51	87	48	64	0	.0	-1.0	.0	1.3	90	7.2	126	57	19	0	0	0	0
PRESCOTT	63	27	74	23	45	-2	.0	-3.0	.0	2.4	76	14.9	91	69	18	0	0	0	0
TUCSON	73	44	84	37	59	-3	.0	-1.1	.0	2.3	97	13.2	136	62	17	0	0	0	0
YUMA	79	53	86	49	66	-1	.0	-1.0	.0	1.0	170	2.2	111	30	12	0	0	0	0
AR FORT SMITH	60	38	67	33	49	-4	2.0	1.1	1.4	10.4	137	54.6	158	93	45	0	0	3	2
LITTLE ROCK	58	40	75	37	49	-5	1.4	.5	.6	12.6	149	53.8	129	81	56	0	0	3	2
CA BAKERSFIELD	72	40	79	39	56	-3	.0	-1.0	.0	.1	13	2.7	61	57	22	0	0	0	0
EUREKA	59	46	64	39	52	-1	.1	-1.1	.1	2.1	39	23.5	84	93	72	0	0	1	0
FRESNO	72	38	77	34	55	-2	.0	-2.0	.0	.2	22	7.6	96	70	18	0	0	0	0
LOS ANGELES	78	53	93	49	66	3	.0	-3.0	.0	.0	0	5.1	55	72	17	1	0	0	0
REDDING	73	43	79	34	58	1	.0	-1.1	.0	2.0	43	23.4	78	81	25	0	0	0	0
SACRAMENTO	73	42	76	38	57	1	.0	-4.0	.0	.1	5	11.6	93	69	19	0	0	0	0
SAN DIEGO	75	54	87	51	64	2	.0	-2.0	.0	.0	2	6.0	81	74	25	0	0	0	0
SAN FRANCISCO	71	49	75	46	60	2	.0	-5.0	.0	.4	21	8.3	58	82	32	0	0	2	0
CO DENVER	50	23	69	12	36	-5	.5	.3	.4	3.5	143	16.2	115	86	41	0	0	6	1
GRAND JUNCTION	50	28	59	23	39	-5	.1	-1.1	.1	2.2	123	6.9	100	85	41	0	0	1	0
PURBLO	55	22	73	17	39	-5	.0	-1.1	.0	2.9	162	15.3	150	92	35	0	0	7	1
CT BRIDGEPORT	57	42	68	29	50	1	1.1	.2	1.0	8.5	110	39.4	113	80	49	0	0	1	1
HARTFORD	54	38	74	24	46	1	3.2	2.3	2.5	12.9	149	47.7	128	88	40	0	0	2	2
DC WASHINGTON	61	43	75	36	52	0	1.9	1.3	1.8	6.1	87	35.8	106	87	45	0	0	5	1
FL APALACHICOLA	75	54	82	46	64	1	.8	.2	.8	8.0	63	35.7	72	95	60	0	0	3	1
JACKSONVILLE	80	59	84	52	70	2	.6	-1.1	.5	8.1	66	35.5	80	97	58	0	0	2	0
KEY WEST	80	54	84	47	67	3	1.1	.6	1.1	8.2	75	29.0	60	98	46	0	0	1	2
MIAMI	83	71	87	67	77	1	2.8	1.9	1.8	13.2	106	35.0	98	91	58	0	0	3	1
ORLANDO	84	69	87	64	76	2	1.2	.4	.8	9.8	60	50.5	93	90	53	0	0	2	1
TALLAHASSEE	82	62	87	53	72	3	.4	.0	.3	5.3	52	30.5	66	97	50	0	0	3	0
TAMPA	78	48	85	38	63	2	.5	-2.3	.3	7.8	74	41.2	72	97	49	0	0	2	0
WEST PALM BEACH	84	62	88	56	73	4	.3	-2.2	.2	5.3	58	33.8	78	97	55	0	0	2	0
GA ATLANTA	83	66	87	61	75	1	.4	-6.3	.3	15.8	85	53.3	96	92	53	0	0	2	0
AUGUSTA	65	44	77	39	55	0	1.1	.4	1.0	10.3	153	54.4	130	90	47	0	0	3	1
MACON	69	45	81	40	57	0	1.8	1.3	1.8	17.7	289	37.9	99	99	45	0	0	1	1
SAVANNAH	70	44	81	38	57	-1	1.3	.9	1.3	9.5	160	32.4	83	98	45	0	0	2	1
HI HILO	75	52	81	45	63	3	2.1	1.7	2.1	15.9	197	40.6	89	95	52	0	0	1	1
HONOLULU	83	68	85	64	76	2	7.4	4.0	6.6	50.0	234	146.0	139	95	65	0	0	6	1
KAHULUI	88	72	89	67	80	2	.0	-7.7	.0	1.3	38	11.7	67	82	48	0	0	0	0
LIHUE	89	67	93	63	78	2	2	-4	.0	1.1	64	16.9	121	90	49	3	0	0	0
ID BOISE	83	73	84	67	78	2	2	-1.3	.0	3.1	36	24.3	70	87	62	0	0	0	0
LEWISTON	54	33	69	25	43	1	.3	.0	.2	1.2	72	10.7	116	84	38	0	2	2	0
POCATELLO	55	43	68	36	49	7	.2	.0	.2	1.4	66	9.8	91	70	45	0	0	1	0
IL CHICAGO	47	28	65	11	38	-1	.3	.0	.2	.9	50	8.4	92	86	40	0	4	3	0
MOLINE	44	30	51	22	37	-7	2.2	1.7	1.2	7.4	110	37.5	124	94	61	0	4	4	2
PEORIA	42	27	53	18	35	-9	1.2	.7	.8	4.7	66	45.8	136	97	63	0	6	4	1
QUINCY	44	28	54	19	36	-8	2.4	1.9	1.8	6.6	96	46.9	148	98	67	0	5	3	2
ROCKFORD	46	30	57	22	38	-7	1.5	1.0	1.2	7.1	86	36.2	105	96	66	0	4	3	1
SPRINGFIELD	40	27	50	18	33	-8	1.6	1.0	1.0	5.9	80	40.4	122	96	68	0	6	5	1
IN EVANSVILLE	49	30	62	22	40	-7	1.1	.6	.8	8.0	124	45.3	148	99	66	0	5	3	1
FORT WAYNE	56	38	79	28	47	-1	1.1	.3	.7	8.4	136	43.3	121	94	54	0	2	2	1
INDIANAPOLIS	48	34	61	24	41	-2	1.6	.9	1.4	8.4	141	45.2	149	91	63	0	3	2	1
SOUTH BEND	51	34	73	23	43	-3	.8	.1	.6	8.1	131	40.3	119	94	60	0	2	2	1
IA DES MOINES	47	34	56	25	41	-3	2.3	1.6	1.5	13.2	179	46.0	139	89	63	0	3	2	2
SIOUX CITY	41	26	52	16	34	-9	.6	.3	.3	5.1	88	41.1	144	94	60	0	7	2	0
WATERLOO	40	21	48	8	30	-10	.3	.0	.3	3.2	69	23.8	99	92	59	0	7	1	0
KS CONCORDIA	40	25	49	16	33	-7	.2	-2.1	.1	3.8	60	39.9	130	94	60	0	7	2	0
DODGE CITY	49	29	66	20	39	-6	.1	-2.1	.1	3.5	66	24.9	97	88	48	0	5	2	0
GOODLAND	51	29	74	22	40	-6	.0	-2.0	.0	2.0	59	20.3	105	90	45	0	6	1	0
TOPEKA	46	24	65	14	35	-6	.0	-1.1	.0	3.4	133	18.8	122	90	49	0	6	1	0
WICHITA	51	31	65	25	41	-6	.9	.4	.5	5.9	85	33.0	106	94	48	0	5	2	1
KY BOWLING GREEN	51	33	69	28	42	-6	.4	.0	.3	4.6	71	18.6	69	95	50	0	2	2	0
LEXINGTON	57	38	76	30	47	-2	1.5	.7	1.3	11.6	162	40.3	96	96	55	0	1	2	1
LOUISVILLE	54	37	75	27	46	-2	1.2	.5	.7	7.8	119	40.5	102	93	57	0	2	3	1
LA ALEXANDRIA	56	39	78	29	48	-2	1.1	.3	.8	7.6	108	47.4	126	94	53	0	2	2	1
BATON ROUGE	63	43	79	35	53	-7	1.9	1.0	.8	8.9	124	50.5	113	96	52	0	0	3	2
LAKE CHARLES	70	45	80	36	58	-3	1.4	.6	1.0	9.6	117	59.9	125	92	49	0	0	2	1
NEW ORLEANS	67	44	81	38	56	-7	2.9	2.0	1.4	14.0	131	49.0	106	95	50	0	0	3	3
	70	49	83	41	60	-2	2.1	1.3	1.8	9.0	94	50.3	98	91	53	0	0	2	1

Based on 1951-80 normals

Weather Data for the Week Ending November 10, 1990

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	PRECIP.		
																		.01 INCH OR MORE	50 INCH OR MORE	
SHREVEPORT	63	40	78	34	52		5.0	4.2	3.3	12.3	173	57.9	156	96	48	0	0	3	2	
ME CARIBOU	38	26	64	19	32		2.0	1.3	1.0	14.5	190	38.6	124	94	76	0	0	4	2	
PORTLAND	53	35	73	25	44		6.6	5.5	4.7	17.2	201	43.9	123	96	45	0	3	2	2	
MD BALTIMORE	60	38	74	30	49		1.8	1.1	1.7	5.4	72	36.7	101	87	43	0	2	1	1	
SALISBURY	64	38	75	27	51		2.4	1.7	2.4	8.6	99	36.5	92	83	40	0	2	3	1	
MA BOSTON	58	43	77	32	51		1.2	1.2	1.6	10.2	127	43.1	119	80	37	0	1	4	2	
CHATHAM	54	43	62	34	48		1.7	1.2	1.4	6.3	73	38.0	98	85	58	0	0	3	0	
MI ALPENA	39	29	41	22	34		1.7	1.2	1.3	11.9	236	37.4	140	96	58	0	6	5	1	
DETROIT	49	34	61	26	41		2.4	1.8	1.9	9.5	183	28.7	113	92	62	0	5	3	2	
FLINT	46	30	62	21	38		3.0	2.3	2.2	12.2	179	35.5	122	92	63	0	2	2	2	
GRAND RAPIDS	43	31	52	23	37		1.1	1.1	1.5	7.0	121	27.6	112	94	65	0	6	5	1	
HOUGHTON LAKE	38	30	41	22	34		3.1	2.5	2.1	12.6	227	32.5	127	93	60	0	5	2	2	
LANSING	45	30	62	21	38		1.1	1.1	1.1	10.2	124	30.2	92	89	63	0	7	2	0	
MARQUETTE	35	25	41	20	30		2.8	2.1	2.1	10.9	164	32.0	120	97	64	0	3	5	1	
MUSKOGON	42	31	47	25	36		1.6	1.2	1.2	8.4	107	29.4	103	92	61	0	7	4	0	
SAULT ST. MARIE	37	27	41	18	32		1.0	1.0	1.0	3.1	67	20.4	88	88	43	0	7	0	0	
MN ALEXANDRIA	38	21	42	14	29		1.0	1.0	1.0	10.0	166	32.3	120	87	46	0	7	0	0	
DULUTH	36	22	40	16	29		1.0	1.0	1.0	2.7	50	18.5	82	88	49	0	7	2	0	
INT'L FALLS	33	20	39	16	27		1.1	1.1	1.1	3.4	71	31.7	129	87	45	0	7	0	0	
MINNEAPOLIS	39	23	47	19	31		1.1	1.1	1.1	3.4	55	42.2	159	92	57	0	7	2	0	
ROCHESTER	37	22	45	15	30		1.1	1.1	1.1	3.4	55	42.2	159	92	57	0	7	2	0	
MS GREENWOOD	64	42	80	33	53		2.5	1.6	1.0	9.9	133	44.5	100	93	53	0	0	3	3	
JACKSON	67	40	82	33	53		2.1	1.3	1.6	8.2	116	46.4	106	97	50	0	0	3	2	
MERIDIAN	69	42	83	35	56		3.3	2.6	2.9	5.8	81	57.1	127	95	46	0	0	2	1	
MO CAPE GIRARDEAU	55	37	78	29	46		1.1	1.1	1.1	7.1	81	43.1	113	96	53	0	2	3	1	
COLUMBIA	51	32	63	28	41		1.1	1.1	1.1	4.4	56	48.1	144	90	52	0	4	3	1	
KANSAS CITY	50	32	65	27	41		1.5	1.1	1.0	6.4	77	39.1	116	92	51	0	3	3	1	
SAINT LOUIS	52	35	67	31	44		1.5	1.5	1.5	7.2	123	36.7	123	88	50	0	1	3	1	
SPRINGFIELD	55	34	64	30	45		1.0	1.0	1.0	11.8	140	55.7	159	93	47	0	1	4	1	
MT BILLINGS	50	32	67	21	41		1.0	1.0	1.0	1.4	52	10.7	79	67	33	0	3	2	0	
GLASGOW	41	18	54	1	29		1.1	1.1	1.1	6.6	39	6.2	60	89	57	0	7	3	0	
GREAT FALLS	46	29	61	3	37		1.4	1.4	1.4	6.6	30	13.0	95	77	51	0	3	2	0	
HAVRE	49	21	65	3	38		1.1	1.1	1.1	1.1	3	5.5	50	86	42	0	7	0	0	
HELENA	48	28	65	8	38		1.1	1.1	1.1	4.4	25	7.8	75	79	47	0	3	2	0	
KALISPELL	42	31	53	19	36		1.5	1.5	1.5	2.6	107	18.5	139	87	60	0	5	6	0	
MILES CITY	49	25	67	11	37		1.3	1.3	1.3	1.3	57	8.5	65	84	46	0	6	2	0	
MISSOULA	46	30	63	22	38		1.3	1.3	1.3	1.3	62	12.0	106	90	55	0	5	2	0	
NE GRAND ISLAND	46	23	58	9	35		1.1	1.1	1.1	2.4	62	25.8	118	91	53	0	6	1	0	
LINCOLN	48	26	62	17	37		1.1	1.1	1.1	3.0	61	25.5	99	89	50	0	6	1	0	
NORFOLK	39	19	52	4	29		1.1	1.1	1.1	6.6	99	26.2	116	93	61	0	7	1	1	
NORTH PLATTE	42	16	58	3	29		1.1	1.1	1.1	2.4	87	15.5	84	96	53	0	7	1	0	
OMAHA	41	26	52	10	33		1.0	1.0	1.0	4.4	64	23.2	81	87	67	0	6	1	0	
SCOTTSDUFF	44	17	60	-1	31		1.0	1.0	1.0	3.0	148	17.1	124	89	54	0	6	2	0	
VALENTINE	44	16	60	-1	30		1.0	1.0	1.0	1.5	64	16.5	100	93	53	0	7	2	0	
NV ELY	51	18	68	15	35		1.0	1.0	1.0	1.5	99	8.2	105	78	31	0	7	1	0	
LAS VEGAS	69	43	81	38	56		1.0	1.0	1.0	5.5	68	3.8	110	36	14	0	0	0	0	
RENO	62	27	73	19	45		1.0	1.0	1.0	4.4	54	4.7	84	70	23	0	5	0	0	
WINNEMICCA	58	21	70	4	40		1.0	1.0	1.0	3.3	24	5.6	89	69	22	0	5	0	0	
NH CONCORD	51	35	74	27	43		2.7	1.8	1.8	9.9	134	36.6	119	88	45	0	3	2	2	
NJ ATLANTIC CITY	63	35	76	23	49		1.8	1.8	1.8	6.3	89	33.0	93	90	42	0	3	1	1	
NM ALBUQUERQUE	53	30	63	27	42		1.2	1.2	1.2	1.9	103	9.5	133	87	39	0	4	1	0	
CLOVIS	53	32	69	28	43		1.1	1.1	1.1	5.6	142	12.8	79	87	46	0	5	1	0	
ROSWELL	58	33	71	31	46		1.1	1.1	1.1	2.4	80	7.3	73	89	41	0	4	1	0	
NY ALBANY	50	35	73	20	43		2.8	2.2	2.2	9.3	130	41.7	137	89	49	0	3	4	2	
BINGHAMTON	47	33	64	21	40		2.4	1.7	1.4	12.5	169	40.0	126	98	64	0	3	6	1	
BUFFALO	48	34	66	26	41		1.5	1.5	1.5	7.8	131	41.1	131	86	57	0	2	6	1	
NEW YORK	60	46	73	34	53		2.1	1.4	1.2	9.0	114	45.6	125	80	44	0	0	3	1	
ROCHESTER	49	32	70	22	41		1.3	1.3	1.3	7.6	148	35.0	130	94	63	0	2	4	1	
SYRACUSE	50	34	71	25	42		1.6	1.6	1.6	8.8	148	42.6	128	95	62	0	2	7	1	
NC ASHEVILLE	60	35	74	29	48		1.4	1.4	1.4	15.4	193	55.0	143	98	49	0	2	3	1	
CHARLOTTE	65	44	76	41	55		2.2	1.6	2.2	18.7	261	45.9	122	89	42	0	0	1	1	
GREENSBORO	62	40	74	35	51		1.6	1.1	1.6	15.4	202	39.1	105	87	44	0	0	2	1	
HATTERAS	70	56	75	52	63		3.0	1.9	2.5	7.6	62	41.8	87	92	55	0	0	3	1	
NEW BERN	71	47	79	43	59		3.4	2.7	2.3	10.0	99	48.3	102	96	48	0	0	3	2	
RALEIGH	67	42	77	37	55		1.8	1.2	1.6	6.8	99	33.8	93	90	44	0	0	2	1	
WILMINGTON	72	49	80	44	61		1.6	1.0	1.0	10.1	104	50.2	105	97	49	0	0	2	2	
ND BISMARCK	44	16	51	5	30		1.6	1.6	1.6	6.6	66	12.2	85	89	35	0	7	0	0	
FARGO	38	17	41	9	27		1.6	1.6	1.6	3.0	87	16.2	89	81	41	0	7	1	0	
GRAND FORKS	37	17	43	10	27		1.6	1.6	1.6	2.2	63	15.4	90	78	39	0	7	0	0	
WILLISTON	43	16	53	7	30		1.6	1.6	1.6	1.6	21	8.8	70	82	40	0	7	1	0	
OR AKRON-CANTON	51	36	71	26	44		1.2	1.7	1.7	17.3	290	58.0	185	92	57	0	2	4	1	
CINCINNATI	53	37	74	27	45		1.0	1.0	1.0	3.7	10.2	159	48.4	139	91	53	0	2	3	1
CLEVELAND	51	39	71	34	45		1.0	1.0	1.0	4.5	13.2	213	43.9	144	86	54	0	0	4	0
COLUMBUS	53	36	74	25	45		1.0	1.0	1.0	5.5	11.3	207	45.1	140	92	53	0	2	3	1

Based on 1951-80 normals

Weather Data for the Week Ending November 10, 1990

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	.01 INCH OR MORE		.50 INCH OR MORE		
																		.01 INCH OR MORE	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE	
DAYTON	51	35	73	24	43	-3	1.3	.7	.7	9.9	190	48.6	161	96	63	0	2	2	2	2		
TOLEDO	49	33	65	22	41	-2	1.5	1.0	5.9	113	32.0	117	93	59	0	3	3	3	1	1		
YOUNGSTOWN	51	37	72	31	44	0	1.1	.4	10.5	159	39.0	120	95	56	0	1	4	4	1	1		
OK OKLAHOMA CITY	55	37	71	31	46	-6	1.0	.6	10.2	151	39.1	136	92	52	0	1	4	4	1	1		
TULSA	58	39	72	35	49	-4	1.2	.6	8.5	98	35.7	101	89	49	0	0	3	3	1	1		
OR ASTORIA	57	46	61	31	51	3	1.1	-1.1	10.5	84	57.6	113	97	71	0	1	7	7	0	0		
BURNS	50	26	65	16	38	-1	.2	.1	6.6	38	4.5	57	87	46	0	5	3	3	0	0		
MEDFORD	54	37	64	33	46	0	.1	.6	1.5	46	10.9	77	97	63	0	0	3	3	0	0		
PENDLETON	55	41	64	30	48	5	.2	.1	1.1	54	8.0	86	83	50	0	1	2	2	0	0		
PORTLAND	58	47	63	39	53	5	.2	.9	5.2	85	27.0	100	97	68	0	0	3	3	0	0		
SALEM	57	45	66	37	51	5	.6	.3	6.7	103	28.9	100	95	69	0	0	3	3	0	0		
PA ALLENTOWN	57	35	71	25	46	0	2.9	2.1	2.7	8.0	97	37.9	100	91	46	0	3	4	1	1		
ERIE	51	38	71	32	44	0	1.4	.6	13.3	151	43.7	128	86	55	0	1	6	6	2	2		
HARRISBURG	56	36	71	27	46	-1	2.1	1.4	1.7	8.7	118	37.4	111	91	48	0	2	4	1	1		
PHILADELPHIA	62	40	75	31	51	2	1.0	.2	.9	4.4	60	31.8	90	91	49	0	1	3	1	1		
PITTSBURGH	52	36	70	27	44	-1	.9	.4	10.5	174	42.6	133	92	54	0	3	5	1	1	1		
SCRANTON	52	37	68	24	45	0	2.4	1.7	1.7	9.9	141	40.9	135	94	51	0	2	5	2	2	2	
RI PROVIDENCE	58	39	76	29	49	2	2.2	1.3	1.1	9.5	110	39.1	103	87	40	0	3	4	2	2	2	
SC CHARLESTON	74	52	80	48	63	4	3.6	3.1	3.5	11.0	129	40.9	87	98	54	0	0	2	1	1	1	
COLUMBIA	69	42	81	36	55	-1	1.2	.6	1.2	15.5	205	41.0	93	99	43	0	0	2	1	1	1	
FLORENCE	72	47	80	44	60	2	1.4	1.0	1.4	13.1	184	31.1	79	91	46	0	0	2	1	1	1	
GREENVILLE	64	42	76	39	53	-1	1.7	1.1	1.7	13.3	147	46.0	103	97	44	0	0	3	1	1	1	
SD ABERDEEN	42	19	52	11	30	-4	T	.2	T	3.6	131	20.5	122	85	38	0	7	0	0	0	0	
HURON	44	19	52	10	31	-6	T	.2	T	1.9	61	22.6	128	82	37	0	7	0	0	0	0	
RAPID CITY	51	22	69	9	37	-2	.2	.1	.2	3.5	176	16.2	106	85	41	0	6	2	0	0	0	
STOIX FALLS	36	17	44	8	27	-11	.1	.1	2.7	59	18.4	81	92	60	0	7	1	0	0	0	0	
TN CRATTANOOGA	61	41	76	34	51	0	2.7	1.8	1.7	10.9	128	57.2	128	97	50	0	0	3	2	2	2	
KNOXVILLE	61	40	77	34	50	-1	1.2	.4	7.5	110	45.6	114	95	51	0	0	3	0	0	0	0	
MEMPHIS	59	42	81	34	50	-4	2.1	1.2	1.2	11.7	163	47.8	110	98	56	0	0	4	1	1	1	
NASHVILLE	59	42	79	35	50	-1	2.8	2.1	2.6	9.3	128	34.8	85	91	50	0	0	3	1	1	1	
TX ABILENE	58	37	71	31	48	-9	1.3	.9	.5	8.2	139	29.9	139	92	51	0	1	3	1	1	1	
AMARILLO	50	28	71	25	39	-10	T	.2	T	3.7	111	17.3	96	91	51	0	7	1	0	0	0	
AUSTIN	67	45	75	37	56	-5	3.4	2.9	2.9	8.6	111	27.3	98	90	51	0	0	4	2	2	2	
BRAUMONT	68	44	84	39	56	-7	3.7	2.8	3.0	13.4	129	60.9	129	97	49	0	0	3	2	2	2	
BROWNSVILLE	76	54	83	43	65	-5	.7	.2	.5	6.9	73	18.6	80	92	54	0	0	2	0	0	0	
CORPUS CHRISTI	75	49	79	40	62	-5	.5	.1	.5	4.5	46	19.8	69	90	51	0	0	1	0	0	0	
DEL RIO	66	43	74	35	55	-7	1.2	.9	1.1	8.9	167	25.5	157	70	37	0	0	2	1	1	1	
EL PASO	60	34	70	31	47	-8	.7	.6	.6	5.1	232	12.3	175	93	39	0	3	2	1	1	1	
FORT WORTH	61	42	73	36	52	-6	2.9	2.4	2.0	6.8	95	42.9	153	96	53	0	0	4	2	2	2	
GALVESTON	68	52	81	40	60	-6	1.1	.4	.8	11.1	115	35.9	103	84	51	0	0	3	1	1	1	
HOUSTON	67	45	79	38	56	-7	1.9	1.0	1.5	7.3	72	37.5	94	91	49	0	0	3	1	1	1	
LUBBOCK	53	33	73	30	43	-8	.9	.6	4.5	108	15.5	92	92	53	0	4	3	1	1	1	1	
MIDLAND	59	35	73	33	47	-8	.4	.2	.3	4.8	130	13.2	104	94	46	0	0	3	0	0	0	
SAN ANGELO	60	37	72	31	48	-9	.8	.5	4	10.7	195	28.1	167	94	50	0	2	3	0	0	0	
SAN ANTONIO	67	42	75	35	55	-7	3.0	2.4	1.8	10.4	139	38.0	146	95	54	0	0	3	1	1	1	
VICTORIA	72	46	79	38	59	-6	1.4	.9	1.3	6.6	64	34.1	103	93	48	0	0	3	2	2	2	
WACO	65	43	73	35	54	-6	2.5	1.9	1.9	13.6	193	36.1	131	94	55	0	0	3	2	2	2	
WICHITA FALLS	59	38	75	32	49	-7	1.9	1.5	1.1	5.6	85	36.8	150	97	56	0	1	4	4	2	2	
UT CEDAR CITY	52	25	64	19	38	-4	.1	.1	.1	2.6	131	9.2	102	86	33	0	7	1	0	0	0	
SALT LAKE CITY	50	33	63	24	41	-2	.4	.4	2.0	85	9.7	75	83	38	0	4	1	0	0	0	0	
VT BURLINGTON	46	33	70	23	39	-1	2.9	2.3	2.5	10.9	157	37.0	126	92	52	0	3	6	6	1	1	
VA NORFOLK	68	48	79	42	58	3	.8	.2	.5	5.6	64	42.0	105	88	45	0	0	2	0	0	0	0
RICHMOND	65	40	78	33	53	1	1.3	.5	1.1	7.1	85	39.0	102	89	41	0	1	3	1	1	1	
ROANOKE	61	37	74	31	49	-1	1.1	.5	1.0	12.8	171	39.9	116	93	43	0	1	3	1	1	1	
WA QUILLAYUTE	53	44	56	35	49	3	5.6	2.8	2.4	22.8	111	84.4	106	100	81	0	0	7	5	5	5	
SEATTLE-TACOMA	54	46	60	38	50	4	3.7	2.5	2.8	9.7	137	34.4	122	97	73	0	0	5	2	2	2	
SPOKANE	46	36	56	24	41	3	T	.4	T	3.2	135	16.5	131	94	68	0	4	2	0	0	0	
YAKIMA	59	30	69	22	44	4	0	.0	.0	5	44	5.9	102	90	40	0	2	0	0	0	0	
WV BECKLEY	53	36	69	30	44	0	1.2	.5	.8	9.0	125	36.0	97	89	49	0	2	3	1	1	1	
CHARLESTON	58	37	78	30	48	-1	1.4	.7	.7	9.1	140	36.3	98	97	46	0	2	3	3	1	1	
HUNTINGTON	57	37	75	30	47	-2	1.6	1.0	.8	10.4	167	43.0	120	92	48	0	2	3	2	2	2	
PARKERSBURG	56	36	75	26	46	-2	1.2	.7	.8	8.7	143	43.0	129	91	50	0	2	3	1	1	1	
WI GREEN BAY	38	28	44	26	33	-5	.4	.1	.2	8.6	146	34.0	135	96	57	0	4	4	0	0	0	
LACROSSE	40	27	48	22	34	-7	.2	.1	3.6	59	34.8	125	88	45	0	7	2	0	0	0	0	
MADISON	39	26	48	18	32	-7	.5	.1	.3	4.6	78	32.2	115	95	62	0	6	5	0	0	0	
MILWAUKEE	41	31	48	25	36	-5	1.6	1.2	.8	6.4	111	36.6	133	98	61	0	4	4	2	2	2	
HAUSAU	37	26	40	17	31	-5	.4	.3	.1	7.7	113	32.6	112	92	58	0	7	2	0	0	0	
WY CASPER	40	20	57	1	30	-16	.1	.1	.2	2.5	139	11.8	115	80	50	0	6	2	0	0	0	
CHEYENNE	42	22	59	5	32	-16	.3	.1	.2	2.7	138	19.1	152	78	44	0	6	2	0	0	0	
LANDER	37	15	55	-4	26	-8	.9	.7	.6	4.2	181	10.9	90	84	55	0	6	2	1	1	1	
SHERIDAN	46	21	69	1	33	-3	.4	.2	.4	2.7	102	12.7	92	83	48	0	6	1	0	0	0	

Based on 1951-80 normals

October Weather in Historical Perspective

Temperatures for October 1990 averaged near normal over the Nation (fig. 1). The filtered curve shows the long-term variations and suggests that October temperatures have tended to be lower than normal during the last 25 years. The national precipitation index ranks October 1990 as the 38th wettest October on record (fig. 2). The filtered curve indicates that October's for the last 20 years have generally been wet.

Regional rankings for the nine climatically homogeneous regions (fig. 3) are listed in table 1. In general, the eastern third of the country was warm and wet, the Pacific Northwest was cool and wet, while the West was warm and dry. A series of cold air outbreaks brought over 70 daily low temperatures nationally. However, this was offset by nearly twice as many daily high temperature records.

The growing season for the primary hard red winter wheat region (from southern Nebraska to the Texas panhandle) started out dry this year, with October 1990 ranking as the 21st driest on record (fig. 4). The last 4 years have had dry October's, compared to the mid-1980's, which were unusually wet.

The year so far has been unusually warm over the Nation, with January-October 1990 ranking as the third warmest such period on record (fig. 5). The warmest was in 1934, and second warmest in 1921. January-October 1990 ranks as the 13th wettest such period when the standardized national precipitation index is examined (fig. 6).

January-October 1990 precipitation and temperature rankings for the contiguous States are shown in tables 2 and 3. Sixteen States ranked as the 10th wettest, or wetter, such period, while only Florida ranked in the top 10th driest category. Delaware, Florida, and North Carolina ranked as the warmest January-October period on record. When year-to-date temperatures are combined on a regional basis, the Southeast has been the warmest on record (fig. 7). The Northeast has had the second wettest year so far with only 1979 being wetter (fig. 8).

Figure 1

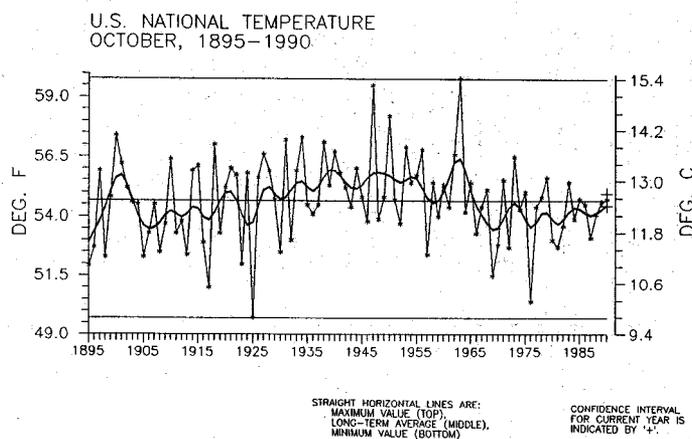


Figure 2

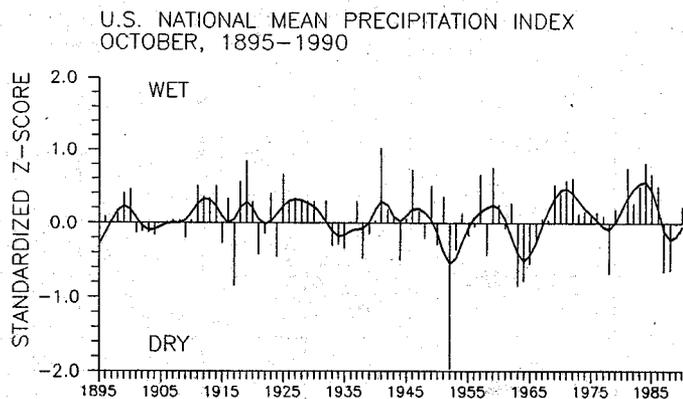


Figure 3

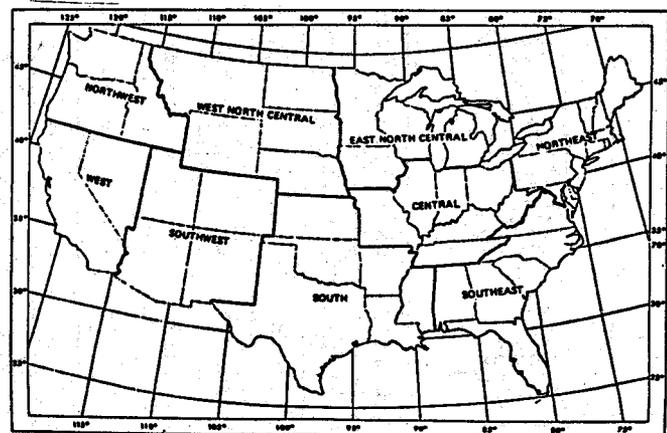


TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR
OCT 1990, BASED ON THE PERIOD 1895-1990.
1 = DRIEST/COLDEST, 96 = WETTEST/HOTTEST.

REGION	PRECIPITATION	TEMPERATURE
NORTHEAST	93	81
EAST NORTH CENTRAL	63	33
CENTRAL	89	32
SOUTHEAST	93	76
WEST NORTH CENTRAL	26	40
SOUTH	40	31
SOUTHWEST	40	65
NORTHWEST	75	28
WEST	19	82
NATIONAL	77	48

Figure 4

PRIMARY HARD RED WINTER WHEAT BELT PRECIPITATION
OCTOBER, 1895-1990

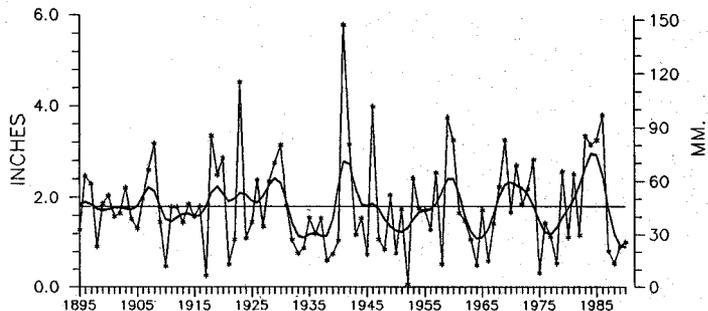


TABLE 2. PRECIPITATION RANKINGS FOR JAN-OCT 1990, BASED ON THE PERIOD 1895 TO 1990. 1 = DRIEST, 96 = WETTEST.

STATE	RANK	STATE	RANK	STATE	RANK	STATE	RANK
AL	70	IA	90	NE	36	RI	78
AZ	76	KS	60	NV	48	SC	42
AR	90	KY	75	NH	94	SD	57
CA	25	LA	60	NJ	81	TN	63
CO	70	ME	80	NM	70	TX	78
CT	90	MD	65	NY	94	UT	41
DE	74	MA	89	NC	50	VT	94
FL	9	MI	89	ND	25	VA	69
GA	32	MN	58	OH	96	WA	90
ID	52	MS	68	OK	89	WV	73
IL	92	MO	87	OR	54	WI	89
IN	95	MT	16	PA	89	WY	32

TABLE 3. TEMPERATURE RANKINGS FOR JAN-OCT 1990, BASED ON THE PERIOD 1895 TO 1990. 1 = COLDEST, 96 = WARMEST.

STATE	RANK	STATE	RANK	STATE	RANK	STATE	RANK
AL	79	IA	91	NE	85	RI	95
AZ	81	KS	83	NV	89	SC	94
AR	82	KY	84	NH	94	SD	91
CA	87	LA	84	NJ	95	TN	79
CO	85	ME	75	NM	72	TX	74
CT	94	MD	94	NY	91	UT	92
DE	96	MA	86	NC	96	VT	92
FL	96	MI	76	ND	94	VA	94
GA	91	MN	93	OH	84	WA	90
ID	94	MS	79	OK	83	WV	87
IL	79	MO	82	OR	89	WI	92
IN	78	MT	90	PA	91	WY	92

Figure 5

U.S. NATIONAL TEMPERATURE
JANUARY-OCTOBER, 1895-1990

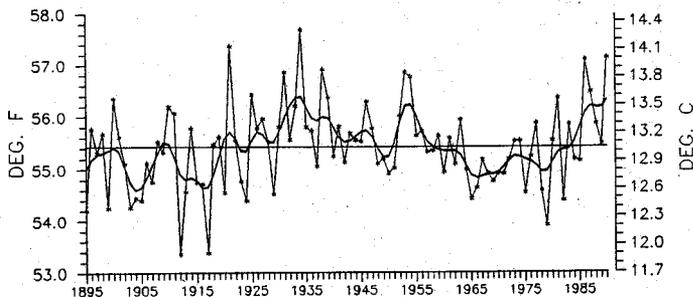


Figure 7

SOUTHEAST U.S. REGION TEMPERATURE
JANUARY-OCTOBER, 1895-1990

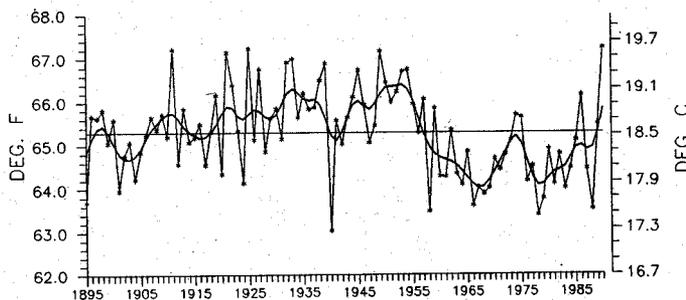


Figure 6

U.S. NATIONAL MEAN PRECIPITATION INDEX
JANUARY-OCTOBER, 1895-1990

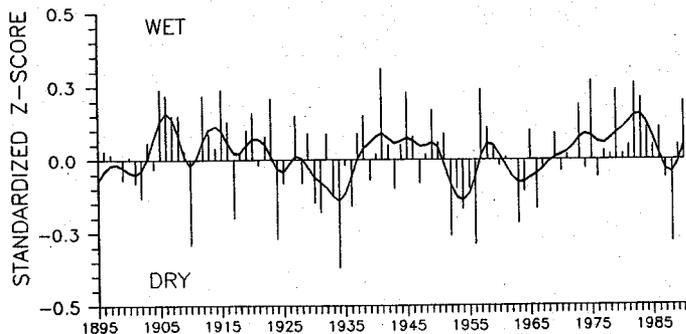
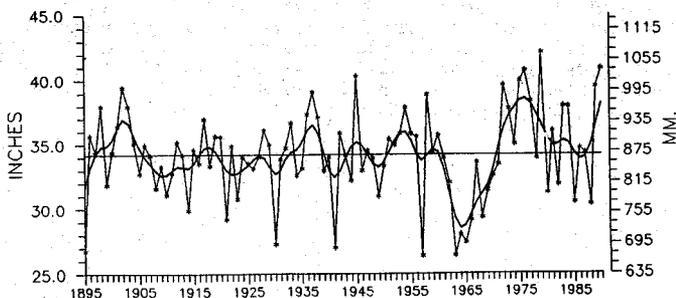


Figure 8

NORTHEAST U.S. REGION PRECIPITATION
JANUARY-OCTOBER, 1895-1990



National Agricultural Summary

November 5-11, 1990

HIGHLIGHTS: Widespread rains in the Eastern half of the Nation and significant snowfall in the Rocky Mountain area and western Plains benefitted small grain crops. However, this moisture reduced harvest activity in the central and eastern Corn Belt. Dry conditions prevail in the northern Plains and much of the West.

The winter wheat crop was 94 percent(%) planted, 1 percentage point above the 5-year average. Eighty-six percent of the wheat crop was emerged, 2 points above normal. Corn harvest was 87% complete, 1 point behind normal. Soybean harvest was 90% complete, 4 points ahead of normal. Seventy-one percent of the cotton crop had been harvested, 9 points above normal. Sorghum harvest was 95% complete, 8 points ahead of normal.

SMALL GRAINS: The winter wheat crop was mostly good to fair. Ninety-four percent of the crop had been planted, 1 point above normal and 86% was emerged, 2 points above normal. Colorado, Montana, Nebraska, and South Dakota had 100% of the crop planted. Arkansas had 62% planted, 11 points behind normal. Lack of moisture was a critical factor in South Dakota, with some wheat streak mosaic reported. Moisture from snow improved the wheat in Nebraska, but more is needed before the ground freezes.

CORN: Corn harvest was 87% complete, 1 point behind normal. Harvest was complete in Georgia and Texas. Michigan harvest was 45% complete, 25 points behind normal. Harvest progressed 12 or more points in Colorado, Indiana, Ohio, Pennsylvania, and Wisconsin. Harvest was 96% complete in South Dakota, 14 points ahead of normal. Snow and wet fields in west and southwest Nebraska caused the corn harvest to lag and caused some lodging. Wet fields in Wisconsin slowed corn harvest, but the cooler temperatures helped reduce grain moisture content.

SOYBEANS: Soybean harvest was 90% complete, 4 points ahead of normal. Iowa, Nebraska, and South Dakota harvests were complete. Harvest was 17 and 15% ahead of normal in Louisiana and Michigan, respectively. Arkansas, Georgia, and Tennessee harvests progressed 20 or more points from last week. The only States behind normal were Kentucky and Tennessee, both 4 points below normal. Texas reported average to good soybean yields.

COTTON: Seventy-one percent of the cotton crop had been harvested, 9 points above normal. Harvest was 95% or more complete in Alabama, Louisiana, and Mississippi. Oklahoma was 50% harvested, 25 points ahead of normal. Harvest progressed 20 points in California to 90%, 4 points ahead of normal. Excessive moisture in Arkansas caused some lower bolls to rot, causing reduced yields and grade.

SORGHUM: Sorghum harvest was 95% complete, 8 points ahead of normal. Harvest progressed 30 or more points in Colorado and Oklahoma. Louisiana, Mississippi, and South Dakota harvests were 100% complete. Harvest in Illinois was 80% complete, 13 points behind normal.

OTHER FIELD CROPS: Peanut yields across Texas were generally fair to good. Georgia peanuts were 99% threshed, 1 point ahead of normal. Colorado sugarbeet harvest was 96% complete. Sugarcane harvest in Louisiana was 19% harvested, 23 points behind normal, while sweetpotato harvest was 89% complete, 2 points behind normal. Kentucky burley was 30% stripped, 2 points behind last year with good quality. The potato harvest in Maine was completed.

FRUIT AND NUTS: Mississippi pecan crop was very poor quality with 21% harvested, 10 points behind last year. Texas pecan harvest continued with good yields and fair quality in the northern areas and poor to fair yields and lower quality in the other areas. Insect damage was evident in the pecan crop in east Texas and along the coast. Washington apple and cranberry harvests were virtually complete. California Granny Smith apple, old crop Valencia orange, and walnut harvests were nearing completion, while the persimmon, pomegranates, and kiwifruit harvests continued. Florida citrus tree condition improved due to rains, but the rain slowed new tree growth. Oregon cranberry harvest ended along the southern coast. Hawaii papaya shipments were steady, and sugar and pineapple harvests continued.

VEGETABLES: The Winter Garden area of Texas reported excellent vegetable crops, while the High Plains area harvest was ended due to freezing temperatures. California desert asparagus and sweet corn harvests began, while the fresh market tomato harvest continued strong. Florida harvest volume of vegetables showed seasonal increase, while planting began for homestead potatoes. New Jersey harvest of fall hardy vegetables continued.

PASTURES AND LIVESTOCK: Pasture and livestock conditions were generally fair to good. Moisture in the Eastern half of the Nation and in scattered areas of the West improved pasture conditions and stimulated growth. Poor pasture conditions due to lack of moisture continued in the northern Plains.

GRAIN SORGHUM
% HARVESTED

	1990	1989	AVG.
AR	99	100	100
CO	77	82	81
IL	80	96	93
KS	99	90	85
LA	100	100	100
MS	100	98	99
MO	90	95	88
NE	99	98	94
NM	65	NA	NA
OK	80	70	65
SD	100	100	92
TX	91	91	86

12 STATES 94 NA NA

EXCL. STATES WITH NA 95 92 87

THESE 12 STATES PRODUCED 98% OF THE 1989 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

COTTON
% HARVESTED

	1990	1989	AVG.
AL	98	80	88
AZ	84	64	65
AR	94	84	91
CA	90	90	86
GA	91	69	78
LA	99	97	95
MS	96	82	91
MO	92	94	93
NM	51	50	41
NC	82	60	65
OK	50	30	25
SC	90	69	79
TN	92	88	93
TX	44	44	32

14 STATES 71 66 62

THESE 14 STATES PRODUCED 99% OF THE 1989 COTTON CROP.

WINTER WHEAT
% PLANTED

	1990	1989	AVG.
AR	62	82	73
CA	35	40	42
CO	100	100	100
GA	22	15	30
ID	99	100	99
IL	96	100	98
IN	94	96	96
KS	99	100	97
MI	98	100	95
MO	91	94	82
MT	100	100	100
NE	100	100	100
NC	52	44	52
OH	92	96	97
OK	98	99	95
OR	98	98	93
SD	100	100	100
TX	91	93	92
WA	99	99	99

19 STATES 94 95 93

THESE 19 STATES PRODUCED 91% OF THE 1990 WINTER WHEAT CROP.

Crop Progress

FOR WEEK ENDING NOVEMBER 11, 1990

CORN
% HARVESTED

	1990	1989	AVG.
CO	71	86	84
GA	100	100	100
IL	89	99	95
IN	76	83	86
IA	96	100	90
KS	99	97	95
KY	83	93	96
MI	45	90	70
MN	94	99	90
MO	94	96	89
NE	96	96	86
NC	98	95	95
OH	64	57	72
PA	52	47	59
SD	96	96	82
TX	100	100	100
WI	60	87	77

17 STATES 87 93 88

THESE 17 STATES PRODUCED 95% OF THE 1989 CORN CROP.

SOYBEANS
% HARVESTED

	1990	1989	AVG.
AL	78	64	66
AR	71	78	69
GA	66	49	58
IL	98	100	97
IN	96	96	96
IA	100	100	97
KS	98	95	85
KY	68	73	72
LA	96	95	79
MI	95	97	80
MN	99	99	98
MS	78	73	67
MO	90	94	80
NE	100	100	98
NC	41	27	30
OH	95	88	92
SC	34	25	30
SD	100	100	97
TN	68	80	72

19 STATES 90 90 86

THESE 19 STATES PRODUCED 95% OF THE 1989 SOYBEAN CROP.

Crop Condition
PERCENT

FOR WEEK ENDING NOVEMBER 11, 1990

WINTER WHEAT

WINTER WHEAT
% EMERGED

	1990	1989	AVG.
AR	44	66	56
CA	10	20	19
CO	100	100	100
GA	14	11	21
ID	90	95	92
IL	72	92	90
IN	70	83	87
KS	97	95	90
MI	90	100	85
MO	78	80	70
MT	92	92	89
NE	100	100	100
NC	37	31	NA
OH	62	75	81
OK	85	85	75
OR	91	90	77
SD	100	99	100
TX	79	75	82
WA	96	98	92

19 STATES 85 86 NA

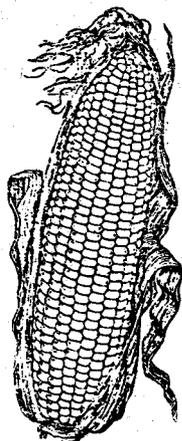
EXCL. STATES WITH NA 86 87 84

THESE 19 STATES PRODUCED 91% OF THE 1990 WINTER WHEAT CROP.

NA - NOT AVAILABLE.

STATE	VP	P	F	G	EX
AR	0	0	29	71	0
CA	0	0	10	85	5
CO	1	4	17	51	27
GA	0	12	53	35	0
ID	0	2	11	72	15
IL	0	3	24	66	7
IN	1	3	46	48	2
KS	0	0	16	52	32
MI	1	4	25	50	20
MO	0	0	54	45	1
MT	5	20	40	30	5
NE	0	3	33	61	3
NC	0	1	32	65	2
OH	0	5	31	52	12
OK	0	0	30	65	5
OR	0	0	54	46	0
SD	0	9	41	40	10
TX	0	6	36	47	11
WA	0	5	55	40	0
19 STATE	0	3	30	53	14
PREV WEEK	0	3	33	56	8
PREV YEAR	0	10	33	50	7

NA - NOT AVAILABLE VP - VERY POOR
P - POOR F - FAIR G - GOOD EX - EXCELLENT



CROP PRODUCTION HIGHLIGHTS

CORN FOR GRAIN production, as of November 1, is forecast at 7.93 billion bushels, down 1 percent from last month but 5 percent above the 1989 crop. The U.S. average yield per acre is forecast at 119.0 bushels, down 1.3 bushels from last month but 2.8 bushels above the 1989 yield.

SORGHUM production is forecast at 560 million bushels, down slightly from October 1 and down 9 percent from 1989. Yields are expected to average 60.5 bushels per acre, down fractionally from October 1 but up 5.1 bushels from 1989.

SOYBEAN production is forecast at 1.90 billion bushels, up 4 percent from the October 1, 1990 estimate but 1 percent below 1989. Average yield is estimated at 33.7 bushels per acre, 1.4 bushels above last month and last year. Nearly ideal harvest conditions coupled with later-than-normal frost dates allowed the late-developing crop in the Corn Belt to reach its yield potential.

ALL COTTON production is forecast at 14.9 million bales, up 2 percent from October and up 22 percent from 1989. Beneficial weather prevailed during October, aiding crop development. Louisiana expects a record production.

ALL TOBACCO production is forecast at 1.60 billion pounds, 1 percent above the forecast a month ago and a 17-percent increase from last year.



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 1.00 to 3.00 in. Temperatures 2 to 4° below normal.

Days suitable for fieldwork 5.8. Soil moisture 20% very short, 43% short, 37% adequate. Widespread significant rains replenished soil moisture, benefitted small grain crops. Cotton 98% harvested, 80% 1989, 88% avg. Soybeans 99% dropping leaves, 99% 1989, 97% avg.; 97% mature, 95% 1989, 93% avg.; 78% harvested, 64% 1989, 66% avg.; 16% very poor, 42% poor, 38% fair, 4% good. Winter wheat 55% seeded, 62% 1989, 58% avg. Pastures 19% very poor, 36% poor, 31% fair, 14% good. Livestock 12% poor, 55% fair, 33% good. Primary activities: Harvesting cotton, soybeans, fall vegetables, pecans; destroying cotton stalks; preparing land, seeding winter annuals; maintaining machinery; repairing fences; pruning fruit trees; providing supplemental feed to cattle; the general care of livestock, poultry, catfish.

ARIZONA: Mostly sunny, warm statewide 4th, 5th; 6th sunny, mild south, cold, snow north. Cold front travelled across State 6th, 7th, 8th; heavy rain, snow eastern third; brief showers west. Precipitation none west, central to 0.92 in. southeast. Temperatures normal to 6° below. Extremes 36°; 88° western deserts, 15°; 77° higher elevations.

Cotton 84% harvested, 64% 1989, 65% avg.; stalk shredding, plow down activities light east, active west. Alfalfa harvest light; final cutting for the season; crop mostly good; movement of sheep onto alfalfa fields mostly light, activity increasing west, central. Wheat, barley ground preparations started. Lemon, grapefruit, tangerine harvest progressed west, central; asparagus harvest continued west, fall lettuce, broccoli harvested west. Melon harvest continued west, central; navel oranges harvested central; lettuce, green onions, mixed greens, cabbage, kale, broccoli, rapini, beets harvested central. Apples, lettuce harvested limited scale east.

ARKANSAS: Below normal temperatures, abundant showers through mid week slowed farming activities. Normal temperatures, dry weather at weekend. Extremes 24°; 82°. Rainfall 0.55 to 3.60 in.

Days suitable for fieldwork 5.0. Soil moisture 3% short, 72% adequate, 25% surplus. Main activities: Soybean, grain sorghum, rice, cotton harvest; bush hogging, disking cotton stalks, rice stubble; planting winter forages; conducting winter pasture management practices; baling hay; working cattle; winterizing machinery. Rice 99% harvested, 100% 1989, 100% avg.; 61% fair, 39% good. Cotton; 94% harvested, 84% 1989, 91% avg.; 5% poor, 24% fair, 59% good, 12% excellent. Sorghum: 99% harvested, 100% 1989, 100% avg.; 77% fair, 23% good. Soybeans 71% harvested, 78% 1989, 69% avg.; 96% mature, 93% 1989, 87% avg.; 98% shedding, 99% 1989, 95% avg.; 9% poor, 54% fair, 32% good, 5% excellent. Wheat 62% planted, 82% 1989, 73% avg.; 44% emerged, 66% 1989, 56% avg.; 29% fair, 71% good. Oats 73% planted, 87% 1989, 73% avg. Pecan yields poorest in years. Harvest started. Pasture 12% poor, 88% fair. Livestock condition was good. Many lower cotton bolls were reported to be rotten, reducing grade, yield. Wheat seeding delayed due to late soybean harvest.

CALIFORNIA: Two weak systems brought rain to the far north end of State early in the week. These

brought gusty offshore winds over most of the State causing significant drying and warming. By weekend, temperatures warmed much above normal.

Field activities progressed, open weather. Rice harvest virtually complete; late fields standing. Stubble burning continued as permitted. Cotton harvest winding down. Shredding, discing active. Pre irrigation continued, some herbicide applications. Dry bean, sugarbeet harvests progressed. Small grain field preparation, seeding continued. Alfalfa harvest normal; final cutting some areas. Fuji apple harvest continued; Granny Smith essentially complete. Date, avocado harvests continued. Raisin crop picked up, boxed. Table grape harvest continued. Persimmons, pomegranates, kiwifruit harvests active. Walnut harvest virtually complete; pecan harvest in full swing. Olive harvest active. Orchards, vineyards; irrigated, sprayed, fertilized, pruned, disced. Old crop valencia orange harvest virtually complete. Navel orange harvest continued. Satsuma mandarins harvest gained momentum. Desert lemons, grapefruit harvests continued. Broccoli, cauliflower light supply, variable quality. Celery moderate supply, generally good quality. Iceberg head lettuce light supply, variable quality. Fresh market tomato harvest continued. Potato harvest continued Hemet Ferris. Desert asparagus, sweet corn harvest began. Sweetpotato harvest nearing completion. Onion, garlic planting continued westside. Livestock on supplemental feed in good condition. Range conditions poor to very poor in southern two thirds of the State. From poor to fair northern third. Precipitation received end of October has not improved range conditions.

COLORADO: Cold weather with snow dominated the State through mid week followed by unseasonably warm weather through the weekend. Temperatures 3 to 11° below normal over most of the State. Precipitation 0.15 in. to 0.98 in.

Days suitable for fieldwork 3.5. Soil moisture 11% short, 80% adequate, 9% surplus. Corn harvest 71% complete. Sorghum harvest 77% complete. Sugarbeet harvest 96% complete. Winter wheat mostly good to excellent. Pasture, range feed conditions 2% very poor, 5% poor, 27% fair, 51% good, 15% excellent. Livestock in mostly good to excellent.

FLORIDA: Temperatures 1 to 4° below normal north; 2 to 4° above normal central, south. Extreme highs upper 70s western Panhandle, low, mid 80s over remainder north; some upper 80s central, south. Temperatures cooled to mid, upper 30s in interior locations north, mid 40s central, mid 50s along southeast coast. Rain occurred over entire State. Most totals under 0.75 in. but many local areas recorded 1.00 to 2.00 in.

Soil moisture Southern Peninsula adequate, other areas short. Soybean, cotton harvest winding down. Sugarcane harvest, planting active. Field preparation active for winter wheat seeding. Pastures 5% very poor, 20% poor, 35% fair, 35% good, 5% excellent. Cattle fair to good, north; good, south. Citrus grove, tree condition improved with rain. Cool temperatures, fewer daylight hours slowed new growth. Early orange harvest increasing for processing, fresh shipments increasing for Thanksgiving. Caretakers cutting cover crops, winterizing young tree groves, cold location. Late week cold front over vegetables producing areas. Minimal damage from accompanying winds. Rainfall

again limited. Fall volume continued seasonal increase. Volume leaders: cucumbers, tomatoes, squash, peppers, sweet corn, snap beans, eggplant. Planting underway Homestead potatoes.

GEORGIA: Significant rains across State. Most areas 1.00 to 2.00 in., local totals near 3.00 in. Temperatures 1 to 3° below normal northwest half, 2 above normal southeast corner. Warmest upper 60s extreme north, low and mid 80s extreme south. Coldest from upper 20s northeast mountains, low 40s near coast.

Days suitable for fieldwork 5.4. Soil moisture 4% very short, 40% short, 49% adequate, 7% surplus. Cotton 32% poor, 39% fair, 29% good; 99% bolls open, 97% 1989, 99% avg.; harvest active. Sorghum 2% very poor, 25% poor, 64% fair, 9% good; 96% harvested for grain, 93% 1989, 91% avg. Peanuts 100% dug, 100% 1989, 100% avg.; 99% threshed, 100% 1989, 98% avg. Soybeans 30% very poor, 41% poor, 25% fair, 4% good; harvest very active. Rye 8% poor, 46% fair, 46% good; 79% planted, 84% 1989, 73% avg. Other small grains 54% planted, 52% 1989, 56% avg. Apple harvest virtually complete. Pecans 11% very poor, 30% poor, 52% fair, 7% good; 43% harvested, 38% 1989, 37% avg. Pasture 3% very poor, 20% poor, 37% fair, 40% good. Cattle, hogs fair to mostly good. Other activities: Small grain seedbed preparation, overseeding pastures, planting canola, onions, cutting cotton stalks, repairing damage from October flood in east central areas, routine care of livestock, poultry.

HAWAII: Variable weather continued during past week. Warm, sunny days with cool, damp nights provided fair growing conditions. Winds easterly 10 to 20 mph. Temperatures low 60s to low 90s. Rainfall none to 14.30 in.

Days suitable for farm work 7.0. Papaya shipments steady. Sugar, pineapple harvest continuous.

IDAHO: Temperatures, precipitation above normal most of the State. Week was mostly wet.

Soil moisture varied across State. Adequate amounts north; short elsewhere. Activities: Fall plowing, repairing equipment, attending meetings. Winter wheat planting nearly complete; condition good. Hay, roughage supplies adequate. Cattle moved off rangeland. Livestock good condition.

ILLINOIS: Temperatures 3 to 8° below normal. Precipitation generally 0.10 to 0.90 in.

Days suitable for fieldwork 3.25. Soil moisture 5% short, 82% adequate, 13% surplus. Livestock roughage requirements from pasture 49%, 52% 1989, 48% avg. Pasture 4% poor, 31% fair, 62% good, 3% excellent. Cold damp weather caused some sickness in livestock.

INDIANA: Temperatures 3 to 8° below normal. Lows low 20s to mid 30s, highs mid 40s to near 50. Precipitation 0.35 to over 1.00 in.

Days suitable for fieldwork 3.8. Topsoil 1% short, 60% adequate, 39% surplus. Subsoil 1% short, 75% adequate, 24% surplus. Spring cropland 32% tilled, 41% 1989, 33% avg. Corn 21% moisture content, soybeans 13% moisture content. Pasture 7% poor, 48% fair, 43% good, 2% excellent. Corn, soybean harvest nearly complete. Tillage of spring cropland progressing slowly due to wet fields.

IOWA: Temperatures 6 to 8° below normal. Extremes 1°; 63°. Precipitation 0.06 to 0.64 in.; average 0.32 in.

Days suitable for fieldwork 2.7. Topsoil 10% short, 86% adequate, 4% surplus. Subsoil 18% short, 81% adequate, 1% surplus. Winter wheat mostly good to excellent. Storage availability 80% adequate, 15% surplus, 5% short. 1991 row crop

acreage 43% tilled, 49% 1989, 40% avg. 1991 row crop acreage 35% fertilizer applied, 39% 1989, 32% avg. Livestock mostly good. Use of stalk, stubble fields 11% extensive, 63% moderate, 26% limited. Respiratory problems noted in some livestock from variable temperatures, snow.

KANSAS: Temperatures 3 to 5° below normal. Precipitation across State; western third less than 1.00 in., central 1.02 to 1.56 in.; eastern third, 2.04 to 2.38 in. rain.

Days suitable for fieldwork 3.0. Surface moisture 17% short, 83% adequate. Subsurface moisture 48% short, 52% adequate. Rain delayed harvest completion fall crop. Wheat seeding nearly complete. Movement livestock to fall seeded wheat, corn, sorghum stubble nearly complete.

KENTUCKY: High temperatures low to mid 50s, 5° below normal. Lows temperatures mid 30s, few degrees below normal. Precipitation 1.00 to 1.50 in., southeast 2.00 to 3.00 in.

Days suitable fieldwork 4.1. Soil moisture 1% very short, 5% short, 86% adequate, 8% surplus. Burley stripping irregular. Burley 30% stripped, 32% 1989, 36% avg. Burley has good quality, late crop weighing heavy. Condition stripped crop mostly good. Burley markets open 19th. Winter wheat 79% seeded, 83% 1989, 81% avg. Good germination with good plant growth. Condition germinated crop fair to mostly good. Pastures 1% poor, 16% fair, 70% good, 13% excellent.

LOUISIANA: Temperatures 3.1 to 7.3° below normal. Extremes 31°; 84°. Rainfall 1.57 to 4.92 in.

Days suitable for fieldwork 4.9. Soil moisture 3% very short, 23% short, 58% adequate, 16% surplus. Cotton harvested 99%, 97% 1989, 95% avg. Hay final cutting 100%, 100% 1989, 99% avg. Pecans harvested 40%, 42% 1989, 34% avg. 36% very poor, 36% poor, 28% fair. Sorghum harvested 100%, 100% 1989, 100% avg. Soybeans shedding leaves 100%, 100% 1989, 99% avg.; harvested 96%, 95% 1989, 79% avg. Sugarcane harvested 19%, 45% 1989, 42% avg.; 9% poor, 55% fair, 36% good. Sweetpotatoes harvested 89%, 91% 1989, 91% avg. Wheat planted 45%, 60% 1989, 45% avg.; emerged 26%, 31% 1989, 28% avg.; 5% poor, 37% fair, 58% good. Livestock 7% poor, 44% fair, 49% good. Pasture 3% very poor, 24% poor, 66% fair, 7% good. Vegetable 3% very poor, 10% poor, 56% fair, 31% good.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 0.19 in. Temperature 52°, normal 49°. Extremes 21°; 81°.

Days suitable for fieldwork 5.6. Topsoil 92% adequate, 8% surplus. Subsoil 100% adequate. Corn good; grain 92% harvested, 85% 1989, 90% avg. Soybeans good; 70% harvested, 58% 1989, 59% avg. Small grains good. Wheat 87% seeded, 84% 1989, 85% avg. Oats 66% seeded, 49% 1989, 86% avg. Rye 95% seeded, 81% 1989, 90% avg. Hay supplies adequate. Pasture good.

DELAWARE: Precipitation 0.01 in. Temperature 53°, normal 50°. Extremes 28°; 81°.

Days suitable for fieldwork 5.7. Topsoil 17% short, 83% adequate. Subsoil 17% short, 83% adequate. Soybeans good; 86% harvested, 42% 1989, 57% avg. Small grains good. Wheat 85% seeded, 71% 1989, 79% avg. Rye 95% seeded, 92% 1989, 84% avg. Hay supplies adequate. Pasture fair.

MICHIGAN: Temperatures 2 to 6° below normal. Extremes 13°; 65°. Precipitation 0.05 to 3.07 in. across State.

Days suitable for fieldwork 2.5. Soil moisture 20% adequate, 80% surplus. Corn 45% harvested, 90% 1989, 70% avg.; soybeans, 95% harvested, 97% 1989, 80% avg.; winter wheat 98% seeded, 100% 1989, 95%

avg.; 90% emerged, 100% 1989, 85% avg.; 1% very poor, 4% poor, 25% fair, 50% good, 20% excellent. Major activities: Harvesting soybeans, corn, planting winter wheat.

MINNESOTA: Temperatures 4 to 5° below normal. Extremes 3°; 50°. Precipitation none to 0.06 in., greatest weekly total 0.15 in.

Days suitable for fieldwork 5.5. Topsoil 18% very short, 28% short, 52% adequate, 2% surplus. Corn 94% combined, 99% 1989, 90% avg. Field corn 65% plowed, tilled, 90% 1989, 70% avg. Corn 19% moisture, 16% 1989, 19% avg.

MISSISSIPPI: Temperatures 4° below normal. Extremes 27°; 85°. Mostly wet statewide. Rainfall 2.14 in., 1.27 in. above normal. Soil temperature 56°.

Days suitable for fieldwork 4.8, 2.0 1989, 3.6 avg. Soil moisture 16% very short, 24% short, 39% adequate, 21% surplus. Cotton 96% harvested, 82% 1989, 91% avg.; 2% very poor, 8% poor, 57% fair, 23% good, 10% excellent. Soybeans 78% harvested, 73% 1989, 67% avg.; 12% very poor, 27% poor, 44% fair, 16% good, 1% excellent. Sweetpotatoes 97% harvested, 81% 1989, 91% avg. Wheat 63% planted, 72% 1989, 56% avg.; 41% emerged, 53% 1989, 52% avg.; 3% very poor, 17% poor, 56% fair, 23% good, 1% excellent. Pecans 21% harvested, 31% 1989, 29% avg.; 79% very poor, 5% poor, 12% fair, 4% good. Pasture 31% very poor, 25% poor, 30% fair, 14% good. Livestock 4% very poor, 11% poor, 42% fair, 43% good. Hay, roughage 78% short, 22% adequate. Feed grain 37% short, 63% adequate. Activities: Harvesting crops, planting wheat, sub soiling.

MISSOURI: Temperatures 3° below normal southeast, 4 to 7° below normal elsewhere. Precipitation 0.38 in., largest amounts north central, least central, southwest.

Days suitable for fieldwork 2.9 as rain from previous weekend delayed harvest. Topsoil 7% short, 89% adequate, 4% surplus. Corn harvest varies 89% east central, southwest to 97% southeast. Soybean harvest 95% or more complete northern districts, 80% southeast. Sorghum harvest varies 70% southwest to 95% southeast. Rain helped wheat germination, growth. Ground worked at least once for spring crops 40%, 46% 1989, 42% avg. Pasture 10% poor, 53% fair, 36% good, 1% excellent.

MONTANA: Temperatures below normal northeast, above normal rest of State. Precipitation light. West 0.50 in. North central dry.

Soil moisture mostly short. Warm days good for fall fieldwork. Grazing open.

NEBRASKA: Temperatures 3 to 8° below normal. Extremes -6°; 71°. Precipitation 0.25 to 0.50 in.

Days suitable for fieldwork 1.9. Topsoil moisture 43% short, 53% adequate, 4% surplus. Subsoil 79% short, 21% adequate. Corn harvest lagging in west, southwest where snow, wet fields held up progress. Snow amounts as high as 12.00 to 16.00 in. western, northern parts of State, lesser amounts elsewhere. Heavy snow caused some corn lodging, northeast, unharvested east central fields appeared to be standing up well under lesser amounts. Winter wheat improved by the moisture, more needed before ground freezes. Small number of Russian wheat aphids reported in volunteer wheat in Panhandle. Pasture, range 9% very poor, 33% poor, 34% fair, 23% good, 1% excellent. Heavy snows caused some supplemental livestock feeding, even in stalk fields. Some cases of pneumonia, Northeast, due to sharp weather changes. Snow, cold stressed calves in some western feedlots. Main activities: Harvesting corn, working fall tillage, applying fertilizer, fencing corn fields for grazing.

NEVADA: Week began relatively mild. Cold front mid week produced cooler air. Temperatures warmed end of period. Precipitation amounts largest in northeast, south had no precipitation, trace amounts elsewhere. Extremes 0; 81.

Harvesting operations completed for 1990 season. All of garlic, winter grains 98% planted for harvest in 1991. Cattle mostly good, some supplemental feeding hay already necessary. Open weather generally easy on cattle, calves.

NEW ENGLAND: Precipitation 5.00 to 7.00 in. coastal Maine, 1.50 to 3.50 in. elsewhere. Temperatures low 30s Northern Maine, mid 30s to low 40s elsewhere north, to high 40s south; near normal. Maximum temperatures 60s to mid 70s, minimums mid teens to 20s.

Maine potato harvest complete. Major farm activities; Spreading manure, plowing fields, cutting fire wood, general repairs.

NEW JERSEY: Temperatures below normal, 43° south, 46° north, 48° coastal. Extremes 20°; 75°. Precipitation above normal, 2.11 in. north, 1.28 in. south, 1.48 in. coastal. Heaviest 24 hour total 2.00 in. on 10th, 11th. Heaviest 24 hour snowfall 1.00 in. on 11th, 12th in extreme north.

Light harvest of hardy fall vegetables continued. Weekend rain, high winds temporarily halted harvest of soybeans, corn for grain. Colder temperatures slowed growth fall sown grains, cover crops, pastures; seeding continued. Cider making active.

NEW MEXICO: Temperatures below normal. Early winter storm brought rain, snow statewide. Highest precipitation was 1.30 in. at Animas.

Days suitable for fieldwork 4.3. Soil moisture 35% short, 59% adequate, 6% surplus. Harvest slowed by freezing ice, snow on 7th, 8th, high plains hardest hit. Cattle weighing heavy comparable with last year. Cattle fair to excellent condition, sheep fair to good. Range 10% poor, 53% fair, 37% good.

NEW YORK: Temperatures near normal, mainly in the mid 30s to mid 40s. Extremes 12°; 73°. Precipitation well above normal, 1.00 in. to 4.25 in. Most areas received 1.50 to 3.25 in. Some areas received snow at weekend.

Fieldwork stopped by heavy rains, wet fields. Some orchard clean up completed. Vegetable harvest virtually finished.

NORTH CAROLINA: Temperatures 3° below normal in the Mountains, 1 to 3° above in the Piedmont, 5 to 6° above in the Coastal Plain. Precipitation 0.70 to 3.37 in.

Days suitable for fieldwork 6.0. Soil moisture 1% very short, 22% short, 75% adequate, 2% surplus. Pasture 4% poor, 36% fair, 58% good, 2% excellent. Livestock feed from pasture 70%. Harvested: sorghum 85%; cotton 82%; peanuts threshed 98%; soybeans 41%. Wheat emerged 37%. Planted: Wheat 52%; oats 75%; barley 73%; rye 62%. Crop condition: Cotton 2% poor, 30% fair, 57% good, 11% excellent; soybeans 10% poor, 52% fair, 37% good, 1% excellent; wheat 1% poor, 32% fair, 65% good, 2% excellent; oats 33% fair, 66% good, 1% excellent; barley 36% fair, 64% good; rye 32% fair, 68% good. Major activities: Harvesting corn, cotton, peanuts, soybeans; planting small grains; land preparation. Other activities included: seeding pastures; harvesting sorghum, soybeans; hay harvest; cutting wood; cutting, tagging Christmas trees; tending livestock; general farm maintenance.

NORTH DAKOTA: Temperatures 3 to 5° below normal. Precipitation none to 0.04 in. statewide.

Soil moisture short. Harvesting complete. Fieldwork complete. Pastures in poor condition.

OHIO: Temperatures subnormal, rainfall above normal. Daytime highs mid 40s to mid 50s; night time lows upper 20s to mid 30s. Readings 3 to 8° subnormal. Precipitation 0.75 to 1.50 in.; up to 1.00 in above normal.

Days suitable for fieldwork 4.8. Soil moisture 1% short, 79% adequate, 20% surplus. Farmers working hard to finish harvesting corn, soybeans and planting winter wheat. Hard frosts killed weeds which improved harvest conditions as the vegetation dried. Harvested corn tested 22% moisture; unchanged from previous week. Harvested soybeans tested 13% moisture, the same as a week earlier. Winter wheat rated good. Cold temperatures slowed germination and emergence. Pastures rated good. Sugarbeet harvest advanced to 93% complete.

OKLAHOMA: Temperatures 4° below normal southwest to 8° below normal west central. Precipitation 0.05 in. northeast to 1.33 in. southwest.

Days suitable for fieldwork 4.7. Topsoil 5% short, 73% adequate, 22% surplus. Subsoil 15% short, 85% adequate. Wheat 30% fair, 65% good, 5% excellent; 98% planted, 99% 1989, 95% avg.; 85% emerged, 85% 1989, 75% avg. Recent moisture aided wheat pasture development. Cotton 50% harvested, 30% 1989, 25% avg. Sorghum 80% harvested, 70% 1989, 65% avg. Soybeans 70% harvested, 70% 1989, 45% avg. Peanuts 90% harvested, 80% 1989, 65% avg. Pastures 4% poor, 60% fair, 35% good, 1% excellent. Cattle good; marketings stable, prices up from preceding week.

OREGON: Temperatures 4° above normal west; also averaged 4° above normal east except isolated areas northwest, extreme south central slightly below normal. Precipitation abundant many areas west: about 1.00 in. along coast; up to 2.75 in. coast range; 0.50 to 0.70 in. interior western valleys; 1.75 to 2.50 in. Cascades, Foothills. Precipitation 0.10 to 0.40 in. east.

Soil moisture 20% short, 56% adequate, 24% surplus. Winter wheat 54% fair, 46% good; 98% planted, 98% 1990, 93% avg.; 91% emerged; 90% 1990; 77% avg. Fertilizing, herbicide spraying in grains, grass seeds west. Fall herbicides also going on canberries Willamette Valley. Cranberry harvest ended south coast. Livestock mostly good. Range, pasture 17% poor, 43% fair, 38% good, 2% excellent. Most cattle collected from ranges east. Limited grazing for cattle Willamette Valley, sheep grazing continued many areas.

PENNSYLVANIA: Wet week, warm at beginning, cool at end. Temperature 43°, 1° below normal. Extremes 19°; 75°. Precipitation 1.73 in, 0.73 in above normal.

Days suitable for fieldwork 5. Soil moisture 3% short, 73% adequate, 24% surplus. Corn 96% mature, 93% 1989, 98% avg; 52% harvested, 47% 1989, 59% avg. Ensilage corn 95% harvested, 95% 1989, 98% avg. Corn 5% poor, 19% fair, 49% good, 27% excellent. Soybean harvest 68% complete, 52% 1989, 61% avg.; 5% poor, 24% fair, 47% good, 24% excellent. Potato harvest 97% complete, 100% 1989, 99% avg. Fall plowing 88% complete, 94% 1989, 98% avg. Winter wheat 98% planted, 99% 1989, 98% avg. Barley 100% planted, 100% 1989, 100% avg. Third cutting alfalfa 98% complete, 100% 1989. Fourth cutting alfalfa 84% complete, 85% 1989. Quality of hay made during week mostly fair. Quality of feed being obtained from pasture 8% very poor, 14% poor, 46% fair, 32% good. Apple harvest 94% complete, 99% 1989. Activities: Harvesting hay, haylage, potatoes, fruit, corn, corn silage, soybeans; fall plowing, planting; maintaining machinery; caring for livestock.

PUERTO RICO: Rainfall of 1.13 in. was 0.41 in. below normal. Highest rainfall was 2.89 in. at Pico Del Este Luquillo, 2.53 in. at Borinquen Airport, 2.48 in. at Isabela Aes. Divisional temperatures 81° on the coasts, 75° to 77° Interior with Mean Station temperature 67° at Pico Del Este Luquillo to 83° at Roosevelt Roads N.S. Extremes 56°; 93°.

SOUTH CAROLINA: Temperatures 2° below normal northwest to 2° above normal near south coast.

Days suitable for fieldwork 4.9. Soil moisture 16% short, 82% adequate, 2% surplus. Cotton 2% very poor, 23% poor, 72% fair, 3% good; 90% harvested, 69% 1989, 79% avg. Soybeans 7% very poor, 17% poor, 70% fair, 6% good; 89% shedding leaves, 93% 1989, 93% avg.; 85% matured, 87% 1989, 87% avg.; 34% harvested, 25% 1989, 30% avg. Sorghum fair to good, 84% harvested, 64% 1989, 73% avg. Peanuts fair, 91% harvested, 93% 1989, 91% avg. Pastures 10% poor, 43% fair, 47% good.

SOUTH DAKOTA: Temperatures 1 to 5° below normal west, 5 to 10° below normal east. Extremes -1°; 69°. Precipitation below normal north half of State, maximum 0.14 in. south half of State near normal, range 0.10 to 0.76 in. Harvest season precipitation 0.33 in. to 1.59 in. above normal Black Hills, north central. Everywhere else below normal. Range 2.13 in. below to 1.59 in. above normal.

Days suitable for fieldwork 4.4. Subsoil 28% critically short, 52% short, 20% adequate. Topsoil 17% critically short, 48% short, 34% adequate, 1% surplus. Range, pasture 6% very poor, 30% poor, 36% fair, 24% good, 4% excellent. Winter wheat 18% poor, 36% fair, 42% good, 4% excellent. Winter rye fair to good. Crops mostly harvested. Some field preparation. Moisture biggest problem in winter seeded grains. Some wheat streak mosaic. Major activities: Fieldwork, combining, working livestock, fencing.

TENNESSEE: Cold front moved through State early week, some rainfall. Intense low pressure weekend pumped heavy Gulf moisture into State. Temperatures averaged below normal statewide. Precipitation above normal.

Days suitable for fieldwork 4.5. Soil moisture 6% short, 87% adequate, 7% surplus. Cotton 92% harvested, 88% 1989, 93% avg. Soybeans 68% harvested, 80% 1989, 72% avg. Burley tobacco 60% stripped, 60% 1989, 58% avg. Pastures 1% poor, 27% fair, 65% good, 7% excellent. Cattle 2% poor, 14% fair, 78% good, 6% excellent. Primary activities: Cotton, soybean harvests; seeding wheat, pastures.

TEXAS: Weather turned wet across State during week. Large disturbance slowly moved out southwestern United States, pulled very moist Gulf air ahead of it. Early week, wide areas rain triggered by moisture overrunning cold air ahead of disturbance. Storm system finally moved east end of week, dry weekend followed with temperatures above normal. Rainfall amounts were above normal in areas. Greatest departures eastern, southern areas. Cold surges kept temperatures chilly side over State. All temperatures departures 8 to 11° below normal all areas except south, Rio Grande Valley.

Crops: Grain sorghum harvest nearly complete all areas. Some later fields, second cropped sorghum still standing. Yields Plains fair to good. Cotton harvest continued early week, rain halted progress. Plains, yields above average, good grades. Irrigated cotton yields excellent. Yields Trans Pecos lower than first expected, grades good. Cotton 93% open bolls, 96% 1989, 86% avg. Small grain progress good to excellent. Much

needed rainfall boosted early growth, cooler temperatures helped control insects. Heavy rains east hurt some early wheat fields, soaking rains stimulated growth dryland fields other parts State. Soybean harvest delayed by midweek rainfall. Producers most growing regions average to good yields. Some early planted beans south failed, expected yields later fields look good. Peanut yields generally same across State, fair to good. Cold weather affected some grades Plains, grades remained good as harvest continued. Other field crops: Peanuts 64% harvested, 61% 1989, 61% avg. Pecans 21% harvested, 24% 1989, 30% avg. Soybeans harvested 65%, 79% 1989, 66% avg. Sugarbeets 42% harvested, 61% 1989, 48% avg. Sunflowers harvested 52%, 51% 1989, 68% avg. Oats planted 65%, 83% 1989, 80% avg.

Commercial Vegetables: Rio Grande Valley, fall vegetables continued progress well. Producers some areas insect damage. San Antonio Winter Garden, growers fall crops excellent. Some harvest cool season vegetables underway. Eastern areas, cool season vegetable harvest underway. High Plains, harvest complete for year. Freezing temperatures ended remaining growth. Trans Pecos, bell pepper harvest winding down. Pecan harvest full swing across State. Good yields continued northern part State, quality fair. Elsewhere, yields poor to fair, quality lower than expected. Some shell sprouting Hill Country. Insect damage evident east, along coast.

Range and Livestock: Last weeks rainfall stimulated winter pastures. Ranges remained stable. Livestock good, some supplemental feeding continued. Range, pasture 3% very poor, 6% poor, 39% fair, 41% good, 11% excellent.

UTAH: Precipitation moderate in mountainous areas, and light elsewhere. Maximum temperatures 9° below normal, minimum 2° below normal.

Weather was generally favorable for fieldwork throughout the week. Soil moisture remained dry. Major farm activities include: Fall orchard clean up, finishing corn harvest, preparation for 1991 growing season.

VIRGINIA: First part of the week was unseasonably warm while the last part was below normal. Precipitation was light and generally about 0.25 in. or less statewide.

Days suitable for fieldwork 6.1. Topsoil 2% very short, 22% short, 75% adequate, 1% surplus. Corn for grain 91% harvested, 87% 1989, 86% avg. Soybeans 61% harvested, 46% 1989, 38% avg. Wheat 68% seeded, 61% 1989, 61% avg. Barley 94% seeded, 90% 1989, 89% avg. Oats 94% seeded, 97% 1989, 94%

avg. Winter grain 8% poor, 32% fair, 58% good, 2% excellent. Pasture 7% poor, 40% fair, 43% good, 10% excellent. Livestock mostly good. Forage from pastures, winter grazing crops dairy cattle 29%, beef cattle 85%, sheep 87%. Apple harvest neared completion. Grading burley tobacco.

WASHINGTON: Temperatures 3° above normal to 5° below normal east; 2° above normal to 2° below normal west. Precipitation none to 0.53 in. east; 0.70 to 3.49 in. west.

Days suitable for fieldwork 3.5. Soil moisture 45% short, 54% adequate, 1% surplus. Range, pasture 30% poor, 30% fair, 40% good. Hay and other roughage 1% short, 98% adequate, 1% surplus. Winter wheat planted 99%, 99% 1989, 99% avg. Winter wheat emerged 96%, 98% 1989, 92% avg. Potatoes harvested 99%, 100% 1989, 99% avg. Corn grain harvested 59%, 41% 1989, 70% avg. Emerged wheat 5% poor, 55% fair, 40% good. Barley 5% poor, 75% fair, 20% good. Most fieldwork has been completed or halted by recent wet weather pattern. Apple, cranberry harvests were in the final phases. Most livestock has been placed on winter feeding programs.

WEST VIRGINIA: Temperature 43°, 3° below normal. Extremes 21°; 79°. Precipitation 1.21 in., 0.60 in. above normal.

Days suitable for fieldwork 4.8. Soil moisture 16% short, 84% adequate. Pasture 42% fair, 57% good, 1% excellent. Cattle, sheep good. Corn 5% fair, 95% good; 95% mature, 80% harvested. Hay 25% fair, 75% good; third cutting 95% complete. Wheat 93% planted. Farm activities: Hay, corn harvesting, livestock marketing, farm maintenance, wheat seeding, stripping tobacco.

WISCONSIN: Temperature 32°, 4° below normal. Extremes 7°; 51°. Precipitation trace to 1.60 in.

Days suitable for fieldwork 5.0. Soil moisture 3% short, 71% adequate, 26% surplus. Pasture 2% very poor, 11% poor, 41% fair, 44% good, 2% excellent. Soybeans 92% harvested, 98% 1989, 86% avg. Corn for grain 60% harvested, 87% 1989, 77% avg. Fall tillage 46% complete, 57% 1989, 53% avg. Wet fields are slowing harvest of corn, cooler weather has helped to bring the moisture down.

WYOMING: Temperatures unseasonably cold. Precipitation above normal.

Corn harvest continues. Dry bean, sugarbeet harvest wind up stages. Winter wheat fair to mostly good. Livestock fair to mostly good. Movement to winter pastures, markets continues.

International Weather and Crop Summary

HIGHLIGHTS

November 4-10, 1990

WESTERN USSR ... Widespread precipitation and unseasonably warm weather favor winter grains entering dormancy as far south as the central Ukraine and North Caucasus.

NORTHWESTERN AFRICA ... Soaking rain covers northeastern Algeria, providing abundant topsoil moisture for winter grain planting. Farmers over the remainder of the region continue to await the onset of significant rain before planting can begin.

EUROPE ... Beneficial rain continues in the Balkans. Cool, wet weather halts winter crop growth across the north.

EASTERN ASIA ... Widespread rain covers most crop areas.

SOUTH ASIA ... Mostly dry, warm weather favors summer crop maturation and winter wheat planting.

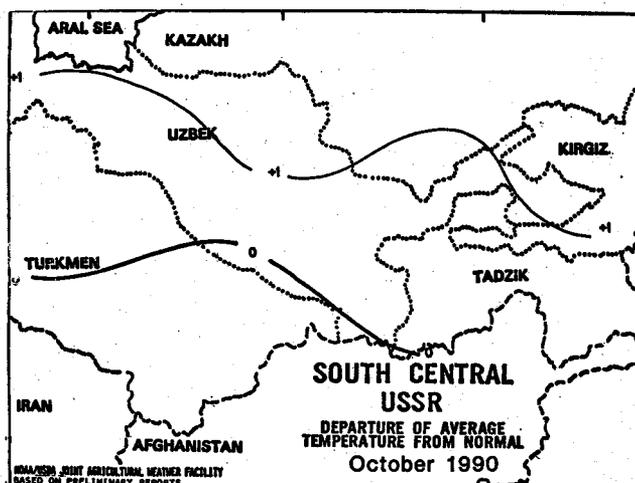
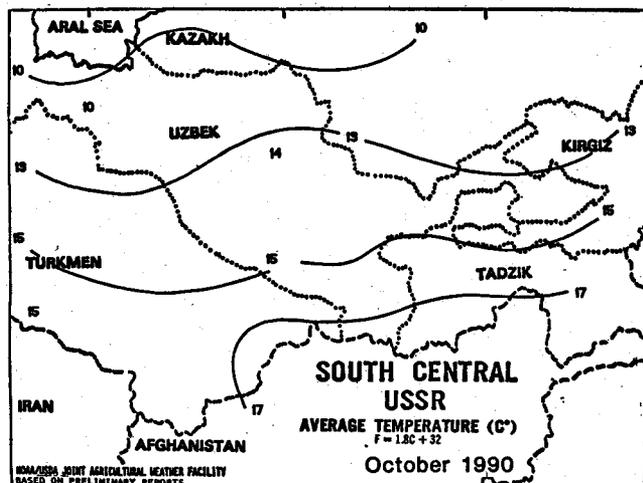
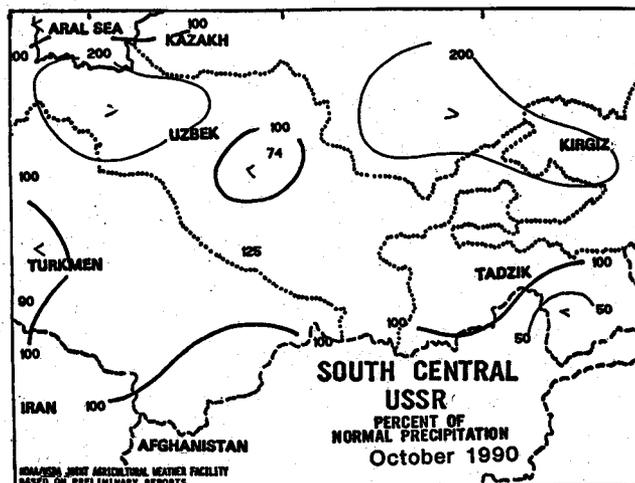
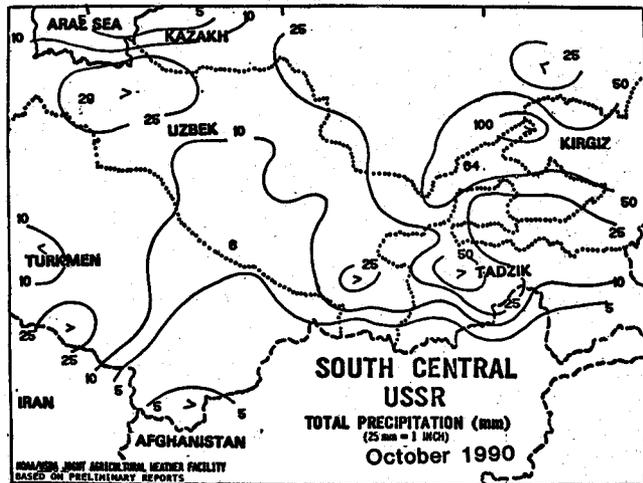
SOUTHEAST ASIA ... Unseasonably heavy showers increase reservoir levels but cause local flooding in Thailand and the Philippines.

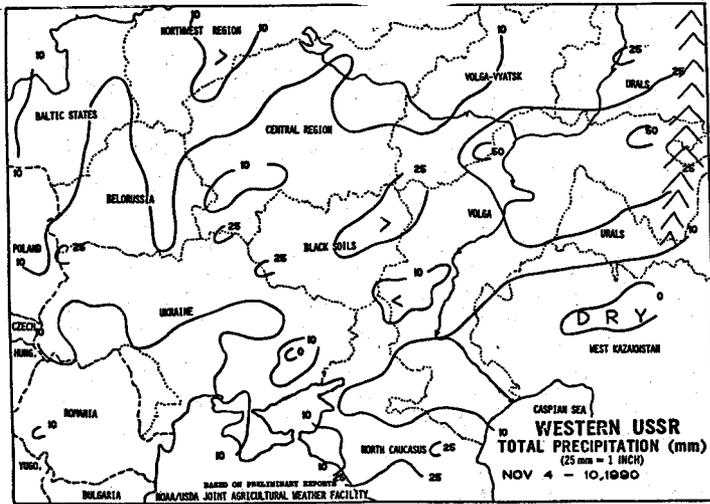
SOUTH AFRICA ... Rain benefits emerging corn in eastern areas, but conditions elsewhere are unfavorable for planting.

SOUTH AMERICA ... In Argentina, drier weather favors planting. Widespread rain slows fieldwork in south-central Brazil.

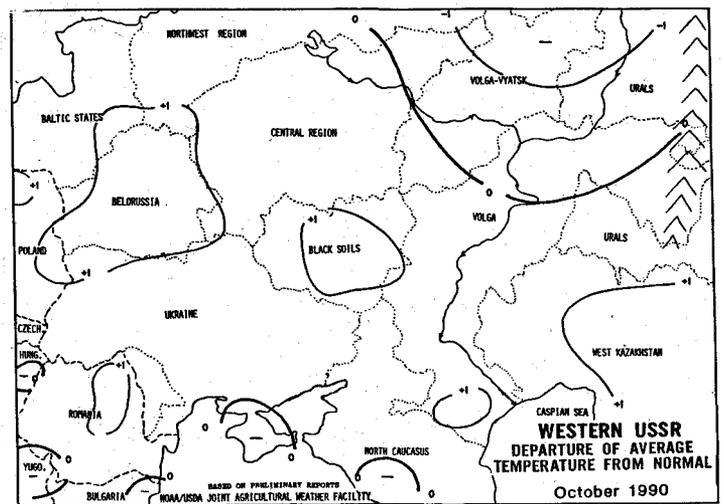
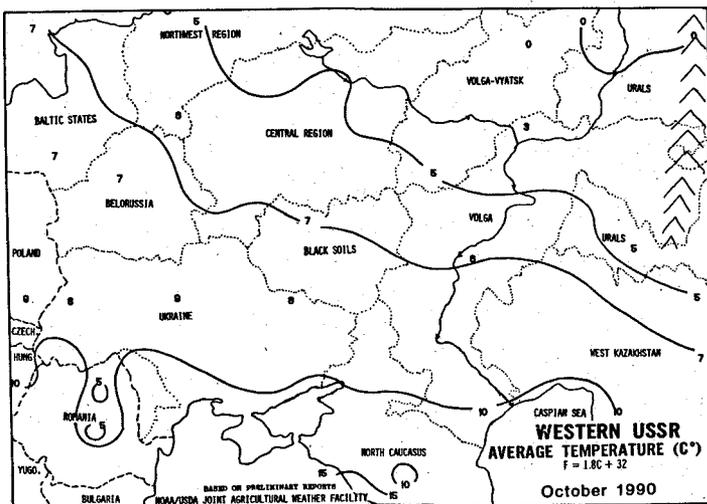
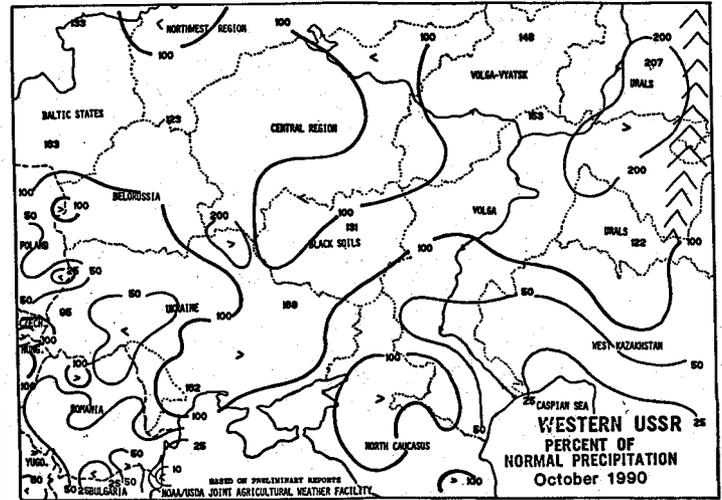
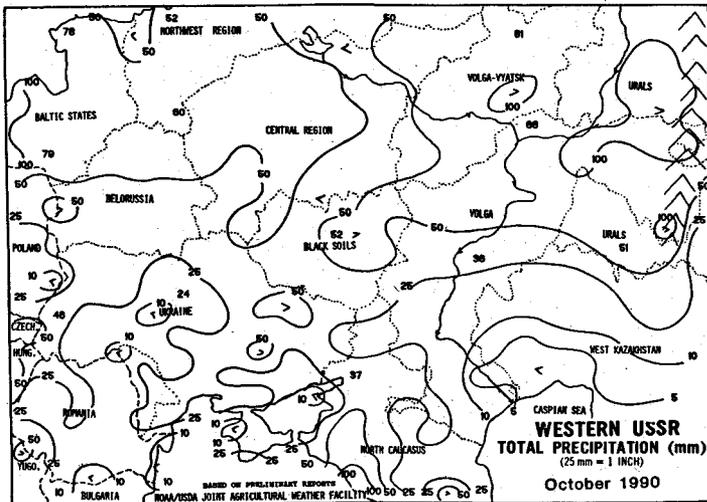
AUSTRALIA ... Hot weather continues in sections of the south. Mostly dry weather favors winter grain harvest in Queensland and northern New South Wales.

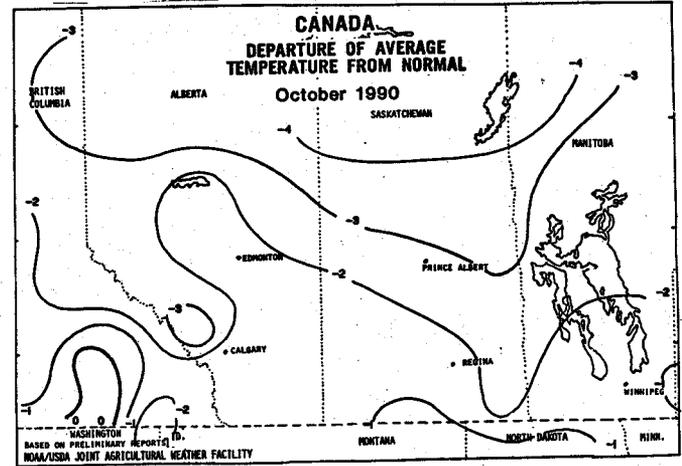
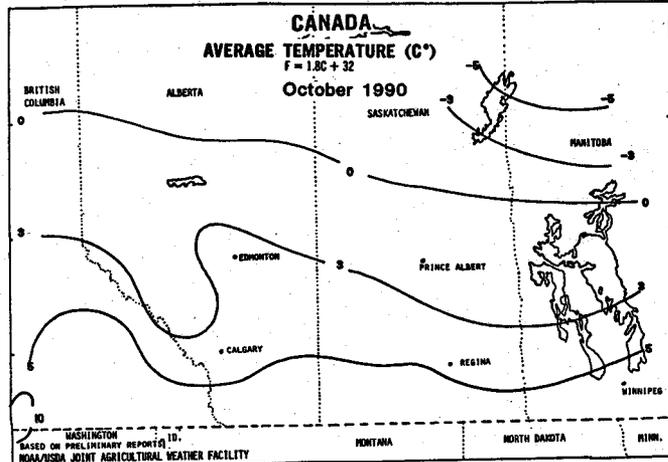
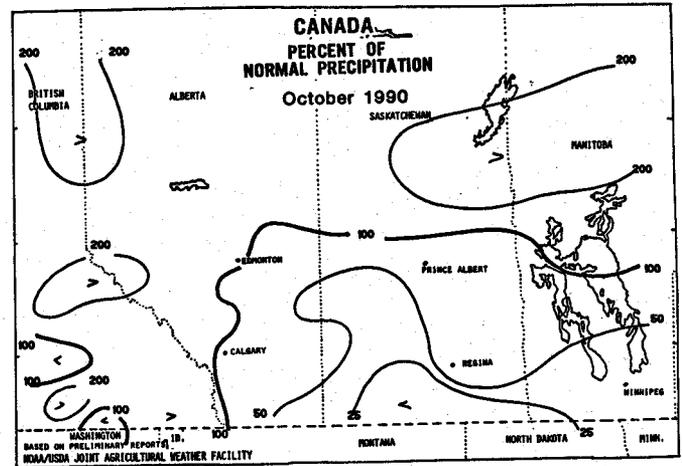
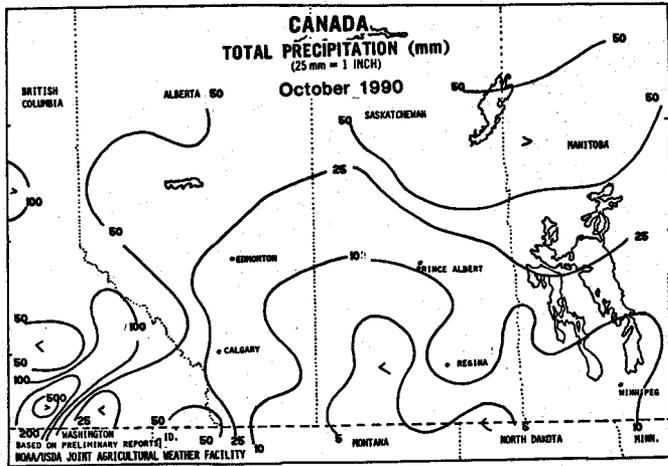
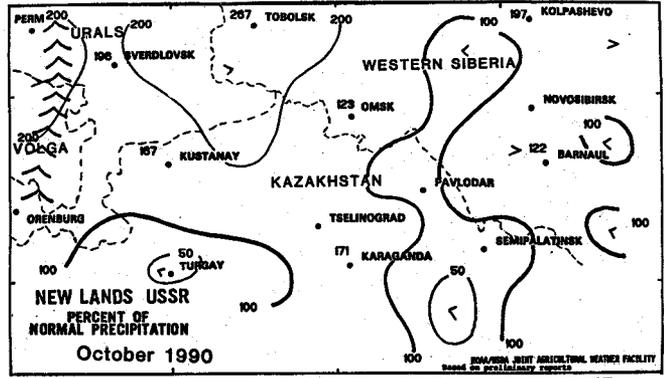
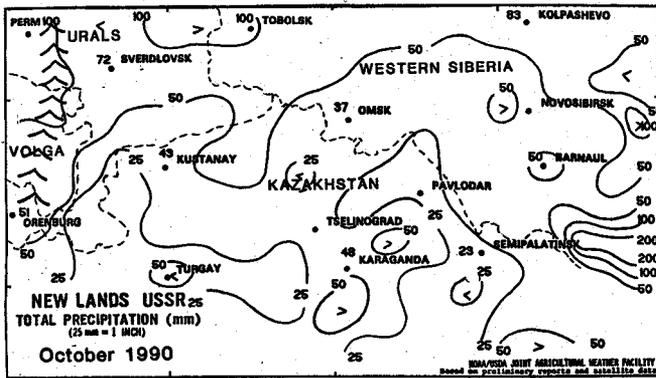
MEXICO ... Seasonably dry weather promotes harvesting along the west coast and in most of the Plateau corn belt.





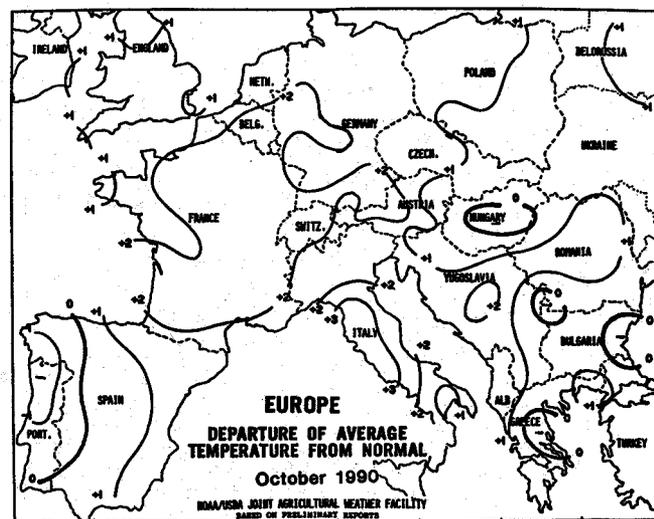
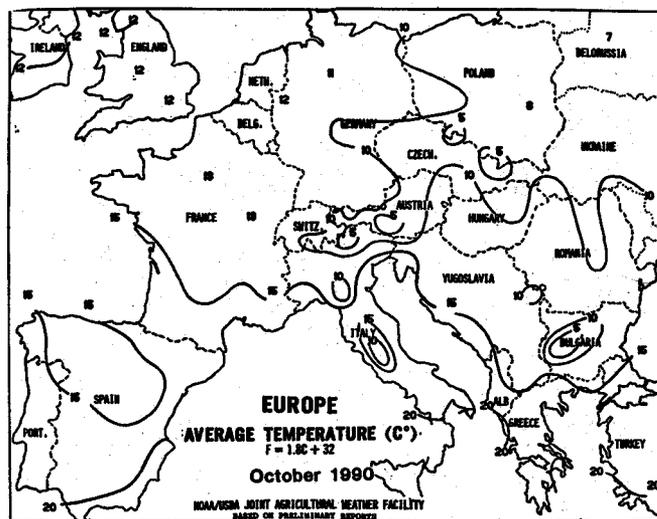
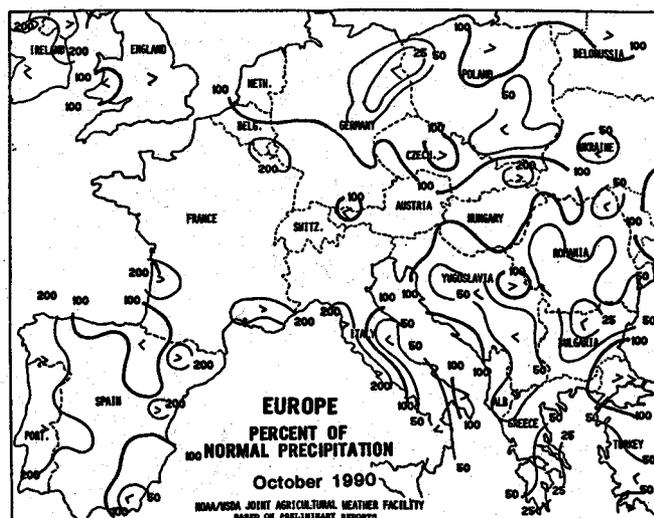
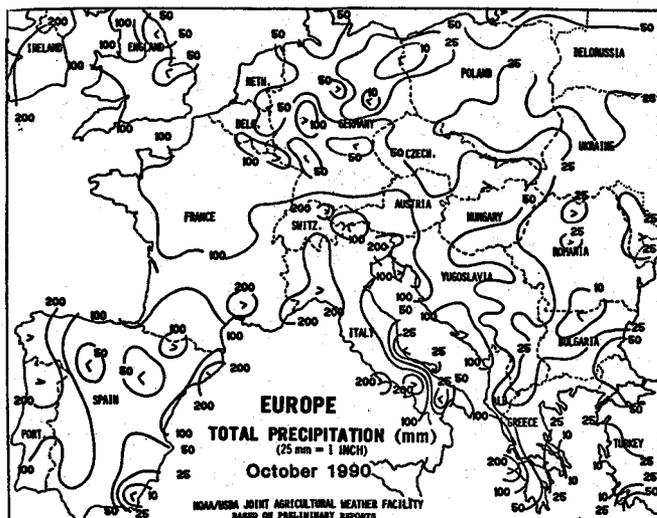
WESTERN USSR ... Widespread precipitation and unseasonably warm weather favored most winter grains, except for crop areas in the Black Soils Region and the southern portion of the Central Region, where precipitation ranging from 18 to 36mm kept soils waterlogged. Light to moderate rain (10-37mm) over the Ukraine and North Caucasus helped to increase low soil moisture reserves. Winter grains were dormant as far south as the central Ukraine and northern North Caucasus. Although this past week's mild weather favored dormant winter grains in the north, most areas lack a protective snow cover, leaving the crop vulnerable to potential extreme cold. Throughout October, winter grain planting and corn harvesting continued. Wet weather in early October over the Baltic States, Belorussia, the Central Region, and parts of the Black Soils Region continued September's excessive rainfall pattern in these areas, further hampering establishment of 1991 winter grain crops. Around October 12, however, drier weather and above-normal temperatures began throughout these areas and lasted until month's end, improving conditions for crop growth and development. Although precipitation in October over the Ukraine and North Caucasus was near to above normal, periodic dryness helped corn harvesting.



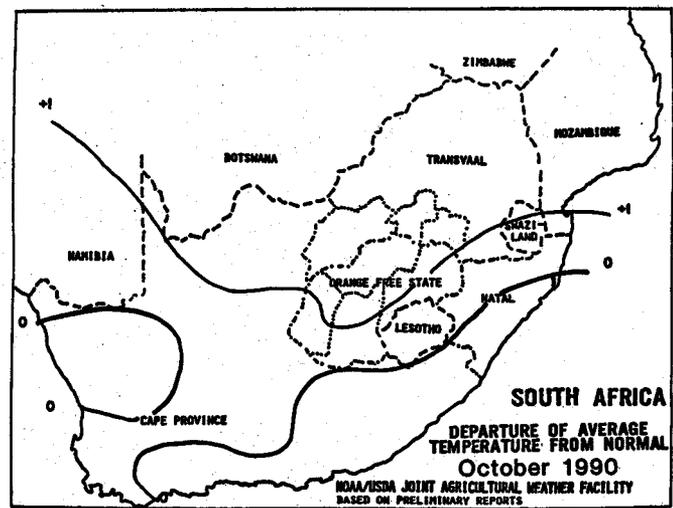
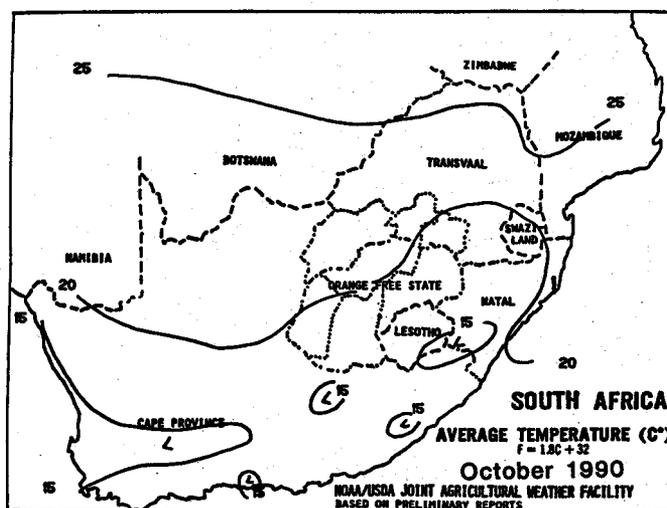
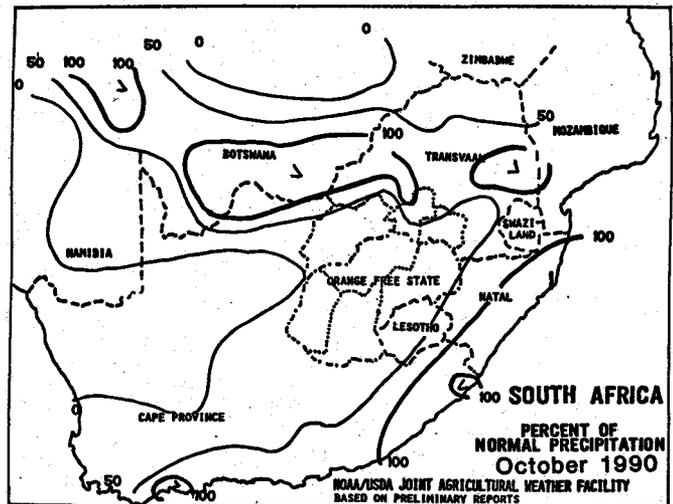
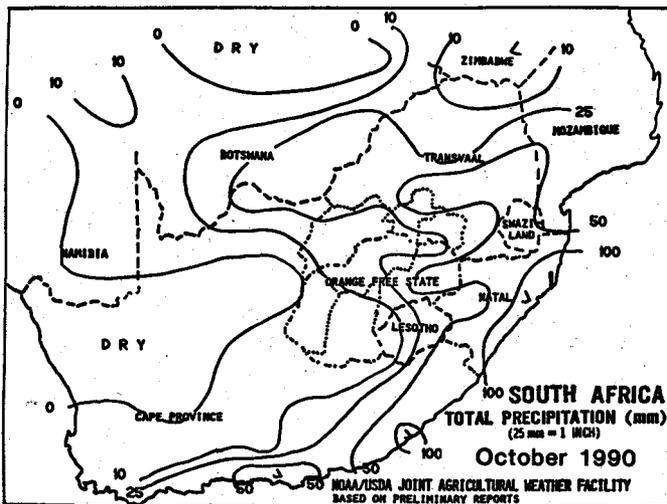
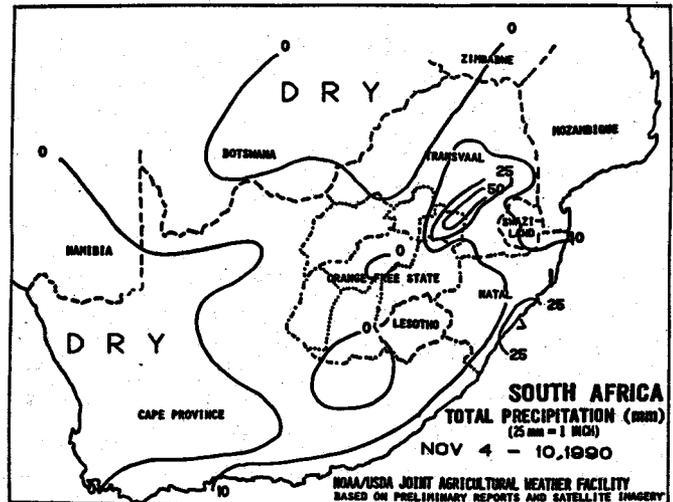


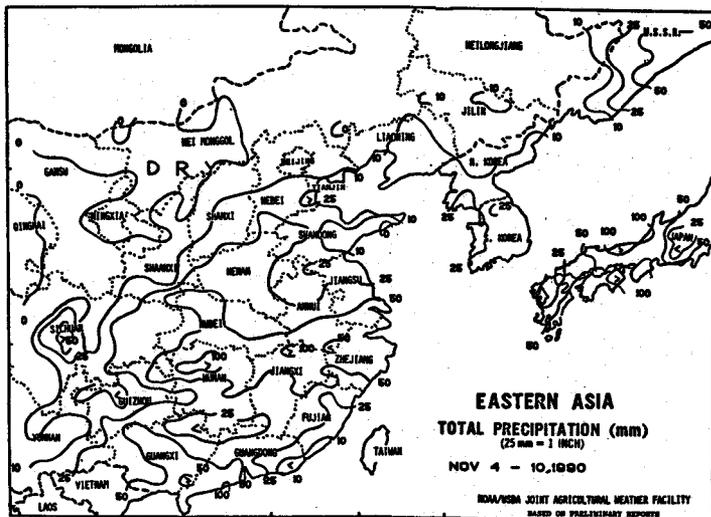


EUROPE ... Moderate to heavy rain (15-40mm) continued for the third consecutive week across western and southern sections of the Balkans, temporarily delaying winter crop planting but further increasing soil moisture and irrigation reservoir levels. Light rain (less than 10mm) covered the remainder of the southeast. Precipitation in southeastern crop areas during the past 3 weeks has helped reverse a warmer and much drier-than-normal pattern in October and much of the summer and early fall. In the north, light rain (less than 10mm) and cool temperatures (1-2 degrees Celsius (C) below normal) halted growth of winter crops and delayed sugarbeet lifting. Precipitation during October was above normal in much of the previously dry west and below normal in the southeast. Mean temperatures were above normal in all but scattered sections of the Iberian peninsula.

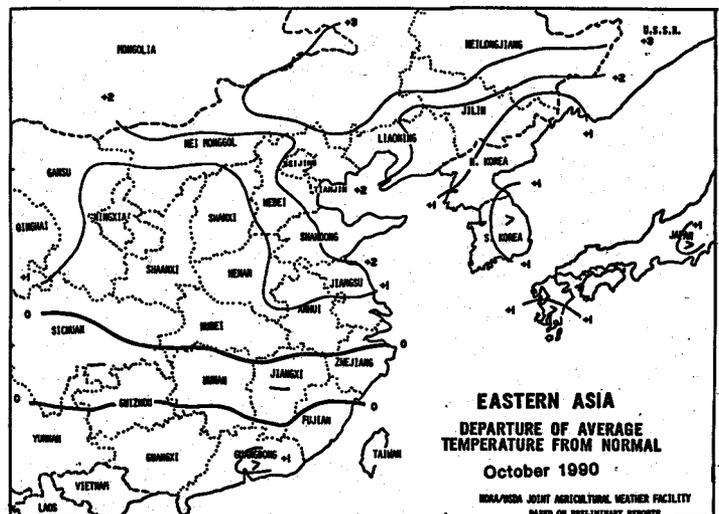
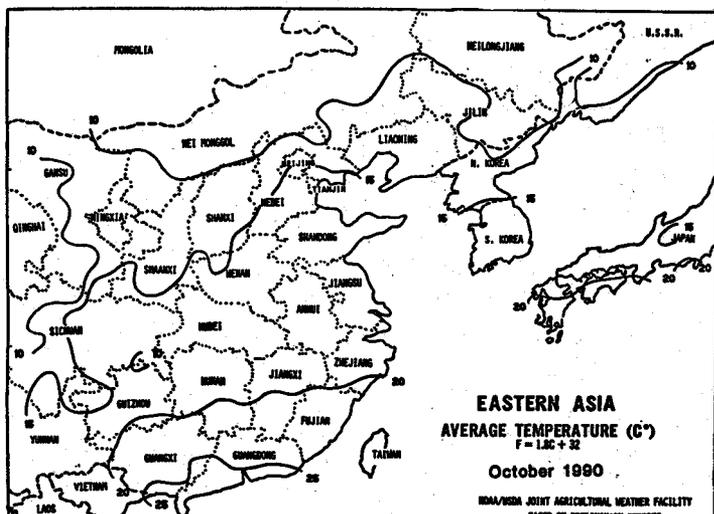
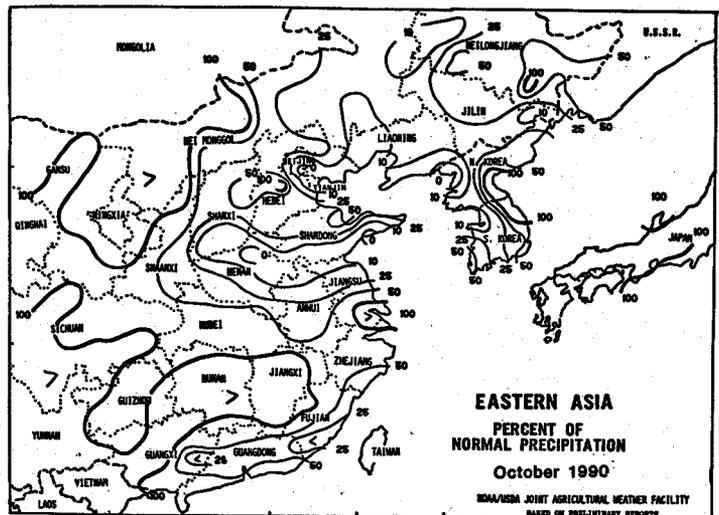
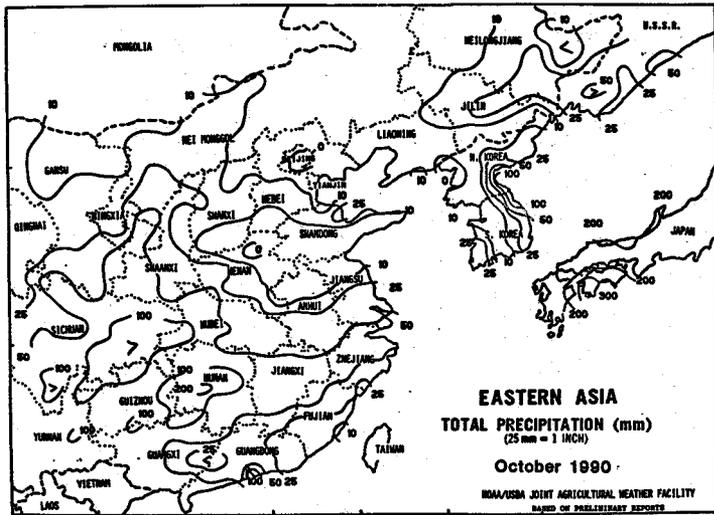


SOUTH AFRICA ... Mostly light rain (10mm or less) fell across the primary grain regions, although locally heavier showers (12-54mm) benefited emerging corn in eastern sections of the Maize Triangle. Moderate rain (10-25mm) elsewhere was limited to coastal crop areas. In October, rainfall was near normal in the eastern Maize Triangle, totaling 50-75mm. In most other corn areas, rainfall generally ranged only from 10 to 35mm which, coupled with September's unseasonable dryness, left much of the western and central Triangle too dry for normal corn emergence. Monthly rainfall was near to below normal in crop regions of the Cape Province and near to above normal over Natal's sugarcane areas.

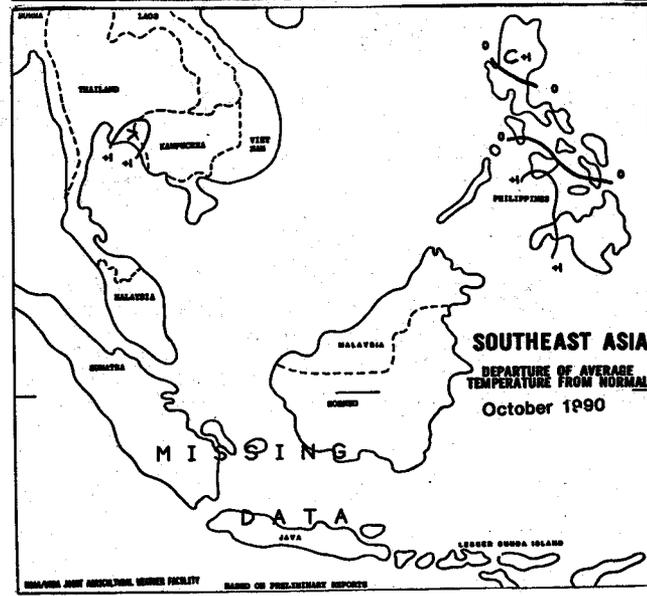
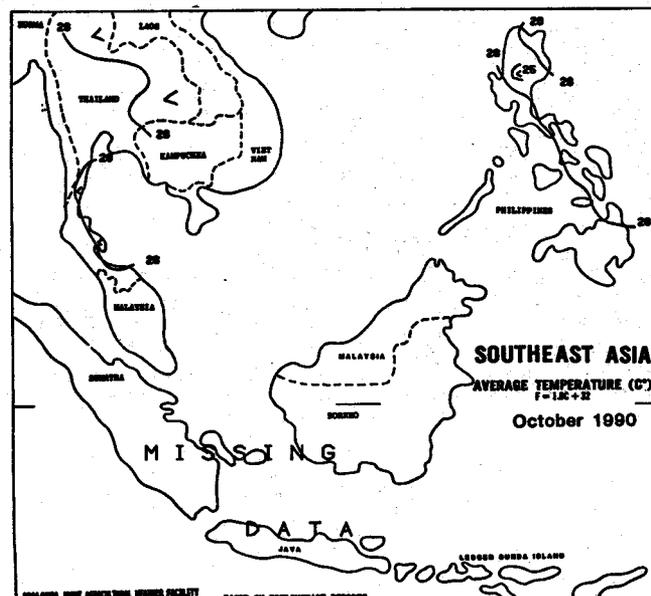
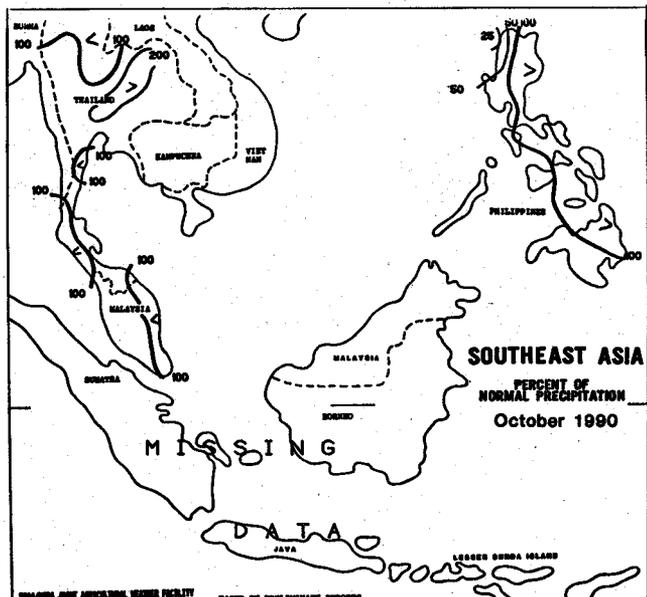
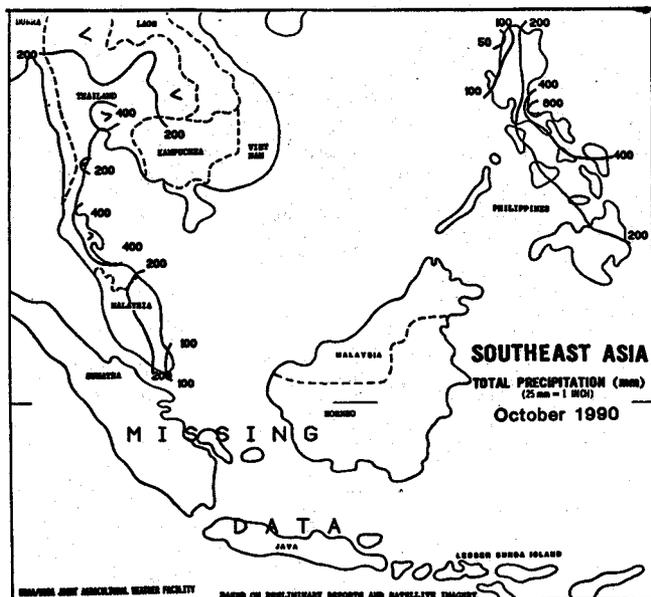
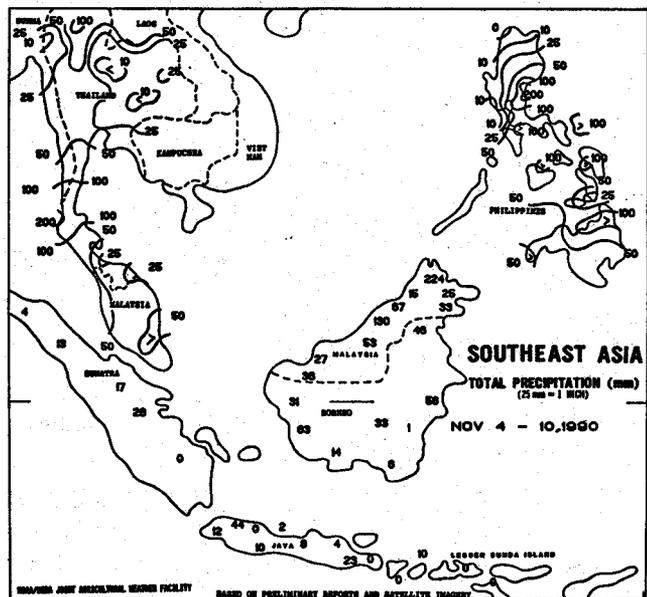


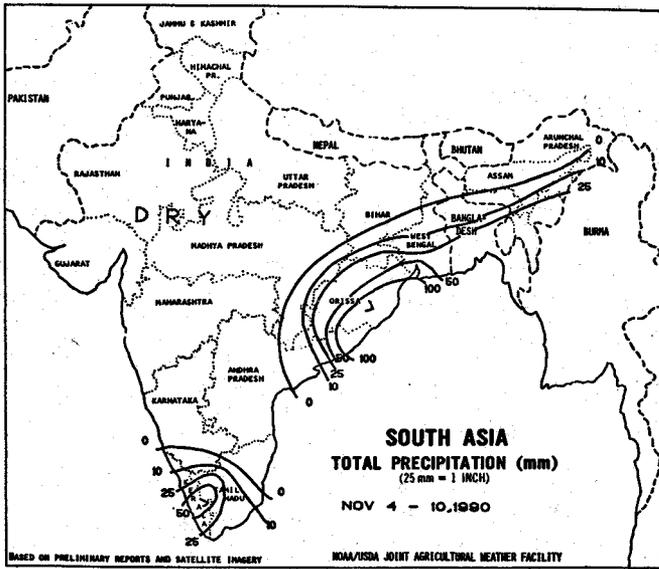


EASTERN ASIA ... A slow moving cold front brought widespread rain (15-60mm) to eastern and southern China, the Korean Peninsula, and Japan, delaying late-crop rice harvest in southern China, but improving topsoil moisture for winter crops in the North China Plain. Excessive rainfall (100-125mm) in sections of Hunan may have caused localized flooding. Colder air behind the front brought the first freezing minimum temperatures (0 to -3 degrees C) of the fall to northern sections of the North China Plain, and returned temperatures to normal in Manchuria following much above-normal temperatures in October. Unseasonably warm and dry weather in October across northern and eastern crop areas created near optimal conditions for fall harvests and winter crop planting.

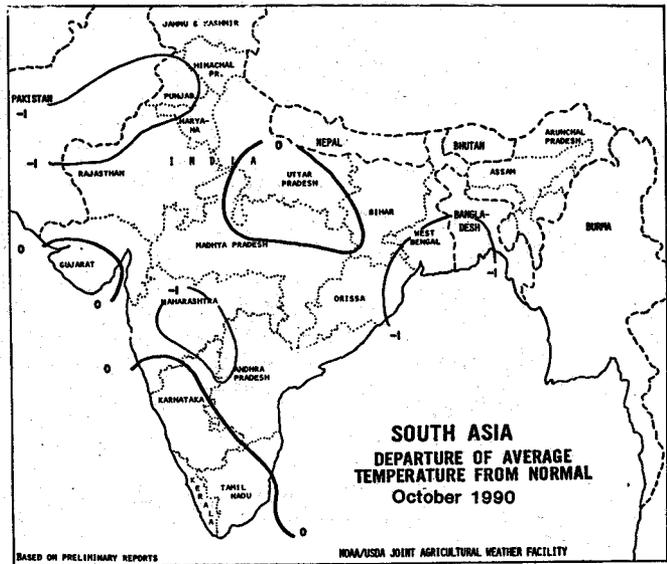
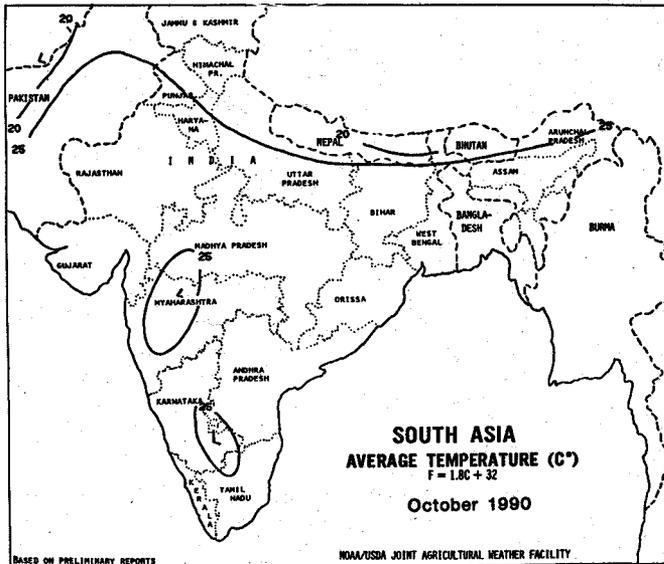
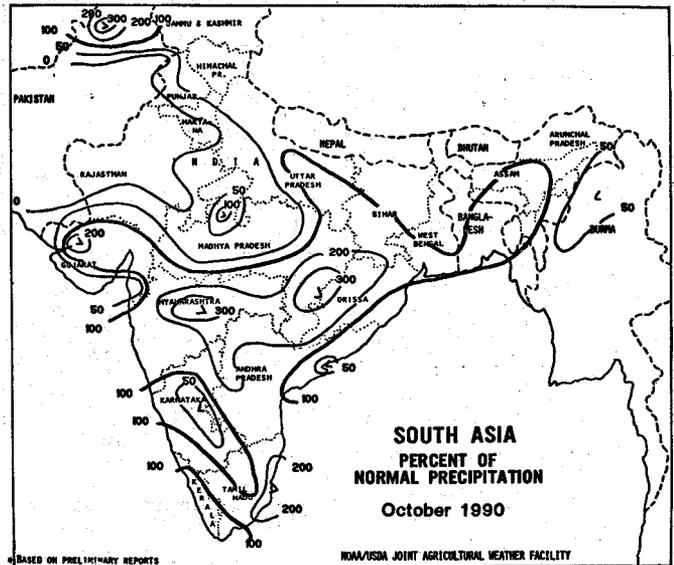
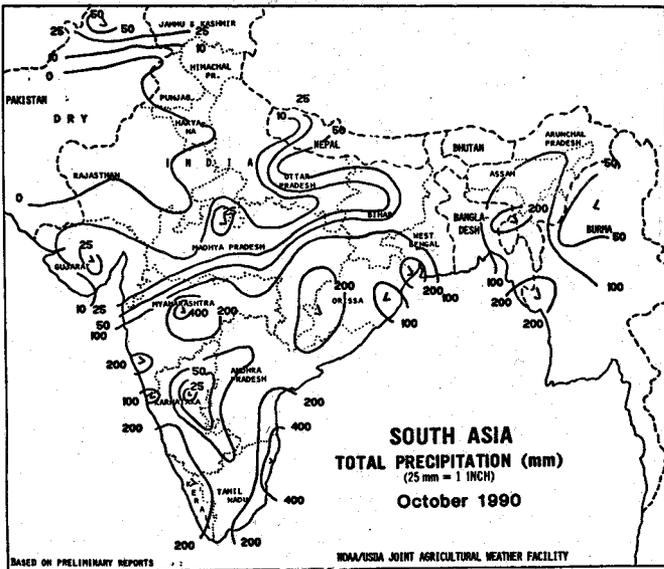


SOUTHEAST ASIA ... Unseasonable showers (25-50mm) fell over most Thai primary rice areas, with locally heavy rain (75-143mm) continuing in the northern Hills. Very heavy showers (100-253mm) were again concentrated over central peninsular Thailand, flooding some plantation crop areas. In October, rainfall was near to above normal throughout Indochina, including Vietnam and Malaysia. The rainfall increase was due partly to tropical storms Ira and Lola, which hit northern Vietnam on the 3rd and 18th, respectively, causing coastal flooding and some crop damage before moving inland and dissipating. A seasonal increase in rainfall over Malaysia and Indonesia is typical this time of year due to the southward progression of the Intertropical Convergence Zone (ITCZ). In the Philippines, moderate to heavy showers (50-123mm) fell from southern Luzon to northern Mindanao. Rainfall exceeding 200mm caused flooding in local areas of eastern Luzon and the west-central islands. October rainfall was near to above normal over the eastern half of the Philippines and below normal in the west, reflecting the seasonal shift in the rainfall pattern. The showers were timely for fall grain plantings.

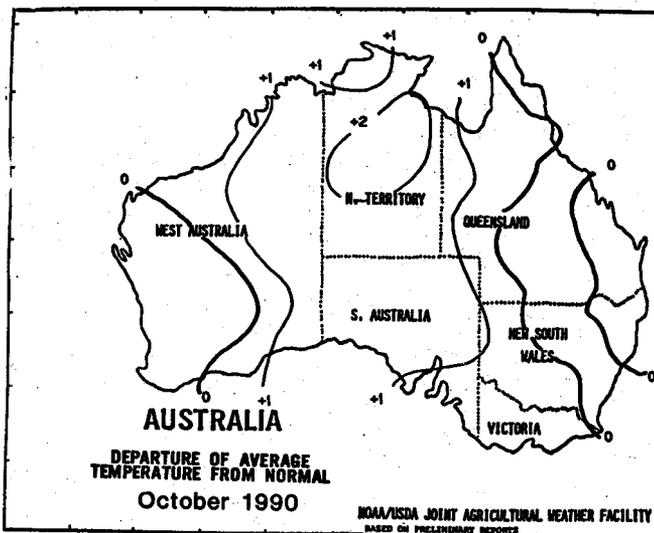
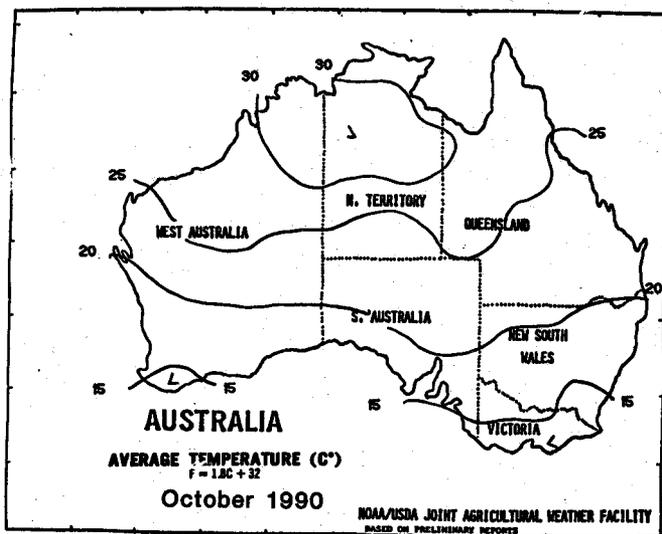
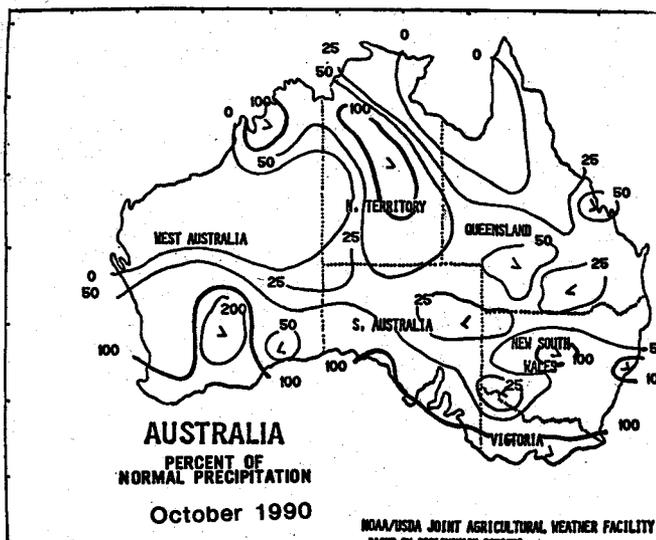
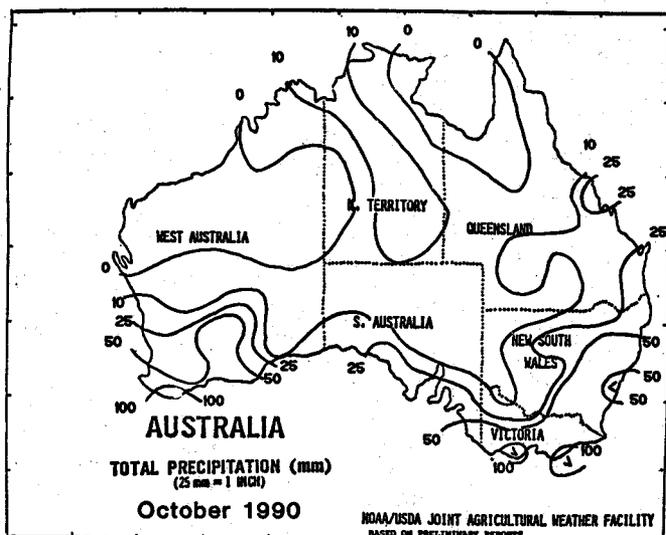
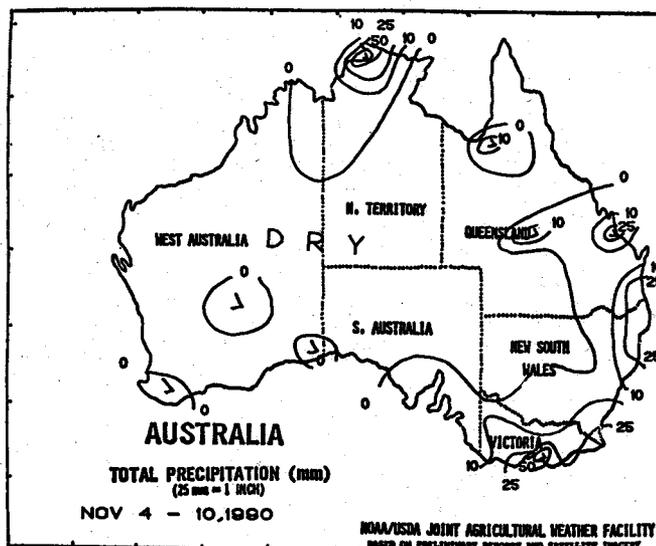


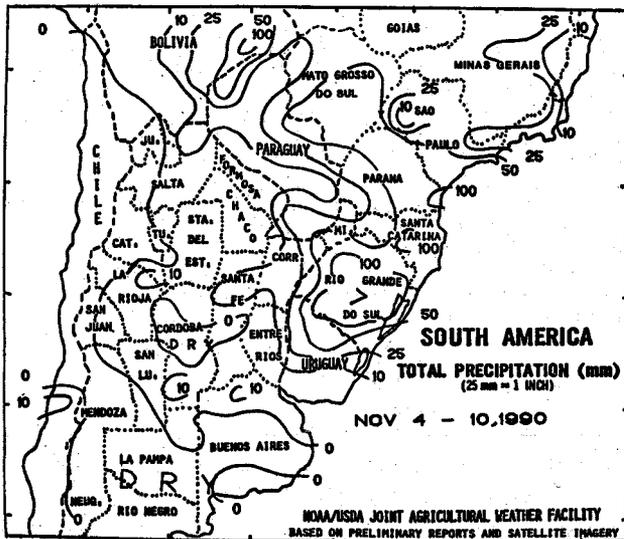


SOUTH ASIA ... Early-week showers (50-125mm) from a tropical cyclone covered coastal rice areas from northern Andhra Pradesh to West Bengal, causing local flooding and possibly damaging unharvested rice. Drier, seasonably warm weather elsewhere favored summer crop maturation and allowed rapid progress of winter wheat planting. In October, the southwest monsoon retreated from Pakistan and northern India on schedule, resulting in favorably dry planting weather over most winter wheat areas. Seasonable showers continued over most eastern rice areas and in southern India from Maharashtra southward, improving irrigation reserves for fall plantings. Dry pockets persisted, however, over Karnataka. In the east, most of the rain fell early in the month, with seasonably drier weather setting in by November. October temperatures averaged near normal across the region.

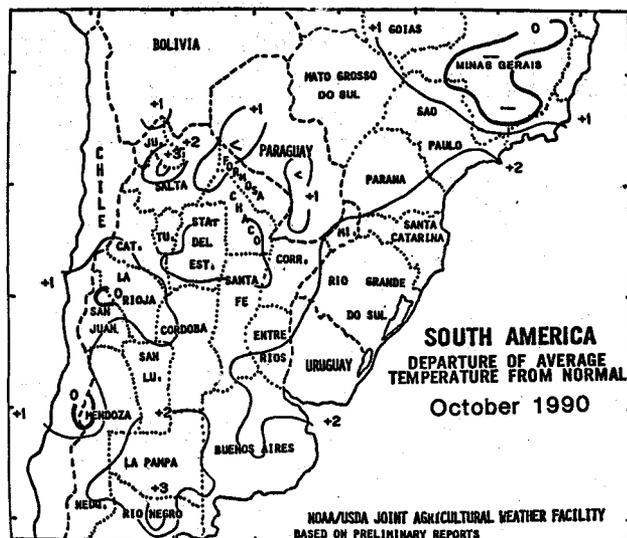
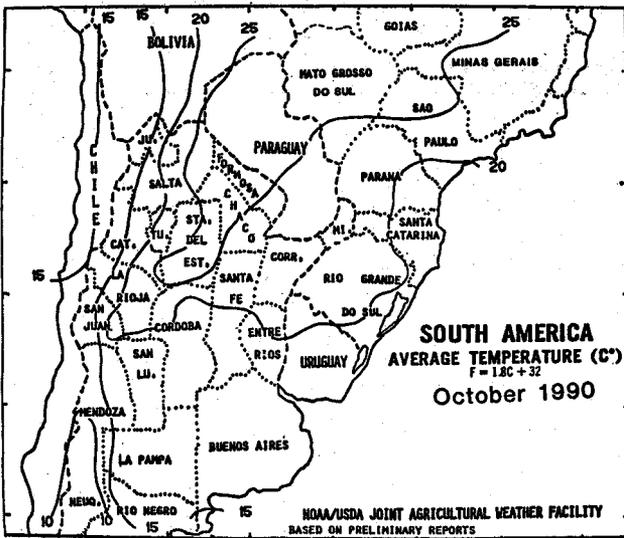
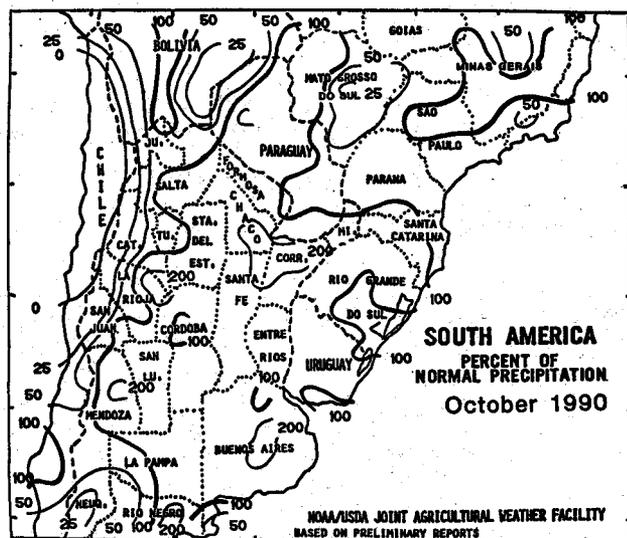
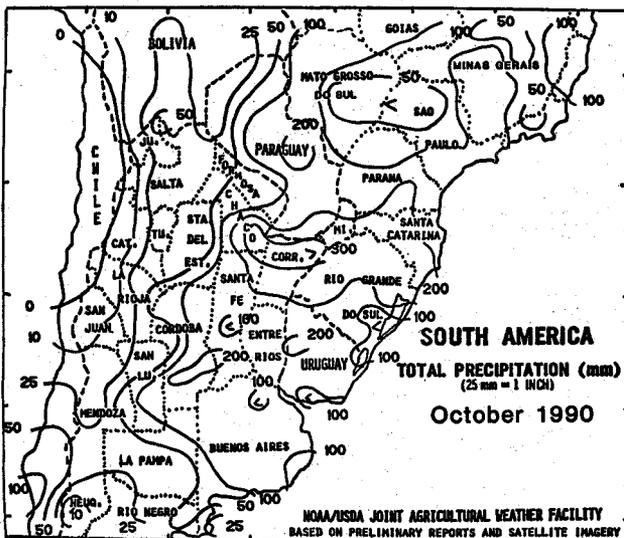


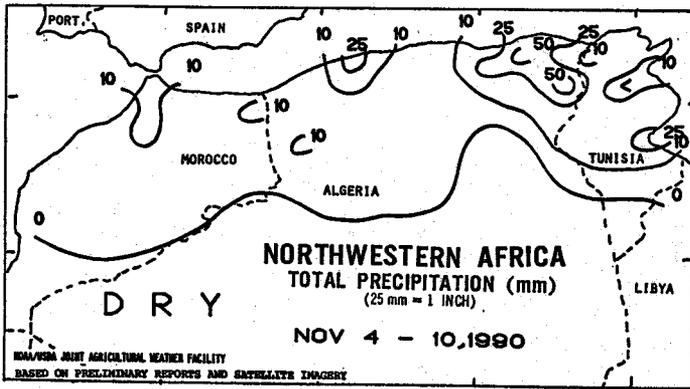
AUSTRALIA ... Hot weather (daily maximum temperatures 36-39 degrees C and mean weekly temperatures 3-5 degrees C above normal) continued through midweek across crop areas of South Australia, northwestern Victoria, and southwestern New South Wales, stressing filling winter grains. Scattered light to moderate rain (5-15mm) and seasonable temperatures returned by week's end, although many soils remained abnormally dry following much below-normal rainfall in October. Elsewhere, mostly dry weather covered crop areas of southern Queensland and northern New South Wales, favoring drydown and harvest of winter grains, but slowing germination and early growth of nonirrigated summer crops. Rainfall in October was below normal in nearly all but extreme southern crop areas. Temperatures ranged from above normal in the southwest to below normal in the southeast.



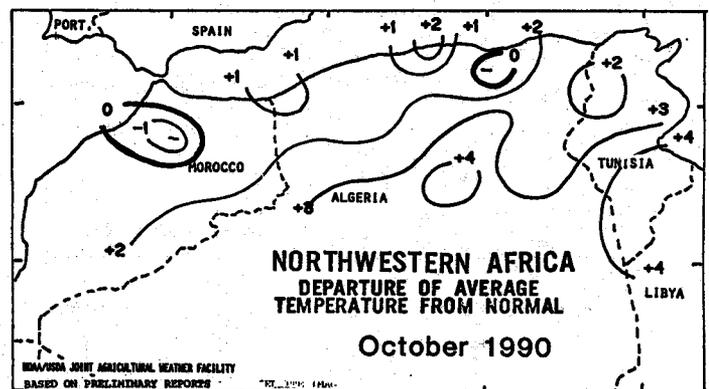
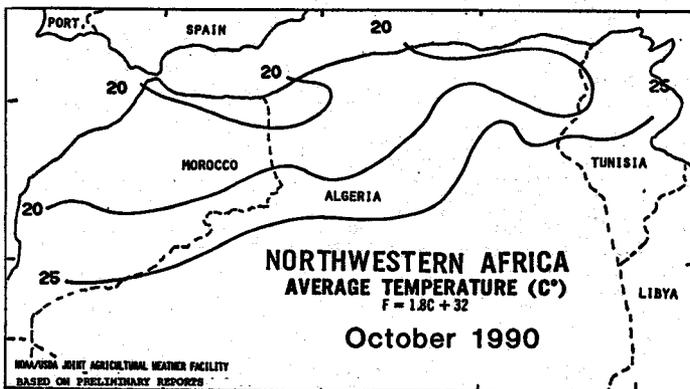
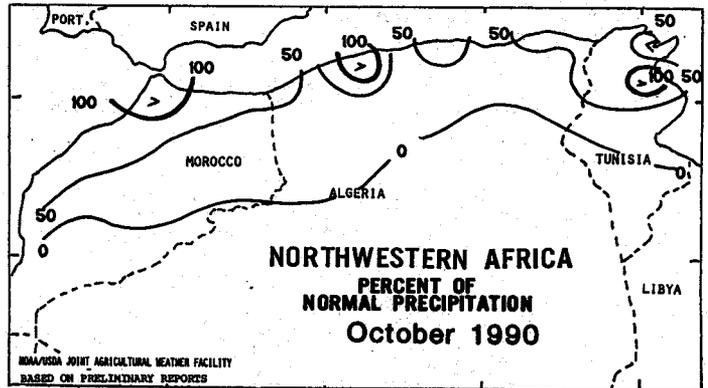
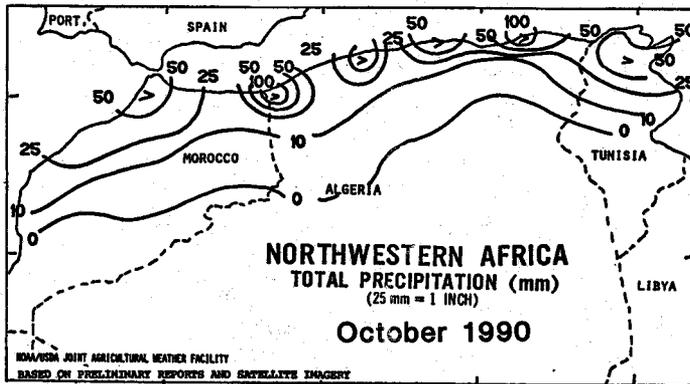


SOUTH AMERICA ... In Argentina, drier weather throughout the major growing areas promoted planting and establishment of summer crops, following last week's rain. Scattered light showers covered the principal wheat, corn, soybean, and cotton areas. Ample moisture benefited grain-filling wheat. October rainfall averaged above normal in most crop areas, with well above-normal amounts soaking eastern Buenos Aires and southern Chaco. The inundating late-month rain flooded newly emerged cotton in Chaco. In south-central Brazil, heavy rain delayed fieldwork this past week in Rio Grande do Sul, where 100-200mm of rain fell in central and southern portions. Widespread rain fell throughout the remaining soybean-producing States, with weekly rainfall generally averaging 25-50mm. October rainfall was mostly near to above normal, maintaining adequate moisture for summer crops. Recent locally heavy rain (50-191mm) in Mato Grosso do Sul continued to replenish moisture supplies, following below-average October rains.

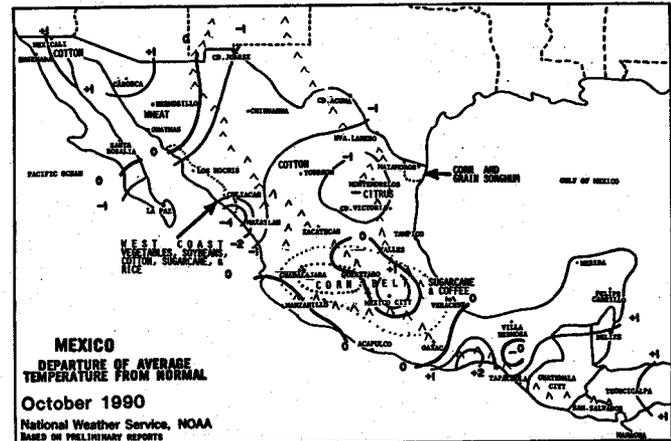
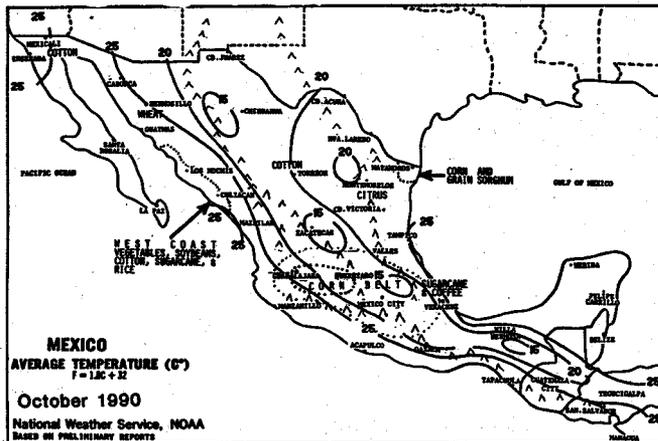
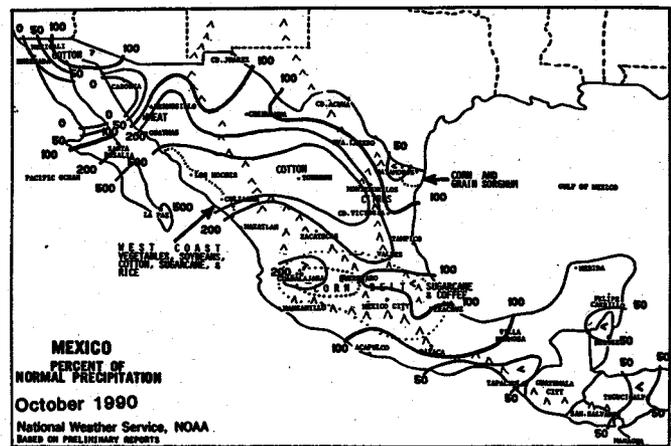
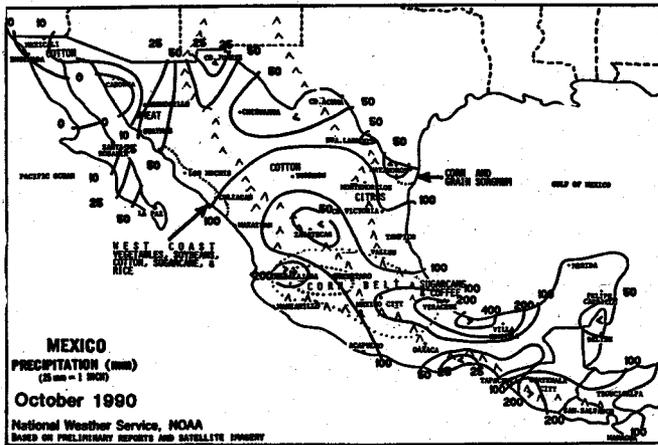
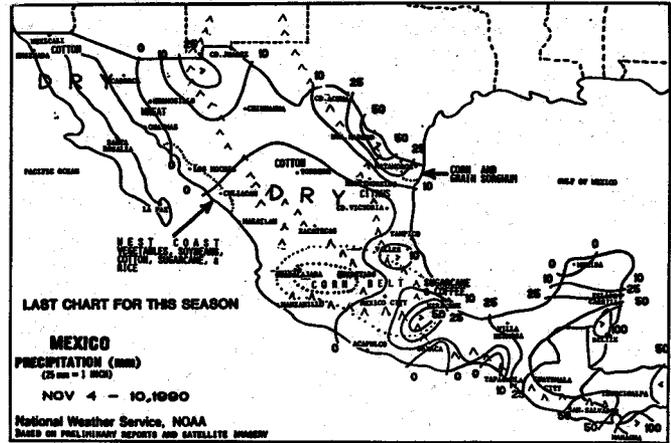




NORTHWESTERN AFRICA ... Soaking rain covered winter grain areas in northeastern Algeria. Rainfall ranging from 25 to 65mm was the first substantial moisture since the beginning of the growing season, providing abundant topsoil moisture for winter grain planting. Generally, dry weather in Morocco, western Algeria, and most of Tunisia continued to slow early-season planting. In October, the autumn rainy season got off to a slow start, with winter grain areas in Morocco, Algeria, and Tunisia receiving well below-normal precipitation. As a result, topsoil moisture remained insufficient for widespread planting.



MEXICO ... Seasonably dry weather favored harvest activities along the west coast farming region and western portions of the Southern Plateau. Showers in the far northwestern mountains and in the extreme northeast helped irrigation reservoirs. Tropical showers fell throughout southern Mexico, extending as far north as the southeastern portion of the Plateau corn belt, where weekly rainfall ranged from 10 to 54mm. Showers in the south benefited immature corn. October rainfall was above normal throughout most of the country. Moisture from dissipating tropical storms contributed to the plentiful rainfall across the north, while late-season rains persisted over most of the Plateau corn belt. October rainfall was below normal only in the extreme south, where late-season corn needed the recent moisture for growth. Weekly summaries will be discontinued until next spring's onset of the wet season.



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U.S. DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration
National Weather Service/Climate Analysis Center
Managing Editor *Douglas Le Comte*
Meteorologists *Tom Heddinghaus (202) 382-1444*
Vilhelm Bjerknes, Bob Stefanski, and Wes Byrd.

Subscriptions (202) 447-7917 . . . *Joyce Houston*

U.S. DEPARTMENT OF AGRICULTURE

Economics Management Staff
Editor *Sharon Lee*
National Agricultural Statistics Service
Agricultural Statistician . . . *Dave Abbe (202) 447-2157*
World Agricultural Outlook Board
Agricultural Weather Analysts . . *Ray Motha (202) 447-5716*
Tom Puterbaugh, Mark Brusberg, and Jeff Andresen.

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

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