

# WEEKLY WEATHER AND CROP BULLETIN

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

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

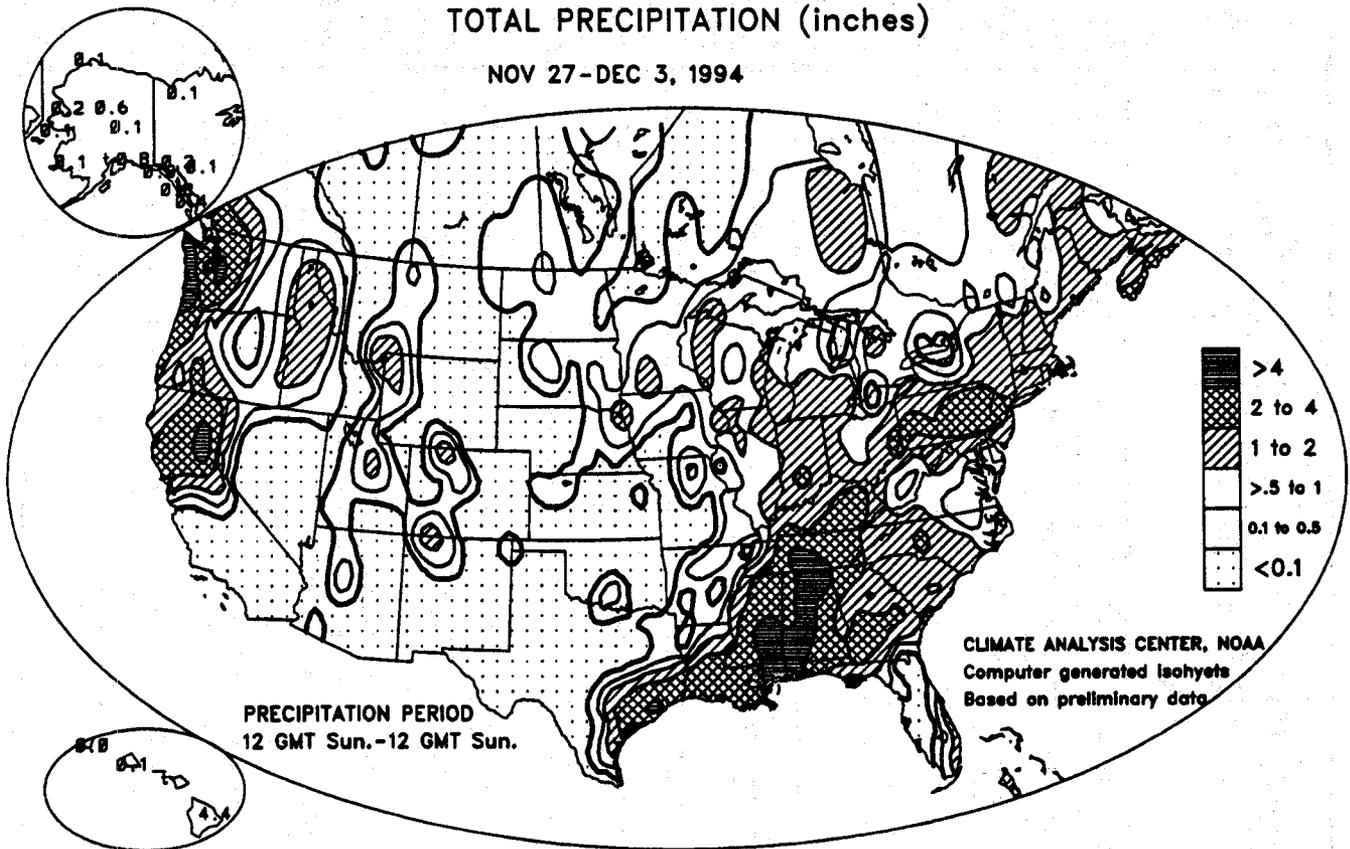
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December 6, 1994

## TOTAL PRECIPITATION (inches)

NOV 27-DEC 3, 1994



## HIGHLIGHTS

November 27 - December 3, 1994

A powerful storm, packing a minimum central barometric pressure of 28.88 inches (978 millibars) over Lake Superior on Monday, produced heavy snow in its path and tornadic thunderstorms along its trailing cold front. In the system's wake, a chilly mass of high pressure overspread much of the Nation by midweek. However, showers persisted across the Southeast, while eastern Pacific storminess waxed anew in the Northwest. At week's end, record warmth in advance of the series of storms battled for control with the first true arctic plunge of the season, creating a sharp north-south temperature gradient in the northern Rockies and Plains.

A dozen tornadoes struck four States (TN, MS, AR, and AL) on Sunday. Two of the six tornadoes in Tennessee resulted in fatalities--one in  
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# National Weather Data for Selected Cities

## Weather Data for the Week Ending December 3, 1994

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 Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																		01 INCH OR MORE	.50 INCH OR MORE	01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	52	40	72	27	51	2	2.2	1.0	1.2	.7	149	57.0	114	96	49	0	2	3	2	2	
MOBILE	57	49	79	38	58	2	5.3	4.2	3.0	2.1	433	94.0	91	90	58	0	0	4	2	2	
MONTGOMERY	56	46	77	33	56	4	2.8	1.7	1.7	.7	161	55.5	110	97	53	0	0	3	2	2	
AK ANCHORAGE	14	-2	33	-11	6	-12	T	T	T	T	0	11.6	84	64	0	7	1	1	0	0	
BARRON	1	-20	20	-32	-10	-2	.1	.0	.1	.1	800	4.2	99	82	73	0	7	2	0	0	
FAIRBANKS	-1	-22	25	-45	-12	-8	.1	-1	.0	T	25	9.2	91	80	74	0	7	4	0	0	
JUNEAU	24	12	35	3	18	-11	.6	-4	.6	T	0	51.6	103	88	65	0	7	1	1	1	
KODIAK	34	22	42	12	28	-4	1.4	-1	1.3	1.3	218	76.6	125	75	55	0	6	2	1	1	
KOME	18	1	28	-9	9	-1	.1	-1	.1	T	25	16.8	119	84	77	0	7	2	0	0	
AZ PHOENIX	68	43	75	35	55	-2	.0	-2	.0	.0	0	5.8	85	46	15	0	0	0	0	0	
PRESOTT	52	20	61	16	36	-4	.0	-4	.0	.0	0	11.4	63	74	25	0	7	0	0	0	
TUCSON	68	39	77	28	53	-1	.0	-2	.0	.0	0	7.9	72	50	16	0	2	0	0	0	
YUMA	67	45	73	38	56	-3	.0	-1	.0	.0	0	2.1	78	43	18	0	0	0	0	0	
AR FORT SMITH	63	36	72	26	49	5	T	T	T	T	0	56.5	148	86	27	0	3	1	1	0	
LITTLE ROCK	61	41	74	35	51	4	.1	-1	.0	.0	4	50.9	113	65	35	0	0	3	0	0	
CA BAKERSFIELD	56	34	61	30	45	-5	.1	-1	.1	.1	133	5.5	106	83	30	0	2	1	1	0	
BUREKA	53	40	59	32	46	-3	1.2	-4	.9	1.1	177	29.4	91	93	59	0	1	6	1	1	
FRESNO	52	37	57	31	45	-4	T	T	T	T	8	8.9	96	97	33	0	1	3	0	0	
LOS ANGELES	71	48	82	42	59	1	.0	-4	.0	.0	0	7.0	67	64	23	0	0	0	0	0	
REDDING	51	37	59	30	44	-4	1.6	.3	1.2	1.3	258	21.6	76	98	66	0	1	4	1	1	
SACRAMENTO	52	38	59	33	45	-3	.2	-4	.2	.2	75	7.0	66	99	69	0	0	0	0	0	
SAN DIEGO	56	44	73	41	55	-4	.0	-4	.0	.0	0	8.7	102	79	22	0	0	0	0	0	
SAN FRANCISCO	56	46	60	39	51	0	.2	-5	.1	.1	52	17.0	101	88	32	0	0	0	0	0	
CO DENVER	53	25	71	13	39	5	.0	-2	.0	.0	0	10.7	72	71	20	0	6	0	0	0	
GRAND JUNCTION	39	16	49	10	27	-9	T	T	T	T	0	6.4	65	84	49	0	0	0	0	0	
PUEBLO	56	18	73	13	37	2	.0	-1	.0	.0	0	15.2	140	75	47	0	7	1	0	0	
CT BRIDGEPORT	52	33	60	24	43	3	1.4	.5	.8	.0	0	37.2	97	75	44	0	3	2	2	2	
HARTFORD	50	28	59	18	39	3	2.1	1.1	1.6	.0	0	47.6	117	79	34	0	6	1	1	0	
DC WASHINGTON	54	37	61	32	45	1	.4	-3	.4	.0	0	35.3	98	88	45	0	2	2	2	1	
FL PANAMA CITY	71	57	78	44	64	7	1.7	.7	1.7	.0	0	49.3	81	95	68	0	1	1	1	0	
DAYTONA BEACH	80	63	85	56	72	9	.1	.5	.1	.0	8	64.0	140	98	65	0	0	0	0	0	
JACKSONVILLE	75	56	84	46	66	5	T	T	T	T	0	63.3	135	97	66	0	0	0	0	0	
KEY WEST	83	75	86	71	79	6	.2	.3	.2	.2	110	42.5	112	90	72	0	0	0	0	0	
MIAMI	84	72	85	67	78	7	1.3	.8	1.3	1.3	658	75.8	140	92	67	0	0	1	1	1	
ORLANDO	81	64	86	59	73	8	T	T	T	T	0	64.0	140	92	65	0	0	0	0	0	
TALLAHASSEE	75	55	85	39	65	9	2.4	1.3	2.4	.0	0	87.2	143	92	59	0	0	0	0	0	
TAMPA	82	65	85	59	73	9	.0	.5	.0	.0	0	45.7	109	94	64	0	0	0	0	0	
WEST PALM BEACH	83	71	85	68	77	7	.2	.4	.2	.2	79	67.9	119	92	65	0	0	0	0	0	
GA ATLANTA	58	42	65	35	50	2	1.3	.3	.9	.0	2	58.5	125	89	55	0	0	4	1	0	
AUGUSTA	63	41	72	30	52	1	1.3	.7	.6	T	0	44.5	107	98	60	0	2	3	2	1	
MACON	64	41	71	30	52	0	1.6	.8	1.3	T	0	57.6	142	98	57	0	2	2	1	1	
SAVANNAH	72	52	81	40	62	7	.6	.1	.6	T	0	65.0	140	96	64	0	0	2	1	1	
KI HILO	81	68	82	66	74	1	4.4	1.1	2.3	1.2	89	176.9	149	93	68	0	0	5	3	3	
HONOLULU	84	73	86	73	79	3	.1	-7	.1	T	0	14.0	75	78	52	0	0	1	0	0	
KANULUI	82	69	84	64	76	1	T	T	T	T	14	11.0	61	78	54	0	0	1	0	0	
LIHUE	80	73	81	70	76	2	T	T	T	T	0	26.8	70	75	59	0	0	0	0	0	
ID BOISE	41	29	49	17	35	1	1.2	.9	.7	1.1	797	8.7	80	92	54	0	4	5	1	0	
LEWISTON	43	33	54	27	38	1	T	T	T	T	0	8.6	76	82	58	0	4	1	0	0	
POCATELLO	40	27	52	18	33	4	.2	-1	.1	.1	118	7.8	70	81	56	0	6	4	0	0	
IL CHICAGO	47	32	59	22	40	7	1.2	.5	1.2	.0	0	28.3	84	82	55	0	3	1	1	1	
MOLINE	51	32	63	25	42	9	.6	.0	.6	.0	0	30.5	82	80	52	0	3	1	1	1	
PEORIA	51	32	68	22	42	8	1.0	.4	.9	-1	31	23.0	68	83	47	0	4	3	1	1	
QUINCY	53	34	67	23	44	8	.4	-2	.4	T	0	19.0	51	72	37	0	3	1	0	0	
ROCKFORD	45	30	55	22	38	7	.6	.1	.6	T	0	35.4	103	92	62	0	4	1	1	1	
SPRINGFIELD	54	33	68	22	44	8	.6	-1	.5	.1	21	33.5	102	80	43	0	3	2	1	1	
IN EVANSVILLE	57	35	69	27	46	4	.7	-3	.7	T	0	34.2	81	84	43	0	3	1	1	1	
FORT WAYNE	51	31	62	23	41	6	.7	.0	.7	T	7	27.1	84	85	53	0	3	2	1	1	
INDIANAPOLIS	52	33	65	24	42	6	1.1	.3	1.1	.0	0	30.0	81	78	44	0	3	1	1	1	
SOUTH BEND	47	31	59	23	39	4	.9	.1	.8	.1	24	35.4	98	83	55	0	4	2	1	0	
IA DES MOINES	48	28	61	18	38	7	.3	-1	.3	.0	0	25.8	78	87	52	0	5	2	0	0	
SIOUX CITY	35	19	48	9	27	-1	1.0	.9	1.0	.0	0	25.2	100	94	70	0	7	1	1	0	
WATERLOO	44	27	59	19	36	8	.1	-3	.1	.0	0	33.9	104	90	54	0	6	1	0	0	
KS CONCORDIA	53	28	64	23	41	6	.3	.0	.3	.0	0	16.5	59	82	44	0	6	1	0	0	
DODGE CITY	56	27	69	19	42	5	.0	-2	.0	.0	0	18.0	86	73	24	0	6	0	0	0	
GOODLAND	46	21	60	14	34	1	T	T	T	T	0	14.7	83	78	44	0	7	0	0	0	
TOPEKA	55	32	64	22	44	7	.4	.0	.4	T	0	25.1	74	80	34	0	3	1	0	0	
WICHITA	55	33	60	25	44	5	T	T	T	T	0	23.5	70	88	43	0	4	1	0	0	
KY BOWLING GREEN	57	32	64	20	45	2	.5	-7	.4	T	4	46.3	100	92	52	0	4	2	0	0	
LEXINGTON	56	34	65	21	45	4	1.4	.5	1.3	.0	0	41.8	102	87	45	0	2	2	1	1	
LOUISVILLE	56	36	63	25	46	4	.9	.0	.9	.0	0	32.5	79	79	43	0	3	1	1	1	
LA BATON ROUGE	67	45	82	33	56	0	1.5	.3	.9	.9	169	57.1	102	100	58	0	0	4	1	1	
LAKE CHARLES	68	49	80	39	58	2	3.4	2.3	2.9	2.9	626	40.1	80	83	51	0	0	3	1	1	
NEW ORLEANS	69	53	81	38	61	4	2.4	1.2	1.2	1.2	222	48.5	86	87	57	0	0	4	2	2	
SHREVEPORT	66	40	82	31	53	2	T	-1.0	T	T	2	46.6	103	87	36	0	1	2	0	0	

Based on 1961-90 normals.

Weather Data for the Week Ending December 3, 1994

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 Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM		AVERAGE MINIMUM	TEMP. °F		PRECIP.
															80 AND ABOVE		82 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
ME CARIBOU	30	14	42	3	22	-1	1.0	.2	.8	.3	74	35.5	105	85	59	0	6	2	1
PORTLAND	45	24	52	11	35	2	1.6	.4	1.6	0	0	38.2	95	87	38	0	7	1	0
MD BALTIMORE	54	33	62	27	44	2	1.3	.5	.3	0	0	41.3	110	93	48	0	4	2	0
SALISBURY	59	32	70	24	46	2	.6	.2	.5	0	0	38.8	92	99	52	0	5	2	0
MA BOSTON	53	35	66	22	44	4	1.2	.2	1.2	0	0	42.2	111	67	38	0	2	2	1
CHATHAM	48	37	57	30	42	2	1.3	.7	.3	0	0	35.5	86	80	56	0	1	1	0
MI ALPENA	42	26	54	21	34	5	.7	.2	.6	0	0	29.4	109	87	60	0	7	3	1
DETOIT	50	33	58	24	41	7	1.0	.4	1.0	10	28.7	95	83	52	0	3	2	1	
FLINT	47	31	55	24	39	6	1.1	.5	.9	1	58	32.1	113	88	60	0	4	4	1
GRAND RAPIDS	46	32	54	26	39	7	1.3	.5	1.2	0	0	45.5	136	83	60	0	5	4	1
HOUGHTON LAKE	41	26	50	20	34	5	.8	.3	.7	0	0	27.1	102	88	61	0	6	4	1
LANSING	46	32	55	25	39	8	1.1	.6	1.0	1	64	34.0	115	91	63	0	4	3	1
MARQUETTE	35	19	49	5	27	4	.7	.0	.4	0	0	23.8	72	95	69	0	6	2	0
MUSKEGON	45	33	53	27	39	6	.8	.0	.8	0	0	32.0	107	86	61	0	4	3	1
SAULT ST. MARIE	35	24	43	17	30	4	.7	.0	.5	0	0	27.4	86	91	68	0	6	3	1
MN ALEXANDRIA	33	20	40	11	27	6	.3	.1	.3	0	0	18.8	75	95	74	0	7	1	0
DULUTH	33	22	44	10	28	8	.1	.2	.1	0	0	30.2	105	90	69	0	6	2	0
INT'L FALLS	33	20	47	4	27	11	.2	.2	.1	12	23.9	101	86	66	0	7	3	0	
MINNEAPOLIS	35	22	44	9	29	4	.5	.2	.4	0	0	29.2	107	93	68	0	7	2	0
ROCHESTER	34	24	41	12	29	4	.7	.4	.7	0	0	30.7	107	92	75	0	7	2	1
MS GREENWOOD	65	41	78	31	53	3	2.4	.9	1.3	52	43.9	89	91	40	0	1	2	0	
JACKSON	63	42	77	29	53	2	2.4	1.1	1.2	200	54.0	109	92	44	0	2	3	2	
MERIDIAN	67	44	80	30	56	4	6.1	4.8	4.6	821	63.2	123	96	48	0	2	3	2	
MO CAPE GIRARDEAU	57	36	70	30	46	5	1.4	.3	1.4	4	46	42.3	100	89	39	0	3	1	1
COLUMBIA	56	33	68	21	45	8	.3	.4	.3	13	37.4	103	78	34	0	3	3	0	
KANSAS CITY	55	33	63	22	44	8	.3	.4	.3	0	0	26.6	73	77	43	0	3	1	0
SANIT LOUIS	59	38	74	28	48	9	.6	.7	.5	21	33.2	95	69	35	0	1	2	1	
SPRINGFIELD	58	34	68	23	46	6	.8	.8	.8	0	0	48.0	117	77	38	0	3	1	0
MT BILLINGS	43	27	60	5	35	5	1.1	.1	.1	100	13.5	94	75	49	0	4	2	0	
GLASGOW	34	14	49	2	24	2	.8	.1	.1	25	9.6	91	88	70	0	6	1	0	
GREAT FALLS	35	17	52	-2	26	-2	.8	.1	.1	57	9.7	67	76	52	0	5	1	0	
HAVRE	35	12	51	-7	23	-1	.8	.1	.1	0	0	7.1	67	83	59	0	6	1	0
HELENA	40	19	55	4	29	4	.8	.1	.1	0	0	7.4	67	84	56	0	7	0	0
KALISPELL	37	23	46	10	30	4	.3	.1	.2	20	10.9	73	92	65	0	6	4	0	
MILES CITY	40	21	56	6	31	6	.3	.1	.1	33	9.5	71	88	51	0	6	1	0	
MISSOULA	40	25	52	14	32	5	.3	.1	.1	289	11.1	90	90	63	0	5	4	0	
NE GRAND ISLAND	46	26	54	21	36	5	.7	.5	.7	0	0	22.2	91	88	58	0	7	1	1
LINCOLN	48	25	58	17	36	5	.5	.2	.5	0	0	19.6	71	96	53	0	6	1	0
NORFOLK	42	23	57	15	32	4	.5	.3	.5	0	0	27.8	113	89	61	0	6	1	0
NORTH PLATTE	54	30	71	14	37	8	.1	.0	.1	0	0	18.2	97	84	34	0	7	1	1
OMAHA	46	26	61	19	36	5	.7	.4	.7	0	0	28.9	100	87	56	0	7	1	0
SCOTTSBLUFF	52	25	68	17	38	8	.0	.1	.0	0	0	15.0	102	72	25	0	6	0	0
VALENTINE	51	21	68	11	36	6	.8	.2	.8	0	0	17.4	79	81	37	0	7	2	0
NV RLY	40	11	52	-4	25	-4	.1	.1	.1	0	0	8.4	87	83	49	0	2	0	0
LAS VEGAS	57	34	62	30	46	-4	.0	.0	.0	0	0	1.5	39	44	21	0	6	0	0
RENO	49	25	54	16	37	2	.8	.2	.8	33	5.1	76	86	44	0	6	1	0	
WINGENCOCA	45	27	54	17	36	3	.8	.2	.8	0	0	7.1	95	82	56	0	5	0	0
NH CONCORD	45	21	55	7	33	2	1.3	.5	1.3	0	0	32.0	95	94	38	0	7	2	1
NJ ATLANTIC CITY	56	30	63	22	43	2	1.3	.4	1.0	0	0	40.3	108	92	47	0	5	2	1
NM ALBUQUERQUE	49	23	59	19	36	-3	.0	.1	.0	0	0	10.6	126	62	23	0	7	0	0
CLOVIS	61	27	73	21	44	2	.0	.1	.0	0	0	9.9	58	49	16	0	5	0	0
ROSWELL	62	28	73	21	45	0	.0	.1	.0	0	0	7.6	62	56	16	0	6	0	0
NY ALBANY	46	25	54	12	36	3	.8	.1	.5	0	0	32.2	96	89	48	0	7	2	0
BINGHAMTON	45	29	57	12	37	5	.9	.1	.5	0	0	39.1	114	74	43	0	5	2	0
BUFFALO	48	34	58	21	41	6	.6	.3	.4	0	0	34.1	97	74	45	0	3	3	0
NEW YORK	55	39	66	27	47	5	1.2	.4	.8	0	0	40.8	104	69	38	0	1	2	1
ROCHESTER	48	32	56	19	40	5	.4	.3	.2	0	0	27.3	92	74	44	0	4	3	0
SYRACUSE	46	27	60	14	37	2	.6	.2	.6	0	0	36.5	101	86	56	0	7	3	1
NC ASHEVILLE	53	30	62	23	41	-2	1.1	.1	.7	0	0	54.5	105	97	50	0	6	3	1
CHARLOTTE	57	39	67	30	48	1	1.3	.5	.9	0	0	34.7	87	85	45	0	1	3	1
GREENSBORO	55	33	66	27	44	-1	.9	.2	.6	0	0	34.0	86	89	49	0	3	3	1
HATTERAS	65	53	73	49	59	6	2.1	1.0	.8	0	0	63.9	123	92	50	0	0	4	3
NEW BERN	65	45	78	35	55	4	.5	.2	.4	0	0	34.5	68	94	53	0	0	2	0
RALEIGH	60	37	70	29	49	2	.8	.1	.7	0	0	35.1	91	94	28	0	1	4	1
WILMINGTON	66	46	80	34	56	5	1.5	.7	.7	0	0	54.5	102	97	59	0	0	4	2
ND BISMARCK	34	14	49	3	24	3	.6	.5	.5	0	0	18.6	124	90	75	0	7	2	0
FARGO	34	22	45	10	28	9	.3	.2	.3	0	0	22.9	121	88	72	0	7	1	0
GRAND FORKS	32	19	46	7	26	8	.1	.1	.1	0	0	23.1	130	90	70	0	7	2	0
WILLISTON	33	12	51	1	23	3	.5	.4	.3	0	0	15.4	117	89	72	0	7	3	0
OH AERON-CANTON	50	31	59	24	41	4	.7	.1	.7	0	0	37.5	110	73	44	0	4	1	1
CINCINNATI	53	32	62	21	43	4	.8	.0	.8	0	0	35.4	92	84	44	0	3	2	1
CLEVELAND	52	33	60	26	43	6	.7	.0	.4	0	0	26.5	78	76	44	0	4	2	0
COLUMBUS	54	31	62	22	43	7	.9	.1	.9	0	0	29.4	84	88	38	0	5	2	1
DAYTON	52	32	62	23	42	5	1.2	.5	1.2	0	0	32.0	94	76	42	0	3	1	1

Based on 1961-90 normals.

Weather Data for the Week Ending December 3, 1994

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 Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	80 AND ABOVE	32 AND BELOW	.01 INCH OR MORE		.50 INCH OR MORE	
																		80 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
TOLEDO	51	33	60	22	42	9	1.0	.3	1.0					83	50	0	0	3	2	1	1
YOUNGSTOWN	48	32	59	25	40	5	.6	.1	.6					100	75	47	0	0	4	1	1
OK OKLAHOMA CITY	58	35	64	24	47	5	.4	.4	.4					86	41	0	0	3	0	0	0
TULSA	60	38	67	28	49	5	.4	.6	.4					125	84	39	0	0	0	0	0
OR ASTORIA	48	38	53	30	43	-1	4.6	2.1	2.2	.4	40	61.5	108	95	77	0	0	1	6	2	2
BURNS	39	22	48	9	30	0	.1	.2	1.1					4.7	53	87	58	0	0	0	0
MEDFORD	44	35	51	29	40	0	.6	.3	1.3					45	11.2	71	97	55	3	5	0
PENDLETON	48	35	64	25	41	0	.2	.3	1.1					11.7	110	78	52	0	0	4	0
FORTLAND	49	40	56	32	45	2	2.0	.6	1.5	.3	31	30.3	98	91	67	0	0	1	1	1	1
SALEM	49	39	56	30	44	2	2.2	.6	1.5	.3	33	32.9	100	92	68	0	0	1	1	1	1
WA ALLENTOWN	52	29	62	22	40	3	1.7	.8	1.0	.0	0	45.5	113	87	36	0	0	5	2	2	2
ERIE	48	37	58	27	42	5	.4	.6	1.3					37.3	97	67	41	0	0	2	0
HARRISBURG	50	32	57	26	41	2	1.2	.4	.7	.0	0	43.9	117	86	39	0	0	3	2	2	2
PHILADELPHIA	55	37	67	30	46	6	1.1	.2	.8	.0	0	42.9	101	89	48	0	0	5	2	1	1
PITTSBURGH	51	32	61	28	42	5	1.0	.4	.8	.0	0	39.4	115	72	42	0	0	4	2	1	1
SCRANTON	51	32	59	21	42	6	1.6	1.0	1.2	.0	0	39.9	117	72	34	0	0	4	2	1	1
RI PROVIDENCE	53	32	64	23	43	4	1.5	.5	1.5	.0	0	40.2	97	71	33	0	0	3	2	1	1
SC CHARLESTON	69	51	78	42	60	5	1.1	.4	.9	.1	19	64.1	132	92	62	0	0	5	5	1	1
COLOMBIA	63	41	74	28	52	1	1.3	.6	.6	.0	0	46.2	99	95	55	0	0	2	4	2	2
FLORENCE	65	45	80	35	55	4	1.4	.8	.9	.0	11	39.4	96	94	59	0	0	5	1	1	1
GREENVILLE	55	34	61	27	45	-2	1.1	.2	.7	.0	0	47.5	100	87	50	0	0	3	3	1	1
SD ABERDEEN	30	15	37	1	23	1	.3	.2	.3	.0	0	20.4	99	83	81	0	0	7	1	0	0
BURON	34	19	45	11	26	2	.4	.2	.3	.0	0	20.2	103	94	75	0	0	7	3	0	0
RAPID CITY	49	23	65	16	36	7	.4	.1	.3	.0	0	10.2	63	72	38	0	0	7	0	0	0
SIOUX FALLS	34	18	45	8	26	1	.8	.6	.8	.0	0	22.6	97	94	75	0	0	7	1	1	1
TN CHATTANOOGA	58	35	63	27	47	1	2.9	1.7	1.5	.7	142	70.5	144	99	46	0	0	3	3	3	3
KNOXVILLE	56	33	65	25	45	0	2.1	1.2	1.1	.1	19	61.4	143	94	52	0	0	4	3	2	2
MEMPHIS	61	42	74	34	51	4	1.8	.5	1.8	.0	0	43.5	93	75	39	0	0	4	1	1	1
NASHVILLE	58	36	65	26	47	2	2.4	1.4	2.2	.2	46	57.7	134	84	42	0	0	4	3	1	1
TX ABILENE	64	38	75	29	51	1	.1	.2	1.1	.1	91	27.5	117	82	30	0	0	3	1	0	0
AMARILLO	60	25	72	16	43	2	.0	.1	.0	.0	0	17.0	89	53	16	0	0	6	0	0	0
AUSTIN	59	49	81	35	59	3	.4	.1	.4	.4	185	35.9	119	74	38	0	0	1	1	0	0
BEAUMONT	68	50	80	37	59	2	.7	.4	.4	.7	159	64.1	121	89	50	0	0	2	0	0	0
BROWNSVILLE	78	61	86	51	70	4	.1	.2	1.1	.1	58	22.2	87	87	53	0	0	2	0	0	0
CORPUS CHRISTI	76	60	93	53	68	7	2.1	1.8	2.1	2.1	>1000	33.1	114	74	42	1	0	1	1	1	1
DEL RIO	70	44	81	36	57	1	.1	.2	1.1	.1	73	18.7	79	79	33	0	0	1	0	0	0
EL PASO	63	31	69	24	47	0	.0	.1	.0	.0	0	3.9	46	42	17	0	0	4	0	0	0
FORT WORTH	63	41	73	31	52	3	.1	.4	1.1	.1	38	41.1	116	84	37	0	0	1	1	0	0
GALVESTON	68	60	77	51	64	4	.6	.3	.5	.6	165	23.7	61	76	57	0	0	2	1	1	1
HOUSTON	70	51	83	36	60	4	1.7	.5	1.3	1.7	340	40.0	80	83	49	0	0	2	1	1	1
LUBBOCK	64	30	74	23	47	3	.0	.1	.0	.0	0	13.0	71	75	19	0	0	5	0	0	0
MIDLAND	65	34	74	26	50	1	.0	.1	.0	.0	20	9.7	66	79	24	0	0	3	1	0	0
SAN ANGELO	66	36	78	23	51	1	.0	.2	.0	.0	12	18.2	92	89	33	0	0	3	1	0	0
SAN ANTONIO	70	48	83	37	59	4	.5	.0	.5	.5	256	37.4	126	76	31	0	0	2	0	0	0
VICTORIA	73	54	89	39	63	5	3.6	2.9	3.6	3.6	>1000	42.3	99	78	41	0	0	2	1	0	0
WACO	64	41	74	31	53	0	.0	.5	.0	.0	5	28.9	96	93	41	0	0	2	1	0	0
WICHITA FALLS	63	35	71	27	49	2	.1	.3	1.1	.1	33	13.0	43	87	33	0	0	4	1	0	0
UT CEDAR CITY	41	13	50	-4	27	-8	.0	.0	.0	.0	0	8.9	82	81	42	0	0	7	0	0	0
SALT LAKE CITY	40	25	52	13	33	-2	.1	.2	1.1	.0	0	13.9	93	85	54	0	0	6	2	0	0
VT BURLINGTON	42	25	50	3	34	4	.6	.1	.5	.1	22	33.3	103	83	48	0	0	6	5	0	0
VA NORFOLK	62	43	75	33	53	5	.5	.3	.3	.0	0	51.2	123	88	44	0	0	3	3	1	0
RICHMOND	58	36	68	29	47	2	.6	.2	.5	.0	0	42.8	106	91	34	0	0	2	2	0	0
ROANOKE	56	32	66	24	44	1	.6	.1	.5	.0	0	40.3	105	85	36	0	0	4	4	1	0
WA QUILLAYUTE	45	36	52	27	41	-1	5.3	1.7	2.7	.5	36	85.1	93	97	81	0	0	2	6	3	3
SEATTLE-TACOMA	46	37	53	28	41	-1	2.2	.8	1.4	.4	64	27.1	85	91	72	0	0	2	7	1	1
SPOKANE	38	28	47	17	33	2	.8	.2	.6	.0	0	11.7	82	92	72	0	0	5	3	1	0
YAKIMA	47	27	59	18	37	3	.0	.3	.0	.0	0	5.5	82	86	60	0	0	7	1	0	0
WV BECKLEY	53	30	61	20	41	3	.3	.5	.2	.0	0	45.2	119	85	34	0	0	4	2	0	0
CHARLESTON	58	31	65	23	45	3	.5	.3	.3	.0	0	46.9	119	94	36	0	0	5	2	0	0
HUNTINGTON	57	33	64	22	45	5	1.6	.7	1.1	.0	0	42.8	106	85	35	0	0	4	2	1	1
PARKERSBURG	54	31	60	22	43	4	.7	.0	.4	.0	0	44.5	117	85	34	0	0	4	2	0	0
WI GREEN BAY	42	26	52	17	34	7	.5	.0	.5	.0	0	27.4	100	86	60	0	0	6	2	0	0
LACROSSE	42	28	51	20	35	7	.2	.4	.0	.0	0	34.5	117	87	58	0	0	4	0	0	0
MADISON	45	28	55	22	37	8	1.2	.8	1.2	.0	0	32.5	106	85	57	0	0	6	2	1	1
MILWAUKEE	47	33	56	25	40	9	.7	.2	.7	.0	0	26.2	85	82	55	0	0	4	2	1	1
WISCONSIN Wausau	39	22	49	12	31	6	.7	.3	.6	.0	0	22.2	70	91	59	0	0	7	2	1	1
WY CASPER	43	26	55	12	35	7	.0	.2	.0	.0	0	13.3	112	63	33	0	0	4	0	0	0
CHEYENNE	45	24	62	11	34	4	.0	.1	.0	.0	0	12.9	93	66	27	0	0	5	0	0	0
LANDER	44	22	59	10	33	8	.0	.2	.0	.0	0	11.6	93	59	26	0	0	6	0	0	0
SHERIDAN	42	20	58	11	31	4	.0	.1	.0	.0	0	14.9	107	75	48	0	0	7	1	0	0
PZ SAN JUAN	85	74	87	72	80	1	2.6	1.3	.8	1.2	217	39.0	81	90	69	0	0	0	7	7	2

Based on 1961-90 normals.

# November Weather and Crop Summary

## Weather

## Fieldwork

Jet-stream energy poured into the West for the second month in a row, maintaining favorably wet, but cool, conditions. Monthly temperatures averaged up to 10°F below normal in the Great Basin, while record snows accumulated in parts of the Wasatch Range and the Sierra Nevadas. Farther east, a broad southwestern airflow prevented strong cold air intrusions, producing temperatures up to 6°F above normal in the eastern half of the Nation. Occasional heavy rain accompanied the warmth from central Texas to Michigan as numerous storm systems drew subtropical moisture across the region. Drier-than-normal weather prevailed from southern Texas to the central Appalachians. Tropical Storm Gordon spun a meandering course across Florida and near the southern Atlantic coast, damaging winter vegetables and causing coastal flooding and erosion. Rains from Gordon dropped an all-time 24-hour record rainfall of 10.15 inches at Daytona Beach, FL. Exceptionally stormy, cold conditions plagued Alaska, while very dry weather developed across Hawaii except on the Big Island, where inundating rains dropped almost 3 feet of rain on Hilo, producing localized flooding.

In the Wasatch, Alta, UT received more than 15 feet of snow, a November record, including 6 feet in 63 hours on November 25-28. Nearby Snowbird Ski Resort netted more than 12 feet, also a November record. Monthly records were also posted at Norden, CA, near Lake Tahoe (more than 6 feet), Salt Lake City, UT (33.3 inches; 512 percent of normal), and Klamath Falls, OR. By month's end, snowpack in the Tahoe basin stood at 206 percent of normal. The sheer energy of the western storminess was manifested by a November record wind gust of 76 mph in Cheyenne, WY on November 17. Frequent post-storm surges of cold kept California's agricultural valleys flirting with the freezing mark. In fact, Bakersfield set a November record with 28°F on November 20, and the mercury even dipped to 32°F along the California coast at Monterey, also establishing a new monthly record low. For the month as a whole, records for coldness were established at Ely, NV (26.3°F; 7.9°F below normal) and Santa Maria, CA (50.1°F; 5.4°F below normal).

In contrast, November was unseasonably mild in the East. Seven daily record highs were set or tied in Apalachicola, FL. In the Great Lakes region, snow held off until at least November 22, the latest date on record in many cases. In Ohio, Cleveland's mere trace of snow tied for the least on record. The Midwest's first significant snowfall began on November 27, and amounted to 8.4 inches in Sioux City, IA and 7.6 inches at Aberdeen, SD. In the Northeast, late-month totals included 4.3 inches at Concord, NH and 6.3 inches in Binghamton, NY.

Grain elevators in the Corn Belt were full as a result of high yields and favorable harvesting weather. Starting in November, producers were waiting in line at grain dryers and elevators in the Great Lakes region where a late freeze lengthened the harvest. At the beginning of the month, harvest progress for the row crops was ahead of normal, but winter wheat planting was slightly behind the average. Excessive moisture in the lower Great Plains and the middle Mississippi Valley caused some replanting of small grains. Later in the month, corn was stored on the ground because of continued storage shortages in the Midwest. Continued heavy rains left fields saturated in the lower Mississippi Valley and slowed the cotton harvest. By mid-month, Tropical Storm Gordon's high winds and rain threatened Florida's citrus and vegetable crop. The damage to the winter vegetable crop was limited but the citrus harvest was interrupted. Rain slowed the row crop harvest in the Midwest, where the harvest neared completion ahead of schedule. By month's end, the first major winter storm halted field activity in the North Central States. Rain along the Pacific Coast delayed some late-season harvest activity. The cotton harvest was delayed in the Southeastern States by rain but finished the month ahead of the average.

Winter wheat planting in early November was almost completed and was slightly behind the average. Winter wheat emerged finished the month slightly ahead of the 5-year average with good stands reported in the central Great Plains.

Corn harvested started November ahead of the average and remained there until the end of the month. The corn harvest was lengthened since the killing freeze arrived later in the year than normal. The lengthened harvest season and high yields pushed grain storage facilities and dryers to full capacity, and some producers stored corn on the ground.

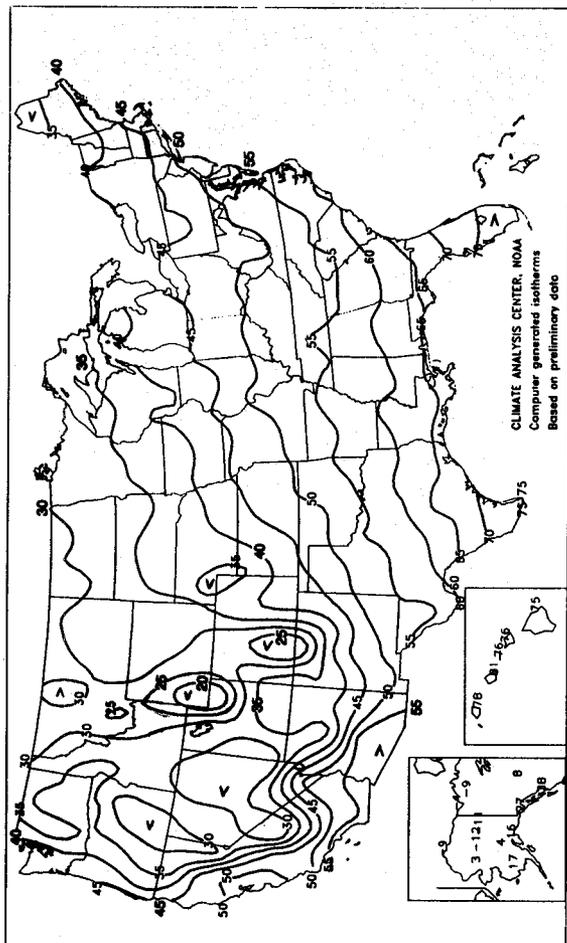
Cotton harvested at the beginning of November was 6 percentage points ahead of the average and finished the month 3 points ahead of the average. Wet weather in early and mid-November slowed cotton harvest activity in the Delta and Southern States.

Entering November, sorghum harvested started 1 point ahead of the average and was finished early in the month. Damp conditions in Texas slowed some harvest activity.

Soybeans harvested started November 1 point ahead of the average, and was finished early in the month.

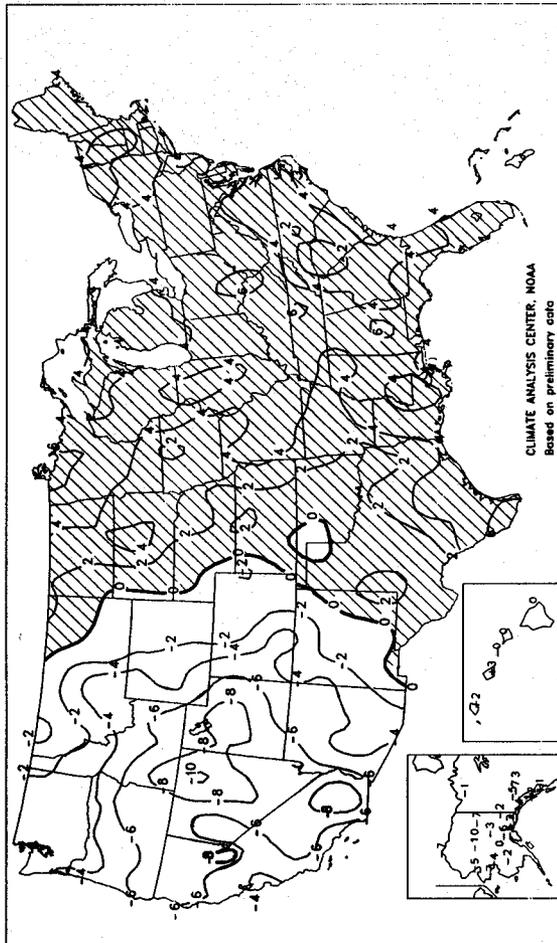
AVERAGE TEMPERATURE (°F)

NOV 1994



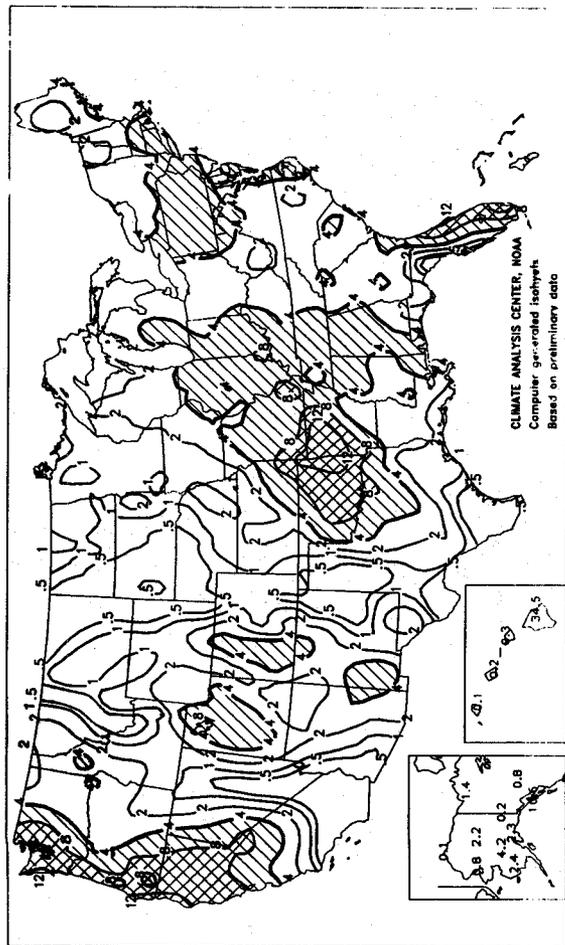
Departure of Average Temperature from Normal (°F)

NOV 1994



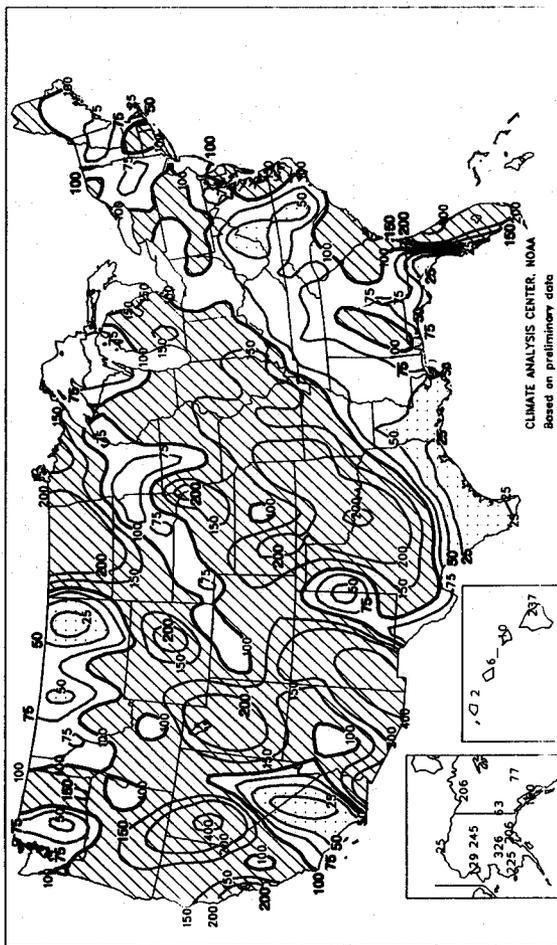
TOTAL PRECIPITATION (inches)

NOV 1994



PERCENT OF NORMAL PRECIPITATION

NOV 1994

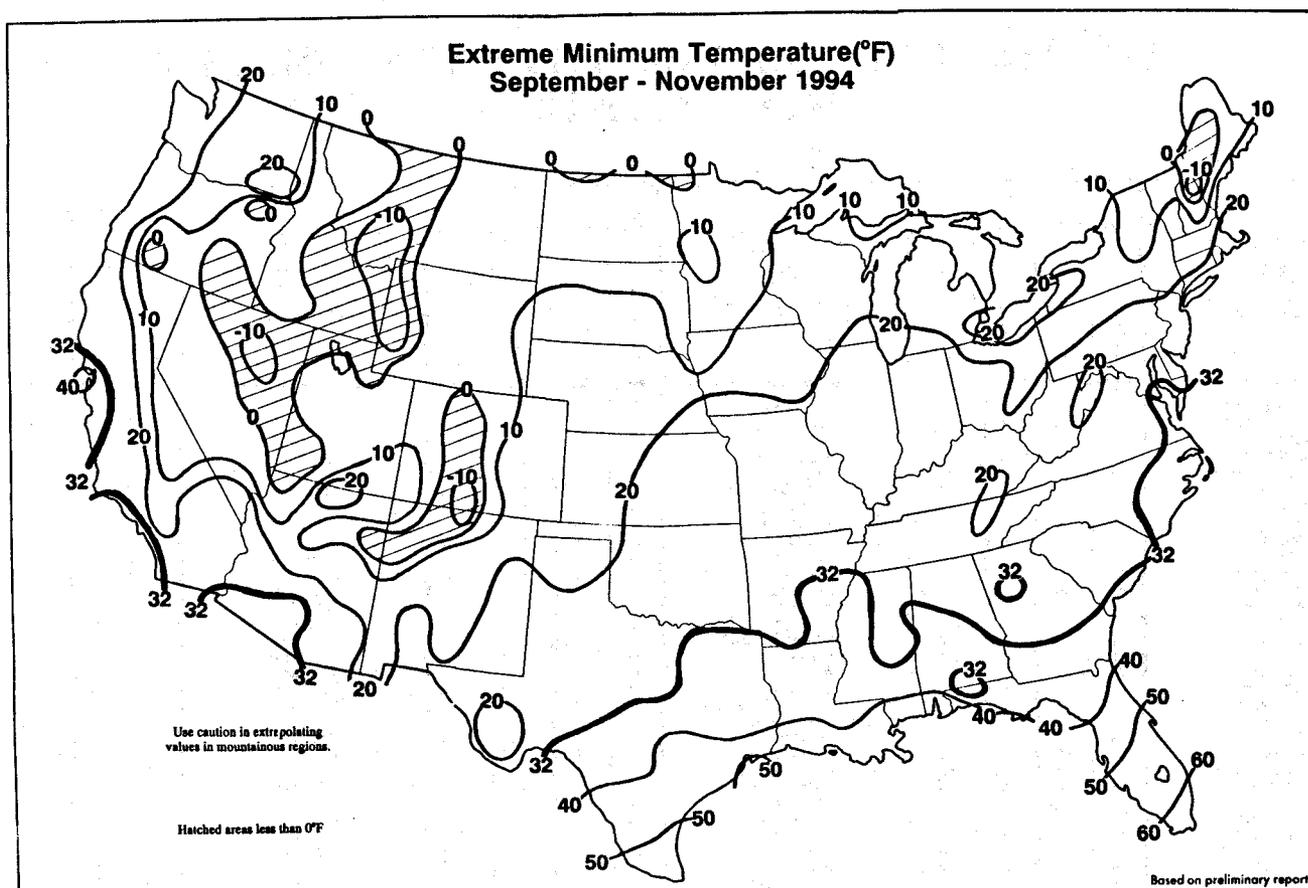


# TEMPERATURE AND PRECIPITATION SUMMARY

## November 1994

STATES AND STATIONS	Temp. °F		Precip.		STATES AND STATIONS	Temp. °F		Precip.		STATES AND STATIONS	Temp. °F		Precip.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	57	4	3.9	-0.4	LA BATON ROUGE	63	3	1.2	-3.1	OK YOUNGSTOWN	45	4	2.6	-0.5
AL HUNTSVILLE	55	5	3.6	-1.2	LA LAKH CHARLES	65	5	1.6	-2.7	OK OKLAHOMA CITY	50	0	5.8	3.8
AL MOBILE	64	4	4.0	0.0	LA NEW ORLEANS	65	4	1.4	-3.0	OR TOLSA	52	2	7.0	3.9
AK MONTCOKEY	61	6	3.9	0.1	ME SHERBROOK	60	5	2.5	-1.6	OR ASTORIA	42	-5	12.0	1.9
AK ANCHORAGE	16	-6	2.3	1.2	ME CARIBOU	34	3	3.6	0.0	OR BURNS	26	-7	1.6	0.4
AK BARROW	-9	-7	0.1	-0.2	ME PORTLAND	41	3	3.3	-1.8	OR MEDFORD	39	-5	4.6	1.4
AK FAIRBANKS	1	-2	1.6	0.8	MD BALTIMORE	52	5	1.5	-1.8	OR PENDLETON	41	-1	2.1	0.5
AK JUNEAU	29	-3	7.9	3.0	MD BALTIMORE	52	3	4.0	0.9	OR PORTLAND	43	-3	6.1	0.8
AK KODIAK	32	-3	1.9	-4.1	MA BOSTON	49	4	3.7	-0.5	PA SALM	42	-3	7.3	1.0
AK NOME	9	-7	2.0	1.0	MA CHATHAM	49	4	0.4	-3.9	PA ALLENTOWN	48	5	3.8	-0.1
AZ FLAGSTAFF	32	-5	1.9	0.0	MI ALPENA	39	3	2.6	0.4	PA ERIE	48	5	2.9	-1.1
AZ PHOENIX	58	-4	0.7	0.0	MI DETROIT	45	5	2.6	-0.1	PA HARRISBURG	49	4	5.2	1.7
AZ PRESCOTT	41	-3	0.4	-1.1	MI FLINT	42	3	3.3	0.7	PA PHILADELPHIA	52	5	3.0	-0.3
AZ TUCSON	57	-2	1.8	1.2	MI GRAND RAPIDS	42	4	5.4	2.1	PA PITTSBURGH	48	5	3.6	0.8
AZ WINSLOW	40	-4	0.4	-0.1	MI HOUGHTON LAKE	40	5	2.9	0.6	PA SCRANTON	47	6	4.4	1.4
AR YUMA	59	-5	0.7	-0.2	MI LANSING	42	4	3.8	1.2	PA WILLIAMSPORT	46	4	4.8	1.1
AR FORT SMITH	54	4	7.8	3.9	MI MARQUETTE	34	4	2.0	-0.8	RI PROVIDENCE	48	4	5.3	0.8
AR LITTLE ROCK	56	4	5.6	0.7	MI MUSKEGON	42	3	3.6	0.5	RI CHARLESTON	62	4	2.9	0.4
CA BAKERSFIELD	48	-8	0.7	0.0	MI SAULT ST. MARIE	35	2	3.0	-0.5	SC COLUMBIA	57	2	3.0	0.1
CA BISHOP	37	-8	0.7	0.0	NM ALEXANDRIA	34	5	0.8	-0.4	SC FLORENCE	59	4	3.3	0.6
CA EUREKA	46	-6	8.2	1.8	NC DULUTH	34	5	1.2	-0.6	SC GREENVILLE	54	2	2.4	-1.2
CA FRESNO	48	-5	1.6	0.2	NC INT'L FALLS	31	6	2.5	1.3	SD ABERDEEN	33	3	0.4	-0.3
CA LOS ANGELES	58	-4	0.7	-1.1	NC MINNEAPOLIS	38	5	1.4	-0.2	SD HURON	36	3	0.6	-0.1
CA REDDING	46	-6	5.0	-0.2	NC ROCHESTER	36	4	1.8	0.1	SD RAPID CITY	36	1	0.7	0.1
CA SACRAMENTO	48	-5	0.1	-2.6	NC ST. CLOUD	34	4	1.0	-0.3	SD SIOUX FALLS	37	3	1.1	0.0
CA SAN DIEGO	57	-5	0.5	-1.0	NS GREENWOOD	60	5	3.7	-1.3	TX BRISTOL	51	4	2.4	-0.6
CA SAN FRANCISCO	50	-5	5.7	2.9	NS JACKSON	59	3	2.6	-2.2	TX CHATTANOOGA	54	4	3.7	-0.9
CA SANTA MARIA	50	-5	1.7	0.3	NS MERIDIAN	61	5	2.9	-1.6	TX KNOXVILLE	53	4	2.9	-0.8
CO ALAMOSA	26	-4	0.8	0.4	NS TUPelo	55	3	3.4	-1.5	TX MESSVILLE	57	4	4.4	-0.8
CO CO. SPRINGS	38	0	0.3	-0.2	MO CAPE GIRARDEAU	52	5	6.9	2.9	TX MESSVILLE	55	5	4.0	-0.1
CO DENVER	38	-1	1.3	0.4	MO COLUMBIA	48	4	5.4	2.2	TX ABILENE	55	0	3.7	2.2
CO GRAND JUNCTION	37	-5	0.7	-0.2	MO KANSAS CITY	46	3	3.2	1.3	TX AMARILLO	47	1	0.6	-0.1
CO PUEBLO	39	-2	0.8	0.3	MO SAINT LOUIS	52	6	4.9	1.6	TX AUSTIN	64	3	1.8	-0.5
CT BRIDGEPORT	49	4	3.3	-0.6	MO SPRINGFIELD	51	5	7.6	3.8	TX BEAUMONT	66	4	0.5	-4.4
CT HARTFORD	46	4	4.5	0.5	MT BILLINGS	35	0	1.2	0.3	TX BROWNSVILLE	74	5	0.4	-1.1
DC WASHINGTON	53	4	1.6	-1.6	MT GLASGOW	30	1	0.1	-0.2	TX CORPUS CHRISTI	71	5	0.2	-1.4
FL PANAMA CITY	65	5	1.7	-2.3	MT GREAT FALLS	31	-3	0.2	-0.4	TX DEL RIO	62	2	0.4	-0.9
FL DAYTONA BEACH	70	4	12.9	10.0	MT HAVRE	29	-1	0.4	0.0	TX EL PASO	55	2	0.5	0.1
FL FT. MYERS	75	5	2.1	0.5	MT HELENA	29	-3	0.4	-0.1	TX FORT WORTH	58	4	6.8	4.4
FL JACKSONVILLE	66	2	3.5	1.0	MT KALISPELL	29	-2	1.2	-0.1	TX GALVESTON	69	5	0.4	-3.0
FL KEY WEST	78	2	1.3	-1.5	MT MILLS CITY	32	0	0.2	-0.3	TX HOUSTON	66	5	1.7	-3.6
FL MIAMI	77	4	8.9	6.3	MT MISSOULA	32	-1	0.4	-0.4	TX LAREDO	57	5	0.3	-3.4
FL ORLANDO	72	4	7.1	4.8	NE GRAND ISLAND	40	2	1.7	0.7	TX LUBBOCK	52	2	0.7	0.0
FL TALLAHASSEE	65	5	3.5	-0.4	NE LINCOLN	41	2	2.0	0.7	TX MIDLAND	56	2	1.3	0.6
FL TAMPA	72	5	0.2	-1.5	NE NORFOLK	40	3	1.3	0.3	TX SAN ANGELO	57	1	2.0	0.9
FL WEST PALM BEACH	75	2	7.7	4.2	NE NORTH PLATTE	38	2	0.8	0.1	TX SAN ANTONIO	65	4	0.7	-1.9
GA ATHENS	56	3	3.5	-0.1	NE OMAHA	42	2	1.6	0.1	TX VICTORIA	68	5	0.3	-3.4
GA ATLANTA	58	5	3.1	-0.7	NE SCOTTSBLOFF	36	0	0.6	0.0	TX WACO	60	2	4.0	1.5
GA AUGUSTA	57	2	2.6	0.1	NE VALENTINE	37	0	0.1	-0.8	TX WICHITA FALLS	54	1	1.6	0.0
GA MACON	58	2	2.6	-0.2	NV ELKO	26	-10	1.6	0.5	UT BLANDING	38	-1	3.0	1.9
GA SAVANNAH	64	5	3.7	1.5	NV ELY	27	-7	0.9	0.2	UT CEDAR CITY	32	-8	1.9	0.9
HI HILO	75	1	34.5	20.0	NV LAS VEGAS	50	-5	0.3	-0.2	UT SALT LAKE CITY	33	-8	3.0	1.7
HI HONOLULU	81	4	0.2	-2.8	NV RENO	35	-5	1.7	0.8	VT BURLINGTON	41	4	2.4	-0.8
HI KAHULUI	77	1	0.3	-2.3	NE WINDHOLM	31	-7	1.6	0.7	VA LYNCHBURG	52	4	1.9	-1.3
HI LIHUE	78	3	0.1	-5.4	NE CONCORD	42	5	2.7	-1.0	VA NORFOLK	57	5	5.2	2.4
ID BOISE	33	-7	1.8	0.3	NJ ATLANTIC CITY	49	3	3.2	-0.4	VA RICHMOND	53	3	4.0	0.8
ID LEWISTON	38	-3	0.2	-1.0	NM ALBUQUERQUE	45	0	1.4	1.0	VA ROANOKE	51	4	1.5	-1.7
ID POCATELLO	30	-6	0.8	-0.3	NM CLOVIS	49	2	0.3	-0.5	WA COLVILLE	33	-	2.8	-
IL CAIRO	..	..	..	..	NM ROSWELL	52	1	0.4	-0.1	WA QUILLAYUTE	42	-3	14.6	-0.2
IL CHICAGO	44	4	3.8	0.8	NY ALBANY	43	3	1.5	-1.7	WA SEATTLE-TACOMA	42	-3	5.8	0.0
IL MOLINE	44	4	4.7	2.2	NY BINGHAMTON	42	4	2.6	-0.7	WA SPOKANE	33	-3	2.2	0.1
IL PEORIA	45	4	3.5	0.8	NY BUFFALO	45	4	4.0	0.2	WA WALLA WALLA	43	-1	4.2	1.6
IL QUINCY	46	3	2.3	-0.5	NY NEW YORK	52	4	3.6	-0.2	WA YAKIMA	36	-3	0.4	-0.7
IL ROCKFORD	41	3	3.3	0.8	NY ROCHESTER	46	6	3.0	0.0	WV BECKLEY	49	6	1.3	-1.7
IL SPRINGFIELD	48	5	3.0	0.5	NY SYRACUSE	44	3	3.5	-0.2	WV CHARLESTON	50	4	2.0	-1.6
IN EVANSVILLE	51	3	6.5	2.4	NC ASHEVILLE	50	3	3.0	-1.2	WV ELKINS	46	5	2.6	-0.7
IN FORT WAYNE	45	4	2.9	0.2	NC CHARLOTTE	55	3	2.3	-0.9	WV HUNTINGTON	51	7	2.2	-1.5
IN INDIANAPOLIS	48	5	3.4	0.2	NC GREENSBORO	52	2	2.5	-0.4	WV PARKERSBURG	50	6	2.4	-0.4
IN SOUTH BEND	45	4	4.4	1.1	NC HATTERAS	62	5	5.4	0.4	WV GREEN BAY	39	5	1.4	-0.7
IA DES MOINES	42	4	1.7	-0.2	NC NEW BERN	60	5	2.2	-0.9	WV LACROSSE	41	6	2.1	0.3
IA DUBUQUE	40	4	2.7	0.0	NC RALEIGH	54	3	1.3	-1.7	WV MADISON	40	4	2.7	0.6
IA SIOUX CITY	39	2	2.2	1.2	NC WILMINGTON	60	5	3.2	-0.1	WV MILWAUKEE	44	6	3.3	0.8
IA WATERLOO	40	4	1.8	0.0	ND BISMARCK	31	2	1.5	1.0	WV HAYS	37	5	2.4	0.4
KS CONCORDIA	44	2	1.2	0.0	ND FARGO	34	6	0.9	0.2	WV CASPER	32	-1	1.8	1.0
KS DODGE CITY	43	0	1.7	0.9	ND GRAND FORKS	32	5	2.1	1.5	WV CHEYENNE	35	-1	0.3	-0.2
KS GOODLAND	36	-3	1.3	0.6	ND WILLISTON	29	2	0.2	-0.2	WV LANDER	30	-1	1.0	0.2
KS TOPEKA	46	3	2.8	0.9	OH AKRON-CANTON	46	4	3.1	0.1	WV SHERIDAN	31	-2	0.6	-0.2
KS WICHITA	47	1	3.1	1.0	OH CINCINNATI	49	5	2.8	-0.7	PR SAN JUAN	81	1	8.3	2.4
KY BOWLING GREEN	52	4	1.1	-3.4	OH CLEVELAND	48	5	2.6	-0.6					
KY JACKSON	53	5	2.7	-1.5	OH COLOMBUS	48	7	2.9	-0.3					
KY LEXINGTON	50	4	2.8	-0.6	OH DAYTON	48	5	3.4	0.3					
KY LOUISVILLE	52	5	3.6	-0.1	OH MANSFIELD	46	5	2.7	-0.8					
KY PADUCAH	52	5	3.6	-0.8	OH TOLEDO	46	6	2.7	-0.1					

Based on 1961-90 normals.



Cold weather was late in arriving to areas east of the Rockies. In fact, record-late first freezes were reported by St. Cloud, MN (October 9) and Fargo, ND (October 24). In contrast to 1991 and 1993, when unseasonably early arctic outbreaks plunged through the Plains around Halloween, chilly air waited until Thanksgiving week to descend upon the eastern two-thirds of the Nation. Many Great Lakes locations, especially in Michigan and New York, observed their latest snowfall on record on November 22. However, in the West, storminess arrived in early-October and persisted, providing much-needed moisture, but also abnormally low temperatures. Even California's agricultural valleys experienced some sub-freezing conditions. A reading of 28°F in Bakersfield, CA on November 20 was an autumn record low.

## Autumn Weather Review

**HIGHLIGHTS:** A key transition occurred in early October as a summer-long ridge of high pressure over the West succumbed to an influx of eastern Pacific jet stream energy. With cooler, moister air pouring into the West, warmth shifted eastward. The anomaly pattern persisted through November, swaying seasonal averages toward coolness in the West, and warmth east of the Rockies, particularly in the upper Midwest. Substantial drought relief occurred along the primary storm track across the Northwest, throughout the Great Basin, and into Utah and Wyoming. Farther east, episodic heavy rain affected the Southeast (especially in early October) and the Ozark Plateau (early November). A "100-year" rainfall and resultant flood struck southeastern Texas from October 17-22, with 6-day totals exceeding 20 inches. But in the Northeast, a procession of fair-weather systems nosing southward kept precipitation largely at bay.

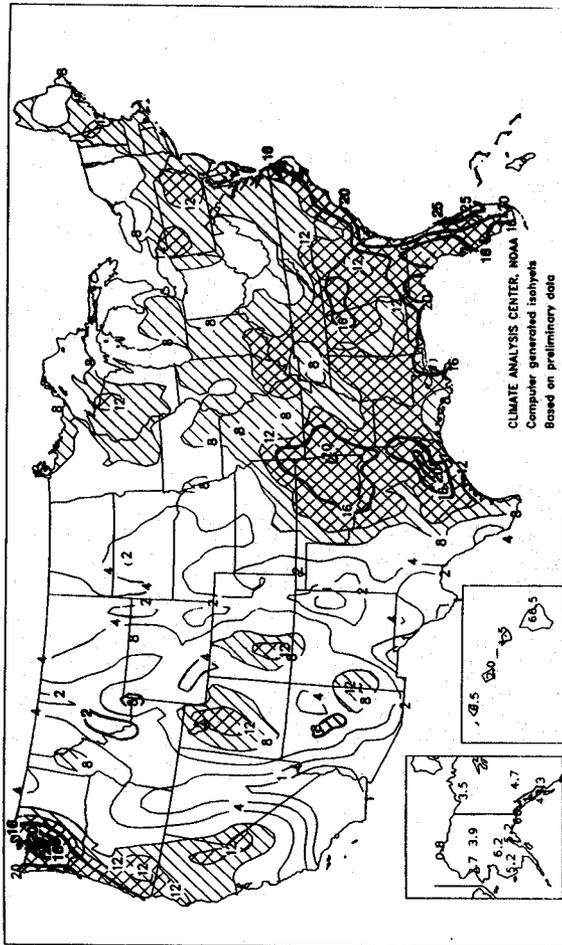
**SEPTEMBER:** Drought intensified in the Northwest, with temperatures up to 6°F above normal and rainfall as little as 25 percent of normal. For the Nation as a whole, it was the 11th driest September in the past 100 years. Exceptions to the dry pattern included Arizona, the North Central States, and the Atlantic Seaboard. Only the Nation's southeastern quadrant recorded below-normal temperatures, with departures up to -3°F.

**OCTOBER:** In the Northwest, winter wheat planting and emergence continued to be adversely affected by dryness until widespread showers arrived late in the month. Improvement in the Northwest was part of a larger-scale turn towards wetness that included a major flood event north of Houston, TX and record monthly rainfall in Savannah, GA. A national ranking of 21st wettest since 1895 was tempered by acute dryness in the Northeast, sub-normal precipitation in the Southwest, and spotty rainfall in the East Central States. Temperatures ranged from up to 4°F below normal in the interior West to as much as 5°F above normal in the upper Midwest.

**NOVEMBER:** October's weather pattern persisted and amplified, with a sharper western trough and a stronger eastern ridge. Above-normal precipitation fell on most areas west of a line from Michigan to central Texas. Normal to below-normal precipitation occurred in the East except along the south Atlantic Coast, which took a hit from Tropical Storm/Hurricane Gordon. Gordon damaged Florida's winter garden vegetables. In southern Texas, monthly rainfall was less than 25 percent of normal. Monthly temperatures ranged from 10°F below normal in the Great Basin to 7°F above normal from Alabama to Ohio.

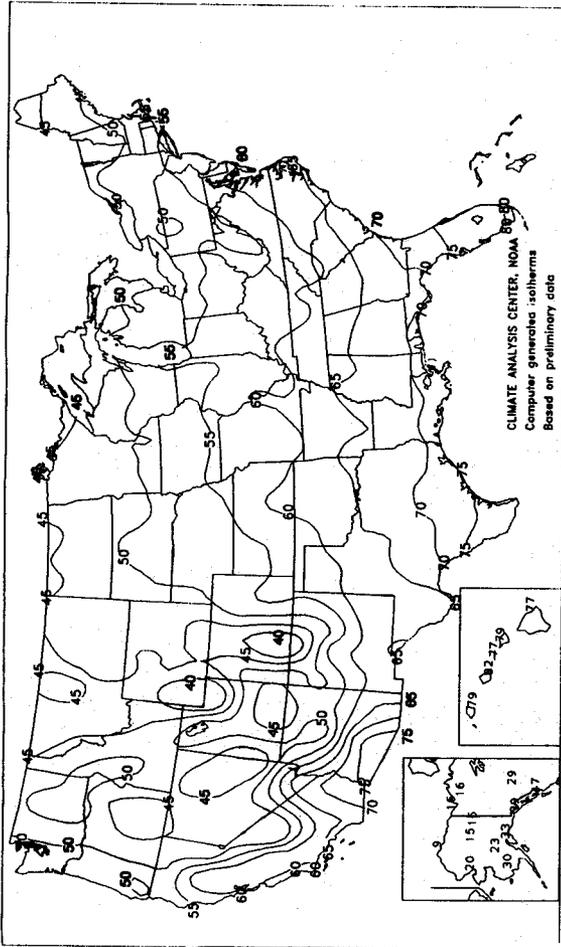
FALL TOTAL PRECIPITATION (inches)

SEP-NOV 1994



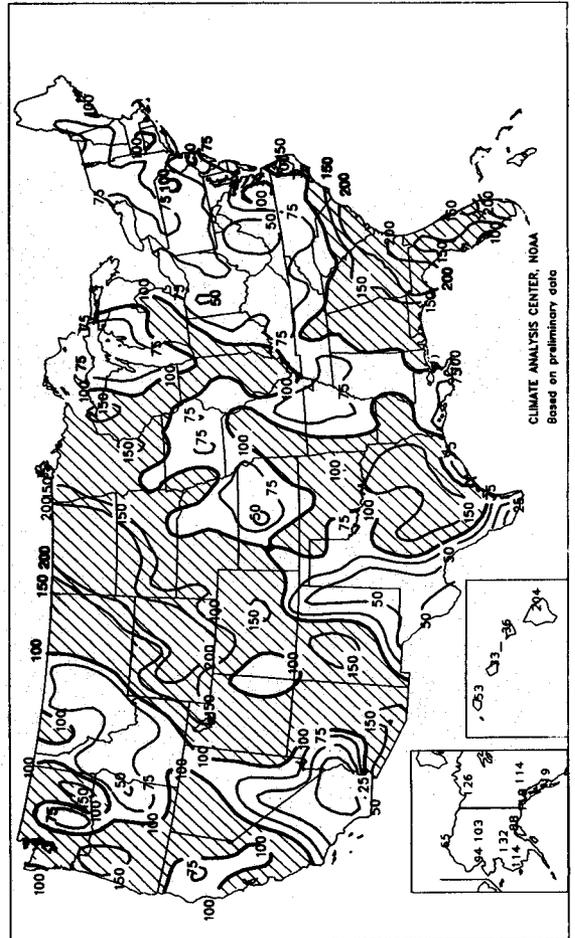
FALL AVERAGE TEMPERATURE(°F)

SEP-NOV 1994



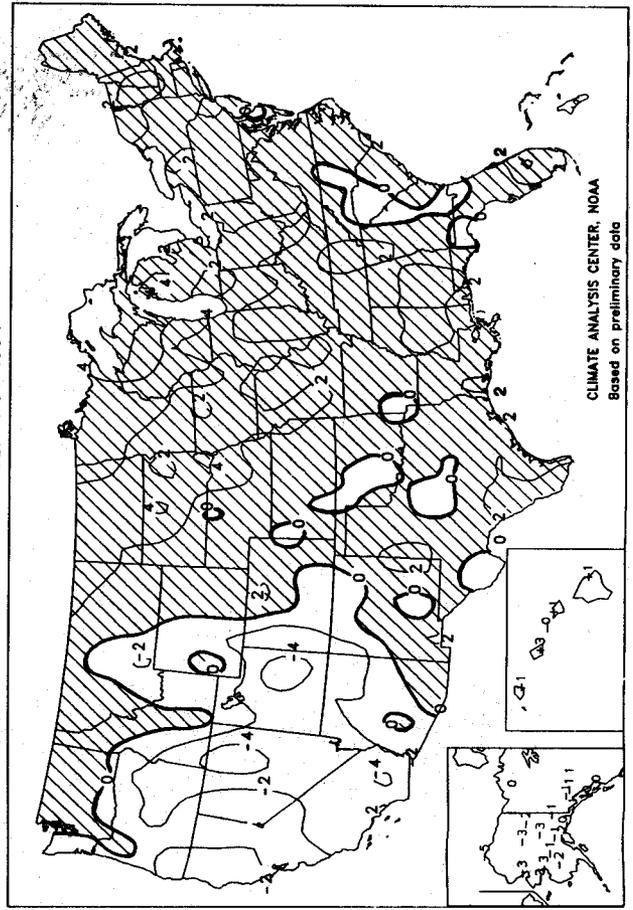
FALL PERCENT OF NORMAL PRECIPITATION

SEP-NOV 1994



FALL DEPARTURE FROM NORMAL AVERAGE TEMPERATURE(°F)

SEP-NOV 1994



# National Agricultural Summary

November 28 - December 4, 1994

**HIGHLIGHTS:** Widespread, heavy rainfall extending across the lower Mississippi Valley, through much of Alabama and Georgia slowed the cotton harvest. Significant precipitation along the Northern Pacific Coast hampered field activity in California. A major winter storm in Washington triggered flooding and limited most field activities except the Christmas tree harvest. Clear weather in the Midwestern States allowed the few remaining unharvested fields to be harvested. Mild weather allowed grain hauling and reduced the piles of corn stored on the ground in Iowa. The Nation's winter wheat snow cover was established in the Northern States. The cotton harvest made good progress in the Texas Plains and was aided by a hard freeze across the Trans-Pecos region. Most of the Northern States reported supplemental cattle feeding, while in the Midwest cattle continued to graze corn stubble.

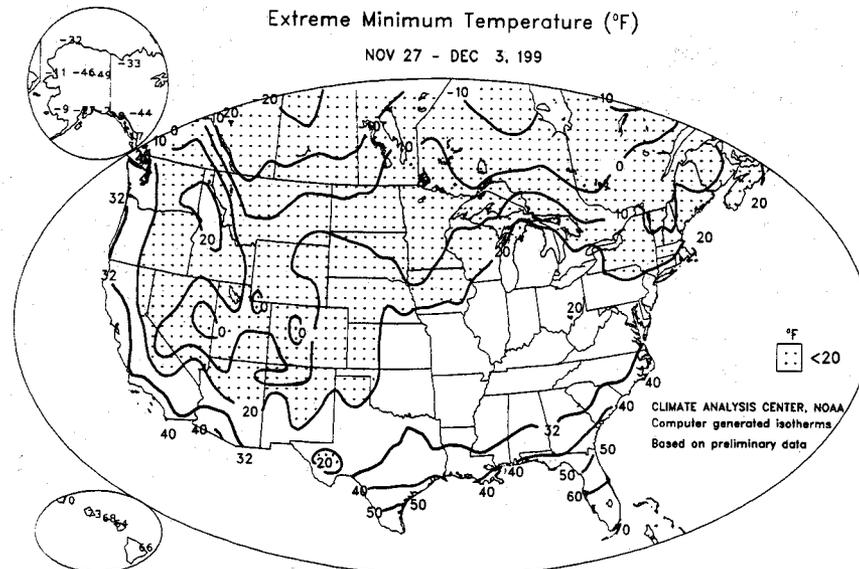
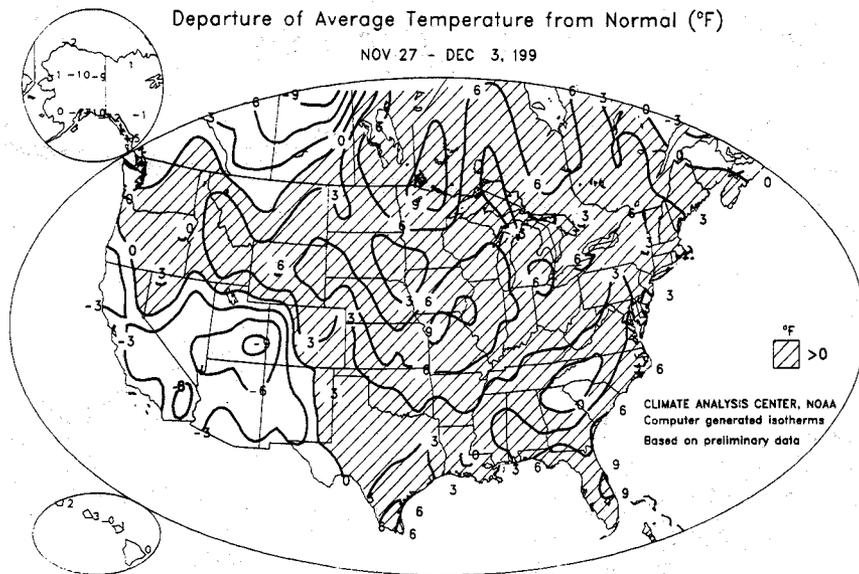
Winter wheat was covered by snow in the Northern States. Showers across the Ohio Valley improved the wheat condition. Winter wheat planting advanced in central Texas, while dryland fields showed signs of stress from dry weather. Producers in the

Texas Plains reported problems from green bugs and were spraying insecticides.

Corn harvest was nearly complete in the Midwestern States except for a few scattered fields. Mild weather aided the reduction of piles of corn stored on the ground in Iowa.

Cotton harvest was winding down across the Nation. Cotton harvested in Mississippi was delayed by heavy rains but reached 97 (%) percent, 1 percentage point below the 5-year average. The cotton harvest in Texas made good progress and was helped by a hard freeze. The cotton harvest in the State reached 83%, 6 points behind last year. In Georgia, the cotton harvest was 10 points behind the average at 83% complete.

Soybean harvest in Georgia was delayed by rain and wet fields, and was 15 points behind the average, at 74% complete. Damp field conditions did not delay Mississippi soybean producers in harvesting their fields, as 96% of the soybeans were harvested, 4 points ahead of the average.



## 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 1.59 to 3.28 in. north; 0.87 to 3.47 in. central; 2.59 to 5.37 in. south. Temperatures 1° below to 5° above normal statewide. Lows 22 to 30° north; 22 to 36° central; 26 to 39° south. Highs 64 to 70° north; 63 to 76° central; 69 to 75° south.

Days suitable for fieldwork 3.9. Soil moisture 70% adequate, 30% surplus. Sorghum harvested 98%, 100% 1993, 100% avg. Wheat planted 86%, 84% 1993, 81% avg. Pasture feed 6% poor, 40% fair, 52% good, 2% excellent. Livestock 26% fair, 72% good, 2% excellent. Seasonal activities: Harvesting row crops, vegetables, seeding small grains, winter grazing pastures, weaning calves, selling cattle.

**ARIZONA:** Temperatures 6 to 1° below normal. Extremes 6°; 71° higher elevations; 19°; 78° deserts. No precipitation reported.

Cotton harvest winding down; harvested 99%, 97% 1993, 98% avg. Stalk shredding, plowdown active central, eastern areas, moderate western parts of State. Alfalfa condition mostly good. Harvest light. Sheeping off moderate. Stand renovation, stands established normal. Lemon, grapefruit, navel orange harvest western, central areas. Tangerine harvest central. Apple harvest concluded eastern groves. Bok choy, broccoli, carrots, cauliflower, endive, escarole, head lettuce, kale, leaf lettuce, romaine, spinach harvested central, western areas. Salad savoy available western areas. Beets, broccoflower, cabbage, cilantro, dill, green onions, kohlrabi, leeks, mixed greens, rappini, sweet corn, swiss chard, turnips available central areas. Tomatoes available eastern Arizona. Range, pasture condition 68% of normal, 3 points lower than October. Cattle, calves fair to good condition. Stockwater, soil moisture supplies mostly adequate. Below average to average feed supplies available on range, pastureland. Insect damage light statewide.

**ARKANSAS:** Temperatures above normal, light showers at beginning and weekend. Extremes 20°; 71°. Precipitation none to 1.24 in.

Soybean harvest nearly complete. Wheat crop good condition. Pecan 100% harvested in Little River county. Several counties reported that producers were feeding hay to their cattle. Some producers were winter grazing their cattle on wheat fields. Hay stocks in the northwestern region continue to be low due to summer drought, while the rest of the State have surplus stocks.

**CALIFORNIA:** Several frontal systems brought precipitation to northern, central areas leaving southern areas dry. Amounts varied from traces to 1.50 in. on the north coast. Temperatures below normal, nearly all locations.

Field activities hampered by rain, wet soils central, north. Elsewhere, fieldwork progressed normally. Rice stubble burned where conditions, air quality regulations permitted. Few rice fields still for harvest. Cotton fields shredded, disced for pink bollworm control between rains. Few scattered fields stood for harvest. Corn, dry beans, grain sorghum harvested. New crop sugarbeets planted, treated for worms. Alfalfa cut hay, greenchopped. Small grains, new alfalfa, winter forages, dry beans seeded, fertilized, sprayed for weeds where soil moisture permitted. Emerging grains, alfalfa, sugarbeets excellent growth. Orchard pruning, spraying, weed control, other cultural practices active. Pruning, fertilizing, tying of vines continued vineyards. Granny Smith, Fuji apples packed. Lemons, grapefruit, Satsuma tangerines, Navel orange harvest continued. Broccoli, cauliflower harvested Monterey County, Imperial, San Joaquin Valleys. Harvested cabbage Fresno, Riverside Counties. Carrots harvested Kern County, Desert Valleys. Celery harvested Oxnard area, Monterey County. Sweet corn harvested Imperial County. Garlic maturing Tulare County. Harvest fall head, leaf lettuce fields continued San Joaquin, Desert Valleys, Monterey County. Winter 1995 lettuce fields Fresno County emerged. Melon harvest Imperial Valley winding down. Onions progressing Tulare County. Peas, spinach planted Stanislaus County. Spring potato planting Kern

County. Fresh market tomato harvest San Joaquin Valley nearing completion. Ground preparation next years crops took place around State. Other crops harvested: squash, bok choy, cucumbers, green beans, green onions, eggplant, radishes, turnips, oriental vegetables. Rangeland greener northern, central areas but colder weather inhibited normal growth; more rain needed central, southern areas, warmer temperatures needed statewide. Water supply adequate. Livestock movement to lower elevations continued, supplemental feeding heavy. Calves branded, castrated, vaccinated, etc. Sheep being shipped into Imperial Valley. Cattle, sheep were in good condition.

**COLORADO:** Beginning of the week had snow, blowing snow in the northern, central mountains along with below normal temperatures statewide. Remainder of the week had above normal temperatures, no precipitation to most of the State.

Major Farm Activities: Care, feeding of livestock.

**FLORIDA:** Temperatures 3 to 4° above normal Panhandle, 7 to 11° above normal elsewhere. Highs; middle 70s Panhandle, upper 80s rest of State. Lows; middle 30s Panhandle, around 60° central, lower 60s south. Rainfall; 2.00 to 4.00 in. common Panhandle, over 5.00 in. local areas of Panhandle, under 0.25 in. to 2.00 in. rest of State.

Soil moisture adequate Panhandle, mostly adequate Peninsula with scattered areas of short, surplus. Cotton harvest winding down. Soybean harvest complete. Sugarcane harvest, planting active. Winter wheat planting for grain active. Early planted winter wheat up. Citrus groves, trees, and fruit very good to excellent condition. Moisture adequate, new growth at a minimum. Harvest of early, mid oranges for processing very active. Movement of seedless grapefruit increasing with good picking weather. Tangerine, tangelo harvest very active for the holiday markets. Caretakers cutting cover crops, spraying a few blocks for insects. Balmly temperatures, mostly clear weather helped vegetable development until 4th rainfall lowered condition in some central, southern areas with yield reductions expected. Volume leaders: Tomatoes, peppers, cucumbers, snap beans, squash, eggplant, watermelons, strawberries. Pasture feed 5% poor, 35% fair, 55% good, 5% excellent. Cattle condition mostly good.

**GEORGIA:** Rain widespread early week, again weekend. Middle part of the week dry. Rainfall mostly in the 1.00 to 3.00 in. range, local totals 3.00 to 5.00 in. southwest and extreme northwest. Another warm week. Temperatures 1 to 3° above normal north as much as 5 to 10° above normal south. Warmest temperatures near 60° northeast mountains, upper 70s, low 80s near Florida border. Coldest mostly low to mid 20s northeast mountains, low to mid 40s extreme southeast.

Days suitable for fieldwork 3.2. Soil moisture 1% short, 40% adequate, 59% surplus. Cotton 3% poor, 22% fair, 61% good, 14% excellent; 83% harvested, 97% 1993, 93% avg. Sorghum 96% harvested for grain, 98% 1993, 98% avg. Soybeans 36% fair, 58% good, 6% excellent; 74% harvested, 86% 1993, 89% avg. Wheat 18% fair, 80% good, 2% excellent; 61% planted, 78% 1993, 67% avg.; 42% emerged, 56% 1993, 44% avg. Rye 94% planted, 96% 1993, 94% avg. Other small grains 21% fair, 77% good, 2% excellent; 87% planted, 92% 1993, 87% avg. Onions 3% fair, 97% good; 57% transplanted, 55% 1993, 63% avg. Other vegetables 6% poor, 62% fair, 32% good. Pecans 1% very poor, 28% poor, 48% fair, 22% good, 1% excellent; 77% harvested, 69% 1993, 80% avg. Pasture feed 1% very poor, 3% poor, 25% fair, 69% good, 2% excellent. Cattle, hogs good.

**IDAHO:** Temperatures 3° below to 7° above normal. Precipitation 0.08 to 2.84 in. north, 0.02 to 1.09 southwest, none to 1.05 in. south central, none to 0.18 in. southeast. Extremes -3°; 54°.

Hay, roughage supply 8% short, 91% adequate, 1% surplus. Winter wheat 19% fair, 74% good, 7% excellent. Activities: Feeding livestock, shop work.

**ILLINOIS:** Settled weather dominated the State for the week. Temperatures in the upper 30s to upper 40s were some 6 to 10° above normal for the week. Daytime highs varied from the mid 40s to the mid 50s with average lows between the low to upper 30s. Precipitation was lacking with no locations reporting more than 0.25 in. for the week. The majority of locations noted 0.10 in. or less with a few sites in the east observing 0.15 to 0.25 in.

Farm activities included corn harvest north, fall tillage, hauling grain, applying fertilizer, preparing machinery for storage, tending livestock.

**INDIANA:** High pressure dominated the work week across State. A few weak disturbances created some sprinkles or very light rain 28th, 29th. A brief shot of colder air around midweek produced low temperatures in the upper teens to 20s. Warmer air quickly returned with the passage of the warm front. Unseasonably mild temperatures prevailed most of the week. Temperatures 5 to 11° above normal in most areas. Highs were in the mid 40s to mid 50s, compared to the 30s to 40s for normals. Lows were in the 30s. Precipitation was greatest in the south central, southeast areas with amounts 0.50 to 1.20 in. Northwestern areas were the driest with 0.10 in. or less. Southwest, central, northeastern areas had as much as 0.25 to 0.50 in. for week.

Corn harvest is virtually complete except for scattered fields across the State. Winter wheat mostly good condition. Other activities: Fall tillage, spreading fertilizer, record keeping, moving grain, hauling manure, chopping stalks, processing tobacco, equipment maintenance, repair, mending fence, attending meetings, sorting calves, care of livestock. Hay, roughage supplies mostly adequate.

**HAWAII:** Weather and crop data not available.

**IOWA:** Very mild air dominated most of State after cold start to week. Temperatures 1° below normal in northwest to 11° above normal in southeast. Extremes 5° (northwest, 30th); 62° (south, 1st). Only precipitation of consequence came 4th night; weekly total trace (many areas) to 0.28 in. (central); average 0.03 in. (normal 0.35 in.). Two to 4 in. snowcover persisted in far northwest, no snow elsewhere by end of week.

Outdoor corn piles are beginning to diminish in some communities. Fall weather has been ideal for forage.

**KANSAS:** Temperatures across State warmed somewhat from previous week, high 30s to upper 40s across all districts. Precipitation 0.20 in across the eastern third of State, while remaining districts received little or no precipitation.

Wet soil, over 7.00 in. of rain in November retarded harvest southeastern district where some soybeans remain to be harvested. Livestock continue to graze on wheat pasture, stalk fields, crop stubble.

**KENTUCKY:** Mild, moist; soaking rain 4th. Rain mostly 0.50 to 1.00 in. above normal except far west. Maximum temperatures generally 4 to 6° above normal; minimum temperatures 2 to 4° above normal.

Several days excellent late season harvest weather on better drained fields. Corn harvest virtually complete, soybean combining nearly finished most areas. Burley stripping on schedule; burley markets a little weaker but higher than last year. Buyout from burley, flue cured pool agreed upon with manufacturers. Recent rains beneficial to soil moisture, supplied some much needed runoff for farm ponds. Mild weather has minimized the need for supplemental feed.

**LOUISIANA:** Temperatures ranged from normal to 2.0° above normal. Extremes 27°; 83°. Rainfall 0.08 in. northwest to 3.01 in. south central.

Days suitable for fieldwork 4.3. Soil moisture 5% short, 66% adequate, 29% surplus. Cotton 99% harvested, 99% 1993, 100% avg. Pecans 78% harvested, 80% 1993, 78% avg. Soybeans 100% harvested, 99% 1993, 99% avg. Some fields were abandoned due to poor quality. Sugarcane 79% harvested, 77% 1993, 77% avg. Harvest proceeded smoothly. Good tonnage, sucrose reported. Sweet potatoes 98% harvested, 98% 1993, 98% avg. Wheat 95% planted, 93% 1993, 89% avg.; 88% emerged, 87% 1993, 83% avg. Livestock 3% very poor, 12% poor, 36% fair, 49% good. Grazing of ryegrass pastures was active. Pasture feed 10% poor, 10% fair, 76% good, 4% excellent. Vegetables 52% fair, 45% good, 3% excellent.

**MARYLAND & DELAWARE:** **MARYLAND:** Precipitation 0.79 in., normal 0.79 in. Temperature 43.9°, normal 42.3°. Extremes 16°; 70°.

Pasture, livestock feed mostly excellent condition. Small grains good; trying to complete corn, soybean, sorghum harvests. Hay supplies adequate. Cutting firewood. Preparations for winter.

**DELAWARE:** Precipitation 0.55 in., normal 0.77 in. Temperature 45.4°, normal 43.1°. Extremes 25°; 69°.

Small grains good condition. Trying to complete soybean, sorghum harvest. Cutting firewood. Preparations for winter. Pasture, livestock feed mostly excellent.

**MICHIGAN:** Extremes 5°; 58°. Precipitation none to 1.27 in.

Corn 95% harvested, 90% 1993, 85% avg. Livestock movement to markets at normal rate. Feed supplies are above normal. Major activities: Cutting firewood, drying corn, harvesting corn when possible, some fall tillage, repairing, storing machinery, spreading fertilizer, manure.

**MINNESOTA:** Temperatures 2 to 10° above normal for the State. Extremes 1°; 53°. Precipitation 0.12 to 0.59 in. Greatest weekly total 1.06 in. Snow depth at weekend trace to 3 in. for State.

With onset of winter weather, field crop operations have ended. Winter meetings of producer associations have begun giving operators a chance to get off the farm. Regeneration of hay crops was good before the killing frost, snow arrived leaving fields with good forage.

**MISSISSIPPI:** Temperatures 1.0° above normal. Extremes 22°; 82°. Soil temperature 54°. Precipitation 3.28 in., 1.96 in. above normal. Heavy rainfall received in the southeast district with 5.11 in., the coastal district with 5.67 in. Gulfport accumulated 9.47 in. of rainfall, 8.29 in. above normal.

Days suitable for fieldwork 5.0. Soil moisture 10% short, 43% adequate, 47% surplus. Cotton 97% harvested, 97% 1993, 98% avg. Soybeans 96% harvested, 91% 1993, 92% avg. Wheat 93% planted, 96% 1993, 90% avg.; 88% emerged, 89% 1993, 76% avg.; 22% fair, 45% good, 33% excellent. Pecans 80% harvested, 52% 1993, 59% avg.; 18% very poor, 18% poor, 41% fair, 23% good. Livestock 24% fair, 69% good, 7% excellent. Pasture feed 78% of normal. Activities: Finishing cotton, soybean harvests; maintaining control in winter pastures from blast.

**MISSOURI:** Temperatures 2° above normal Caruthersville to 9° above normal Quincy, Kansas City, St. Louis. Virtually no rainfall statewide.

Warm weather helpful to winter wheat, pastures. Topsoil 8% short, 69% adequate, 23% surplus. Row crops harvest virtually complete. Winter wheat 3% poor, 33% fair, 58% good, 6% excellent. Supply of hay, roughage 5% short, 84% adequate, 11% surplus. Livestock 10% poor, 82% fair, 8% good, 11% excellent. Pasture feed 6% poor, 35% fair, 49% good, 10% excellent.

**MONTANA:** Below normal temperatures statewide, except north central, central districts near normal. Precipitation ranged at or below normal, except western areas receiving at or above normal amounts.

Winter wheat 12% poor, 30% fair, 53% good, 5% excellent. Protectiveness of snow cover for winter wheat 84% poor, 10% fair, 6% good. Cattle, calves receiving supplemental feed, 65%. Sheep, lambs receiving supplemental feed, 78%.

**NEBRASKA:** Temperatures 4 to 9° above normal except for Sioux City, whose reported average was 1° below normal. Precipitation occurred only as trace amounts throughout week.

Producer activities included winterizing equipment, livestock care. Cattle continued to glean stalk fields.

**NEVADA:** Unsettled, windy, and wet weather dominated the northern half of the State through 3rd. Conditions somewhat milder in the South. Precipitation 0.12 in. McDermitt to 0.01 in. Winnemucca. Several stations reported no precipitation. Temperatures were near normal across the State. Extremes -4° Ely; 46° Logandale.

Livestock feeding, marketing active. Low livestock prices encouraging producers to hold stock. Fieldwork limited.

**NEW ENGLAND:** Precipitation none to 2.44 in. regionwide. Temperatures 23 to 36° north; 33 to 43° south. Maximum temperatures

42 to 56° north; 50 to 64° south. Minimum temperatures 0 to 18° north; 13 to 32° south. No significant snowfall accumulation to date.

Major farm activities: Moving fruits, potatoes out of storage, caring for livestock, preparing for winter.

**NEW JERSEY:** Temperatures much above normal. Temperatures 42° north, 46° south, 48° coastal. Extremes 20°; 67°. Rainfall 0.85 in. north, 0.69 in. south, 0.53 in. coastal. Heaviest 24 hour total 0.78 in. on 4th, 5th.

Kale, parsley, broccoli, endive, escarole are still being harvested in southern areas. Other farming activities: Cutting, selling Christmas trees, winterizing farm equipment.

**NEW MEXICO:** In general, temperatures a few degrees above normal in the east, few degrees below normal in the west. Greatest anomalies were +6° at Clovis, -6° at Quemado Lake. Precipitation was very spotty, light, confined to the north when a winter storm moved across Colorado early in the week. The only measurable precipitation reported was 0.08 in. at Chama.

Days suitable for fieldwork 6. Soil moisture 67% short, 33% adequate. Cropland conditions: Irrigated sorghum was reported as 36% fair, 55% good, 9% excellent. Dryland sorghum 50% very poor, 50% fair. Cotton 27% fair, 37% good, 36% excellent. Pecan 11% poor, 45% fair, 44% good. Cattle, sheep conditions ranged from very poor to good across the State. Range feed 45% normal.

**NEW YORK:** Week began cold with snow falling. Snow turned to rain as temperatures warmed. Lake effect snows fell in Adirondacks, Mohawk Valley midweek. Late week temperatures warmed. Extremes 7°; 61°.

Major activities: Tending livestock, grading, packing apples, potatoes, onions, making cider, wine, maintenance, preparing for winter. Outside activities made easier by mild weather.

**NORTH CAROLINA:** Mean temperature 41° at Asheville to 59° at Cape Hatteras. Rainfall 0.54 in. at New Bern to 2.07 in. at Cape Hatteras.

Days suitable for fieldwork 3.4. Soil 6% short, 67% adequate, 27% surplus. Crop conditions: Wheat 9% fair, 86% good, 5% excellent; oats 8% fair, 89% good, 3% excellent; barley 5% fair, 92% good, 3% excellent; rye 7% fair, 91% good, 2% excellent; pasture feed 11% poor, 33% fair, 54% good, 2% excellent; soybeans 2% poor, 31% fair, 61% good, 6% excellent; hay, roughage supplies 5% short, 87% adequate, 8% surplus; feed grains supplies 4% short, 83% adequate, 13% surplus; cotton harvested 93%, 95% 1993, 89% avg.; soybeans harvested 71%, 72% 1993, 76% avg.; wheat planted 91%, 82% 1993, 81% avg.; oats planted 95%, 95% 1993, 93% avg.; rye planted 95%, 94% 1993, 91% avg.; wheat emerged 82%, 69% 1993, 70% avg. Activities included: Harvesting cotton, soybeans, preparing land, planting small grain. Other activities included: Tending livestock; equipment repair, general farm maintenance.

**NORTH DAKOTA:** Started with a low pressure system that brought snow, rain followed by a cold front. Precipitation 0.16 in. southwest to 0.54 in. north central. Temperatures 2° above normal southwest to 8° above normal east central. Extremes -6° northwest; 53° southwest.

Snow cover sufficient to cover 67% of the winter wheat, 68% of the rye, 71% of the alfalfa. Condition of winter wheat was 2% poor, 22% fair, 75% good, 1% excellent. Rye 1% poor, 19% fair, 76% good, 4% excellent. Livestock mostly good across the State. Cattle 9% fair, 80% good, 11% excellent. Sheep 4% fair, 88% good, 8% excellent. Supplemental feed being given to nearly all livestock, hay, forage supplies 4% short, 80% adequate, 16% plentiful. Livestock marketing 21% below normal, 77% normal, 2% above normal. Snow depth 5 in.

**OHIO:** Warmer, drier than normal weather occurred across State. Low pressure moving northeast from the Gulf coastal States brought rain late in the period. High temperatures averaged from the upper 40s to low 50s in the north, to the 50s in the south, which was 6 to 11° above normal across much of State. Lows averaged in the 30s statewide, which was 2 to 7° above normal across the south, 4 to 11° above normal in the north. Highest temperatures reached the upper 50s to mid 60s across State. Coldest readings were in the upper teens to

20s. Precipitation averaged from around 0.15 to 0.30 in. in the northwest to 0.40 to 1.30 in. in the south. This was 0.20 to 0.50 in. below normal, except for 0.10 to 0.50 in. above normal in the far southeast. Soil temperatures at the 4.00 in. depth under bare ground averaged in the upper 40s to mid 50s across State.

Recent rains improved wheat condition.

**OKLAHOMA:** Temperatures 1° above normal south central to 5.4° above northeast. Precipitation none Panhandle, west central, north central, central, northeast, southeast districts to 0.15 in. south central.

Days suitable for fieldwork 5.2. Topsoil 6% short, 76% adequate, 18% surplus. Subsoil 12% short, 88% adequate. Soybeans 90% harvested, 95% 1993, 93% avg. Peanuts 99% dug, 96% 1993, 97% avg.; 95% combined, NA 1993, NA avg. Cotton 88% harvested, 91% 1993, 66% avg. Wheat 13% fair, 65% good, 22% excellent; 99% up-to-stand, 97% 1993, 93% avg.; 39% grazed, 30% 1993, 27% avg. Pasture feed 92% normal. Prices for feeder steers, heifers were mostly steady to \$2 per cwt higher than previous week.

**OREGON:** Precipitation across State abundant, 2.00 to 5.00 in. western valleys. Columbia River Basin averaged from a third of an inch to just under an inch. Other east side areas averaged around 0.10 in. Heavy snow continued Cascades, northeast mountains. Temperatures for the period were within plus or minus 5° of normal over the entire State.

Soil moisture adequate. 1995 fall seeded crop progress is improving. Willamette Valley: Fall vegetable harvest done, domestic Christmas tree harvest full swing. Livestock good. Supplemental feeding continued.

**PENNSYLVANIA:** Pleasant week after wet beginning. All areas received precipitation. Temperature 43°, 5° above normal. Extremes 12°; 67°. Precipitation 1.20 in., 0.44 in. above normal. Activities: Hauling manure; fixing fence; caring for livestock.

**PUERTO RICO:** Rainfall 2.35 in., 1.12 in. above normal. Highest total rainfall 7.30 in. at Pico del Este, 6.90 in. at Maunabo, 5.07 in. at Rio Blanco. Island temperatures 77 to 78° on the coasts, 71 to 78° interior with mean station temperature 80.5° at San Juan WSFO to 64.5° at Pico del Este. Extremes 54°; 91°.

**SOUTH CAROLINA:** Rainfall 1.00 in. Temperatures 1° above normal Upstate, 4° above Midlands, 9° above normal Lowcountry.

Days suitable for fieldwork 4.2. Soil moisture 12% short, 77% adequate, 11% surplus. Cotton 50% fair, 45% good, 5% excellent; 88% harvested, 98% 1993, 95% avg. Soybeans 42% fair, 50% good, 8% excellent; 99% dropping leaves, 100% 1993, 100% avg.; 98% mature, 100% 1993, 100% avg.; 60% harvested, 66% 1993, 73% avg. Barley good 83% planted, 83% 1993, 88% avg.; 78% emerged, 78% 1993, 82% avg. Oats good 83% planted, 88% 1993, 88% avg.; 74% emerged, 82% 1993, 80% avg. Rye good 77% planted, 86% 1993, 86% avg.; 67% emerged, 81% 1993, 79% avg. Sweet potatoes good 72% harvested, 93% 1993, 93% avg. Winter wheat good; 69% planted, 69% 1993, 66% avg.; 51% emerged, 51% 1993, 47% avg. Sorghum good; 88% harvested, 89% 1993, 90% avg. Fall hay good; 100% harvested, 100% 1993, 100% avg. Pasture feed 38% fair, 55% good, 7% excellent.

**SOUTH DAKOTA:** Temperatures 5° below normal west; near normal east. Extremes 2°; 62°. Statewide snow, depth 10 in. extreme east; trace extreme west. Heaviest melted precipitation 1.16 in. at Sioux City.

Farm activities: Hauling hay, fall tillage, fixing fences, moving livestock, feeding livestock.

**TENNESSEE:** Temperatures slightly above normal. Extremes 23° Crossville, Bristol; 65° Knoxville. Precipitation above normal east, normal middle, western areas generally more than 1.00 in. below normal.

Some cotton yet to be harvested. Wheat good condition, rain halted harvest. Soybean harvest nearly complete. Feeding hay.

**TEXAS:** Two high pressure surges brought chilly temperatures to western, northern sections of State the early to middle parts of week. Freezing temperatures over west Texas, Rolling Plains, into Blacklands. The second surge resulted in lows in 30s over Southeast Texas. Warming followed latter part, a blast of Arctic air entered High Plains early on 5th. An upper air disturbance triggered rain late week over

eastern third of State. Some 4.00 to 5.00 in. reported in southeast. Temperatures near to slightly below normal except above normal for Northern High Plains, south central, South Texas districts. Rainfall was below normal except above normal Southern East Texas, most of the southern districts. Upper Coast reported rainfall almost 2.00 in. above normal.

**Crops:** Cotton: harvest made good progress as cooler, dry weather dominated Plains. A hard freeze across Trans-Pecos helped harvest continue at a fast pace. In the Blacklands producers were actively plowing, shedding stalks, 83% harvested, 89% 1993. Peanuts: dry weather allowed peanut harvest to resume in Cross Timbers and Blacklands. Harvest also continued in Plains, was completed in South Texas, 83% harvested, 85% 1993. Sorghum: harvest continued to near completion with only a few fields remaining to be harvested in Plains, 99% harvested, 100% 1993. Soybean: harvest was nearing completion in High Plains, 98% harvested, 99% 1993. Small grains: winter wheat planting resumed in Cross Timbers, Blacklands, continued across Edwards Plateau, South Texas. Grazing increased in Plains. Most dryland fields continued to show signs of stress caused by dry weather conditions the past few weeks. Green bugs were causing some problems in Northern Low Plains, Edwards Plateau, some producers were busy spraying insecticides. Oats made good progress, provided adequate grazing in South central, South Texas. Winter wheat 76% normal, 65% 1993; 95% planted, 99% 1993; 89% emerged, 91% 1993. Oats 90% planted, 87% 1993. Sugarbeets 87% harvested, 76% 1993. Sunflowers 93% harvested, 93% 1993.

**Commercial Vegetables:** Rio Grande Valley: citrus harvest pushed forward. Bell peppers, cucumbers continued to make good progress. San Antonio Winter Garden area: cole crops continued to make good progress. East Texas: harvest of collards, other greens continued. High Plains dry weather conditions allowed land preparations activities to continue. Pecans: across the State, harvest made good progress. Harvest resumed in Cross Timbers, other areas delayed by wet weather conditions during the past few weeks. Across most of the State, production prospects remained disappointing. Producers continued to prune peach trees, apply fungicides in orchards in the Cross Timbers, East Texas, Edwards Plateau, South Central Texas.

**Range and Livestock:** Livestock remained fair to good across most of the State. Supplemental feeding increased in areas where colder temperatures prevailed. Most of the State could use a good rain to boost winter forage growth on ranges, pastures. Ranchers continued to move cattle on to small grain pastures.

**UTAH:** Temperature maximums 7° below normal; minimums 5° below normal. Precipitation light to moderate across the entire State.

Major farm, ranch activities were harvesting corn, feeding cattle, sheep, cleaning corrals, repairing machinery. Record snowfall in November could help replenish water supplies next year.

**VIRGINIA:** No weather data available.

Days suitable for fieldwork 5. Topsoil moisture 23% short, 66% adequate, 11% surplus. Pasture feed 3% very poor, 34% poor, 34% fair, 29% good. Livestock 25% fair, 73% good, 2% excellent. Soybean harvest 88%, 85% 1993, 89% avg. Forage from pastures, winter grazing crops, dairy cattle 20% beef cattle 52%, sheep 50%. Growers finishing soybean, cotton harvesting; began to take soil samples.

**WASHINGTON:** Temperatures 1° below normal west; 3° below to 5° above normal east. Precipitation 2.85 to 4.70 in. west; 0.02 to 0.92 in. east.

Days suitable for fieldwork 3.5. Soil moisture 36% short, 59% adequate, 5% surplus. Hay, other roughage supplies 2% very short, 8% short, 81% adequate, 9% surplus. Range, pasture feed 41% very poor, 37% poor, 16% fair, 6% good. Winter wheat, dryland 4% very poor, 20% poor, 55% fair, 21% good; irrigated, 11% fair, 89% good. Major winter storm saturated soils, caused flooding west side of State. No damage reported. Rain/snow welcomed east side of State. Most activities very limited by precipitation. Christmas tree harvest continued.

**WEST VIRGINIA:** Temperature 43°. Extremes 70°, 17°. Precipitation 0.90 in.

Farm activities: Fall calving, feeding livestock, maintenance of equipment for winter storage, preparation of winter feeding facilities for livestock, harvesting of corn, soybeans, sowing of barley, wheat.

**WISCONSIN:** Early in the week, the seasons first winter storm hit State with reports of up to 12 in. of snow in the northwestern part of the State. Southern part of the State received precipitation out of that storm as well; was in the form of rain, sleet. Temperatures well above average for the remaining part of the week. Temperature 32°, 8° above normal. Extremes -2°; 61°. Precipitation trace to 0.20 in.

**WYOMING:** Temperatures 1 to 5° above normal. The exception was the southwest 1 to 4° below normal. Very little precipitation fell over the State. Moran received the largest amounts with 0.75 in. Other areas received a tenth of an inch or less.

Topsoil 28% short, 72% adequate. Subsoil 45% short, 55% adequate. Corn harvested 96%, 81% 1993. Winter wheat 72% fair, 28% good. Cattle, sheep mostly good condition. Grazing prospects mostly poor to fair. Hay, roughage supplies 56% short, 42% adequate, 2% surplus.

(Continued from front cover)

Germantown (three dead in one house), the other in Friendship (one dead). Farther north, snow depths by Monday morning in Minnesota included 14 inches in Princeton and 8 inches in St. Cloud. In Duluth, MN, a snowfall of 12.4 inches on November 27 set a daily record. Elsewhere, snow depths reached 6 inches in Aberdeen, SD, Sioux City, IA, and Eau Claire, WI. Snow also developed in the Northeast, with 1-inch depths on Monday as far south as Binghamton, NY. A day later, more than a half-foot lay on the ground in northern Maine, with 9 inches in Caribou. To the south, a massive shield of rain covered most areas from the Mississippi River eastward. The heaviest totals of an inch or more were measured from the central Gulf Coast States to the Corn Belt, and along the Appalachian chain from Georgia to southern New England.

A disturbance rippling along the cold front kept showery weather in place across the Southeast into midweek, with rainfall topping 2 inches in the Florida Panhandle and southern Georgia. Precipitation reached the coastal Northwest on Tuesday and gradually spread inland over the next several days. More than 5 inches of rain soaked Quillayute, WA during the week. Salem, OR (1.54 inches), Portland, OR (1.63 inches), and Olympia, WA (2.50 inches) broke daily rainfall records on November 30. Mountain snows spread eastward into western Montana and southward into northern California. Snow levels dropped to sea level in western Washington at week's end, with depths reaching 2 inches in Everett and 1 inch in Tacoma.

Between areas of storminess, cool, dry weather dominated the Nation by midweek. Early in the week, however, a vestige of summer-like warmth remained across the South. Daily-record highs were set on Sunday in locations such as Corpus Christi, TX (93°F) and Conway, AR (81°F). On Tuesday, the temperature rose to 81°F in Apalachicola, FL, the seventh tied-or-broken daily-record high of the month. On the same day, Tucson, AZ logged a daily-record low of 28°F. By Thursday morning, temperatures dipped below freezing in the Gulf Coast States as far south as Waco, TX, Alexandria, LA, and Meridian, MS. But farther west, daily-record warmth appeared in the Plains, where Liberal, KS and North Platte, NE both registered 71°F. Billings, MT tied a daily record with 60°F. But arctic air oozed into northern Montana on Friday, dropping temperatures sharply. By Saturday morning, the temperature had dropped to -7°F in Cut Bank, MT, a plunge of 43 degrees in 17 hours, and the high struggled to reach -2°F. Meanwhile, another in a series of Pacific storm systems produced precipitation from northern California into the northern Rockies. Farther south, a developing disturbance in the Gulf of Mexico generated heavy rain along the western Gulf coast on Friday, where Corpus Christi, TX tallied a daily rainfall record of 2.10 inches. By Saturday, heavy showers and thunderstorms overspread the Southeast, dumping copious amounts of rain along the central Gulf coast. Gulfport, MS recorded 6.16 inches of rain between 9 p.m. Friday to mid-day Saturday, and severe flooding was reported in southeastern Mississippi. North and east of the system, readings soared into the mid-80's in Florida, and to a record 63°F at New York City's JFK Airport.

**November 1994**  
**MONTHLY DATA FROM SELECTED FOREIGN CITIES**  
**CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA**  
 \*\*\* = DATA NOT AVAILABLE

**International Weather and Crop Summary**  
**HIGHLIGHTS**

**November 27 - December 3, 1994**

**FSU-WESTERN:** Bitter cold, accompanied by light snow, returned to dormant winter grains in Russia and Ukraine.

**NORTHWESTERN AFRICA:** A drying trend continued to limit moisture for winter grain emergence and early growth.

**EUROPE:** Winter grain growth continued in the west, but crops were hardening into dormancy in the east.

**SOUTH ASIA:** Dry weather favored seasonal fieldwork.

**SOUTHEAST ASIA:** Java's rice areas received needed rain as rainfall over Malaysia's primary oil palm region tapered off to more normal levels.

**EASTERN ASIA:** Seasonable dry weather prevailed across the North China Plain, while showers boosted reservoirs across the south.

**AUSTRALIA:** Scattered showers favored eastern summer crop planting, but additional rain is still needed.

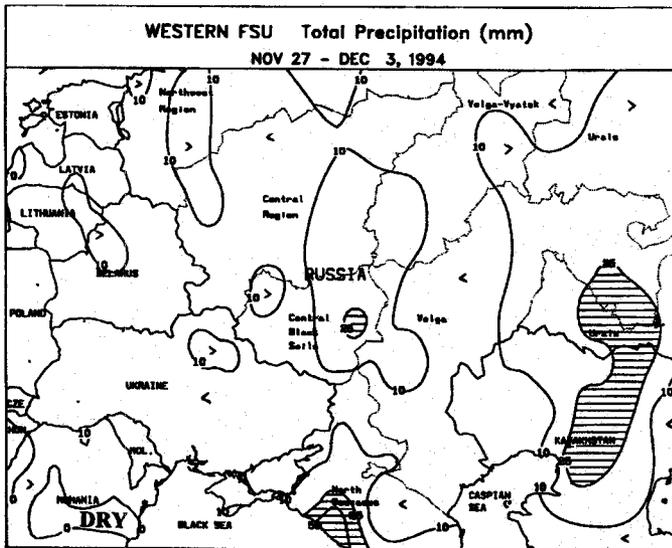
**SOUTH AMERICA:** Widespread showers boosted soil moisture for summer crop planting across central Argentina, but slowed early wheat harvesting.

**SOUTH AFRICA:** Unseasonable dryness worsened early growing conditions for western corn.

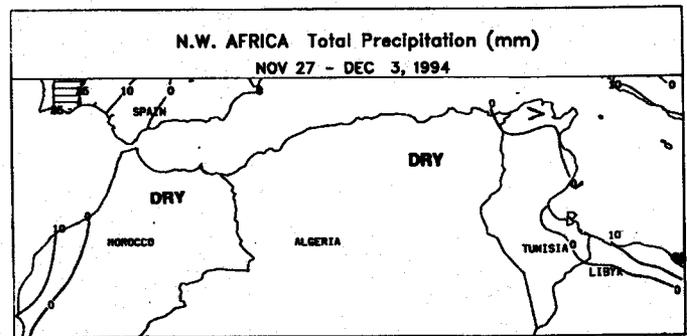
COUNTRY	CITY	TEMPERATURE					PRECIPITATION		
		(C)					(MM)		
		AVG MAX	AVG MIN	HI	LO	AVG	DPART F/NRM	DPART F/NRM	
NORWAY	OSLO	2	-2	8	-11	0	1.6	49	-41
SWEDEN	STOCKHOLM	5	1	12	-7	3	0.2	13	-41
FINLAND	HELSINKI	2	-2	7	-12	-1	-0.7	26	-45
U KING	GLASGOW	12	7	15	-3	9	2.8	128	15
	EDINBURGH	12	7	15	-2	9	3.8	70	8
	BIRMINGHAM	12	8	16	-1	10	3.8	64	6
	LONDON	13	8	17	0	11	3.9	51	-26
IRELAND	DUBLIN	12	8	15	0	10	2.7	53	-11
ICELAND	REYKJAVIK	4	1	11	-6	3	1.3	62	-10
DENMRK	COPENHAGEN	8	5	11	-1	6	0.9	56	8
LUXEME	LUXEMBOURG	10	7	17	2	9	4.6	53	-27
SWITZL	ZURICH	10	6	16	2	8	3.9	46	-38
	GENEVA	11	6	16	1	9	3.8	60	-32
FRANCE	PARIS/ORLY	14	9	20	2	11	***	52	**
	STRASBOURG	11	7	17	3	9	4.4	25	-21
	BOURGES	14	8	23	3	11	4.4	88	30
	BORDEAUX	16	9	23	2	13	4.1	80	-12
	TOULOUSE	15	9	22	4	12	3.6	31	-17
	MARSEILLE	17	10	22	5	14	3.3	60	3
SPAIN	VALLADOLID	14	6	18	1	10	2.3	50	-2
	MADRID	17	6	21	-1	11	2.1	25	-42
	SEVILLE	22	12	25	7	17	1.9	86	15
PORTUG	LISBON	18	12	21	8	15	1.2	94	-5
GERMNY	HAMBURG	10	6	14	-2	8	2.5	106	35
	BERLIN	9	5	16	-2	7	2.4	51	2
	DUSSELDORF	13	8	19	1	10	4.0	59	-4
	LEIPZIG	10	5	16	-2	7	2.7	37	0
	DRESDEN	9	5	15	-1	7	3.0	47	5
	STUTTGART	11	6	20	1	9	4.5	30	-18
	NURNBERG	10	6	18	1	8	4.3	43	-1
AUSTRI	VIENNA	9	5	18	-2	7	2.4	53	11
	INNSBRUCK	11	4	19	-3	8	4.3	84	24
CZECH	PRAGUE	9	4	16	-5	6	3.3	20	-11
POLAND	WARSAW	6	1	15	-8	4	0.5	37	-4
	LODZ	7	1	14	-7	4	1.6	34	-5
	KATOWICE	8	1	16	-6	4	2.0	35	-6
	PRZEMYSL	6	1	19	-6	4	0.3	35	-6
HUNGAR	BUDAPEST	10	4	16	-2	7	1.8	21	-32
F YUGO	BELGRADE	12	5	22	-2	8	1.3	28	-28
ROMANI	BUCHAREST	10	-1	25	-8	5	-1.2	6	-41
BULGAR	SOFIA	10	2	20	-4	6	0.8	22	-28
ITALY	MILAN	12	8	16	2	10	3.3	147	51
	VERONA	13	9	18	4	11	4.1	67	-6
	VENICE	14	8	19	5	11	3.4	60	-25
	GENOA	18	13	21	9	15	2.5	257	98
	ROME	19	9	23	3	14	1.3	65	-41
	NAPLES	19	10	24	6	15	2.6	81	-73
GREECE	THESSALONIKA	15	8	21	-1	11	0.6	54	-4
	LARISSA	14	6	22	-4	10	-0.7	49	-11
	ATHENS	17	11	24	4	14	-1.0	35	-21
TURKEY	ISTANBUL	13	8	19	-1	11	-0.9	76	-12
	ANKARA	9	-1	19	-10	4	-1.8	58	33
CYPRUS	LARNACA	21	13	29	6	17	-0.8	225	187
ESTONI	TALLINN	3	-1	9	-6	1	0.2	42	-22
FSU	ST. PETERSBERG	1	-2	8	-9	-1	-0.9	37	-16
LITHUA	KAUNAS	5	0	12	-11	2	0.0	36	-15
FSU	MINSK	2	-2	13	-12	0	-0.5	79	28
	KAZAN	-3	-6	7	-18	-4	-1.0	48	4
	MOSCOW	-1	-4	8	-15	-3	-1.5	67	12
	YEKATERINBURG	-5	-10	6	-19	-7	-1.5	33	4
	OMSK	-3	-8	9	-23	-6	1.6	43	15
	KUSTANAY	-2	-8	12	-20	-5	0.4	43	20
	KRASNOYARSK	**	**	-2	**	**	***	**	**
	NOVOSIBIRSK	-2	-7	9	-18	-5	5.2	56	28
	BARNAUL	0	-6	9	-16	-3	3.5	42	8
	KHABAROVSK	-2	-11	12	-19	-6	1.8	50	29
	VLADIVOSTOK	4	-1	13	-9	1	2.5	24	-6
	KIEV	4	-1	20	-13	1	-0.9	43	-6
	IVOV	6	0	19	-7	3	0.4	49	5
	KIROVOGRAD	4	-2	19	-13	1	-1.2	10	-25

Based on Preliminary Reports



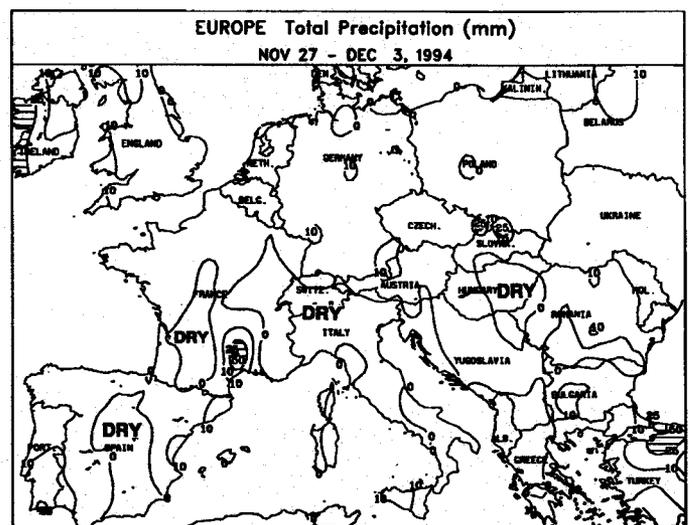


**FSU-WESTERN:** Unseasonable cold returned to dormant winter grains in Russia and Ukraine, where weekly temperatures averaged 2-5 degrees Celsius (C) below normal. Precipitation, mainly snow, ranged from 3 to 10 mm, with locally heavier amounts of rain and snow (20-25 mm) falling over the central North Caucasus region in Russia. Low temperatures of less than -12 degrees (C) were widespread as far south as Ukraine and most of southern Russia (Central Black Soils Region, lower Volga Valley, and North Caucasus). A variable snow cover provided protection from extreme cold, easing the threat of significant winterkill.



**NORTHWESTERN AFRICA:** Mostly dry weather prevailed over winter grain areas in Morocco, Algeria, and Tunisia. Significant precipitation (10-20 mm) was confined to coastal areas in western Morocco and northern Tunisia. A generous start to the rainy season over the region in October likely prompted early winter grain planting. However, a drying trend since early-November has limited moisture for germination and growth of early-planted crops. Widespread rain is needed for planting, which typically extends through December, to ensure a favorable start to the 1995 growing season in Morocco, Algeria, and Tunisia.

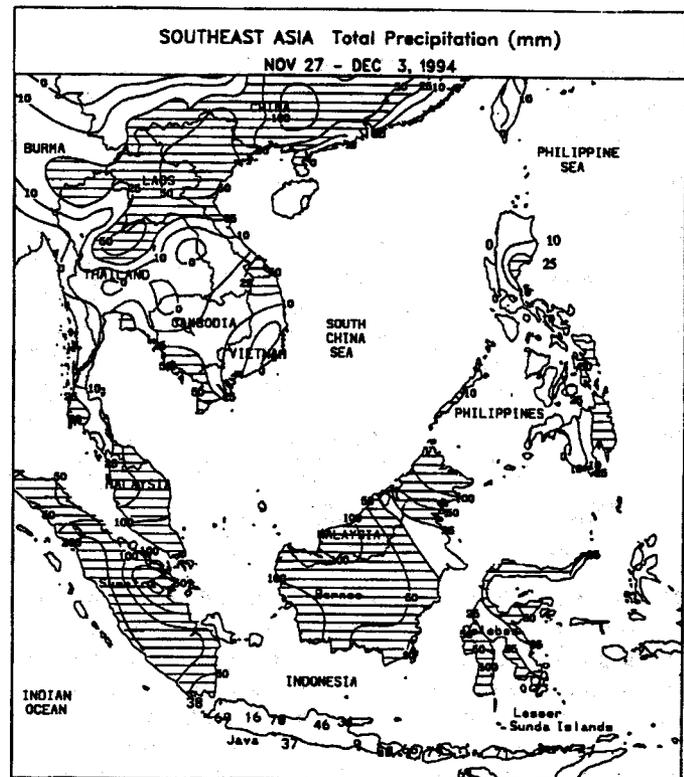
**EUROPE:** Light showers (mostly 5 mm or less) were scattered throughout Europe. The dryness was again beneficial in northern Italy following the earlier flooding, but soil moisture was low in Spain for winter crop development. Dry weather has persisted over much of the Iberian Peninsula for the past 3 weeks. Mild, dry weather elsewhere in western Europe allowed rapid progress in late-season crop harvesting. Average weekly temperatures ranging from 7 to 11 degrees C promoted additional autumn growth of winter crops. In the east, however, average temperatures ranged near freezing, with average minimum temperatures falling several degrees below freezing from Poland to northern Greece. The dry, cold weather in the east hardened winter crops toward dormancy.



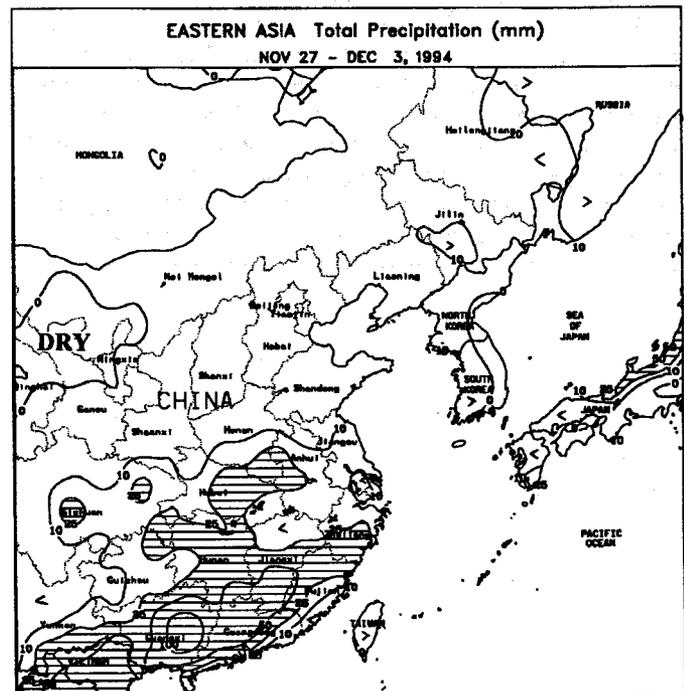


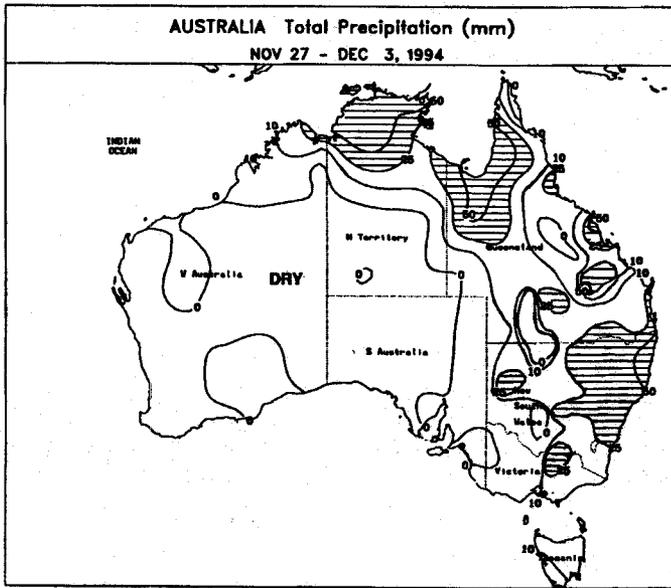
**SOUTH ASIA:** Dry weather dominated the region, benefiting summer grain, oilseed, and cotton harvesting. Winter grain and oilseed planting also advanced throughout the major growing areas of India, Pakistan, and Bangladesh. The dryness extended into India's southern interior, which typically receives seasonal rain though the end of December. In early December, rabi crops usually range in development from newly planted to early filling. This is the final weekly summary of the season. Monthly summaries will continue through the dry season, with weekly coverage resuming in May prior to the onset of the southwest monsoon.

**EASTERN ASIA:** Little or no rain fell across most of the North China Plain, where winter wheat was still vegetative. Light to moderate rain (10-25 mm) fell across the southern wheat belt (Anhui, Jiangsu, and southern Henan), aiding winter grains. Moderate to heavy rain (30-80 mm, with isolated amounts greater than 100 mm) fell across southern China, boosting reservoirs, but possibly causing some local flooding. Temperatures averaged 2-4 degrees C above normal across China.

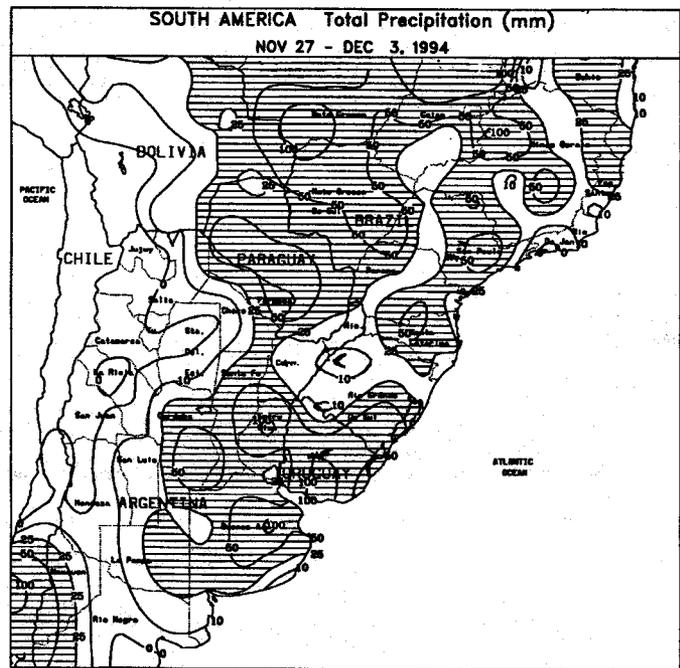


**SOUTHEAST ASIA:** Beneficial rain (25-50 mm or more) covered rice areas of southern Indonesia, including chronically dry areas of eastern Java and the Lesser Sunda Islands. Farther north, rainfall tapered off to more reasonable levels (37-92 mm) over recently flooded plantation areas of western Malaysia and peninsular Thailand. Unseasonable rain (25-90 mm) over northern rice areas of Thailand and Vietnam slowed rice harvests but boosted moisture for dry-season plantings. In the Philippines, light to moderate showers (10-25 mm or more, with a few locations exceeding 50 mm) maintained generally favorable conditions for sugarcane, rice, and corn.



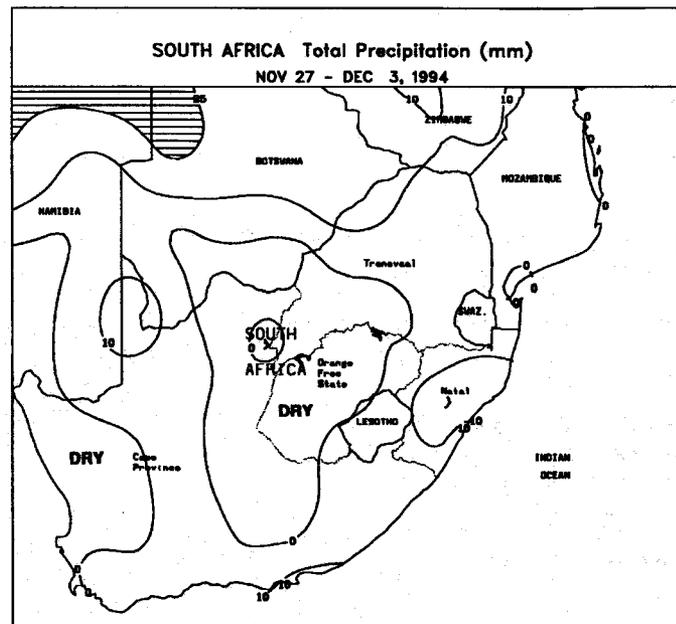


**AUSTRALIA:** Scattered showers (5-35 mm) increased soil moisture for sorghum and cotton across the eastern summer crop areas. Additional rains are still needed across the region, especially in east-central Queensland (near Emerald), which has missed the recent rains. The rain slowed eastern wheat harvesting, while dry weather favored harvesting across the south and west. The first widespread tropical showers (10-60 mm) occurred across northern Australia, signaling a start to the rainy season. Moderate showers (15-30 mm) slowed late sugarcane harvesting across the northeastern coast of Queensland. Temperatures averaged near normal in the east and 2-4 degrees C above normal across the interior wheat areas of Western Australia.



**SOUTH AMERICA:** Widespread showers (20-50 mm, with isolated amounts greater than 75 mm) covered the primary summer crop region of central Argentina. The rain boosted soil moisture for summer crops but slowed wheat harvesting. Rainfall was especially beneficial across northern Buenos Aires, which had been somewhat dry. By most reports, corn and sunflower seed planting is 70-80 percent complete and soybean planting is about 20-30 percent complete. Across southern Brazil, widespread showers (20-80 mm, with isolated amounts greater than 100 mm) covered most soybean areas, aiding germination. The showers also aided citrus, coffee, and sugarcane across Sao Paulo and southern Minas Gerais. Reports indicate soybean planting was about 65-75 percent complete by week's end. Temperatures averaged near normal across the region.

**SOUTH AFRICA:** Mostly dry weather dominated the region. In western corn areas, the season's persistent dryness in Orange Free State and North West (formerly western Transvaal) has severely reduced moisture for normal crop development. Corn planted in late December and early January runs a higher risk of heat stress during critical stages of development should a summer heat wave occur. Conditions have been somewhat dry in eastern corn and coastal sugarcane areas, but periodic rain to date has sustained early crop development.

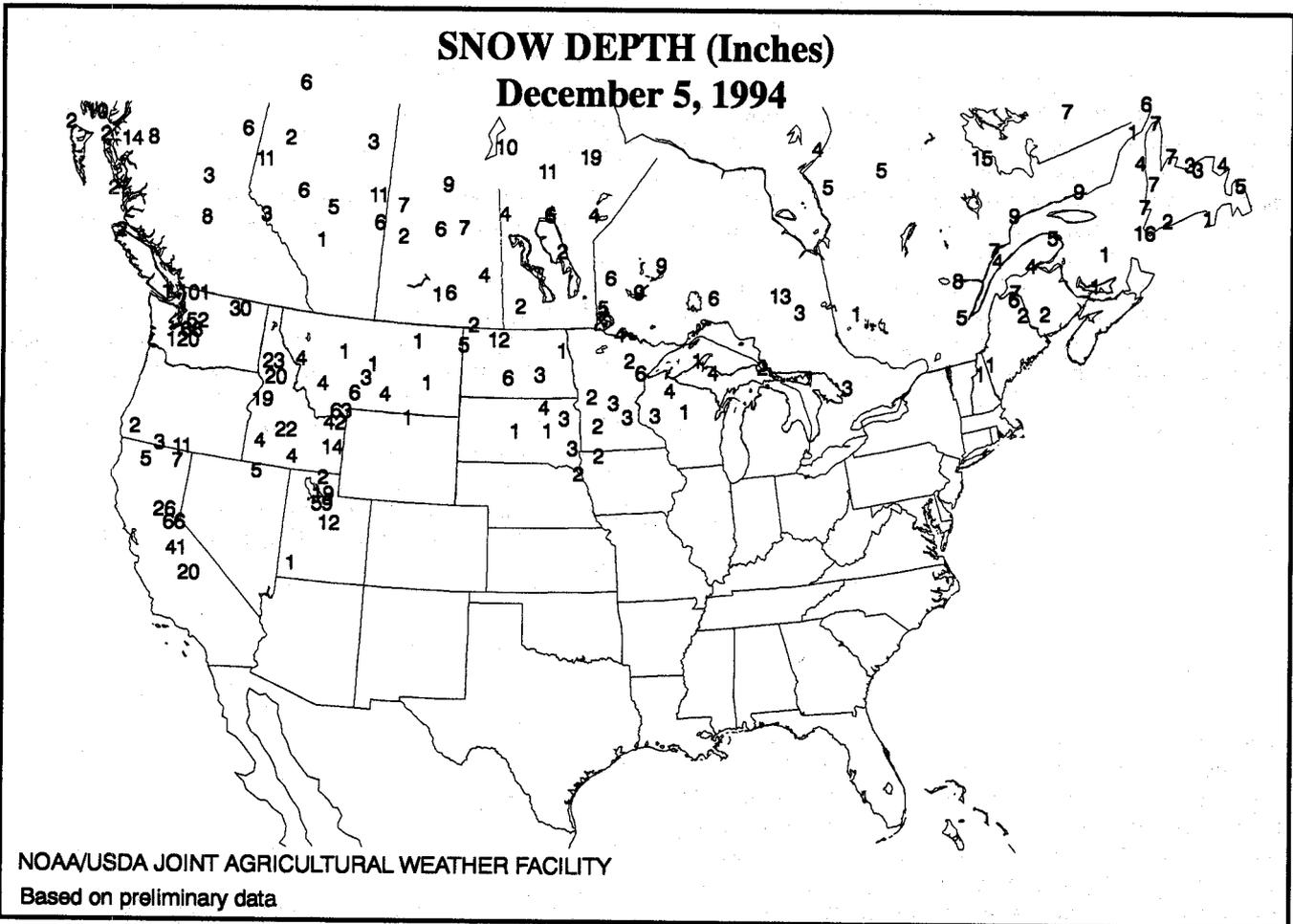


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