

# WEEKLY WEATHER AND CROP BULLETIN

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

U.S. DEPARTMENT OF AGRICULTURE  
Statistical Reporting Service  
and World Agricultural Outlook Board

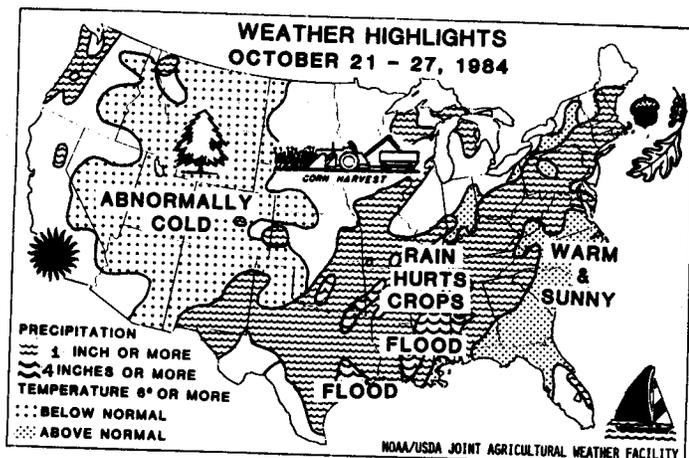
Volume 71, No. 43

WASHINGTON, D.C.

Oct. 30, 1984

## National Weather Summary

October 21 to 27



central and southern Rockies. Freezing temperatures covered the Rockies and Plateau, the Plains through Nebraska and Iowa, and much of the Great Lakes region.

WEDNESDAY...Another moisture surge from the Gulf of Mexico triggered moderate to heavy showers and thunderstorms from east central Texas to eastern Kansas. Lighter showers fell throughout the central and southern Plains and from the upper Mississippi Delta to the Atlantic coast, from Virginia to southern New England. Snow covered the northern Rockies. Somewhat warmer air surged into the central Plains, but freezing temperatures enveloped much of the Great Lakes region.

THURSDAY...Thunderstorms deluged southeastern Texas with nearly ten inches of rain. Severe flooding ensued in the Houston area. Showers were less intense further north, but were widespread through most of Texas, the eastern portion of the central and southern Plains, and across the Great Lakes States to the Northeast. Temperatures warmed the Plains eastward. A new Pacific storm brought rain to the northwestern coast and northern California, and snow to the higher elevations inland.

FRIDAY...It was another rainy day in Texas. Thunderstorms produced moderate to heavy showers from central Texas to southeastern Kansas; and lighter showers from Texas to the Great Lakes, and eastward through New England. The new storm in the Northwest triggered rain and showers, with snow at higher elevations from Washington to central California and eastward through the Rockies.

SATURDAY...Clearing began in western Texas, but showers and thunderstorms continued from central and eastern Texas to the western Great Lakes region.  
(continued on p. 7)

HIGHLIGHTS: A near continuous moisture flow from the Gulf of Mexico caused moderate to heavy thunderstorms from much of Texas, northeastward to southern New England, eastward to Alabama and the Appalachians and into Virginia, Maryland, and Pennsylvania. Lighter showers covered nearly all the Nation except the Southwest. Snow covered the higher elevations of the Rockies and Plateau. Average temperatures were warmer than normal in the East and colder than normal in the West. Temperatures averaged 12-15 degrees warmer than normal from the Southeast to as far north as Pennsylvania. Averages were 9-12 degrees colder than normal throughout the Rockies.

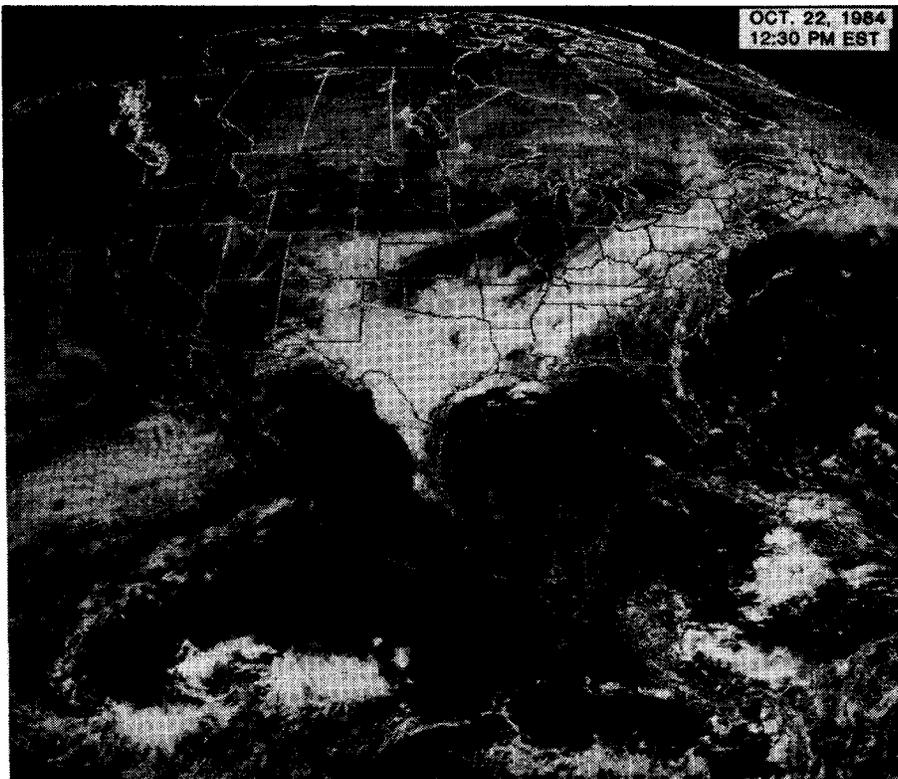
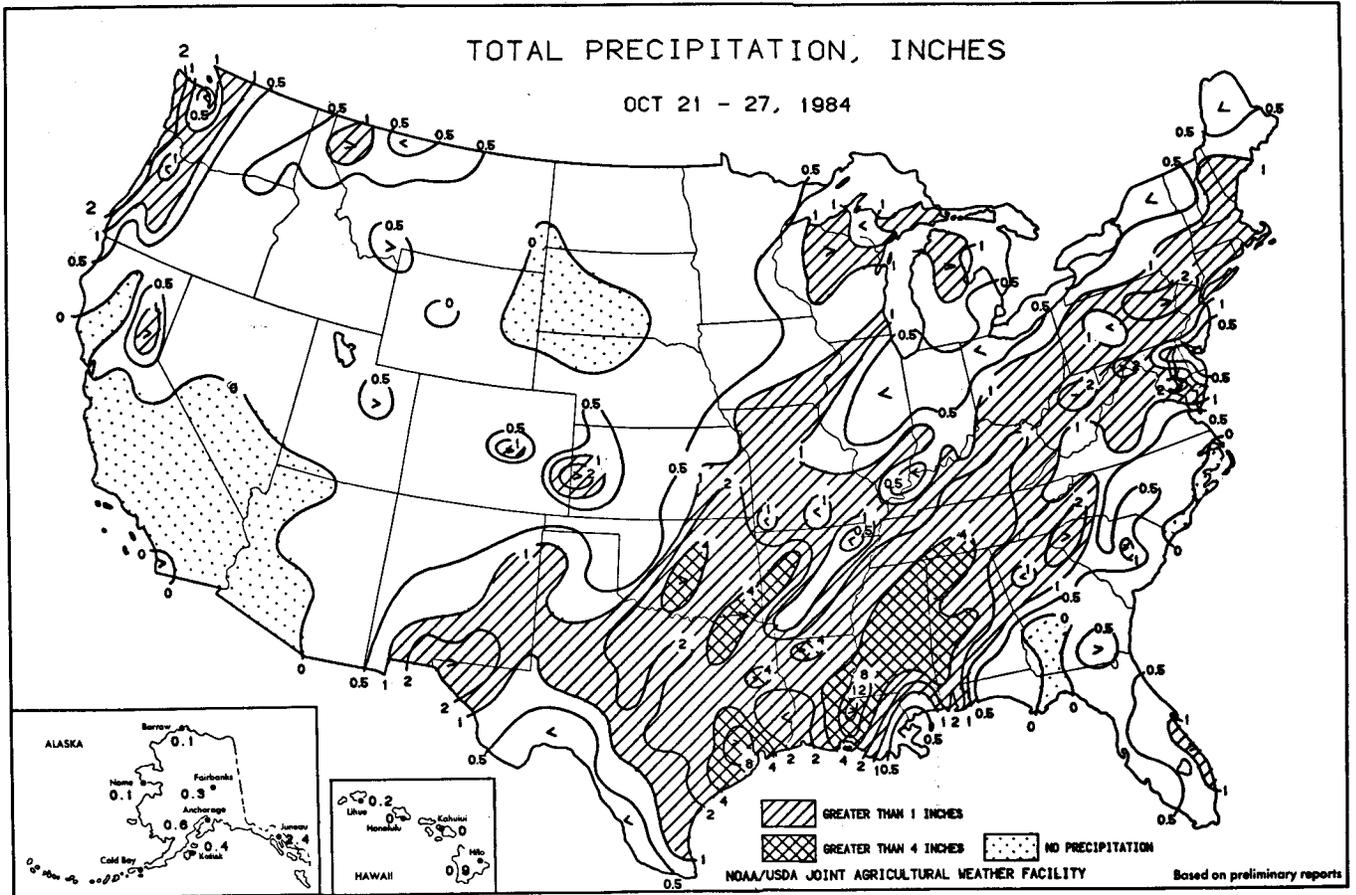
SUNDAY...Precipitation was widespread from the southern Rockies across the South, and east of the Mississippi River. Thunderstorms produced moderate to heavy showers from southeastern Texas through the upper Mississippi Delta and to the Piedmont of the southern Appalachians. Record low temperatures were recorded in parts of the northern Rockies. Record highs were reached in parts of the Southeast.

MONDAY...Thunderstorms again produced moderate to heavy showers through the Mississippi Delta. The heavier showers extended northeastward through West Virginia and to the Northeast coast. Lighter showers fell through Texas and the southern Rockies. Snow fell in parts of the southern Rockies. Freezing temperatures pushed eastward into northern Iowa and Illinois.

TUESDAY...Showers continued in a less intense but similar pattern from the central and southern Rockies, to the Mississippi Delta, and northeastward to Maryland and the Northeast coast. A new storm spread showers across the Pacific Northwest. Snow fell at higher elevations in the Northwest and the

### Contents

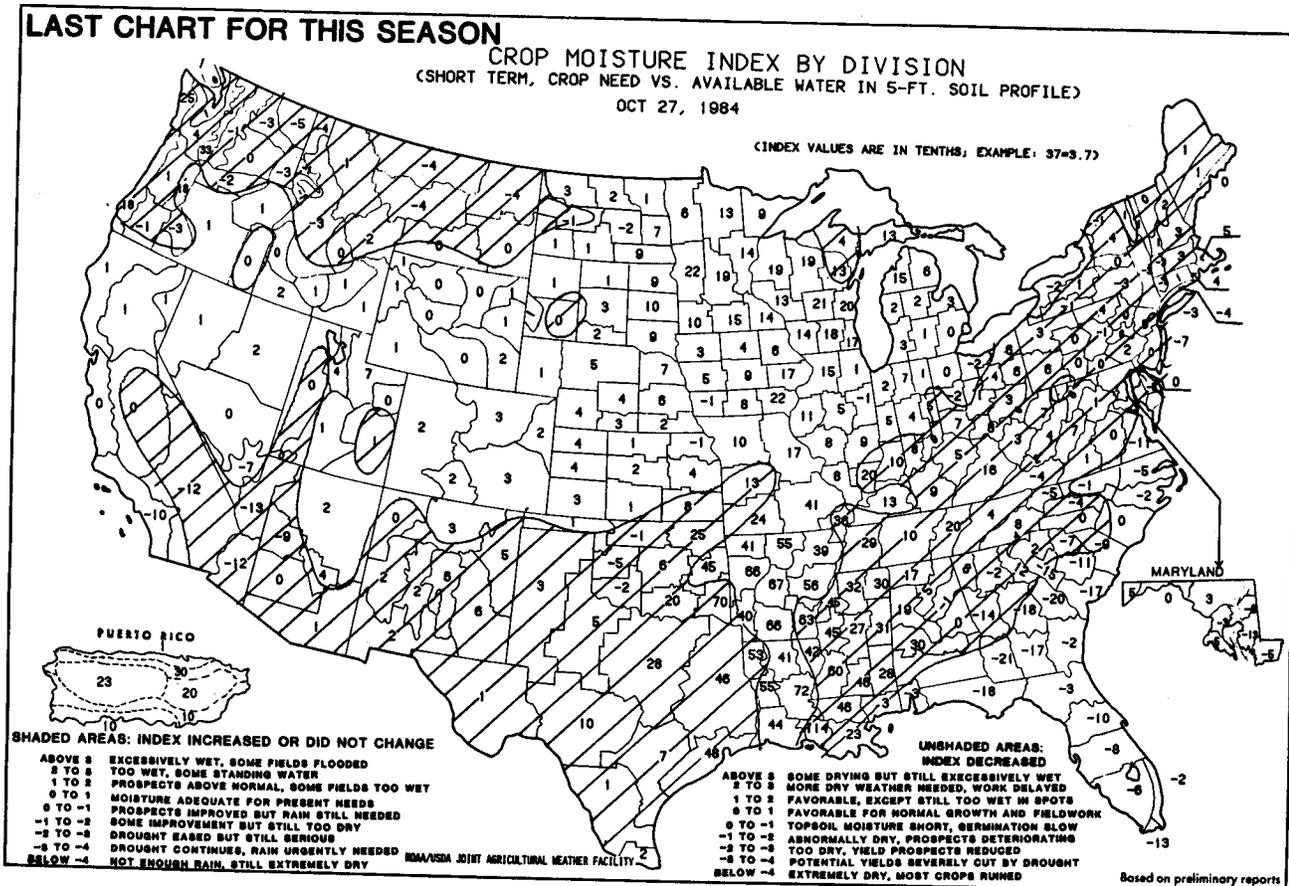
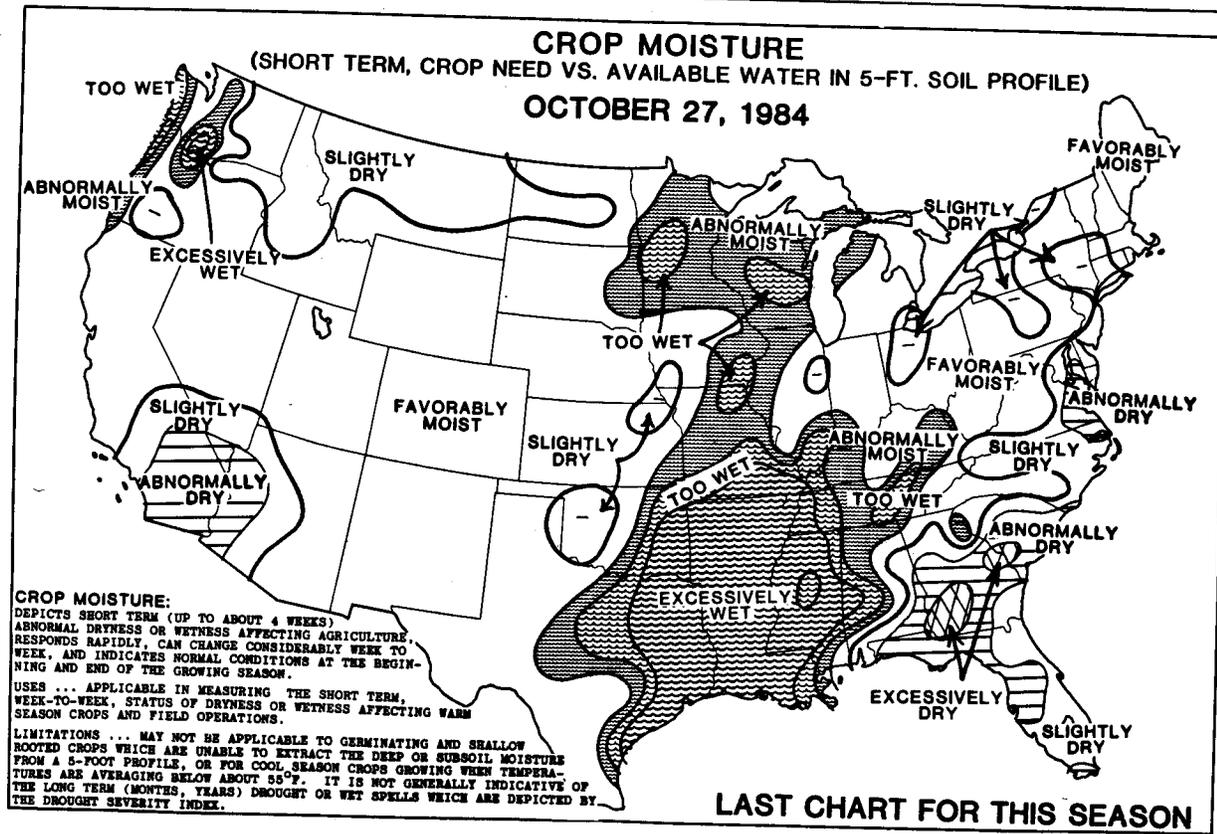
	Page
National Weather Summary .....	1
Precipitation & North American Satellite Photo ..	2
Crop Moisture & Crop Moisture Index .....	3
Drought Severity & Drought Severity Index .....	4
Precipitation Needed to End Drought & Extreme Minimum Temperature .....	5
Average Temperature and Departure .....	6
Weather Data for Selected Cities .....	7
Heating Degree Days Table .....	10
September and Water Year Streamflow .....	11
National Agricultural Summary .....	12
Crop Progress Tables .....	13
State Summaries of Weather and Agriculture .....	14
Heating Degree Days Maps .....	20
International Weather and Agriculture .....	21
Subscription and Mailing Permit Information ...	24

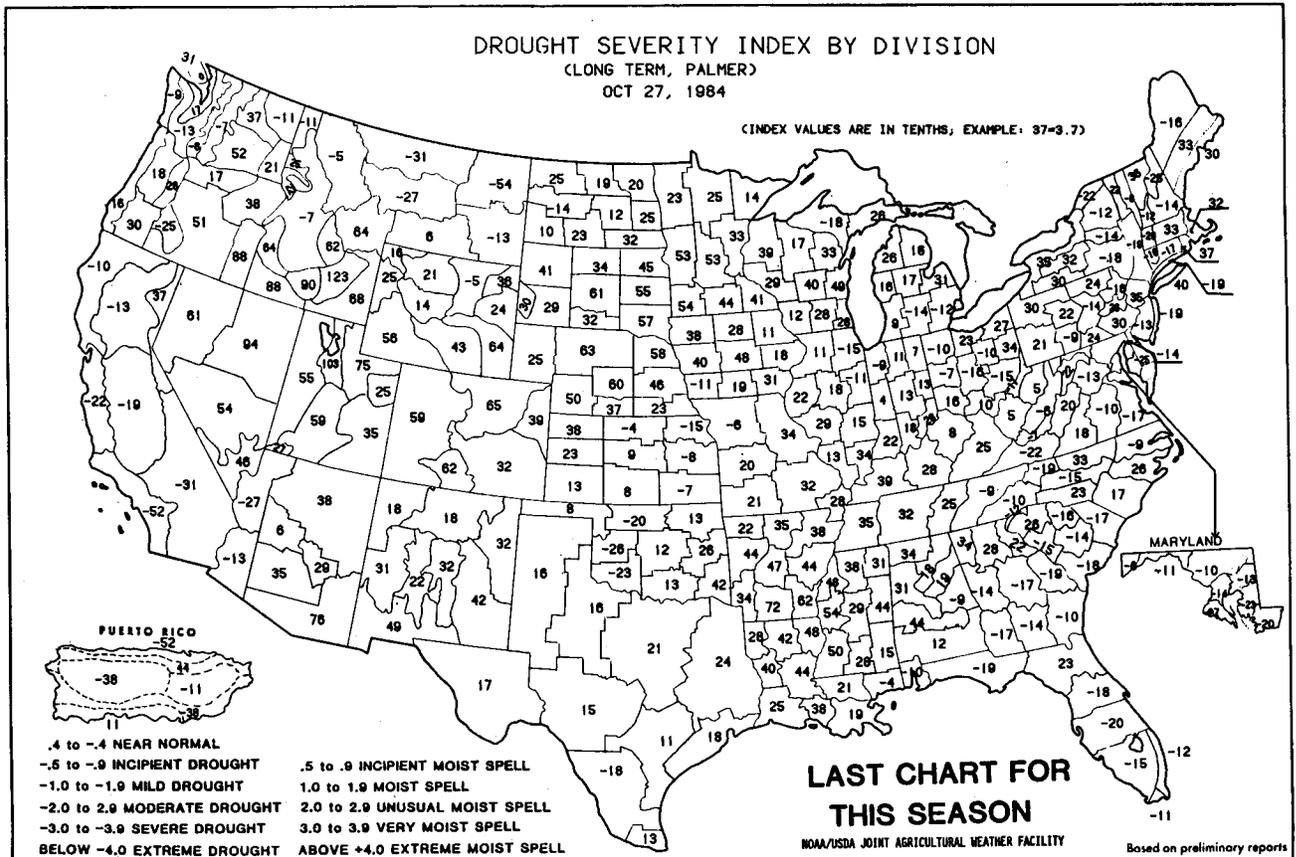
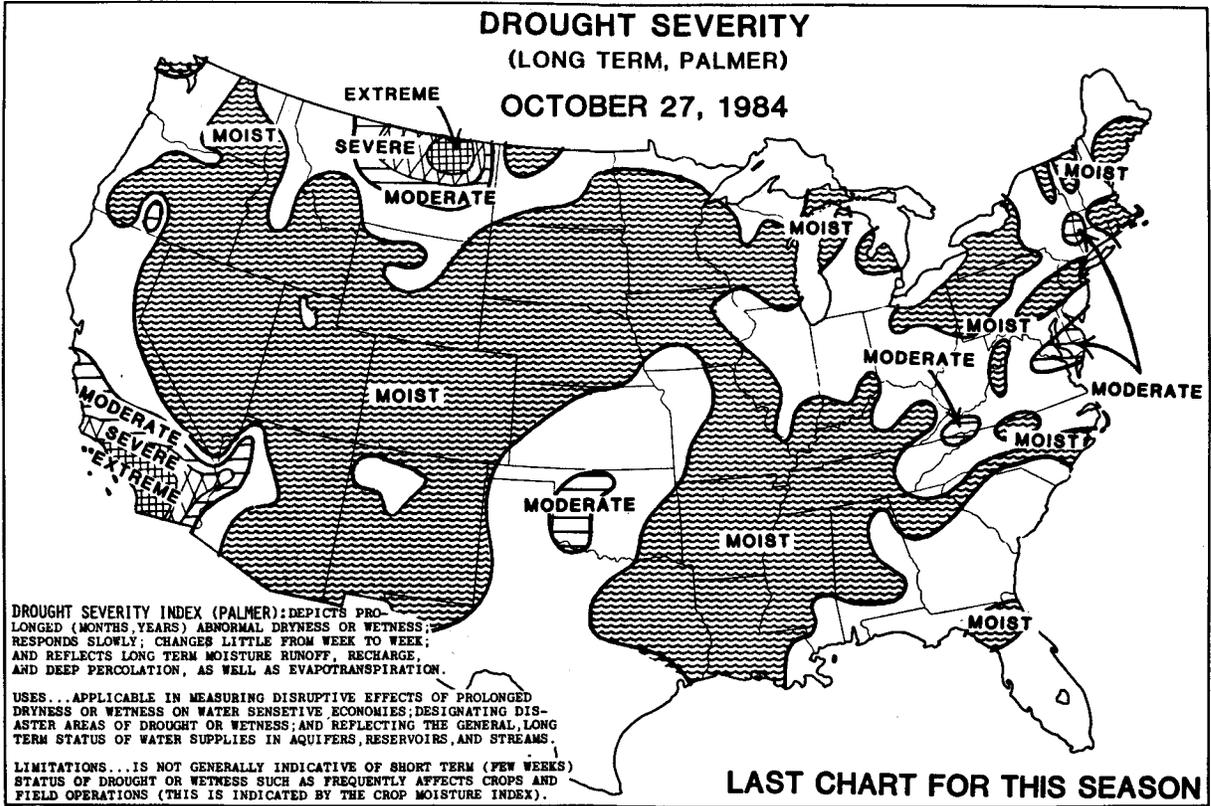


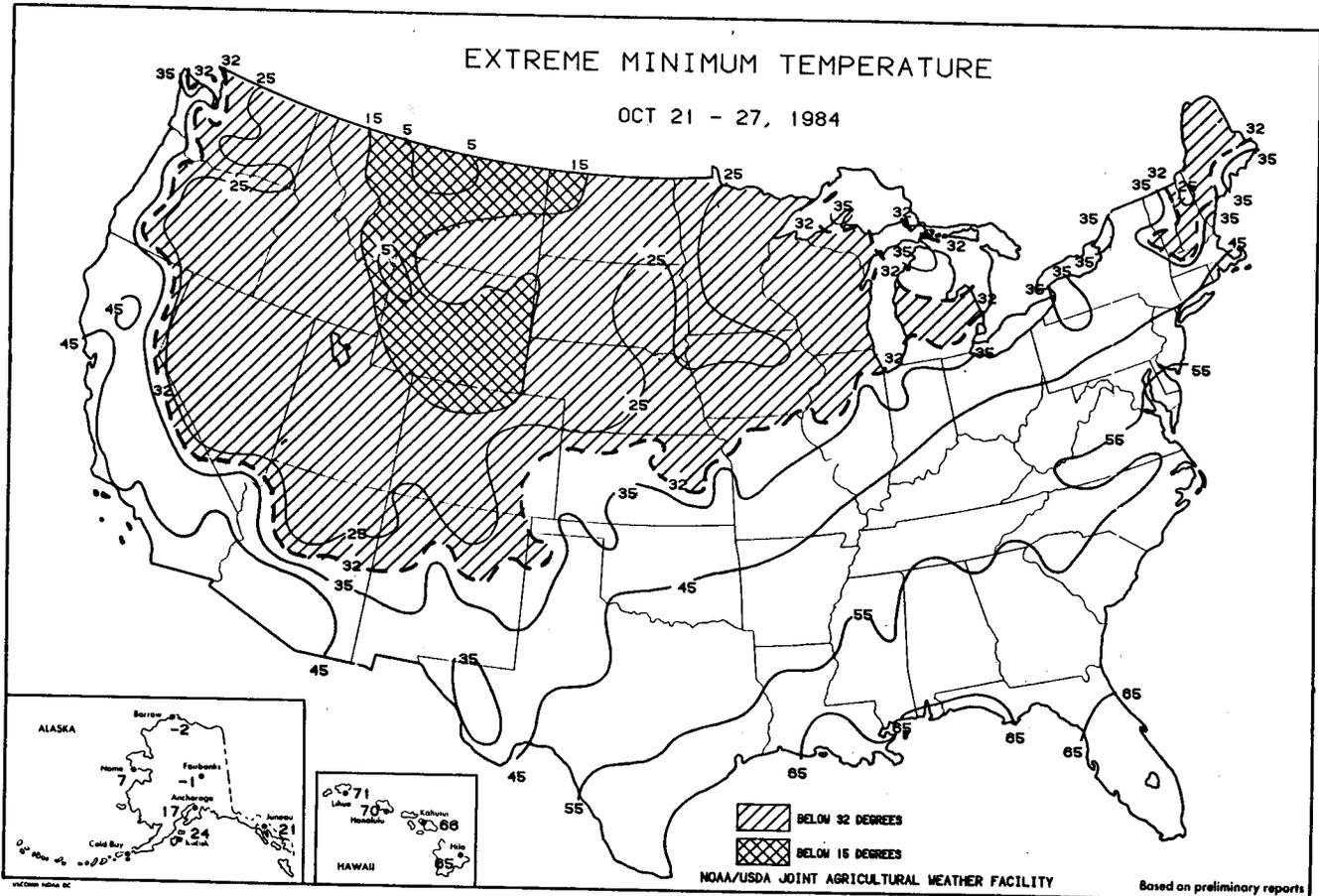
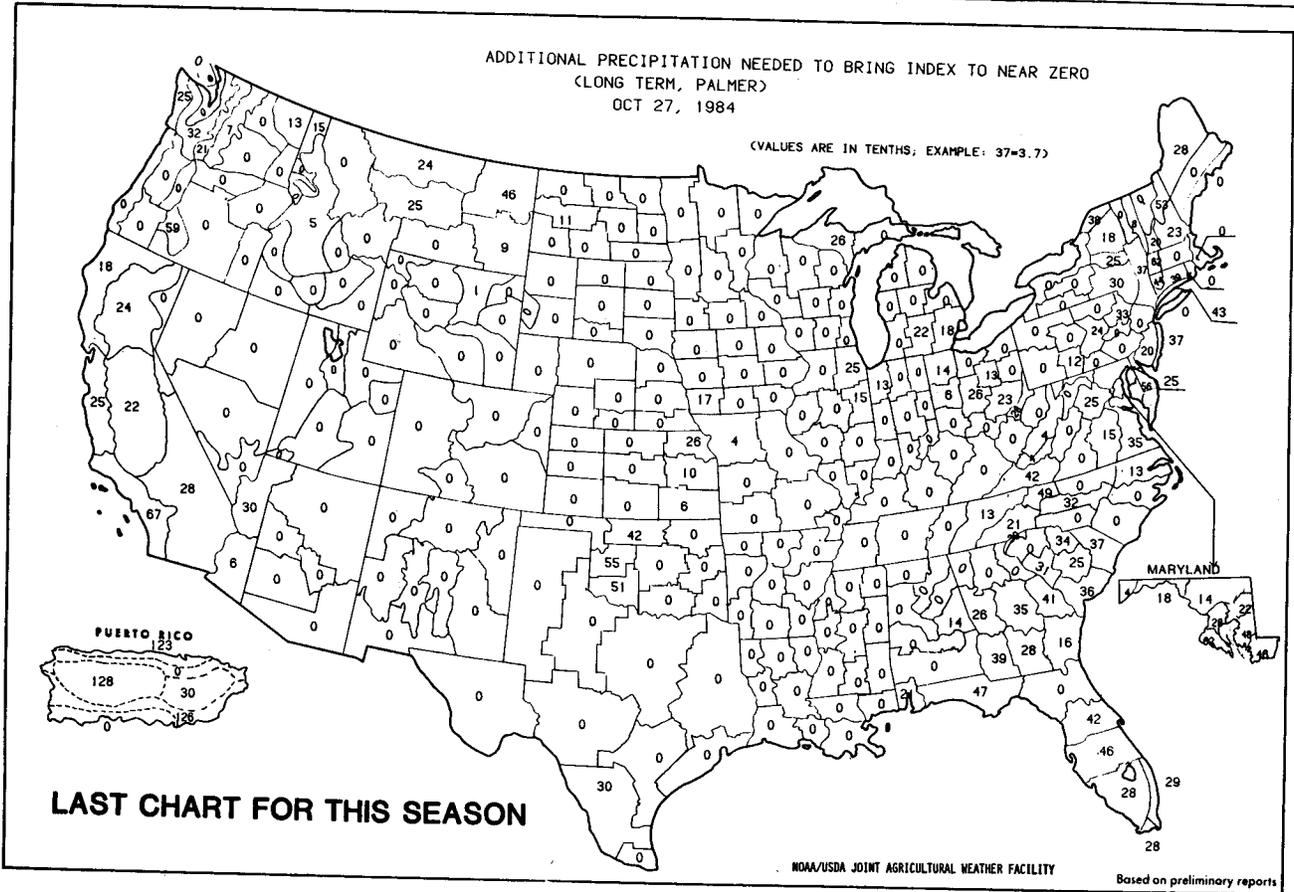
SHOWERS AND THUNDERSTORMS COVER THE AREA FROM TEXAS TO NEW ENGLAND.

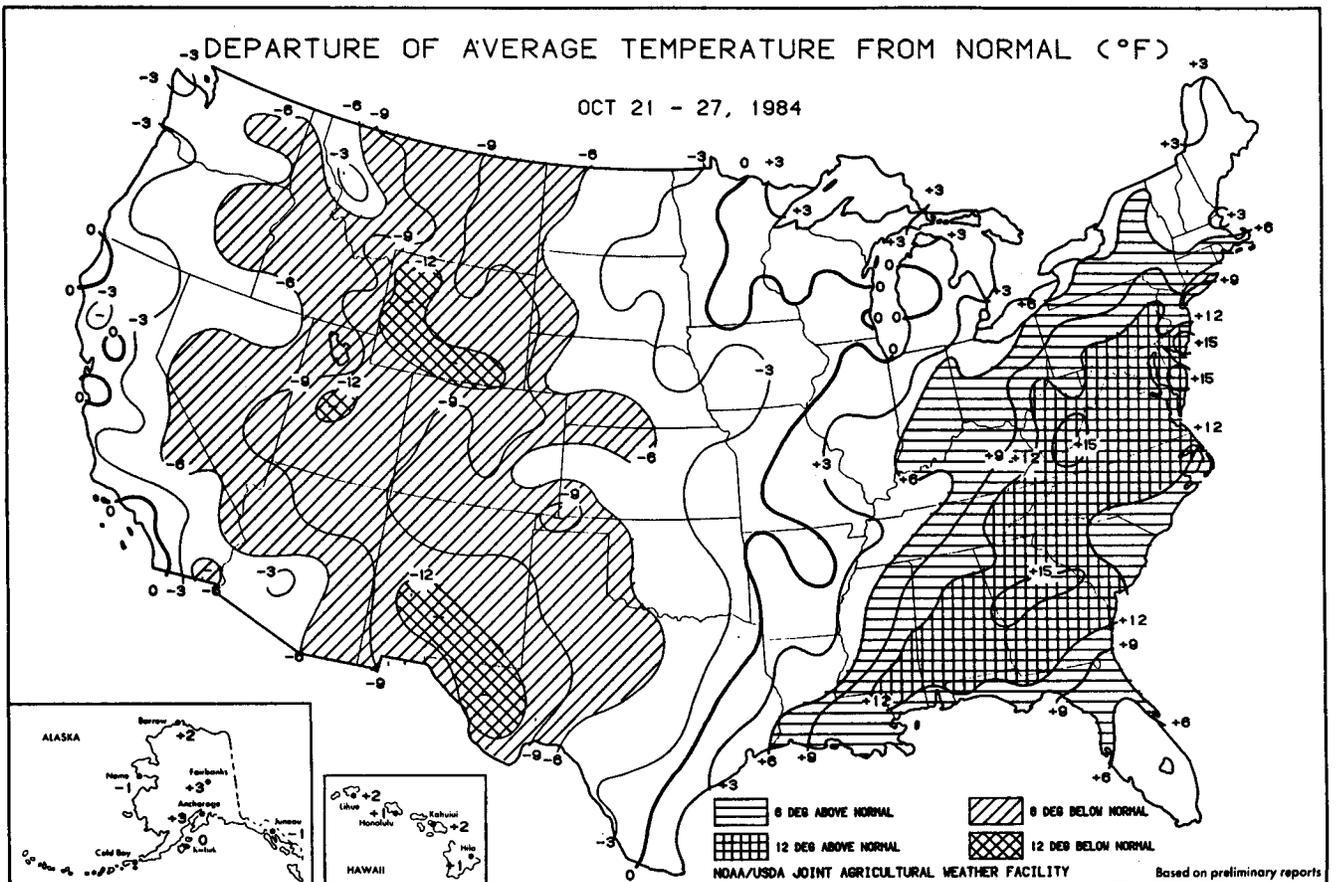
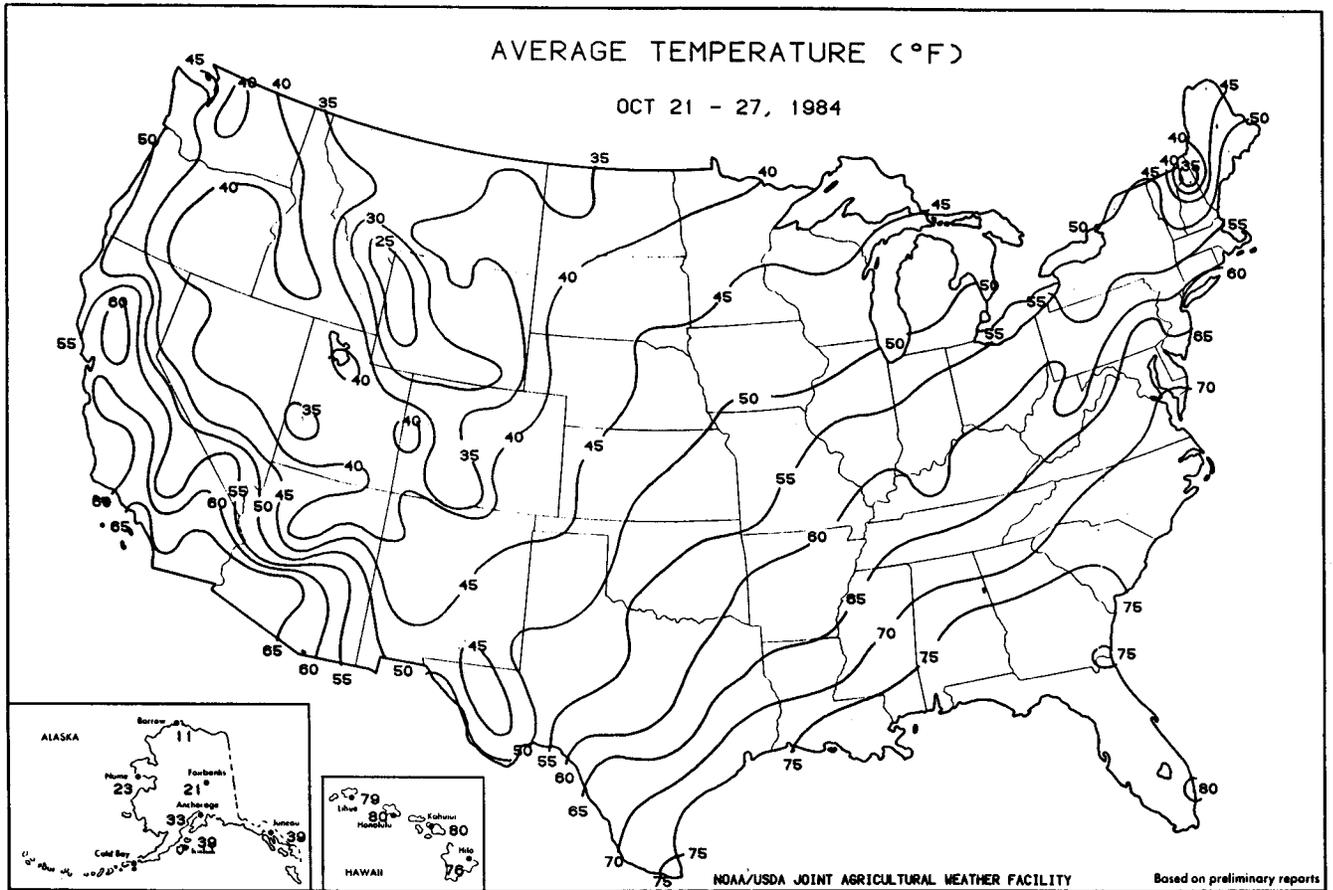
PERSISTANT RAIN SLOWS HARVEST AND OTHER FIELDWORK FROM TEXAS TO THE OHIO VALLEY.

HEAVY DOWNPOURS IN SOUTHEASTERN TEXAS AND SOUTHERN LOUISIANA CAUSES SEVERE LOCAL FLOODING.









Weather Data for the Week Ending October 27, 1984

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 Sept. 1	PCT. NORMAL SINCE Sept. 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMPERATURE		PRECIPITATION	
																		°F	°F	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	80	63	85	60	72	13	3.1	2.6	2.3	4.5	68	38.3	84	88	54	0	0	0	0	5	2
MOBILE	84	67	86	62	76	10	3.1	2.6	3.0	5.9	67	49.0	90	90	55	0	0	0	0	4	1
MONTGOMERY	87	66	90	61	76	14	2.7	2.3	.8	4.1	61	43.8	106	93	48	1	0	0	0	2	4
AK ANCHORAGE	39	27	50	17	33	3	.6	.2	.4	4.0	100	13.7	107	78	53	0	0	0	0	3	0
BARROW	17	5	29	-2	11	2	.1	0	.1	.5	44	3.8	89	96	79	0	0	0	0	3	0
FAIRBANKS	28	14	40	-1	21	3	.3	.2	.3	.9	52	8.6	97	86	62	0	0	0	0	2	0
JUNEAU	43	35	48	21	39	-1	2.4	.8	1.3	10.1	76	44.8	105	94	63	0	0	0	0	5	1
KODIAK	46	31	50	24	39	0	.4	-1.8	.2	11.2	68	57.6	95	79	45	0	0	0	0	2	0
NOME	30	17	31	7	23	-1	.1	-1.2	0	2.4	72	13.2	101	92	68	0	0	0	0	3	0
AZ PHOENIX	78	53	80	50	66	-4	T	T	T	3.7	314	11.3	199	62	25	0	0	0	0	0	0
PRESCOTT	59	31	64	28	45	-7	T	T	T	2.1	84	11.6	73	81	35	0	0	0	0	6	1
TUCSON	70	51	75	48	61	-6	.2	.1	.2	2.6	123	11.8	124	70	31	0	0	0	0	2	0
YUMA	80	58	83	54	69	-4	0	.1	0	.1	15	4.1	195	41	18	0	0	0	0	0	0
AR FORT SMITH	65	55	78	50	60	1	3.0	2.2	1.4	17.5	290	39.0	117	91	68	0	0	0	0	6	2
LITTLE ROCK	66	54	82	48	60	0	.6	0	.3	17.8	290	45.5	120	97	79	0	0	0	0	5	0
CA BAKERSFIELD	74	46	81	42	60	-4	0	.1	0	.1	26	1.4	32	76	29	0	0	0	0	0	0
EUREKA	61	47	63	41	54	1	.2	-6	.2	4.1	131	20.9	81	94	75	0	0	0	0	1	0
FRESNO	73	47	80	44	60	-2	T	T	T	.7	135	2.8	37	77	33	0	0	0	0	0	0
LOS ANGELES	74	56	79	55	65	0	0	0	0	.7	135	2.8	37	77	33	0	0	0	0	0	0
RED BLUFF	73	49	83	45	61	-1	T	T	T	.4	119	2.4	27	74	27	0	0	0	0	0	0
SACRAMENTO	74	47	82	39	61	0	T	T	T	1.9	133	6.7	46	74	27	0	0	0	0	0	0
SAN DIEGO	75	59	82	56	67	1	.1	.1	.1	1.1	109	4.1	34	76	32	0	0	0	0	1	0
SAN FRANCISCO	71	49	81	46	60	1	T	T	T	.3	61	1.8	26	80	35	0	0	0	0	1	0
CO DENVER	47	28	67	25	38	-11	.1	.1	.1	1.9	178	6.1	45	90	40	0	0	0	0	0	0
GRAND JUNCTION	50	34	59	32	42	-9	.3	.1	.2	3.9	189	15.8	114	85	47	0	0	0	0	6	2
PUEBLO	55	33	72	29	44	-6	.1	.1	.1	2.9	197	10.7	159	85	47	0	0	0	0	3	0
CT BRIDGEPORT	64	53	71	44	58	5	1.3	.5	.9	2.8	189	16.8	168	96	49	0	0	0	0	2	1
HARTFORD	64	47	79	37	55	6	1.6	.8	.9	3.4	56	36.8	110	89	72	0	0	0	0	3	2
DC WASHINGTON	74	61	83	55	68	12	1.0	.4	.7	3.8	54	37.6	105	89	56	0	0	0	0	3	1
FL APALACHICOLA	84	68	85	64	76	9	0	.4	0	4.9	85	32.3	99	93	70	0	0	0	0	3	0
DAYTONA BEACH	85	73	87	68	79	8	.6	.3	.4	2.4	22	52.8	110	92	64	0	0	0	0	0	1
JACKSONVILLE	83	66	86	60	74	8	.4	.2	.4	2.2	22	52.8	110	93	70	0	0	0	0	0	0
KEY WEST	84	78	85	76	81	2	1.2	.3	1.0	4.9	85	32.3	99	93	70	0	0	0	0	0	0
MIAMI	85	74	87	72	80	3	.9	.5	.4	8.6	81	38.1	112	100	65	0	0	0	0	4	0
ORLANDO	87	68	89	66	77	5	.6	.1	.5	12.5	86	55.1	105	88	61	0	0	0	0	6	0
TALLAHASSEE	88	65	89	61	77	12	0	.6	0	6.8	84	42.0	96	99	57	0	0	0	0	2	1
TAMPA	87	69	89	64	78	6	0	.3	0	2.9	32	51.6	91	99	50	0	0	0	0	0	0
WEST PALM BEACH	83	74	84	72	79	3	1.4	.1	.2	4.5	55	31.5	74	92	51	0	0	0	0	3	0
GA ATLANTA	80	64	83	60	72	13	.6	.1	.5	9.9	61	54.8	102	90	66	0	0	0	0	7	1
AUGUSTA	88	63	91	55	75	15	.5	.2	.5	1.0	18	49.1	121	90	55	0	0	0	0	2	1
MACON	87	66	89	59	76	14	.2	.2	.2	1.1	21	42.2	112	89	46	2	0	0	0	1	1
SAVANNAH	84	68	86	63	76	12	.5	.1	.5	.9	19	40.4	106	89	44	0	0	0	0	1	0
HI HILO	84	68	86	65	76	1	.9	-1.8	-4	7.8	109	46.5	104	94	56	0	0	0	0	1	0
HONOLULU	88	71	90	70	80	1	T	T	T	6.0	40	68.9	69	88	57	0	0	0	0	5	0
KAHULUI	92	68	94	66	80	2	0	.3	0	1.4	61	6.4	39	85	54	1	0	0	0	0	0
LIHUE	85	74	87	71	79	2	.2	-1.0	.1	6.8	46	6.8	46	83	45	5	0	0	0	0	0
ID BOISE	52	31	60	23	41	-7	.2	.1	.1	13.4	41	81	61	81	61	0	0	0	0	3	0
LEWISTON	50	33	59	24	42	-6	.4	.1	.3	2.9	47	13.4	41	81	61	0	0	0	0	0	0
POCATELLO	44	26	49	21	35	-9	.1	.1	.1	1.5	120	10.2	114	79	36	0	0	0	0	1	0
IL CHICAGO	59	38	76	28	48	-1	.4	0	.4	.8	49	8.8	86	85	46	0	0	0	0	3	4
MOLINE	59	38	68	27	48	-1	1.7	1.2	.9	1.3	92	11.6	131	84	44	0	0	0	0	7	2
PEORIA	61	43	77	30	52	2	.4	.1	.1	6.5	122	27.6	95	95	53	0	0	0	0	2	3
QUINCY	61	44	72	33	53	1	.7	0	.3	7.9	129	32.0	97	92	56	0	0	0	0	3	3
ROCKFORD	58	38	71	26	48	0	1.3	.7	.9	6.4	109	31.8	104	92	56	0	0	0	0	1	3
SPRINGFIELD	64	47	77	37	56	4	.3	.2	.2	7.2	102	32.3	96	94	56	0	0	0	0	3	3
IN EVANSVILLE	68	53	82	49	60	7	.4	.2	.2	6.2	100	25.9	80	96	56	0	0	0	0	3	3
FORT WAYNE	64	49	78	40	57	7	.1	.5	.1	9.0	172	33.9	114	93	58	0	0	0	0	2	0
INDIANAPOLIS	66	52	80	44	59	8	.4	.2	.3	10.7	224	37.4	109	83	56	0	0	0	0	0	0
SOUTH BEND	59	44	74	35	52	2	.2	.5	.1	6.2	131	25.3	87	90	61	0	0	0	0	2	0
IA DES MOINES	56	35	68	28	46	-5	.5	.1	.4	7.2	148	32.3	99	93	60	0	0	0	0	0	0
SIOUX CITY	58	34	70	25	46	-2	.1	.1	.1	7.9	130	27.2	85	90	57	0	0	0	0	3	0
WATERLOO	56	35	67	23	45	-1	.5	.1	.1	7.8	159	37.0	132	92	54	0	0	0	0	2	0
KS CONCORDIA	58	40	69	32	49	-4	.2	.2	.2	5.2	130	30.7	130	86	47	0	0	0	0	4	2
DODGE CITY	58	41	71	36	49	-4	.3	0	.2	5.7	107	29.7	99	90	54	0	0	0	0	3	0
GOODLAND	49	35	68	33	42	-6	.4	.2	.2	5.8	126	26.0	103	94	56	0	0	0	0	1	1
TOPEKA	62	40	73	31	51	-2	.4	.2	.3	3.2	108	16.4	85	93	60	0	0	0	0	2	0
WICHITA	61	43	73	36	52	-3	.4	0	.3	3.5	156	20.2	133	98	65	0	0	0	0	3	0
KY BOWLING GREEN	66	53	79	50	59	5	2.4	1.7	1.3	7.5	126	34.2	113	94	53	0	0	0	0	4	0
LEXINGTON	66	54	77	49	60	7	1.8	1.3	1.1	4.0	71	21.6	83	93	55	0	0	0	0	3	0
LOUISVILLE	67	54	80	48	60	6	.7	.1	.4	8.5	151	47.7	118	99	78	0	0	0	0	4	2
LA ALEXANDRIA	76	63	83	59	69	4	3.7	2.7	2.9	4.0	76	31.0	81	97	74	0	0	0	0	4	1
BATON ROUGE	83	68	85	66	76	11	6.5	5.9	4.7	5.5	98	37.0	102	90	69	0	0	0	0	4	0
LAKE CHARLES	83	66	86	62	75	8	1.8	1.1	1.6	12.7	207	56.1	125	93	68	0	0	0	0	3	2
NEW ORLEANS	84	69	86	61	76	10	T	T	T	16.8	253	44.6	96	98	61	0	0	0	0	3	2
										19.1	233	55.1	126	99	65	0	0	0	0	4	1
										6.6	82	46.7	93	90	57	0	0	0	0	0	

Weather Data for the Week Ending October 27, 1984

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 SEPT. 1	PCT. NORMAL SINCE SEPT. 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	72	60	85	54	66	3	3.9	3.3	2.3	14.4	261	40.8	114	97	76	0	0	0	2
ME CARIBOU	51	38	57	30	44	4	.4	-.3	.2	3.2	52	30.2	101	85	48	0	0	4	0
PORTLAND	59	41	78	35	50	12	1.0	-.1	.5	3.9	59	40.8	120	89	56	0	0	5	0
MD BALTIMORE	73	58	83	52	65	12	.4	-.3	.3	3.9	63	31.8	91	93	58	0	0	3	0
SALISBURY	76	61	83	58	69	15	.1	-.7	.1	1.2	16	36.5	95	100	69	0	0	1	0
MA BOSTON	60	47	77	40	54	2	1.2	-.4	.8	6.1	97	45.3	130	93	62	0	0	1	0
CHATHAM	61	52	67	49	57	5	1.2	.3	.5	7.2	104	44.9	122	93	61	0	0	4	0
MI ALPENA	54	38	69	34	46	2	1.3	.5	.5	6.6	143	26.4	109	95	51	0	0	3	0
DETROIT	63	42	77	32	52	4	.2	-.3	.2	4.7	116	21.2	82	86	53	0	1	3	0
FLINT	59	41	75	31	50	3	.5	0	.4	5.0	120	23.4	95	93	62	1	1	2	0
GRAND RAPIDS	57	40	74	32	49	1	.8	.1	.5	5.5	98	21.4	75	92	64	0	1	0	0
HOUGHTON LAKE	51	39	70	34	45	1	1.3	.8	.6	3.8	81	22.4	95	93	65	0	0	4	1
LANSING	56	38	74	28	47	0	.9	.4	.8	5.6	128	22.6	91	95	69	0	3	4	1
MARQUETTE	50	36	64	30	43	2	.7	0	.5	6.1	90	27.2	86	92	58	2	2	3	1
MUSKOGON	54	40	70	29	47	-1	.9	.3	.4	3.9	74	22.2	87	93	66	0	2	3	0
SAULT STE. MARIE	49	36	63	30	43	1	1.0	.4	.5	8.3	130	25.8	94	99	74	0	2	3	0
MN ALEXANDRIA	49	33	61	27	41	-1	.1	-.3	.1	9.8	251	30.8	137	95	67	0	4	2	0
DULUTH	50	35	66	28	42	2	.3	-.2	.1	8.6	166	23.8	90	89	58	0	2	3	0
INT'L FALLS	44	32	58	28	38	-1	.1	-.2	.1	6.0	126	19.8	90	92	74	0	5	1	0
MINNEAPOLIS	54	37	70	31	46	0	.7	.3	.5	7.9	193	33.9	141	86	50	0	2	2	1
ROCHESTER	52	34	66	29	43	-2	.6	.2	.3	5.6	115	24.1	93	89	56	0	4	0	0
MS GREENWOOD	74	61	84	56	68	7	4.3	3.7	3.7	13.2	232	44.7	105	100	79	0	0	2	2
JACKSON	80	62	86	60	71	10	4.9	4.3	4.2	8.6	149	41.0	96	100	66	0	0	2	2
MERIDIAN	81	65	85	59	73	13	6.1	5.6	5.3	10.2	176	45.1	103	96	64	0	0	2	1
MO CAPE GIRARDEAU	67	54	80	49	61	-	.6	0	.4	13.3	233	34.3	93	95	67	0	0	3	0
COLUMBIA	62	46	72	35	54	1	.8	.1	.3	9.9	150	41.5	130	95	65	0	0	5	0
KANSAS CITY	61	40	70	32	51	-3	1.1	.5	.6	8.3	120	32.8	103	96	52	0	0	4	0
SAINT LOUIS	65	51	80	40	58	4	.6	.1	.5	15.7	336	41.1	142	96	58	0	0	3	1
SPRINGFIELD	62	48	73	38	55	1	1.1	.5	.8	10.5	149	34.0	101	90	64	0	0	5	0
MT BILLINGS	47	25	62	19	36	-10	.1	-.2	0	1.6	70	8.6	65	93	40	0	7	3	0
GLASGOW	43	26	61	8	35	-7	.3	-.2	.2	1.3	96	6.0	55	88	59	0	5	3	0
GREAT FALLS	44	21	57	5	33	-12	.6	-.5	-.4	1.4	82	10.2	75	90	49	0	6	2	0
HAVRE	43	22	62	-1	32	-9	.6	-.5	.5	1.6	111	5.9	58	92	55	0	7	2	0
HELENA	47	23	62	15	35	-7	.4	-.2	.2	1.5	105	8.2	81	84	39	0	7	3	1
KALISPELL	40	25	50	17	33	-6	1.3	1.1	.8	3.8	197	12.8	99	90	61	0	6	4	1
MILES CITY	48	26	60	18	37	-7	.8	-.2	.8	4.0	7.6	59	93	49	0	6	1	0	0
MISSOULA	47	30	57	18	39	-2	.5	-.4	.4	1.7	95	11.6	105	90	49	0	3	3	0
NE GRAND ISLAND	57	35	70	26	46	-3	.2	0	.1	3.7	108	28.9	133	86	43	0	3	3	0
LINCOLN	59	33	69	25	46	-4	.2	-.2	.2	4.9	112	32.7	130	93	49	0	4	1	0
NORFOLK	60	34	71	26	47	-1	.2	-.1	.2	5.0	153	31.0	139	78	37	0	3	1	0
NORTH PLATTE	51	29	67	22	40	-6	.1	0	.1	2.8	113	19.7	107	94	48	0	5	2	0
OMAHA	58	37	69	32	48	-2	.2	-.2	.2	7.3	140	32.2	116	80	59	0	1	1	0
SCOTTSELUFF	53	22	73	16	38	-8	T	T	T	1.3	76	12.1	90	77	30	0	7	1	0
VALENTINE	56	26	74	16	41	-4	T	T	T	1.0	48	18.4	113	80	30	0	5	0	0
NV ELY	47	23	57	16	35	-7	.1	0	.1	5.2	426	13.0	171	93	39	0	7	2	0
LAS VEGAS	67	46	74	41	57	-6	T	T	T	.5	90	4.2	124	41	18	0	0	0	0
RENO	56	29	62	24	43	-5	T	0	T	.6	112	2.5	45	86	34	0	6	1	0
WINNEMUCCA	54	26	61	18	40	-6	.1	-.1	.1	2.4	281	10.8	174	76	34	0	6	1	0
NH CONCORD	60	41	76	32	50	5	1.0	.3	.6	5.3	92	36.7	126	100	63	0	1	5	1
NJ ATLANTIC CITY	74	60	83	53	67	15	.5	-.3	.3	2.5	45	34.4	100	94	63	0	0	3	0
NM ALBUQUERQUE	51	37	63	35	44	-10	.5	-.3	.2	4.3	266	10.3	143	97	58	0	0	4	1
CLOVIS	51	41	65	34	46	-9	1.3	1.0	.6	5.0	142	22.3	139	84	62	0	0	4	0
ROSWELL	52	42	70	38	47	-11	1.6	1.5	.6	3.2	126	15.8	175	92	69	0	0	4	2
NY ALBANY	60	45	67	36	53	5	1.0	.4	.5	3.8	65	32.1	109	100	62	0	0	4	0
BINGHAMTON	61	47	71	38	54	8	.6	-.1	.4	3.2	54	32.5	107	92	65	0	0	3	0
BUFFALO	61	44	74	33	52	4	.3	-.5	.1	4.6	78	30.9	103	94	54	0	0	3	0
NEW YORK	68	58	77	54	63	9	1.6	.9	1.2	4.9	78	44.1	126	91	64	0	0	5	1
ROCHESTER	64	45	75	37	55	6	.3	-.3	.1	4.0	84	28.9	112	91	56	0	0	4	0
SYRACUSE	61	43	71	39	52	4	.8	0	.3	4.3	72	29.6	92	98	71	0	0	4	0
NC ASHEVILLE	74	56	77	49	65	12	1.7	1.0	1.2	2.7	39	41.6	102	100	62	0	0	5	1
CHARLOTTE	79	63	82	54	71	14	.2	-.3	.2	2.5	42	40.5	110	98	62	0	0	4	0
GREENSBORO	77	61	83	52	69	14	.3	-.3	.3	1.5	23	45.8	126	97	62	0	0	3	0
HATTERAS	80	63	81	59	72	10	0	0	0	4.2	42	38.3	84	97	66	0	0	0	0
NEW BERN	84	63	87	59	73	13	0	0	0	14.1	162	56.0	122	90	58	0	0	0	0
RALEIGH	79	61	82	51	70	14	.2	-.4	.2	2.8	50	42.0	118	97	63	0	0	2	0
WILMINGTON	83	62	84	58	72	11	0	0	0	19.1	232	54.9	118	100	57	0	0	0	0
ND BISMARCK	50	29	62	21	39	-2	.1	-.1	0	1.9	91	13.5	95	79	43	0	6	2	0
FARGO	47	33	60	24	40	-2	.1	-.2	.1	7.8	259	19.1	106	90	66	0	4	2	0
GRAND FORKS	45	31	57	24	38	-2	.2	0	.2	3.3	111	19.3	115	89	68	0	5	2	0
WILLISTON	43	25	54	13	34	-7	.1	0	.1	2.7	134	9.9	78	93	55	0	6	1	0
OH AKRON-CANTON	62	48	76	38	55	6	.9	.4	.5	4.3	89	28.3	93	97	66	0	0	5	0
CINCINNATI	65	53	78	47	59	8	1.6	1.0	.9	6.5	129	30.9	92	90	69	0	0	6	1
CLEVELAND	63	47	77	36	55	5	.2	-.4	.1	3.3	66	32.5	110	89	59	0	0	4	0
COLUMBUS	65	52	78	45	59	8	.8	.4	.5	3.9	89	25.5	81	90	63	0	0	5	0

BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

Weather Data for the Week Ending October 27, 1984

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 SEPT. 1	PCT. NORMAL SINCE SEPT. 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
DAYTON	63	49	77	42	56	6	.6	-.1	-.4	4.9	120	26.9	92	92	64	0	0	0	0
TOLEDO	63	43	78	34	53	5	.2	-.2	-.1	3.9	94	25.3	95	98	62	0	0	5	0
YOUNGSTOWN	63	49	76	36	56	8	.5	-.1	-.2	3.9	73	30.0	96	98	68	0	0	3	0
OK OKLAHOMA CITY	60	48	74	42	54	4	4.5	3.9	3.5	7.7	133	23.5	84	92	61	0	0	3	2
TULSA	63	50	77	40	57	-2	2.8	2.1	1.1	9.6	130	37.1	109	93	60	0	0	4	3
OR ASTORIA	55	42	57	36	48	-3	2.6	-.9	1.3	10.8	127	46.4	98	91	67	0	0	5	2
BURNS	48	23	59	18	36	-9	.1	-.1	.1	.8	60	8.1	138	98	55	0	7	1	0
MEDFORD	59	39	67	32	49	-2	.1	-.4	.1	1.9	89	9.5	72	98	51	0	1	1	0
PENDLETON	53	35	67	27	44	-5	.6	-.3	.5	1.5	106	9.9	111	84	50	0	3	2	0
PORTLAND	55	43	62	35	49	-3	1.2	-.4	.7	5.3	125	25.0	98	94	70	0	3	2	1
SALEM	54	40	61	31	47	-4	.8	-.1	.4	5.3	118	28.6	105	99	62	0	1	0	1
PA ALLENTOWN	69	56	77	50	63	13	2.4	1.7	2.0	4.7	71	47.0	105	99	82	0	0	4	0
BRIE	64	48	78	38	56	7	.6	-.1	.5	6.7	99	29.8	93	86	58	0	0	5	1
HARRISBURG	70	57	81	51	64	12	1.1	-.5	.9	2.7	45	37.2	115	93	63	0	0	5	0
PHILADELPHIA	71	57	83	51	64	11	1.2	-.5	.9	4.1	70	39.5	115	92	63	0	0	5	1
PITTSBURGH	66	52	79	43	59	10	1.1	.6	.9	3.7	76	28.7	92	97	54	0	0	3	1
SCRANTON	65	52	78	41	59	10	1.4	.8	1.1	3.5	61	33.6	115	79	69	0	0	5	1
RI PROVIDENCE	64	51	77	46	57	7	1.7	.8	.9	5.3	78	42.8	118	87	54	0	0	6	1
SC CHARLESTON	82	67	84	62	74	12	.2	-.3	.2	6.3	84	43.5	94	87	62	0	0	4	2
COLUMBIA	87	61	90	51	74	14	.1	-.4	.1	1.9	14	41.4	97	98	48	1	0	1	0
FLORENCE	82	62	86	58	72	11	.2	-.3	.2	.7	29	38.0	99	100	60	0	0	2	0
GREENVILLE	78	61	80	54	70	12	2.1	1.4	.9	3.6	48	53.4	124	95	59	0	0	4	2
SD ABERDEEN	50	32	65	29	41	-2	.1	-.1	.1	3.7	155	20.8	125	92	53	0	4	1	0
HURON	52	33	68	27	42	-2	T	-.3	T	4.3	167	29.0	167	91	50	0	4	1	0
RAPID CITY	56	24	70	16	40	-6	T	-.1	T	1.4	80	14.4	95	76	29	0	4	1	0
SIOUX FALLS	56	33	65	24	44	-1	.1	-.2	.1	4.9	119	27.7	124	82	47	0	6	0	0
TN CHATTANOOGA	74	59	80	51	67	10	2.1	1.4	1.3	6.9	101	42.4	99	95	70	0	0	2	0
KNOXVILLE	78	61	82	53	69	13	1.7	1.0	1.2	3.9	73	42.9	111	92	60	0	0	4	2
MEMPHIS	71	58	84	52	64	5	2.5	2.0	1.1	9.7	174	47.0	111	99	75	0	0	3	2
NASHVILLE	73	56	82	52	64	8	2.9	2.3	1.4	5.9	100	46.9	117	98	73	0	0	4	3
TX ABILENE	58	49	73	45	54	-9	2.8	2.4	.9	8.7	171	17.2	82	86	68	0	0	4	2
AMARILLO	56	42	71	39	49	-7	.8	.5	.4	4.1	139	17.0	95	86	53	0	0	7	2
AUSTIN	66	58	78	53	62	-5	3.0	2.4	1.7	11.1	168	21.1	78	94	79	0	0	7	1
BEAUMONT	81	67	85	62	74	7	1.4	.7	1.1	18.8	204	51.2	118	96	70	0	0	3	1
BROWNSVILLE	82	67	91	59	75	2	.9	.3	.5	20.3	242	37.6	166	98	68	2	0	4	0
CORPUS CHRISTI	77	66	87	59	71	0	1.1	.6	.8	9.5	106	19.5	72	100	81	0	0	5	1
DEL RIO	68	58	80	54	63	-4	.3	-.1	.1	4.7	100	10.9	69	88	64	0	0	4	0
EL PASO	55	44	68	39	50	-10	3.2	3.0	.9	4.3	207	15.0	212	77	76	0	0	6	3
FORT WORTH	63	54	77	50	59	-6	1.4	1.0	1.0	6.2	112	24.0	93	96	76	0	0	5	1
GALVESTON	78	69	82	62	74	4	4.5	4.0	3.8	14.0	175	30.4	92	83	79	0	0	4	2
HOUSTON	76	64	83	59	70	3	11.0	10.2	9.3	19.8	243	43.1	115	87	71	0	0	6	3
LUBBOCK	55	43	71	40	49	-8	.8	-.4	.4	1.8	50	11.5	69	97	71	0	0	5	0
MIDLAND	56	47	71	44	51	-9	1.5	1.3	.7	3.9	116	13.3	106	91	71	0	0	5	1
SAN ANGELO	59	50	73	47	55	-9	1.9	1.5	.6	6.7	138	14.5	88	98	79	0	0	6	2
SAN ANTONIO	67	59	79	55	63	-4	1.3	.7	.7	6.9	111	19.5	77	95	76	0	0	7	1
VICTORIA	77	65	85	58	71	2	4.0	3.4	1.4	10.3	113	27.8	86	97	78	0	0	7	4
WACO	65	57	76	53	61	-4	3.5	2.9	2.1	11.8	201	26.2	99	96	83	0	0	6	2
WICHITA FALLS	60	50	76	47	55	-6	3.9	3.4	1.3	7.0	122	16.9	71	95	70	0	0	7	3
UT BLANDING	50	29	56	23	39	-9	.2	-.2	.2	3.0	137	8.4	91	90	54	0	6	1	0
CEDAR CITY	50	26	57	21	38	-11	.1	-.1	.1	1.5	93	11.7	136	89	38	0	0	1	0
SALT LAKE CITY	50	32	58	28	41	-8	.4	.2	.4	5.3	284	19.2	152	83	41	0	6	1	0
VT BURLINGTON	59	44	63	39	51	7	.4	-.3	.2	4.6	81	29.9	106	85	55	0	0	4	0
VA NORFOLK	79	64	85	54	72	13	T	-.7	T	2.4	32	39.8	102	90	60	0	0	2	0
RICHMOND	78	61	85	58	70	14	.9	0	.4	3.9	58	41.1	111	92	61	0	0	3	0
ROANOKE	76	60	82	54	68	14	.6	-.2	.5	4.0	64	39.0	117	97	65	0	0	3	0
WA COLVILLE	44	28	53	18	36	-6	.3	0	.2	1.4	74	18.6	146	93	70	0	4	5	0
QUILLAYUTE	54	37	60	31	46	-3	2.6	-.1	1.4	17.0	117	89.1	114	100	70	0	1	5	2
SEATTLE-TACOMA	52	41	55	36	46	-4	.3	-.6	.1	3.1	61	23.8	91	95	69	0	0	5	0
SPOKANE	47	28	59	18	37	-6	.5	-.2	.3	1.3	79	11.9	99	92	51	0	6	4	0
WV BECKLEY	56	27	71	20	41	-5	.1	-.1	.1	.6	81	5.9	104	76	42	0	5	1	0
CHARLESTON	73	55	84	51	64	15	.7	.2	.3	3.4	61	33.3	93	97	66	0	0	5	0
HUNTINGTON	69	55	81	51	62	9	1.0	.4	.5	5.9	112	32.1	89	92	64	0	0	3	1
PARKERSBURG	70	57	81	51	64	12	.7	.2	.4	3.0	65	24.4	89	91	68	0	0	5	2
WI GREEN BAY	54	38	69	30	46	2	.8	.4	.4	10.3	206	31.9	129	91	57	0	2	4	1
LA CROSSE	55	38	68	33	46	-1	.9	.5	.6	5.8	113	27.6	101	89	50	0	2	2	0
MADISON	54	35	67	26	45	-1	.9	.4	.5	8.0	159	28.7	105	90	58	0	0	3	1
MILWAUKEE	57	41	73	30	49	2	1.1	.7	.7	7.0	145	30.7	115	91	55	0	3	3	1
WAUSAU	51	37	65	32	44	1	1.0	.6	.6	10.2	174	36.0	127	90	58	0	0	2	1
WY CASPER	45	21	54	10	33	-11	.1	-.1	.1	1.2	77	11.9	117	90	38	0	2	1	0
CHEYENNE	44	22	61	13	33	-11	T	-.1	T	2.2	131	17.1	138	91	48	0	6	1	0
LANDER	45	21	55	16	33	-9	T	-.3	T	1.4	73	12.4	105	79	34	0	6	1	0
SHERIDAN	48	20	63	15	34	-9	.1	-.2	0	2.2	100	13.1	89	89	43	0	7	0	0
PR SAN JUAN	88	75	91	74	81	0	.5	-.9	.2	8.0	73	33.9	86	86	57	2	0	3	0

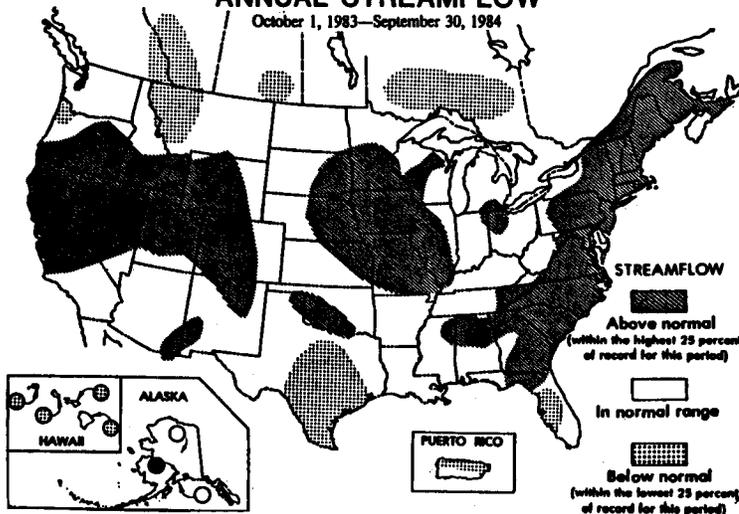
BASED ON PRELIMINARY REPORTS AND 1951-80 NORMALS

HEATING DEGREE DAY DATA WEEKLY SUMMARY
CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA
ASSESSMENT AND INFORMATION SERVICES CENTER-NEOSIS-NOAA

LAST DATE OF DATA COLLECTION PERIOD IS 10-27-1984
ACCUMULATIONS ARE FROM JULY 1
\*\* = NORMAL LESS THAN 100 OR RATIO INCALCULABLE

Table with columns: STATE CITY, CALL WEEK, WEEK DEV, WEEK DEV, CUM TOTAL, CUM DEV, CUM DEV, CUM DEV, CUM DEV. Rows list various cities and their corresponding weather data points.

**ANNUAL STREAMFLOW**  
October 1, 1983—September 30, 1984



**ABUNDANT STREAMFLOW MARKS 1984 WATER YEAR**

The Nation's water was generally plentiful during the 1984 water year. The U.S. Geological Survey (USGS) revealed that at 93 percent of the key index stream-gaging stations across the country, streamflows were average to above average.

USGS hydrologists reported that for the 174 key stations reporting information during the water year: 53 percent (92 stations) reported well-above average streamflows (within the highest 25 percent of historic record), 40 percent (70 stations) reported average flows, and only 7 percent (12 stations) reported well-below average flows (within the lowest 25 percent of record).

For the 1984 water year, streamflow was in the upper 25 percent of record in almost all of the eastern United States, much of the agricultural Midwest, and most of the mountainous Western States. Areas where streamflow was consistently below average included much of Texas and Hawaii, and isolated gaging stations in Florida, Oregon, and Puerto Rico.

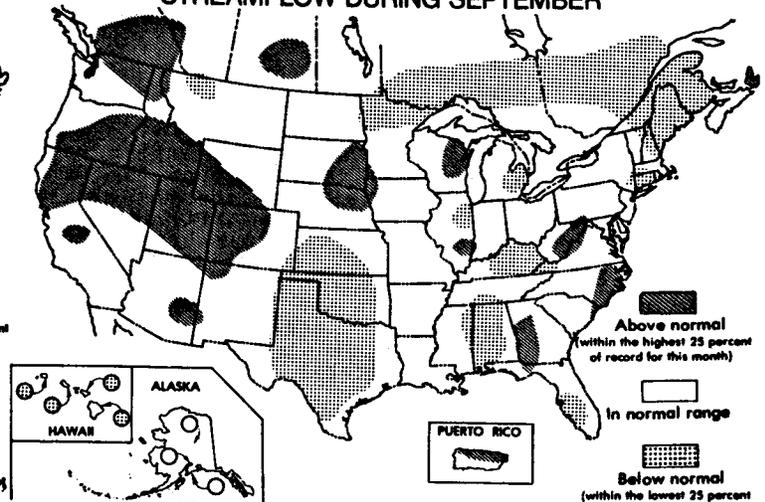
USGS hydrologists noted that much of the country experienced a 2-year wet trend. During the 1983 water year, 48 percent of the same key index stations had flows at well-above average, and only six percent reported well-below average flows.

In October 1983, the first month of the 1984 water year, most of the Nation reported high stream flows, with 90 percent of the key index stations reporting average to well-above average streamflows. The water year ended on a similarly wet note, with 80 percent of the 174 stations reporting average to above average flows for September 1984.

As a further indication of the generally healthy state of the Nation's water resources for the 1984 water year, the combined flow of the three largest rivers in the conterminous United States (Mississippi, St. Lawrence, and Columbia) was 796 billion gallons per day, 21 percent above average. These drain more than half of the lower 48 States, and serve as a convenient check on the status of the Nation's water resources.

The USGS, in cooperation with more than 800 State and local agencies, routinely gathers information on the quantity and quality of the Nation's surface and ground water resources at more than 60,000 sites across the country.

**STREAMFLOW DURING SEPTEMBER**



**MOST STREAMFLOWS ARE UP AS FALL BEGINS**

The U.S. Geological Survey (USGS), Department of the Interior's monthly check of the Nation's surface and ground waters reveal that September streamflows decreased seasonally but remained normal or above-normal in about 80 percent of the country.

From 174 key index stream-gaging stations, USGS hydrologists reported the average flows at 110 sites (63 percent): well-above average (in the upper 25 percent of long-term record) at 34 locations (20 percent); and well-above average (in the lowest 25 percent of record) at 30 stations (17 percent).

Streamflows were well-above average in most western States, including all key stations in Utah (6 stations) and Colorado (4); and in parts of the central and southeastern United States. Streamflows were well-below average at all key stations in Hawaii (4), Connecticut (4), Maine (3), and New Hampshire (1); and in parts of Florida, Kansas, Minnesota, Montana, Oklahoma, Texas, and the east-central United States.

Record-high or near-record high average flows (among the three highest of record) occurred in Colorado, Idaho (2 sites), Nevada, Utah (3 sites), Wyoming, and Puerto Rico. Record-high September streamflows in the Humboldt River at Palisade, NY (77-year period of record), and the Snake River at Weiser, ID (74-year period of record) gaging stations ranged well-above average for 27 months.

Record-low or near-record low flows occurred in Florida, Hawaii (2 sites), Kentucky (2 sites), Louisiana, and Minnesota.

Reports on the three major U.S. rivers, (the Mississippi, St. Lawrence and Columbia) reflected general conditions. Their combined average flow was 435 billion gallons per day (bgd), or 5 percent above average for September. The three major rivers drain more than half of the lower 48 States, and provide hydrologists with a convenient check on the overall status of the Nation's water resources.

Hydrologist Hai Tang of USGS in Reston, VA, said that key index reservoirs decreased seasonally in September, and were average to above average in most of the country. However, some reservoirs were much below average in Montana, New Hampshire, New Mexico, North Carolina, Oklahoma, Texas, and Washington.

(continued on back cover)

## National Agricultural Summary

October 22 to 28

**HIGHLIGHTS:** Showers and poor drying weather hampered row crop harvesting across most of the central and eastern Corn Belt. Torrential rains from eastern Oklahoma and Texas through the Delta States halted field activities, further damaged some crops, and eroded some fields. Dry southeastern weather further delayed small grain fall seeding, and caused the remaining row crops' rapid maturity and harvesting. Snow in the higher elevations of the western mountains slowed livestock movement to winter grazing areas. Farmers had less than 2 days available for fieldwork in the Delta States, and generally 3-6 suitable days elsewhere. Soil moisture was adequate to surplus, except short supplies persisted in portions of the northern Plains and Southeast.

Winter wheat seeding reached 81% completion, and 63% of the acreage emerged, 9 points behind schedule. Stands rated fair to mostly good. Corn combining was 49% complete, 12 points behind the average. Soybeans dropped leaves on 95% of the acreage and were 46% harvested, compared with 68% for both last year and the average. Sorghum harvesting reached 62% completion, 7 points behind schedule. Cotton quality was hurt by heavy rain in the Delta States. Cotton opened bolls on 83% of the acreage. Picking advanced to 30% completion, well behind the 43% average. Rice harvesting was 89% complete, 6 points slower than normal. Northern orchard apple picking was in the final stages. Mild weather in the East allowed continued hardy late vegetable harvesting. Pastures and ranges improved with additional precipitation across the Nation's midsection. Livestock rated fair to mostly good.

**SMALL GRAINS:** The 1985 winter wheat crop was 81% seeded in the 15 major producing States, and 63% emerged. Normally, 89% is planted and 72% is emerged. Seeding was completed in Montana, Nebraska, and South Dakota, and nearing completion in Colorado, Idaho, and Washington. All of Nebraska's acreage emerged, and 96% emerged in South Dakota. Kansas wheat rated mostly good to excellent, with adequate moisture supplies. Much of Oklahoma's wheat seeding increased. Warm temperatures are needed for seed germination and good plant growth. Rainfall aided Texas wheat germination and plant growth; and emergence approached normal. In the Corn Belt, emerged stands rated fair to mostly good. Persistent dryness further delayed small grain fall seeding and emergence in the Southeast.

**CORN:** Combining in the 17 major producing States advanced slowly to 49% completion, well behind last year's 80% and the 61% average. Progress was equal to or behind the average in all States except Georgia. Combining was 17 points slower than normal in the eastern Corn Belt and 6 points behind in the western Corn Belt. Showers and poor drying weather hampered harvesting in much of the Corn Belt, while heavy rains halted operations in the lower half of the Nation's midsection. Harvesting trailed the average by 30 points in Ohio, 26 points in Kentucky, 24 points in South Dakota, and 20 points in both Indiana and Pennsylvania.

**SOYBEANS:** Heavy rain delayed soybean harvesting across most of the major producing area. Only the Southeast had good harvesting weather. In the 18 major producing States, combining reached 46% completion, 22 points behind last year and the average. Harvesting was behind schedule in all States except Georgia, Minnesota, and South Carolina. Progress trailed normal by 31 points in

the eastern Corn Belt, 27 points in the south-central States, and 19 points in the western Corn Belt.

**COTTON:** Bolls opened on 83% of the acreage in the 14 major producing States, 9 points slower than normal. Rain delayed harvesting in all regions except the Southeast and Southwest. Continued heavy rains halted harvesting and caused some quality loss in the Delta States. In the major States, harvesting was 30% finished, normally 43% is harvested. Progress ranged from 15% picked in New Mexico and Oklahoma to 60% harvested in Alabama. Picking trailed normal by 42-45 points in Arkansas, Mississippi, Missouri, and Tennessee.

**SORGHUM:** Sorghum matured on 96% of the acreage in the 7 major producing States, 2 points ahead of the average. Harvesting was 62% complete, trailing the 69% average. Progress was behind schedule in all States except Oklahoma and ranged from 27% finished in Colorado to 78% complete in Texas. South Dakota combining was 20 points behind normal, and Colorado lagged the norm by 27 points.

**OTHER CROPS:** Rice harvesting was 89% complete, compared with 96% last year and the 95% average. Arkansas was the only State trailing the average. California harvesting was 95% finished, 10 points ahead of schedule. Arkansas combining was only 78% finished, 18 points behind the normal pace.

Tobacco curing, grading, and marketing continued in all regions. Kentucky burley stripping progressed to 11% completion, 4 points slower than normal. Quality was good but some mold and leaf darkening appeared. Flue-cured tobacco marketing was active in Virginia.

Peanut digging neared completion in the Southeast, but was only 39% finished in Texas. Threshing was 97% complete in Virginia, 96% in Georgia, and 90% finished in North Carolina.

**FRUITS AND NUTS:** Fall apple picking declined seasonally in northern orchards. Pecan harvesting increased across the South. Florida's citrus groves required heavy irrigation until weekend showers provided some relief. Early fruit harvesting continued very active. Arizona producers harvested moderate volumes of grapefruit and lemons, and picked some Navel oranges. California growers actively harvested late apples, dates, table grapes, kiwifruit, persimmons, grapefruit, lemons, pistachios, and walnuts. Navel orange picking began in the San Joaquin Valley.

**VEGETABLES:** Mild temperatures allowed further hardy fall vegetables harvesting in the East. Florida's growers increased tomato and radish harvesting. Escarole harvesting was just getting underway. Most crops volume will increase in the last half of November. Rain halted land preparation and harvesting across most of Texas. Vegetable harvesting was active in Arizona's Salt River Valley. Light to moderate volumes of broccoli, cantaloupes, carrots, cauliflower, and honeydew melons were harvested in California. Lettuce cutting was virtually finished in the Salinas-Watsonville area and in full swing in the San Joaquin Valley.

**PASTURES AND LIVESTOCK:** Pastures and ranges rated fair to mostly good and improving, except fair to poor in the Southeast. Warm temperature stimulated grass growth in the East, but cool weather limited potential growth in the West. Supplemental feeding continued in most regions. Livestock were in fair to mostly good condition.

**CROP PROGRESS**  
FOR WEEK ENDING OCT 28

COTTON			
	% BOLLS OPENING		
	1984	1983	AVG.
ALA	98	100	95
ARIZ	100	100	100
ARK	94	100	97
CALIF	100	100	100
GA	94	95	95
LA	100	100	98
MISS	100	100	100
MO	100	100	100
N MEX	100	97	89
N C	100	100	98
OKLA	99	85	95
S C	98	100	100
TENN	100	100	100
TEX	67	92	85
14 STATES	83	95	92

THESE 14 STATES PRODUCED 99% OF THE 1983 COTTON CROP.

COTTON			
	% HARVESTED		
	1984	1983	AVG.
ALA	60	75	61
ARIZ	45	25	35
ARK	20	83	65
CALIF	45	30	50
GA	49	40	60
LA	37	69	69
MISS	27	75	69
MO	31	89	75
N MEX	15	9	20
N C	40	76	60
OKLA	15	10	10
S C	56	90	77
TENN	25	86	68
TEX	24	34	30
14 STATES	30	44	43

THESE 14 STATES PRODUCED 99% OF THE 1983 COTTON CROP.

CORN			
	% HARVESTED		
	1984	1983	AVG.
COLO	34	80	52
GA	98	97	97
ILL	56	88	75
IND	35	80	55
IOWA	58	90	62
KANS	80	90	80
KY	51	70	77
MICH	35	45	35
MINN	44	80	45
MO	66	91	74
NEBR	50	90	60
N C	92	92	92
OHIO	25	60	55
PA	22	43	42
S DAK	43	83	67
VA	70	75	78
WIS	30	40	31
17 STATES	49	80	61

THESE 17 STATES PRODUCED 90% OF THE 1983 CORN CROP.

SORGHUM			
	% MATURE		
	1984	1983	AVG.
COLO	97	100	94
KANS	97	95	90
MO	96	100	91
NEBR	100	100	100
OKLA	98	95	95
S DAK	93	100	98
TEX	95	99	97
7 STATES	96	98	94

THESE 7 STATES PRODUCED 85% OF THE 1983 SORGHUM CROP.

SORGHUM			
	% HARVESTED		
	1984	1983	AVG.
COLO	27	93	54
KANS	50	70	55
MO	63	84	71
NEBR	60	90	65
OKLA	45	45	40
S DAK	57	87	77
TEX	78	87	86
7 STATES	62	80	69

THESE 7 STATES PRODUCED 85% OF THE 1983 SORGHUM CROP.

RICE			
	% HARVESTED		
	1984	1983	AVG.
ARK	78	97	96
CALIF	95	90	85
LA	99	99	100
MISS	95	94	93
TEX	100	100	100
5 STATES	89	96	95

THESE 5 STATES PRODUCED 98% OF THE 1983 RICE CROP.

SOYBEANS			
	% DROPPING LEAVES		
	1984	1983	AVG.
ALA	96	89	91
ARK	75	90	87
GA	95	92	91
ILL	100	100	100
IND	100	100	100
IOWA	100	100	100
KANS	100	96	97
KY	87	97	97
LA	92	93	92
MICH	100	100	100
MINN	100	100	100
MISS	99	100	100
MO	97	100	99
NEBR	100	100	100
N C	69	62	66
OHIO	100	100	100
S C	79	82	81
TENN	96	100	99
18 STATES	95	97	96

THESE 18 STATES PRODUCED 93% OF THE 1983 SOYBEAN CROP.

SOYBEANS			
	% HARVESTED		
	1984	1983	AVG.
ALA	36	36	50
ARK	6	33	35
GA	31	24	30
ILL	61	94	94
IND	50	95	80
IOWA	79	92	90
KANS	55	65	70
KY	20	39	50
LA	33	55	60
MICH	45	75	63
MINN	75	73	75
MISS	18	38	43
MO	30	71	71
NEBR	50	90	90
N C	17	11	19
OHIO	50	90	80
S C	26	6	11
TENN	7	38	40
18 STATES	46	68	68

THESE 18 STATES PRODUCED 93% OF THE 1983 SOYBEAN CROP.

WINTER WHEAT			
	% PLANTED		
	1984	1983	AVG.
CALIF	18	20	22
COLO	97	98	98
IDAHO	99	98	96
ILL	48	90	88
IND	62	93	85
KANS	85	90	95
MO	45	74	71
MONT	100	100	100
NEBR	100	100	100
OHIO	75	90	90
OKLA	70	85	85
OREG	77	86	88
S DAK	100	100	100
TEX	81	72	76
WASH	96	98	94
15 STATES	81	87	89

THESE 15 STATES PRODUCED 84% OF THE 1983 WINTER WHEAT CROP.

WINTER WHEAT			
	% EMERGED		
	1984	1983	AVG.
CALIF	6	10	12
COLO	93	82	87
IDAHO	83	83	83
ILL	42	76	67
IND	59	80	60
KANS	70	75	80
MO	40	63	58
MONT	65	90	85
NEBR	100	100	100
OHIO	60	75	65
OKLA	30	65	55
OREG	61	60	60
S DAK	96	94	99
TEX	55	47	56
WASH	88	88	88
15 STATES	63	72	72

THESE 15 STATES PRODUCED 84% OF THE 1983 WINTER WHEAT CROP.

## 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 SRS State Statistical Offices in cooperation with the National Weather Service.

**ALABAMA:** Temperatures again were 10 to 150 above normal. Precipitation most of the State, except southeast. Rainfall none to 4.83 in.

Fieldwork: 3.3 days. Soybeans dropping leaves 96%, 89% 1983, 91% average. Soybeans mature 78%, 74% 1983. Soybeans harvested 36%, 36% 1983, 50% average. Cotton bolls open 98%, 100% 1983, 95% average. Cotton harvested 60%, 75% 1983, 61% average. Sorghum harvested 83%, 80% 1983, 77% average. Wheat seeded 28%, 39% 1983, 47% average. Activities: Harvesting sorghum, cotton, soybeans, fall vegetables, and final cuttings of hay; preparing and planting land for winter grazing and small grains; and routine care of livestock and poultry. Conditions: Soybeans poor to mostly fair; cotton fair to mostly good; wheat mostly fair; pastures fair; sorghum and livestock fair to good.

**ARIZONA:** Temperatures well below normal for second consecutive week. Precipitation confined to eastern two-thirds; heaviest over southeast, White Mountains. Douglas, Sierra Vista, Bisbee received around 1.00 in. Average temperatures varied from 20° below normal in extreme southeast to 7 to 90° below over northern half.

Cotton 45% harvested, 25% last year, 35% average. Near ideal harvest weather during week. Alfalfa seeding, stand establishment continued. Harvest winding down. Sheeping of alfalfa stands increasing. Harvesting sorghum grain increasing, about 20% combined. Most fields turned color, nearing maturity. Fall lettuce harvest expected to begin Salt River Valley early November, continued active other areas. Cabbage, greens, green onions, rapini, broccoli, parsley, honeydew, cantaloupe harvested in Salt River Valley. Moderate volumes grapefruit, lemons packed. Some Navel oranges picked. Pecan harvest underway.

**ARKANSAS:** A warm week statewide with temperatures averaging 10° below normal to 40° above normal. High 84°, low 42°. Most rainfall 5.02 in., least 0.19 in.

Soil moisture was rated a surplus, 1.7 days available for fieldwork. Cotton condition poor; open bolls 94%, 100% 1983, 97% average; harvested 20%, 83% 1983, 65% average. Rice condition fair; ripe 99%, 100% 1983, and average; harvested 78%, 97% 1983, 96% average. Soybean condition fair; yellowing 92%, 97% 1983, and average; shedding leaves 75%, 90% 1983, 87% average; harvested 6%, 33% 1983, 35% average. Sorghum condition fair; harvested 85%, 95% 1983 and average. Pasture condition average. Livestock condition good.

**CALIFORNIA:** Temperature averages for the period ranged from just slightly above normal along the north coast to well below normal in the southeast interior. Individual readings for the State ranged from a 19° reading at Alturas to 85° at Thermal. The only precipitation recorded during the week was restricted to north and those amounts were generally light. Blue Canyon was the wet spot in the State with 1.15 in. for the week.

Cotton harvest continues, 45% harvested, 30% last year, 50% average. Bolls open 100%, 100% last year, 100% average. Harvested fields shredded, disced. Rain slowed rice, dry bean harvest. Some damage dry beans, cut alfalfa. Few sugarbeet, corn fields to harvest. Rice 95%

harvested, 90% last year, 85% average. Burning harvested fields continues. Ground preparation, planting oats, barley. Winter wheat 18% planted, 20% last year, 22% average, 6% emerged, 10% last year, 12% average. Granny Smith, late apples, Coachella Valley date, Emperor table grape, kiwifruit, persimmon, desert grapefruit, desert lemon, pistachio, and walnut harvests active. Some central valley grape growers treating vineyards to control leafhoppers. Navel orange harvest begun San Joaquin Valley. Most oranges still too green. Sugar content increasing rapidly. Broccoli moderate supply central coast with harvest stated desert, San Joaquin Valley. Cantaloupe harvest near peak desert. Carrots fairly light supply. Cauliflower light to moderate supply central coast, harvest underway desert, continues south coast, San Joaquin Valley. Honeydew harvest increasing desert, sizes small. Lettuce practically finished Salinas-Watsonville. Harvest full swing San Joaquin Valley. Dehydrator onion harvest resumed Tulelake after weather delays. Fall potato harvest resumed Tulelake-Butte Valley with digging about 75% complete. Sweetpotato harvest active San Joaquin Valley, fumigation of hotbeds started. Harvest late market tomato fields continued San Joaquin Valley, south coast. Foothill valley ranges continue green-up with rains during past two weeks. Sheep grazing harvested fields central valley districts. Calving increasing. Lambing continues.

**COLORADO:** A strong low pressure system brought 2 to 12 in. of snow to south foothills, mountains, and valleys early in the week. High pressure system late in the week brought dry, warm, windy weather eastern plains and foothills. Temperatures over 100° below normal.

Winter wheat in good condition with 97% planted, 1983 and average, 98%. Plant emergence at 93%, 1983 82%, average 87%. Corn harvest for grain 34% complete, 1983 80%, average 52%. Sorghum mature 97%, 1983 100%, average 94%. Grain harvest at 27%, 1983 93%, average 54%. Sugarbeet harvest 21% complete, 1983 90%, average 73%. Dry beans threshed, 1983 98%, average 97%. Fall potato harvest at 97%, 1983 99%, average 98%. Onion harvest 94% complete, 1983 99%, average 98%. Averaged 2.7 days suitable for fieldwork.

**FLORIDA:** Dry spell broken in most areas the 26th, when showers scattered over Peninsula, continued statewide during the weekend. Showers of 0.25 to 0.50 in. common; spot of 1.00 in. or more lower east coast, Panhandle; 2.00 in. or more west central coast. Weather warm, around 50° above normal.

Soil moisture extremely short Panhandle, north but weekend rains, some heavy, beneficial. Central areas mostly short of moisture with improvement late week. South mostly adequate soil moisture. Soybean harvest increasing, late beans maturing rapidly. Late bean yields down due to dry conditions. Few late planted peanuts harvested. Cotton harvest very active, yields mostly good. Hay harvest continues but declining. Sugarcane harvesting increasing. Quality, yields good. Small grain planting active. Pastures good to excellent condition south, poor to fair other areas where insufficient moisture, cooler nights halted

growth. Some hay feeding. Late week rains some areas beneficial. Cattle good to excellent south, poor to fair other areas. Most citrus groves very dry, much irrigation. Weekend showers brought relief to some areas, very little new growth. Early harvest continues very active for most types. Favorable weather continued most vegetable areas. Some locally heavy rains occurred along southeast coast and west central coast. Very light showers occurred most other areas. Temperatures were generally warmer than normal with daytime highs in 80's and nighttime lows in 60's. Harvest gaining for tomatoes, radishes. Escarole harvest getting underway. Light harvest expected for celery next week. Harvest most crops should be active last half of November. Seeding, transplanting continued active most crops.

**GEORGIA:** Temperatures averaged in the 60's in mountains and 70's elsewhere. Averages were 10 to 15° above normal. Rainfall totals variable. Some locations 1.00 to 2.00 in. for week. Other areas less than 0.25 in.

Soil moisture 1% surplus, 13% adequate, 25% short, 61% very short. Average days suitable for fieldwork: 5.7. Main activity harvesting corn, cotton, peanuts, apples. Corn 98% harvested, last year and average 97%. Cotton 94% bolls open, last year and average 95%; harvested 49%, last year 40%, average 60%; condition 13% excellent, 60% good, 25% fair. Peanuts 98% dug this year and average, 97% last year, threshed 96% this year and average, 92% last year. Soybeans 95% dropping leaves, 92% last year, average 91%; harvested 31%, last year 24%, average 30%; condition 14% good, 50% fair, 26% poor, 9% very poor. Apples picked 96% this year and last, average 98%; condition 56% good, 40% fair, 4% poor. Pecans 14% picked, 5% last year, average 17%; condition 3% excellent, 31% good, 52% fair, 14% poor. Wheat 15% seeded, last year 27%, average 29%. Rye 35% seeded, last year 65%, average 58%. Other small grains 28% seeded, last year and average 49%. Drought causing delay in planting small grains. Grain sorghum condition 32% good, 51% fair, 16% poor. Hay condition 12% good, 36% fair, 41% poor, 9% very poor. Pasture condition 13% good, 37% fair, 39% poor, 10% very poor. Cattle 43% good, 49% fair, 7% poor. Hogs 2% excellent, 56% good, 41% fair.

**HAWAII:** Clouds extending from a low pressure system north of the Islands brought some much welcomed showers to the State. Rainfall was heaviest on Kuaui, the windward section of Oahu, and the west side of Hawaii Island. Many areas received at least 0.50 in. of rain on 27th and again on the 28th. The shower band, however, missed the State's two major vegetable regions as dry weather persisted in Kula and Waimea.

Irrigation restrictions have tightened in Waimea and supplies of many vegetables are forecast to decrease in the coming weeks. The prolonged dry conditions on Maui have forced sugar plantations to cut workers, reduce plantings, and to begin early harvesting of some fields. On the other hand, the dry weather has aided in producing a higher sugar yield this year. Chinese cabbage supplies will decline moderately due to the water shortage reducing acreage for harvest. Head cabbage production expected to increase next week. Fields on Maui making satisfactory growth despite a mandatory 25% reduction in water use. Semi-head and head lettuce production will remain light as disease, insect, and heat related problems continue to reduce yields. Papaya production forecast to begin a seasonal increase within the next few weeks.

**IDAHO:** A cold, northwesterly flow dominated the weather. Temperatures were well below normal for this time of the year with very cold air plunging down from Canada. Temperature departures ranged from 4 to 11° below normal. Precipitation amounts were below normal, especially in the north and west.

Cloudy, cool weather once again dampened harvesting activities as 4.9 days were judged suitable for fieldwork. Potato digging reached 96% complete compared to 97% last year and 95% average. Winter wheat seeding was virtually complete with 99% of the crop in the ground versus 1983's 98% and the average 96%. Next year's winter wheat crop was 83% emerged, the same as last year and average. Sugarbeet harvesting continued with 68% of the crop out of the ground compared to 66% a year ago and 60% average. Corn for grain climbed to 33% harvested, the same level as 1983. Cattle and sheep were near 90% removed from summer ranges.

**ILLINOIS:** Temperatures 8° above normal to 5° below normal. Precipitation none to 1.88 in., mostly south.

Soil moisture 44% adequate, 2% short, 54% surplus. Corn harvested 56%, last year 88%, average 75%. Soybeans shedding leaves 100%, last year 100%, average 100%; harvested 61%, last year 94%, average 94%. Sorghum harvested 42%, last year 84%, average 74%. Winter wheat seeded 48%, last year 90%, average 88%; 42% emerged, last year 76%, average 67%; condition 13% excellent, 61% good, 16% fair and 10% poor. Fall tillage of 1985 intended corn and soybean acreage 17%, last year 41%, average 34%. Pasture condition 14% excellent, 71% good, 13% fair, 2% poor; supplying 65% livestock roughage requirements, last year 54%, average 54%. Days suitable for fieldwork: 2.5.

**INDIANA:** High temperatures averaged 2 to 4° above normal. Highs mid 70's to 80°. Lows in 30's to 50's were 3 to 10° above normal. Soil temperatures averaged in mid to upper 50's. Rainfall light in north increasing to south. Totals from 0.12 in. north to 1.45 in. south. Below normal precipitation central and north. Drying conditions only fair.

Fieldwork averaged 2.1 days. Topsoil moisture adequate to mostly surplus. Subsoil moisture mostly adequate to surplus. Corn 35% harvested, 1983 80%, average 55%. Corn moisture 26%, 1983 20%. Soybeans 100% dropping leaves, 1983 100%, average 100%. Soybeans 50% combined, 1983 95%, average 80%. Soybean moisture 16%. Wheat 62% seeded, 1983 93%, average 85%. Wheat 59% emerged, 1983 80%, average 60%. Wheat stands 1% poor, 13% fair, 61% good, 25% excellent. Rye 80% seeded, 1983 98%, average 93%.

**IOWA:** Temperatures averaged near seasonal normals while precipitation was above normal over the eastern two-thirds of the State.

Days suitable for fieldwork: 4.6. Corn harvesting 58% complete, 90% last year, 62% normal. Corn moisture content 21.6%. Soybean harvesting 79% complete, last year 92%, normal 90%. Soybean moisture content 14.3%. Sorghum acreage harvested 67% complete, last year 94%, normal 69%. Winter wheat acreage seeding 95% complete, 96% last year, 98% normal. Fall tillage 17% complete, 42% last year, 24% normal. Fall fertilizer application 14% complete, 39% last year, 24% normal. Availability of grain storage 1% short, 76% adequate, 23% surplus. Availability of boxcars and trucks 1% short, 87% adequate, 12% surplus. Topsoil moisture conditions 1% short, 69% adequate, 30% surplus. Subsoil moisture conditions 23% short, 72% adequate, 5% surplus.

**KANSAS:** Precipitation averaged 0.30 to 0.40 in. central, 2.00 in. southeast and 0.50 to nearly 1.00 in. elsewhere. Temperatures averaged 46 to 50° west and north central, 52 to 53° east and south central. These averaged 1° below normal east central and 5° below normal central.

Sorghum mature 97%, 95% last year, 90% average; 50% harvested, 70% last year, 55% average. Soybeans dropping leaves 100%, 96% last year, and 97% average; 55% harvested, 65% last year, 70% average. Corn harvested 80%, 90% last year, 80% average. Wheat planted 85%, 90% last year, 95% average; emerged 70%, 75% last year, 80% average. Wheat condition mostly good to excellent. Topsoil moisture adequate to surplus. Pasture and rangeland fair to good. Days suitable for fieldwork: 2.0.

**KENTUCKY:** Unseasonably warm and wet weather. Average daily temperatures 5 to 10° above normal with highs in upper 70's to lower 80's and lows in mid 40's to lower 50's. Precipitation widespread with amounts ranging from about 0.40 to over 4.00 in.

Rain and wet fields limited fieldwork to 1.0 day. Soil moisture 7% short, 48% adequate, 45% surplus. Harvesting delays becoming serious, corn for grain harvest least advanced for date since 1967 and soybeans least advanced on record. Standing water on some lowland and bottomland. Corn for grain 51% harvested, 70% last year, 77% average. Soybeans 20% harvested, 39% last year, 50% average. Burley in high case, too high for stripping on many crops. Stripping has progressed to 11% complete, 14% last year and 15% average. Crop quality still good but some mold and darkening of leaf. Fall wheat seeding delayed, only 40% complete; last year 52%, average 59%. Pastures improved and providing good fall grazing most areas.

**LOUISIANA:** Rainfall was received in most parts of the State. Highest amount reported was 11.95 in. Averaged temperatures ranged from 2 to 12° above normal. High 91°, low 61°.

Soil moisture adequate to surplus southeast, and surplus elsewhere in the State. Days suitable for fieldwork: 0.9. Activities limited to harvesting pecans, some planting of sugarcane, and repairing farm equipment. The harvest of soybeans, cotton, and other crops was delayed due to heavy, widespread rains. Rice harvest 99% 1984, 99% 1983, 100% average. Cotton harvest 37% 1984, 69% 1983, 69% average. Soybeans turning color 99% 1984, 98% 1983, 97% average; leaves shedding 92% 1984, 93% 1983, 92% average; harvest 33% 1984, 55% 1983, 60% average; condition poor. Reports of seeds sprouting in pods received. Winter wheat planting 18% 1984, 40% 1983, 39% average; emerged 16% 1984, 23% 1983, 22% average; condition fair. Sweetpotato harvest 83% 1984, 85% 1983, 89% average. Sugarcane planting 98% 1984, 97% 1983, 98% average; harvested 3% 1984, 23% 1983, 19% average; condition fair. Vegetable condition fair. Hay final cutting 98% 1984, 98% 1983, 97% average. Pecans harvested 11% 1984, 8% 1983, 12% average. Pasture condition fair. Livestock condition fair to good.

**MARYLAND AND DELAWARE:** Maryland: Weather was rainy and very warm. Precipitation averaged 1.11 in. and temperatures averaged 11 to 14° above normal.

Rain early in the week delayed fieldwork and limited it to 4.1 days. Topsoil and subsoil moisture supplies now adequate. Field corn, 75% harvested; 80% last year and average. Soybean leaf shed 85%; equal to 1983, average 90%. Soybean harvest 30% complete: 1983 and average

40%. Barley seeding 85%, last year 90%, average 95%. Wheat 60% seeded, 1983 80%, average 75%. Rye planting 80% complete, 1983 85%, average 90%. Oat planting 75%, last year 75%, average 65%. Alfalfa hay 95% cut four times, 1983 90%. Other hay, fourth cutting virtually complete.

Delaware: Rains early in the week limited fieldwork to 6.0 days. Precipitation averaged 0.85 in. Temperatures averaged 11 to 13° above normal. Topsoil and subsoil moisture supplies improved to mostly adequate. Corn for grain harvest 85% complete; 1983 and average 90%. Soybean leaf shed 90% complete; last year 80%, average 90%. Soybean harvest 25% complete; 1983 and average 45%. Barley seeding 85%, last year 95%, average 90%. Wheat 50% seeded, 1983 30%, average 45%. Rye seedings 40%; last year and average 55%. Apple harvest 85%; 1983 and average 100%.

**MICHIGAN:** This was the second consecutive mild fall week in the State. Temperatures averaged 3° above normal. Precipitation was light to moderate over the State with the heaviest amounts over the upper Peninsula.

Harvesting of fall crops made good progress despite hampering showers. Statewide 4.0 days were suitable for fieldwork. Corn for grain 35% harvested, 45% last year, 35% average. Soybeans 45% harvested, 75% last year, 63% average. Sugarbeets 50% harvested, 65% last year, 65% average. Winter wheat 95% planted, 95% last year, 91% average. Fall apple harvest in the final stages.

**MINNESOTA:** Except for some isolated showers the week was generally moisture free. Temperatures averaged 1 to 3° below normal. High: 70° at several locations. Low: 13° at both Hallock and Drayton. Precipitation averaged 0.10 to 0.40 in. below normal. Greatest weekly total: 1.06 in. at Winnebago.

Cloudy, cool weather persisted throughout the week. Soils continued wet and soft, keeping row crops harvest at a slow pace. Harvest of field corn was accomplished on sandy soils and high ground. Soybean harvest continued to be virtually at a standstill. Days suitable for fieldwork: 3.3. Topsoil moisture: 1% short, 38% adequate and 61% surplus. Field corn: Harvested 44%, 1983 80%, normal 45%; moisture content 25%, 1983 21%, normal 25%. Soybeans: Harvested 75%, 1983 73%, normal 75%; moisture content 15%, 1983 14%, normal 13%. Sunflower: Harvested 66%, 1983 67%, normal 62%. Sugarbeets: Harvested 78%, 1983 91%, normal 88%. Potatoes: Harvested 97%, 1983 90%, normal 95%.

**MISSISSIPPI:** Average temperatures 5 to 14° above normal, extremes 50 and 88°. Average rainfall much above normal. Greatest 24-hour rainfall 9.25 in. Widespread flooding along rivers.

Soil moisture excessive to surplus. Fieldwork 0.8 day suitable, 4.9 1983, 4.5 average. Too wet to harvest crops. Cotton condition poor due to excessive rainfall; 27% harvested, 75% 1983, 69% average. Soybeans fair to poor; 99% shedding, 100% 1983 and average; 18% harvested, 38% 1983, 43% average. Rice 95% harvested, 94% 1983, 93% average. Sorghum 91% harvested, 93% 1983, 94% average. Corn 88% harvested, 90% 1983 and average. Wheat condition fair; 17% planted, 41% 1983, 43% average. Sweetpotatoes 79% harvested, 72% 1983, 79% average. Peanuts 89% harvested, 80% 1983, 89% average. Pecans 16% harvested, 14% 1983, 17% average; condition fair. Pasture condition fair to good. Livestock condition fair to good.

**MISSOURI:** Temperatures ranged from 3° below

normal in the west and northwest to 30° above normal in the Bootheel. Rain was widespread averaging around 0.50 in. in the northwest, around 1.00 in. in the Bootheel.

Days suitable for fieldwork: 1.4. Soybeans dropping leaves 97%, 100% last year, 99% normal. Soybeans mature 80%, 91% last year, 91% normal. Soybeans harvested 30%, 71% last year, 71% normal. Corn harvested 66%, 91% last year, 74% normal. Grain sorghum harvested 63%, 84% last year, 71% normal. Cotton harvested 31% this year, 89% last year, 75% normal. Land tilled for spring crops 26%, 41% last year, 35% normal. Wheat planted 45%, 74% last year, 71% normal. Wheat emerged 40%, 63% last year, 58% normal. Condition of pasture 7% excellent, 54% good, 36% fair, 3% poor. Topsoil moisture supply 71% surplus, 27% adequate, 2% short.

**MONTANA:** Temperatures near normal first of week falling to much below normal by end of week. Temperatures averaged 5 to 11° below normal for week. Highest temperatures in 60's, mostly through central sections, with subzero temperatures over southwest. Precipitation mostly moderate to heavy over all except northeast and southeast. Some areas in north central and central received over 1.00 in., while mountains of west received 1.00 to 2.00 in. latter part of week.

Soil moisture mostly short except west of Continental Divide. Fieldwork: days suitable 4.1. Crops percent harvested compared with last year and average: Sugarbeets 100, 85, 75; potatoes 100, 95, 90. Winter wheat planted 100%, 1983 100%, average 100%; winter wheat emerged 65%, 1983 90%, average 85%. Winter wheat condition mostly fair, good in west and southeast. About 85% of cattle and sheep moved to winter ranges.

**NEBRASKA:** Precipitation was widespread and light. Average temperatures ranged from 1 to 7° below normal statewide.

Winter wheat condition 12% fair, 82% good, 6% excellent. Wheat planted 100% this year, last year, average. Wheat emerged 100% this year, last year, average. Sorghum mature 100% this year, last year, average. Sorghum harvested 60%, 90% last year, 65% average. Soybeans dropping leaves 100% this year, last year, average. Soybeans harvested 50%, 90% last year and average. Corn harvested 50%, 90% last year, 60% average. Days were suitable for fieldwork: 5.1. Topsoil 8% short, 58% adequate, 34% surplus. Subsoil 19% short, 67% adequate, 14% surplus.

**NEVADA:** Nevada skies mostly cloudy early in period. Some precipitation fell northern areas midweek. Cold front moved across State end of period bringing rain showers and gusty winds valleys, snow higher elevations. Temperatures averaged well below normal most areas.

Potato harvest resumed early in period. About one-fourth still in ground due to inclement weather mid-October. Livestock sales increasing.

**NEW ENGLAND:** Temperatures ranged from the low 40's near the Canadian Border to the upper 50's along the south coast, averaging near normal. Average precipitation ranged from 0.50 to 1.00 in. across northern areas, 1.00 to 1.50 in. across central areas, and 1.50 to 2.00 in. across southern areas. Precipitation was evenly distributed throughout the week, with most locations experiencing only two rain-free days.

Soil moisture levels adequate. Cranberry harvest 80% complete. Maine potatoes 100% harvested. Fall tillage active throughout the

region. Fall apple and silage corn harvest winding down.

**NEW JERSEY:** Temperatures averaged 12° above normal. Extremes were 36° on the 25th and 83° on the 28th and 29th. Weekly rainfall averaged 2.47 in. north, 1.16 in. central and 1.17 in. south. The heaviest 24-hour total was 2.62 in. on the 22nd and 23rd. Estimated soil moisture, in percent of field capacity, averaged 99% north, 78% central and 60% south. Four inch soil temperatures averaged 60 north, 64 central and 65 south.

Fieldwork: 6.0 days suitable. Soil moisture adequate. Harvest of hardy late season vegetables continues. Irish potato and sweetpotato harvest nearly completed. Apple and cranberry harvest well advanced. Pasture growth very limited. Fall sown grains and cover crops growing well.

**NEW MEXICO:** Rain curtailed field activity. Temperatures 5 to 10° below normal. Row crops in fair to good condition. Haying halted by rain; last cutting in progress. Peanuts dug, but many remain in field. Cattle shipping active; good weight gains reported. Livestock coming off mountainous summer pastures. Some stock moving to wheat pasture. Cotton open bolls: 100%, last year 97%, average 89%; harvested 15%, last year 9%, average 20%.

**NEW YORK:** After dry weather most of the month, it was a wet week especially in the southeast where rainfall amounts were over 1.00 in. There were showers almost daily with the most general activity on 22nd and 26th. Temperatures averaged above normal with the warmest weather at the beginning and ending of the week.

Harvest of field crops continued slowly last week, with progress slowed by showers in many areas. In general, harvest about a week behind normal. Corn silage harvest 79% complete, while harvest of corn for grain 20% done. Moldy corn being reported in some areas, and stalk rot and lodging continues to be a problem. Third cutting alfalfa nearing completion, with 90% cut. This will be the last week of apple picking. Western growers still picking some late romes while Idareds' and Mutsus harvest virtually complete. Cabbage and cauliflower still in production and both crops making rapid growth as a result of the warm fall weather.

**NORTH CAROLINA:** Temperatures averaged 6 to 12° above normal in mountains and Piedmont and 15° above normal in Coastal Plains. Precipitation ranged from 0.36 to 3.65 in. in the mountain region and was spotty and mostly insignificant elsewhere ranging from none to 0.56 in.

Soil moisture: 10% very short, 65% short and 25% adequate. Days suitable for fieldwork: 5.7. Condition: Soybeans 4% poor, 35% fair, 59% good, 2% excellent. Pasture 11% poor, 53% fair, 34% good, 2% excellent. Sweetpotatoes 15% fair, 85% good. Phenological stages: Soybeans dropping leaves 69%, 1983 62%, average 66%. Harvest: Corn for grain 92%, 1983 92%, average 92%; soybean 17%, 1983 11%, average 19%. Sweetpotatoes 78%, 1983 77%, average 82%. Cotton 40%, 1983 76%, average 60%. Sorghum grain 69%, 1983 63%, average 74%. Apples 87%, 1983 83%, average 90%. Peanuts threshed 90%, 1983 31%, average 72%. Planted: Wheat 49%, 1983 39%, average 40%. Major farm activities: Seeding small grains, combining corn and soybeans, digging and threshing peanuts, picking cotton, preparation of land for fall seeding, harvesting apples, digging sweetpotatoes.

marketing tobacco and livestock and general farm maintenance.

**NORTH DAKOTA:** Week began with snowstorm in the northwestern and north central districts and ended with a snowstorm in the central and north central districts. Temperatures were below normal. The coldest portion of the State was the north central district with temperatures averaging 8° below normal. The southeastern district was the warmest with temperatures 2° below normal. Extremes ranged from 13 to 69°. Precipitation was the greatest in the northwestern and northeastern districts. Kenmare reported the greatest amount of moisture with 0.94 in. for the week. Snow cover was present over a great deal of the northwestern, north central and central districts by the end of the week.

Good harvest progress made in central and southwest districts. Other areas plagued by precipitation and/or wet fields. Sunflower harvest progress about normal, soybeans and corn ahead, sugarbeets behind. No progress made on soybeans in two weeks. Sugarbeet growers working feverishly to finish lifting before freeze-up. The percents harvested compared to last year and average are: sunflower 57, 84, 56; soybeans 92, 90, 85; corn grain 74, 90, 64; sugarbeets 83, 95, 92. Topsoil moisture supplies better than normal with 23% short, 72% adequate, 5% surplus. Average is 37% short or very short, 59% adequate, 4% surplus. Subsoil supplies improved to 43% adequate, 57% short or very short; but still drier than average.

**OHIO:** Temperatures 6 to 8° above normal. High mid-70's to low 80's, lows 30's to 40's. Precipitation light northwest, totals 0.10 to 0.50 in. Heavy elsewhere, totals 1.00 to 2.00 in.

Topsoil moisture 5% short, 60% adequate, 35% surplus; 2.5 days suitable for fieldwork. Activities limited due to precipitation. Corn and soybean harvest 2 weeks behind normal. Corn harvested 25% 1984, 60% 1983, 55% average. Soybeans dropping leaves 100% 1983, 100% 1983, 100% average; harvested 50% 1984, 90% 1983, 80% average. Winter wheat planted 75% 1984, 90% 1983, average 90%; emerged 60% 1984, 75% 1983, 65% average; condition good to excellent. Pastures good condition.

**OKLAHOMA:** Temperatures average below normal statewide. Averages ranged 1° below normal east central to 7° below normal Panhandle and north central. Precipitation averages showed wide variation ranging from 0.27 in. Panhandle division to 4.06 in. southeast.

Wheat seeding progressed many areas of State. Warm temperatures needed for seed germination and plant growth. Row crop harvest hampered by wet conditions. Cattlemen seeking ways of acquiring low cost roughages and exploring alternatives to improve available low quality roughages. Livestock in good to fair condition. Wheat planted: 70%, 85% 1983, 85% average. Wheat emerged: 30%, 65% 1983, 55% average. Sorghum mature: 98%, 95% 1983, 95% average. Sorghum harvested: 45%, 45% 1983, 40% average. Cotton open bolls: 98%, 85% 1983, 95% average. Cotton harvested: 15%, 10% 1983, 10% average.

**OREGON:** Rain at beginning and end of week amounted to 1.70 in. at coast, 1.00 in. in Willamette Valley, and less than 0.50 in. in eastern and southern areas. Slight warming brought near normal temperatures to the west, while northeast was 10° below normal.

Fall grain seeding behind normal. Winter wheat 77% planted; 61% emerged. Last year 86% planted; 60% emerged. Average 88% and 60%. Wet weather has delayed fieldwork, particularly in west. Grass seed fields look good. Malheur County sugarbeets about 20% harvested. Field corn harvest continues. Haying nearly finished in all areas. Filbert harvest delayed by rain and mud; yields good. Early walnuts dropping; quality low. Apple and pear harvests near complete in Willamette Valley. D'Anjou and apple harvest winding down in Hood River Valley. Cranberry harvest 80% finished; quality good to excellent. Potato harvest near completion in central areas, yield and quality above average; virtually complete in Hermiston-Boardman region; 90% complete in Malheur County; wet weather has not allowed some potatoes to be dug in Willamette Valley. Onions: Harvest complete in Malheur County; some remain in fields in the Willamette Valley. Cauliflower harvest; crop good. Sweet corn harvest complete. In Douglas County, pumpkin and squash harvest finishing up. Range and pasture condition fair to good; improving with rain. Livestock in mostly good condition. Most stock in east on fall range. Some hay feeding.

**PENNSYLVANIA:** Pennsylvanians enjoyed a continuation of Indian Summer along with relief from two month of below normal precipitation. Rain fell in all parts of the State 22nd through 26th. Allentown had the greatest weekly total of 2.43 in. Unseasonably warm temperatures early in the week were knocked down to normal ranges by the effect of a high pressure system moving from the Mid-West. The end of the week was again much warmer than usual for this period, with readings in the 80's setting new record highs at several stations. The statewide average temperature was 59°, 12° above normal. Average total precipitation was 1.20 in., 0.52 in. above normal for this week.

Days suitable: 3.0. Moisture mostly adequate to short. Activities: Plowing; seeding wheat; making hay; fixing fences; harvesting green chop ensilage, high moisture ground ear and shelled corn, corn for grain, soybeans, cabbage and apples. Corn for grain 22% harvested, last year 43%, average 42%. Corn for silage 91% harvested, last year virtually complete. Soybeans 21% harvested, last year 39%. Fall plowing 94% complete, last year 92%, average 93%. Wheat 90% planted, last year 91%. Fourth crop alfalfa 69% harvested, last year 86%. Quality of hay made mostly poor to fair. Feed from pastures average to below average.

**PUERTO RICO:** Week ending 26th. Island average rainfall 1.50 in. or 0.26 in. below normal. Highest weekly total 3.93 in. Highest 24-hour total 3.00 in. Temperatures averaged about 78 to 80° on coasts and 74 to 77° interior divisions. Mean station temperature ranged from 66.2 to 81.5°. Extremes 56 and 92°.

**SOUTH CAROLINA:** Weather continued unseasonably warm. Not so warm temperatures over weekend but recording breaking temperatures. Some areas in east received no rain during past week. Mountain areas and foothills received 1.00 to 3.00 in.

Soil moisture short: days available for fieldwork: 5.3. Soybean condition poor to fair: 96% leaves turning; 94% last year, 95% average; 79% shedding leaves, 82% last year, 81% average; 48% mature, 33% last year, 45% average; 12% harvested, 6% last year, 11% average. Cotton condition good; 98% bolls open, 100% last year, 100% average; 56% harvested, 90% last year, 77%

average. Sorghum condition fair to good; 76% harvested, 77% last year, 77% average. Tobacco harvesting complete; 90% stalks destroyed, 95% last year. Apple harvest nearing completion, 96% harvested, 100% last year, 100% average. Small grain condition for wheat and rye fair to good; barley and oats fair; 11% wheat planted, 10% last year, 20% average; 34% oats planted, 44% last year, 40% average; 30% rye planted, 41% last year, 46% average, 40% barley planted, 44% last year, 45% average.

**SOUTH DAKOTA:** Average temperatures ranged from 3° above to 6° below normal. Extremes 76 and 8°. Rainfall amounts were very light during the week.

Days suitable for fieldwork: 4.0. Topsoil moisture supplies adequate over most of the eastern half and the extreme west, surplus along eastern border, short in much of west. Drier weather enabled harvest progress to jump quickly from the previous week. Main farming activities crop harvesting and working cattle and calves. Range and pastures mostly fair to good condition. Livestock good. Sorghum harvested 57%, 1983 87%, average 77%. Sorghum mature 93%, 1983 100%, average 98%. Corn harvested 43%, 1983 83%, average 67%. Winter wheat planted 100%, 1983 100%, average 100%. Winter wheat emerged 96%, 1983 94%, average 99%.

**TENNESSEE:** A nearly stationary front stretched across the State from the 21st to the 24th, followed by a high pressure system on the 25th and 26th. Temperatures continued to be above normal and averaged in the 60's over all sections of the State. Rain fell from the 21st to the 24th and brought harvest activities to a standstill.

Farmers averaged 1.5 days suitable for fieldwork. Soil moisture conditions were rated 56% surplus, 36% adequate, 4% short, 4% very short. Corn harvest: 46%, 1983 75%, average 76%. Cotton harvest: 25%, 1983 86%, average 68%. Soybeans mature: 70%, 1983 90%, average 90%; harvested: 7%, 1983 38%, average 40%. Burley tobacco stripped: 24%, 1983 29%, average 40%. Wheat sown: 28%, 1983 48%, average 57%. Sorghum harvested: 42%. Pasture and livestock conditions have improved and rated mostly fair to good.

**TEXAS:** Widespread showers, thunderstorms covered most of Texas during week bringing substantial rains to most of State. Heaviest precipitation southeast, south central Texas, 3.00 to 5.00 in. amounts common; isolated amounts approaching 12.00 in. Week's end frontal systems bringing partly cloudy skies, slightly warmer temperatures. Precipitation above normal across State. Temperatures below normal statewide.

Cloudy, wet, slightly cooler weather dominated State. Heavy amounts rain good portion central, south central Texas, Upper Coast. Fieldwork minimal all week across State. Recent rains beneficial small grain crops; additional precipitation may hurt some cotton, peanut fields. Pastures, ranges show good growth. Virtually no cotton fieldwork during week High and Low Plains. Moderate rainfall prevented producers from defoliating, many wait for freeze. Cooler weather prevented many large bolls from opening. Some open cotton beginning string out. Drier weather needed for fieldwork to continue. Most gins able catch up on operations. Current condition 66% of normal compared with 49% a year ago. Reported conditions 2% excellent, 48% good, 28% fair, 17% poor, and 5% failure. Grain sorghum fieldwork also halted during week. Most fields Plains

mature; drier weather needed for crop to dry out for harvest. Corn harvesting activities no progress for week. Most fields unharvested are for food grain. Some damage to these fields occurring from wind, rain. Peanuts many areas beginning decrease in quality because prolonged field wetness. Harvesting at standstill for week. Some sprouting occurring because continued rain. Producers fear heavy losses if fields do not dry out soon. Small grain fields planted before recent rains show good growth. Many slow germinating fields up good stands. Some limited grazing some areas. Small grain expectations remain high because good rainfall. Soybean fields across State too wet for harvest. When conditions permit, harvest continue Plains, late beans along Upper Coast. Sugarbeet harvest slowed during week. Yields good, minor rotting because wet weather. Sugarcane harvest underway Rio Grande Valley about on schedule. Cane quality good; quality should improve as temperatures cool down.

Cotton open bolls 67%, 92% 1983, 85% average; harvested 24%, 34% 1983, 30% average. Sorghum mature 95%, 99% 1983, 97% average; harvested for grain 78%, 87% 1983, 86% average. Wheat planted all purposes 81%, 72% 1983, 76% average; emerged 55%, 47% 1983, 56% average. Corn for grain harvested 96%, 100% 1983, 98% average. Peanuts harvested 39%, 50% 1983, 55% average. Soybeans harvested 48%, 30% 1983, 38% average. Sugarbeets harvested 52%, 31% 1983, 28% average. Pecans harvested 7%, 10% 1983, 10% average. Sunflowers harvested 48%, 79% 1983, 71% average. Oats planted for all purposes 77%, 67% 1983, 69% average.

**Commercial vegetables:** Rio Grande Valley, harvest cucumbers, tomatoes, peppers halted by rain. Other vegetables making good progress. Light insect damage reported. San Antonio-Winter Garden, rain virtually stopped all land preparation, field activities. Trans-Pecos, harvest chilis, lettuce slowed by weather. Light volumes peppers moved before rain. High Plains, cabbage harvest some progress, despite wet conditions. Carrot harvest halted. East Texas, harvest sweetpotatoes stopped by showers. Some damage fall vegetables result from flooding. Pecan harvesting little progress during week. Activities should spread into Cross Timbers as weather conditions permit. Prospects remain low.

**Range and livestock:** Range, pasture conditions continue improve across State because additional rainfall. Producers reporting greener pastures High Plains to Rio Grande Valley. Growth native grasses, improved pastures improving. Small grain pastures good growth, should provide grazing soon. Livestock movement slowed because increased forage availability. Livestock conditions good. Stock tanks catch water, many full.

**UTAH:** Cold snap with snow over most of State. Frontal system at beginning and end of week missed Uinta Basin but deposited light to moderate precipitation rest of State with occasional heavy accumulation. Maximums averaged 16° below normal, ranging 8 to 21° below. Minimums average 7° below normal, ranging 3 to 16° below.

Potato and onion harvest nearing completion. Apple picking continued; sorting and marketing active. Livestock entering winter in excellent condition.

**VIRGINIA:** Well above normal temperatures for period with near normal temperatures around midperiod. Extremes upper 80's and low near 40. Precipitation moderate to heavy, averaging about 1.00 in. but ranging from less than 0.10

to over 3.00 in.

Variable rainfall. Excess rain hampered harvest in some areas, other areas still very dry. Topsoil moisture ratings 40% short, 52% adequate, 8% surplus. Days suitable for fieldwork averaged 3.9. Harvest of grain corn 70% complete, 75% last year, 78% average. Soybean harvest 20% complete, 17% last year, 23% average. High humidity and rain hindered harvest this period. Yields mostly good to excellent. Peanut harvest in final stages, 99% dug, 68% last year, 86% average. Combining 97% complete, 42% last year, 73% average. Peanut yields average or better. Apple harvest 90% complete, 78% last year. Small grain planting on schedule, some problems with dry soils interfering with planting. Oats 91% seeded, 86% last year, 84% average. Barley 74% seeded, 80% last year, 76% average. Wheat 42% seeded, 42% last year, 48% average. Grain sorghum harvest 26% complete, 16% last year, 24% average. Burley tobacco grading and stripping active. Flue tobacco marketing active.

**WASHINGTON:** Temperatures were below normal for the State. Precipitation was received in most areas.

Winter wheat planting winding down with 96% seeded compared to 98% last year and average of 94%. Emergence of winter wheat progressing about normal with 88% emerged. Cheat grass remains a problem. Potato harvest continuing. Field activities nearing completion. Apple and grape harvests nearing completion except for some late fields. Cold weather has brought vegetable harvest to a near standstill. Some fields being prepared for planting next spring. Livestock being moved off summer pastures with feeders going to market. Pastures in fair to good condition.

**WEST VIRGINIA:** Temperatures averaged 10° above normal over most of the State. The high of 93° was reported in Charles Town, low of 43° in Terra Alta. Precipitation was well above normal during the week.

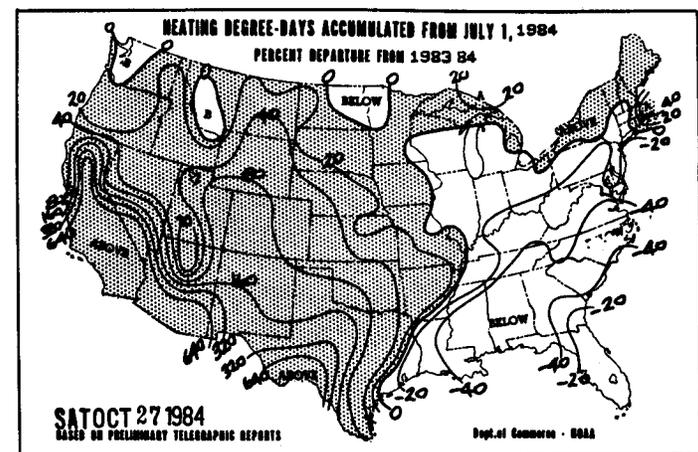
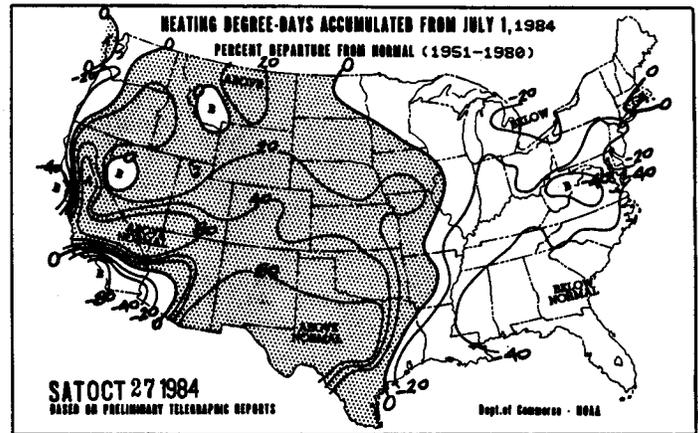
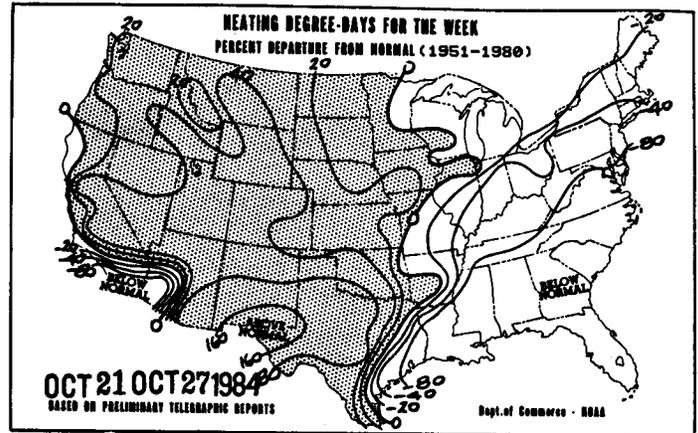
Soil moisture adequate to surplus. Days worked averaged 1.6. Fall seeding of wheat 85% complete, barley plantings 94% complete. Corn in good to fair condition with 48% mature and 52% harvested. Pasture in fair to good condition. Main activities: Harvesting corn for grain and silage.

**WISCONSIN:** Weather was dry the 22nd through the 24th, then rain and warm temperatures returned from the night of the 24th to early the 28th. Cold air and clear skies followed late on the 28th. Rainfall averaged 1.20 in.

Harvesting progress spurted ahead from the 22nd to the 24th and then was slowed by the wet weather. Wind, water and pests have damaged some corn. Silo filling was 94% complete, 88% last year, 91% average. Corn for grain harvest was 30% complete, 40% last year, 31% average. Soybeans were 47% harvested, 50% last year, 47% average. Soil moisture was 0% short, 41% adequate, 59% surplus. There were 3.9 days suitable for fieldwork, the bulk of that occurring in the first 3 days of the week.

**WYOMING:** Unseasonably cold temperatures averaged 8 to 15° below normal. Below normal precipitation except along southern border.

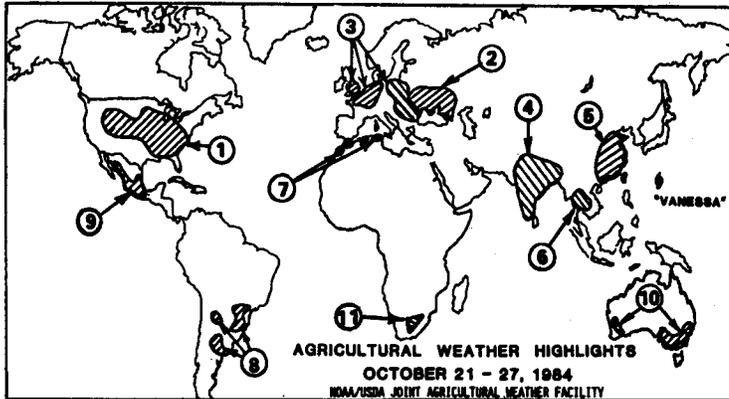
Topsoil moisture adequate 80% State. Days suitable for fieldwork: 5.0. Winter wheat fair to mostly good condition. Sugarbeet harvest wind-up stages. Normally 78% dug. Corn for grain, 50% harvested. Normally, 46% harvested. Virtually all dry beans harvested. Livestock mostly good condition most areas. Hay supplies for wintering livestock adequate most areas.



**CORRECTION:** Maps on page 10, WWCB Vol.71#42 Oct. 23, 1984, Should read, Cooling Degree-Days.

# International Weather and Crop Summary

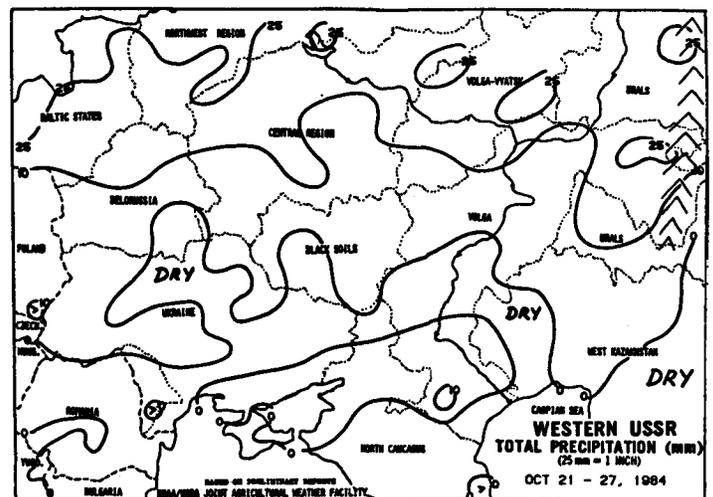
Oct. 21 - 27

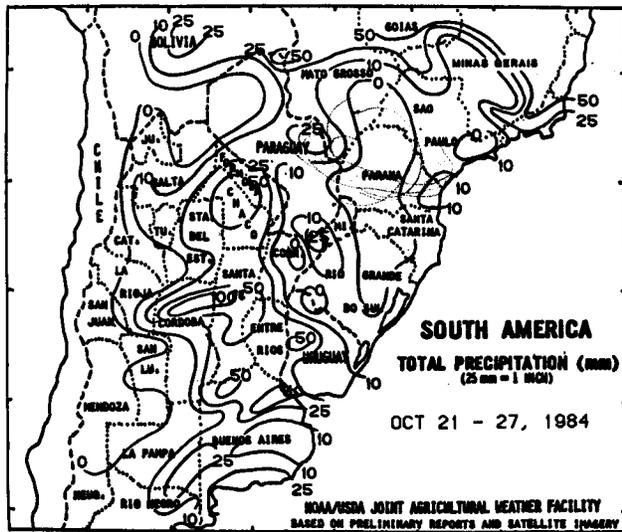


HIGHLIGHTS:

1. UNITED STATES ... Prolonged rain damages and further delays the Delta's cotton and soybeans, and floods and erodes lands. Poor drying conditions delay the Corn Belt harvest, while excessive dryness slows southeastern small grain germination and growth. Early cold and snow continues stressing some western livestock.
2. USSR ... Dry, warm weather aids corn, sugar beet, and sunflower harvesting across the south.
3. EUROPE ... Wet weather delays late summer crop harvesting in the northwest. Dry weather aids winter grain planting and summer crop harvesting in the east.
4. SOUTH ASIA ... Southern precipitation favors cotton forming bolls. Moisture conditions are adequate for the northern wheat region.
5. EASTERN ASIA ... Dry, warm weather in most of China favors summer crop harvesting and cotton and late rice maturation.
6. SOUTHEAST ASIA ... Tropical Storm Warren remains in the South China Sea. Drier weather prevails in much of Indochina. Scattered rain benefits western Thai rice.
7. NORTHWESTERN AFRICA ... Fieldwork for planting in western areas awaits the onset of autumn rains. Light showers favor eastern planting.
8. SOUTH AMERICA ... Argentina's wet weather slows summer crop planting but benefits heading wheat. Mostly dry weather aids planting in Brazil's soybean areas.
9. MEXICO ... Mostly fair weather favors crop harvests.
10. AUSTRALIA ... Scattered rain benefits eastern wheat areas, but above-normal temperatures increase the evaporative demand.
11. SOUTH AFRICA ... Moderate rain benefits much of the Maize Triangle, as corn planting continues.

**WESTERN USSR...**Two frontal systems traversed the region during the week but the associated precipitation was light; but in the north, 10-25 mm of rain fell. Dry weather covered the south, allowing corn, sugar beet, and sunflower harvests to progress. Weekly temperatures were much above normal, therefore, most winter grains continued to add new growth. Winter grains have adequate moisture for early growth, but continued mild weather is needed in the south to ensure winter wheat becomes well established before entering dormancy. In South Central USSR cotton areas, early week showers caused only minor harvest delays.

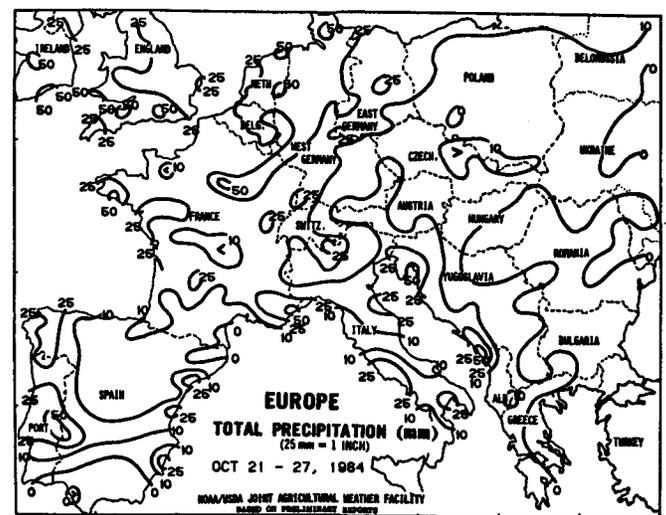




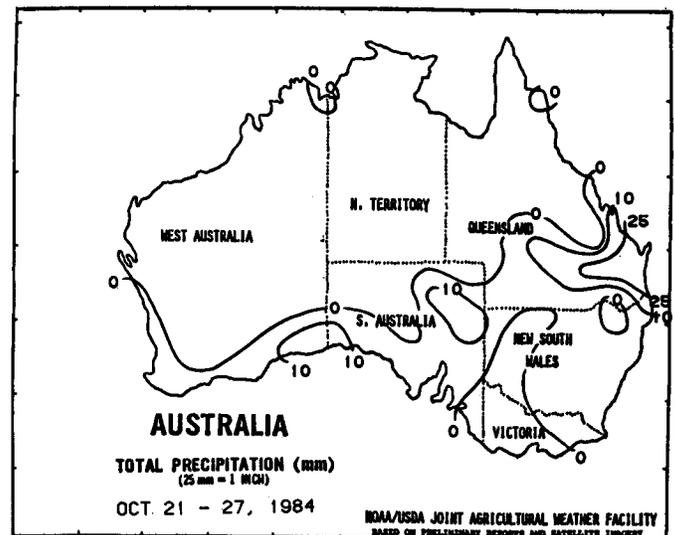
**SOUTH AMERICA...** Showers continued covering Argentinean crop areas with the heaviest rain (over 100 mm) falling on northeastern Cordoba and central Santa Fe. The heavy rains slowed corn planting and likely produced localized flooding. Further south, wet weather (25-50 mm) slowed corn planting in southern Santa Fe and northern Buenos Aires, but benefited heading wheat. In Brazil, dry weather extended northward from northern Rio Grande do Sul, through Santa Catarina and Parana, into western Sao Paulo and eastern Mato Grosso do Sul. The dry weather aided fieldwork for summer crop planting. Light showers continued over southern Brazil, where wheat is filling grain.



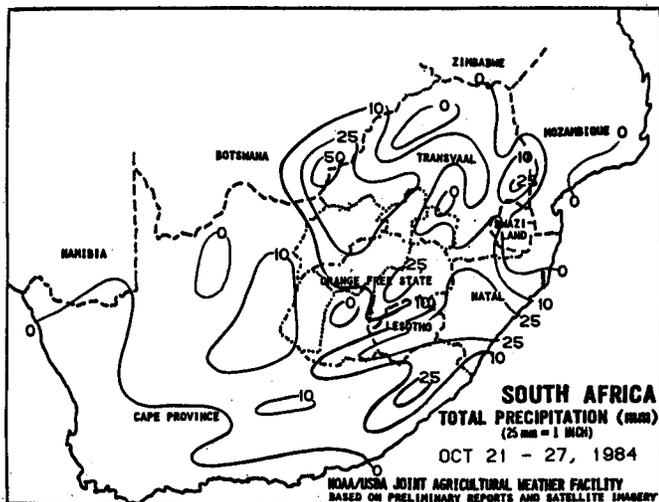
**MEXICO...** Mostly fair weather covered the major crop areas, favoring summer crops harvesting and development. Light showers dotted the southern Plateau corn belt and temporarily slowed corn and bean harvests, while most of the west coast farming districts enjoyed sunny, mild conditions. Dryness continued over much of the north central rangeland, stressing vegetation, and in turn, livestock. Light showers scattered across central America as the rainy season slowly ends.



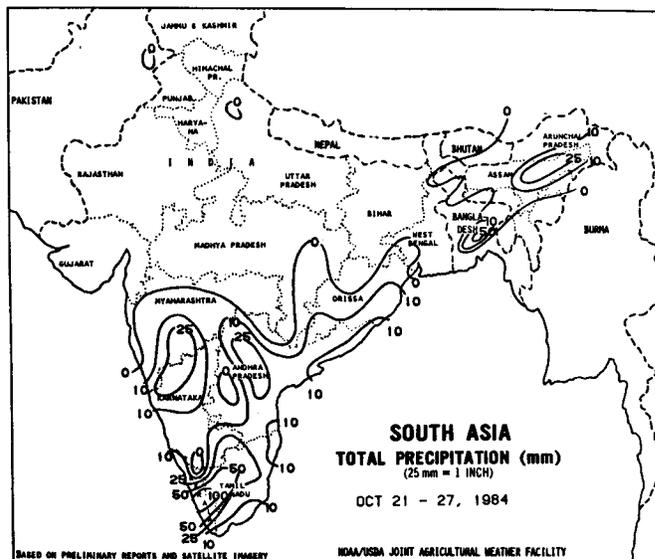
**EUROPE...** Wet weather (25-50 mm) continued to cover northwestern crop areas, causing further delays in summer crop late harvesting. Light showers in southwestern France caused only minor early corn harvesting delays. Reports indicate French corn matured later than normal; with northern harvests just beginning, and is expected to continue until the end of November in the south. Corn maturity is behind normal in Czechoslovakia, with 15 percent of the corn crop harvested by mid-October. Winter grain planting continued over much of Europe. Mostly dry eastern weather allowed winter grain planting to progress with few delays. Light showers continued to increase winter grain planting moisture reserves in northern Spain, but rain is needed in southern Spain before planting can begin. Weekly temperatures were above normal everywhere except the northwest's temperatures were near normal.



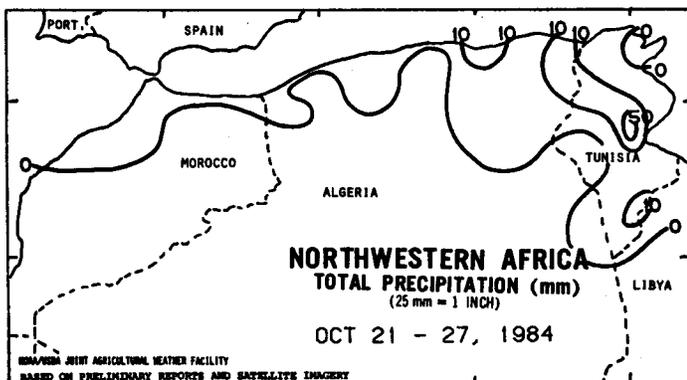
**AUSTRALIA...** Scattered showers fell across southeastern Australia, with heaviest amounts in Queensland. Generally, less than 10 mm of rain fell in New South Wales, South Australia, and Victoria's wheat areas. In the north, tropical weather activity was very light. A dry band stretched through western Victoria and western New South Wales, where moisture is becoming limited. Temperatures averaged above normal in much of the southeast again this week, increasing evaporation rates.



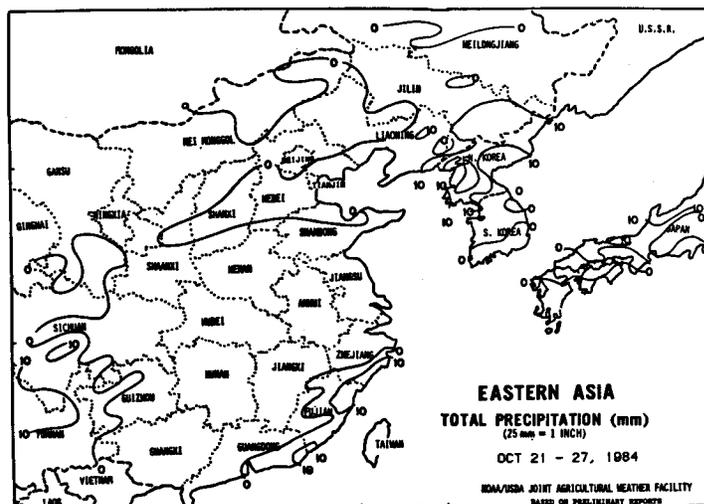
**SOUTH AFRICA...**Light to moderate showers fell in most of the Maize Triangle. Much of the West Transvaal received 20-37 mm of rain. The moisture benefited germination and continued planting. Lighter precipitation (10-20 mm) fell across the northern Orange Free State. The southern Orange Free State's drier weather may limit some corn planting. The northern Transvaal was relatively dry following moderate, beneficial showers. Temperatures averaged above normal in much of the region, increasing the evaporative demand.



**SOUTH ASIA...**Most rainfall was confined to peninsular India while seasonally dry weather covered the northern wheat region. Random, scattered showers benefited parts of Maharashtra, Andhra Pradesh, Karnataka, Kerala, and Tamil Nadu, where cotton is forming bolls. Dry Gujarat and western Madhya Pradesh weather favored groundnut harvesting. Little or no rain fell in the eastern winter rice region following last week's scattered rain. Some filling rice may have limited moisture supplies. Northern wheat planting continued with adequate moisture for most of the major producing region. Dry southern wheat conditions are hampering planting and emergence.



**NORTHWESTERN AFRICA...**Morocco's and northwestern Algeria's mostly dry weather continued covering winter grain areas. Fieldwork for planting awaits the onset of autumn rains. Northeastern Algeria's and northern Tunisia's light showers continued to moisten topsoils, favoring planting. The bulk of winter grain is normally planted in early November in Tunisia, mid-November in Morocco, and early December in Algeria.



**EASTERN ASIA...**Mostly dry weather covered the region, as summer crop harvesting continues. Dry, warm weather benefited cotton and soybean harvesting in the North China Plain. Temperatures averaged 1-4C above normal, favoring late cotton boll development and winter wheat establishment. Light, northern showers favored Hebei's nonirrigated winter wheat areas where earlier persistent dryness hampered planting. Dry, warm southern weather favored late double-cropped rice in the late filling and maturing stages. Conditions remain favorable for winter grain establishment in Korea.



OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

**WEEKLY NEWS BULLETIN  
SECOND CLASS**

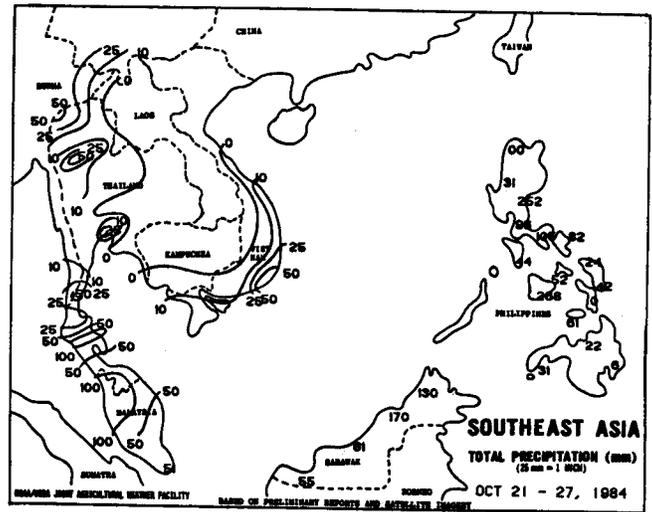
(continued from p. 23)

(continued from p. 11)

Tang noted that while most ground water levels declined during September, most were above average for the month. In the Western States, ground water levels rose in Washington and fell in North Dakota and Nebraska. Water levels were above average in Washington and in most of Idaho, and were below average in Arizona, Texas, and most of New Mexico. Record-low levels for September occurred in key USGS observation wells in Arizona, New Mexico, and Texas. Record highs were reached in Idaho, Nevada, and Utah. All-time highs were measured at key wells in California (27 years of record) and Utah (23 years of record).

The USGS, in cooperation with State and local organizations, routinely gathers data on the quantity and quality of surface and ground water resources at more than 60,000 hydrologic stations across the country.

Individual flows of the Nation's five largest rivers for September: while the average flow of each of the "Big Five" rivers declined seasonally from August, flows of four of the large streams were above average for the month. The Mississippi River at Vicksburg, (with an average flow of 176 bgd) was 3 percent below long-term average; the St. Lawrence River near Massena, NY, 193 bgd, 15 percent above average; the Ohio River at Louisville, KY, 19 bgd, 27 percent greater than the long-term average; the Missouri River near Hermann, MO, 43 bgd, 24 percent above average; and the Columbia River at the Dalles, OR, 65 bgd, 5 percent greater than the long-term average.



**SOUTHEAST ASIA...** Following several weeks of moderate late season rainfall, drier weather covered much of Indochina. Tropical Storm Warren developed in the South China Sea and remained mostly stationary. However, Warren did produce localized heavy rain in the northern Philippines and southern Vietnam. Some flooding may have damaged rice. Dry weather covered nearly all of Kampuchea, Laos, and eastern Thailand. Scattered rain in western Thailand benefited reproducing rice.

The Weekly Weather and Crop Bulletin (ISSN 0043-1974) is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the Weekly Chronicle. It is issued under general authority of the Act of January 12, 1895, (44-USC 213), 53d Congress, 3d Session. NOAA is responsible for managing, printing, and distributing the bulletin. The contents may be reprinted freely, with proper credit.

Annual subscriptions: domestic \$25, foreign \$33 (in U.S. funds by international money order or check drawn on U.S. bank) payable to U.S. Department of Commerce, NOAA. POSTMASTER: Send address changes to NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, D.C. 20250. Order subscriptions from the office and address listed above. Second class postage paid at Washington, D.C., and additional mailing offices.

U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Weather Service/Climate Analysis Center  
Managing Editor . . . . . Don Haddock  
Meteorologists . . . . . Lyle Denny,  
Ray McInturff, Jim Williams, Wes Byrd,  
and Mark Brusberg

Subscriptions (202) 447-7917. . . Cheryl Caleco

U.S. DEPARTMENT OF AGRICULTURE  
Economics Management Staff  
Editor . . . . . Mary Maher  
Statistical Reporting Service  
Agricultural Statistician . . . Bill Brannen  
World Agricultural Outlook Board  
Agricultural Weather Analysts. . Ray Motha,  
Tom Puterbaugh, and Ron Lundine