

WEEKLY WEATHER AND CROP BULLETIN

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

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

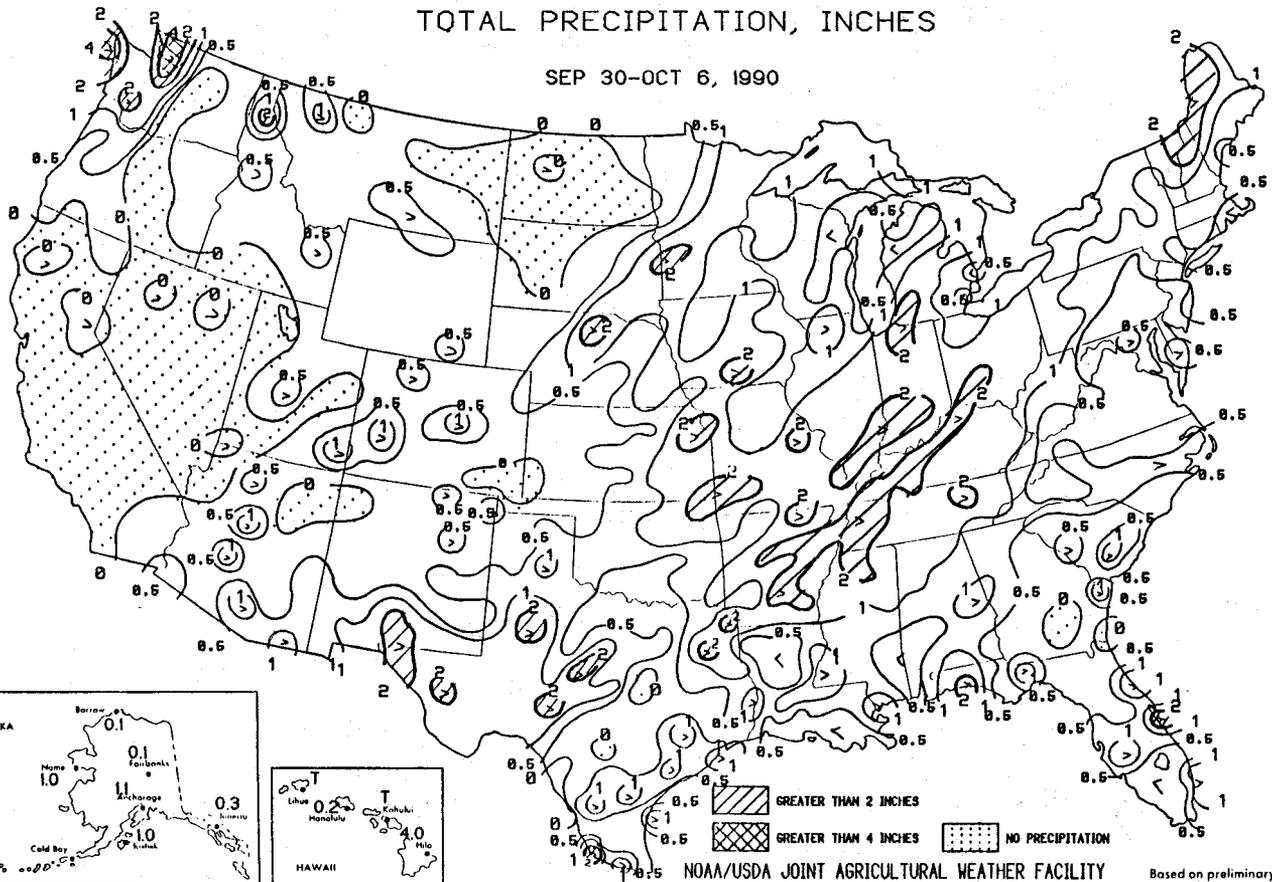
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Washington, D.C.

October 10, 1990

TOTAL PRECIPITATION, INCHES

SEP 30-OCT 6, 1990



NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY Based on preliminary reports

HIGHLIGHTS

September 30-October 6, 1990

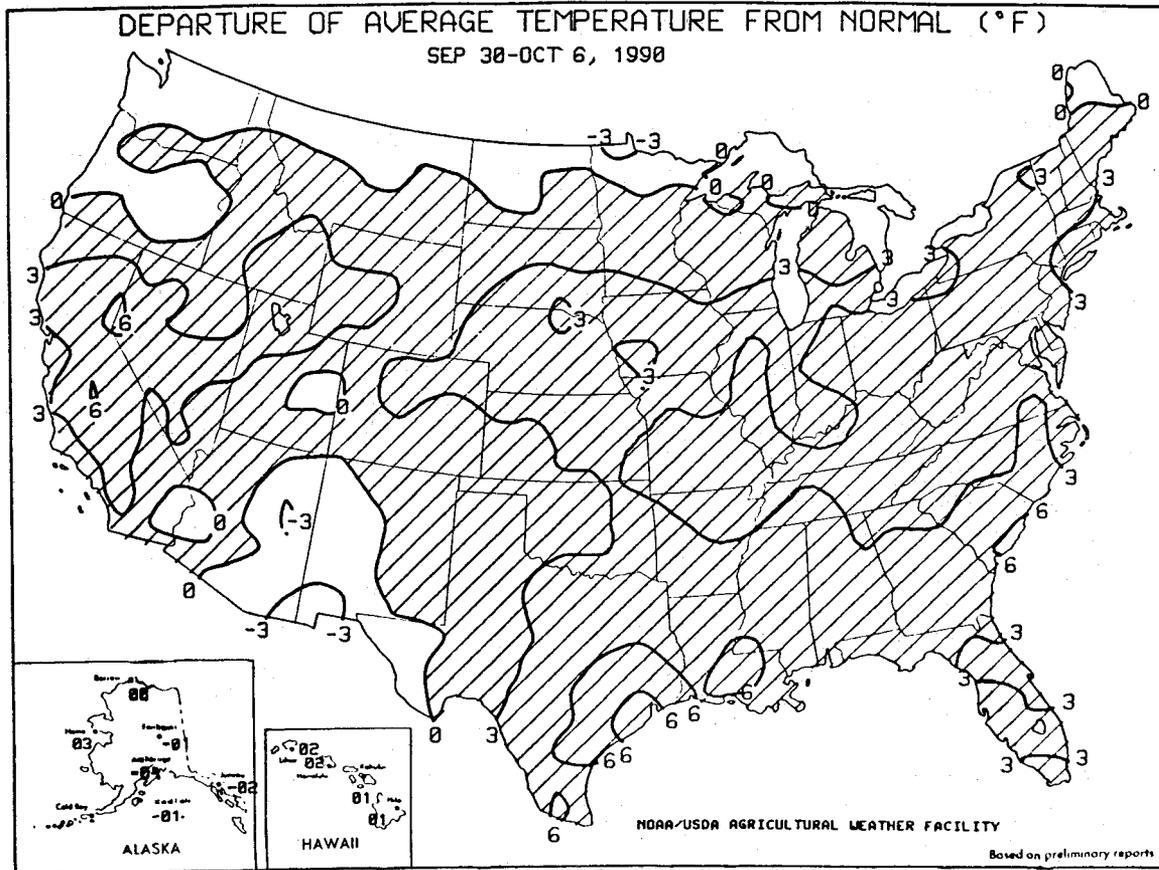
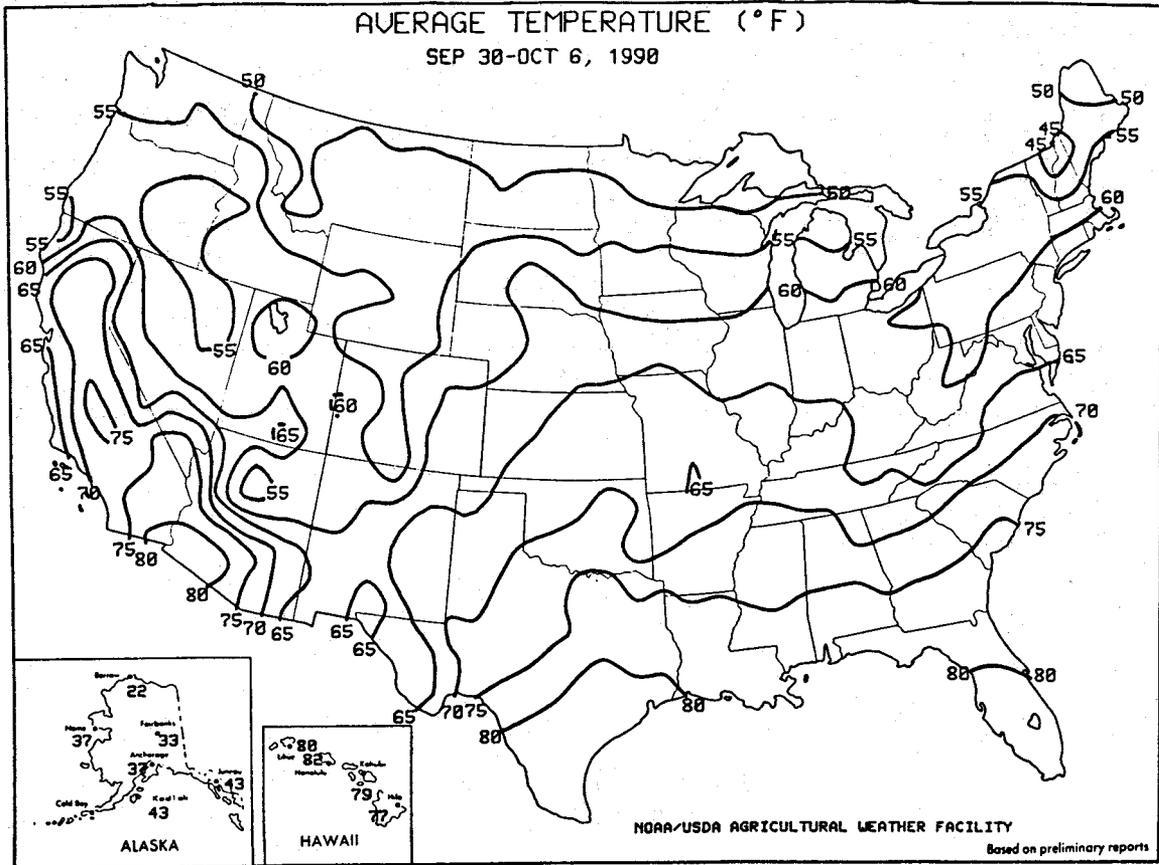
Showers and thunderstorms developed around a slow moving frontal system, at midweek, and spread moderate to heavy rain from the **Rio Grande Valley** into the **Great Lakes** and **Northeast**. Moisture from the remnants of the Pacific's Tropical Storm Rachel contributed to soaking rains and local flooding in the **Southwest**. During the latter part of the week, a strong Pacific frontal system brought rain into the **Northwest** and the season's first winter storm into the **northern and central Rockies** and **central High Plains**. Six to 10 inches of snow blanketed parts of the **Colorado Rockies**. The frontal system also brought an abrupt end to the mild weather in the **North Central States** as temperatures dropped dramatically following the frontal system's passage. Abnormally warm conditions

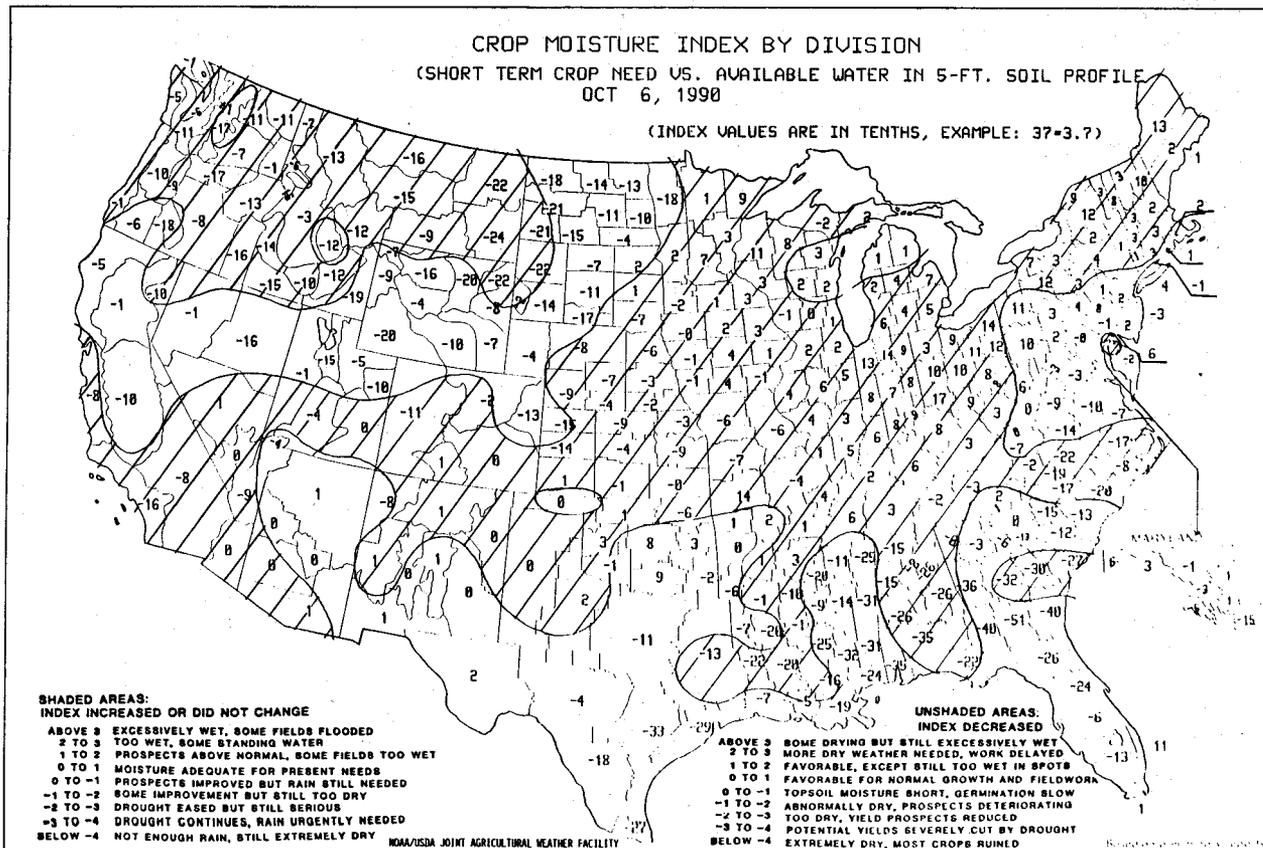
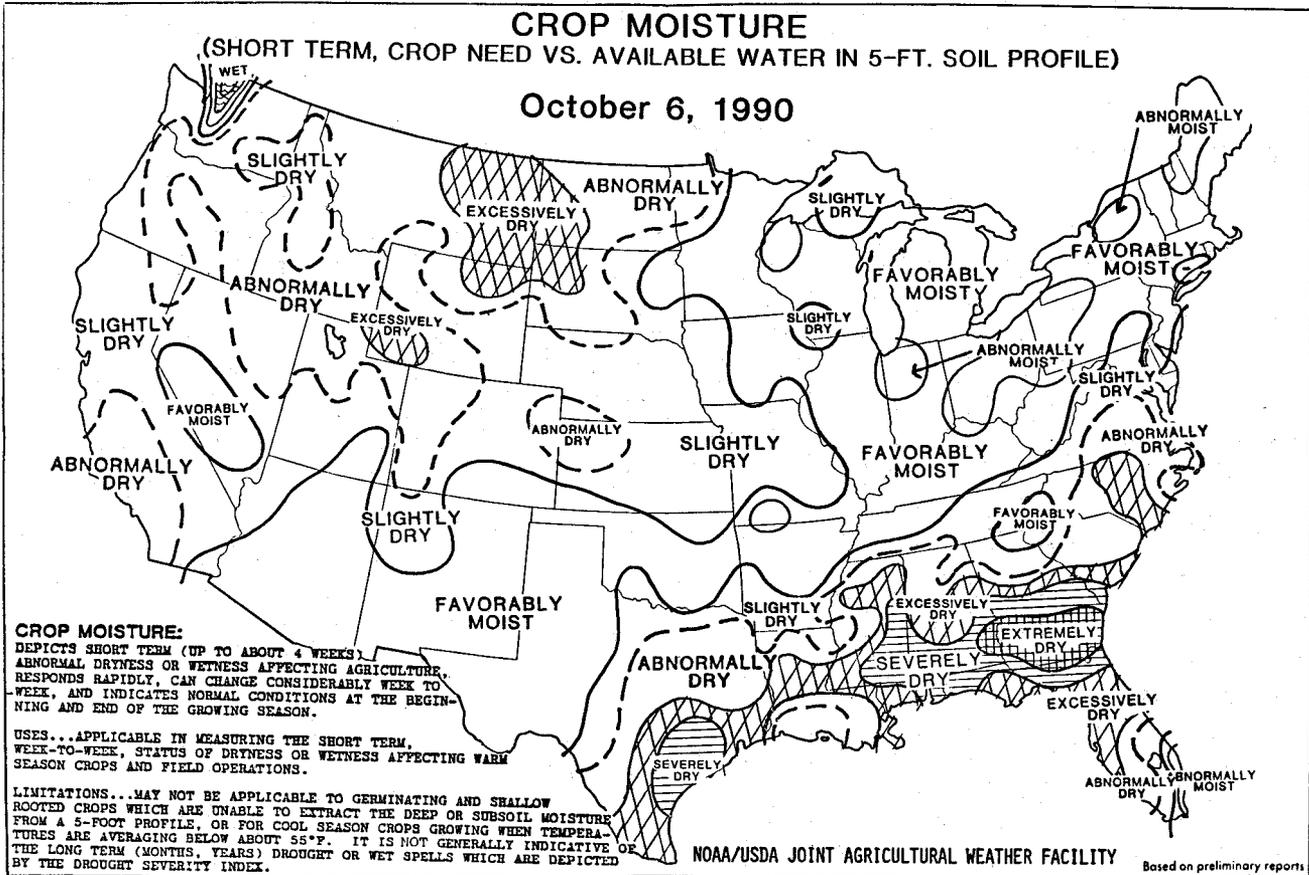
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National Weather Data for Selected Cities

Weather Data for the Week Ending October 6, 1990

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	86	60	89	52	73	5	.9	.2	.8	2.9	59	35.3	81	83	40	0	0	2	1
MOBILE	88	66	90	61	77	4	.1	-.8	.1	2.7	38	47.9	90	98	49	1	0	2	1
MONTGOMERY	91	60	94	53	75	5	.1	-.6	.1	1.2	22	46.7	118	95	39	4	0	1	1
AK ANCHORAGE	44	30	48	23	37	-4	1.1	-.7	.8	6.8	238	14.7	129	94	57	4	4	4	1
BARROW	27	16	32	7	22	0	.1	.0	.1	.7	96	4.0	110	93	76	0	7	3	3
FAIRBANKS	39	27	47	20	33	-1	.1	-.1	.1	1.7	137	13.7	164	89	48	0	7	1	1
JUNEAU	49	37	51	27	43	-2	.8	-.9	.4	11.2	141	42.9	116	98	63	0	2	4	2
KODIAK	54	33	59	29	43	-1	.2	-1.4	.2	9.1	119	53.4	122	92	51	0	4	4	0
NOME	42	32	44	20	37	3	1.0	.7	.5	2.9	110	18.3	152	95	75	0	3	4	1
AZ PHOENIX	91	70	99	66	80	1	T	-.1	T	1.2	153	7.1	140	61	26	4	0	1	0
PRESCOTT	75	46	83	39	60	1	.6	.3	.5	2.4	137	14.8	100	75	31	0	0	0	0
TUCSON	87	61	95	57	74	-2	1.1	.9	.6	2.2	146	13.1	149	83	31	3	0	0	2
YUMA	95	70	101	64	83	1	1.0	.9	1.0	1.0	331	2.2	130	57	24	6	0	1	0
AR FORT SMITH	83	60	88	52	72	4	.8	.1	.5	5.3	140	49.5	161	97	51	0	0	2	1
LITTLE ROCK	80	63	85	58	72	3	1.2	.4	.9	4.7	98	45.9	120	84	61	0	0	2	1
CA BAKERSFIELD	93	63	103	60	78	6	.0	.0	.0	.1	31	2.7	67	64	25	5	0	1	0
EUREKA	62	52	65	47	57	1	T	-.4	T	.2	16	21.6	91	95	73	0	0	0	0
FRESNO	91	60	99	58	76	6	.0	-.1	.0	.2	75	7.5	105	74	27	4	0	0	0
LOS ANGELES	76	64	88	62	70	2	.0	.0	.0	T	0	5.1	60	93	61	0	0	0	0
REDDING	88	60	101	56	74	3	.0	-.3	.0	1.2	91	22.5	85	59	20	3	0	0	0
SACRAMENTO	88	59	96	53	74	6	.0	-.1	.0	T	0	11.5	104	77	24	3	0	0	0
SAN DIEGO	76	66	84	63	71	3	T	-.1	T	T	0	5.9	89	88	62	0	0	0	0
SAN FRANCISCO	75	56	89	51	66	3	.0	-.1	.0	.2	67	8.1	64	86	46	0	0	0	0
CO DENVER	75	44	86	37	60	3	.2	-.1	.2	1.7	117	14.3	110	77	25	0	0	0	0
GRAND JUNCTION	74	48	80	40	61	0	.2	.0	.2	1.4	166	6.1	102	70	28	0	0	1	1
FUENLO	78	47	89	40	63	3	.1	-.1	.1	1.9	200	14.3	152	87	27	0	0	0	0
CT BRIDGEPORT	72	55	79	43	63	3	.7	-.1	.3	2.3	60	33.2	107	89	47	0	0	0	0
HARTFORD	73	50	86	40	62	4	.7	-.2	.4	2.4	52	37.2	112	94	46	0	0	2	2
DC WASHINGTON	78	53	84	49	66	1	.2	-.5	.1	1.0	26	30.8	101	93	41	0	0	1	1
FL APALACHICOLA	85	71	89	68	78	4	.1	-1.1	.1	5.2	54	32.9	71	97	67	0	0	0	0
DAYTONA BEACH	86	72	88	69	79	3	1.2	-.1	1.1	2.8	36	30.2	75	97	64	0	0	3	1
JACKSONVILLE	89	68	94	64	79	4	T	-1.1	T	2.6	35	23.5	53	98	56	1	0	1	0
KEY WEST	87	77	90	73	82	0	1.3	.0	.6	6.0	81	27.8	91	91	67	1	0	4	1
MIAMI	88	77	90	74	82	3	.5	-1.3	.3	4.1	42	44.8	94	90	60	0	0	1	0
ORLANDO	89	72	92	70	81	3	.2	-.8	.1	2.7	37	27.9	64	97	53	0	0	0	0
TALLAHASSEE	90	68	91	63	79	6	1.2	.3	1.2	6.1	84	39.5	73	98	51	5	0	1	0
TAMPA	91	72	94	69	82	4	.6	-.2	.3	2.8	40	31.3	76	98	52	0	0	3	1
WEST PALM BEACH	88	77	89	73	83	3	.1	-2.0	.1	11.8	107	49.3	103	89	61	0	0	2	1
GA ATLANTA	82	62	86	56	72	5	.7	.1	.7	3.7	102	47.9	124	89	46	0	0	1	1
AUGUSTA	87	58	90	47	73	4	.9	.3	.7	1.3	33	21.5	60	100	41	2	0	0	0
MACON	88	60	91	50	74	4	.2	-.3	.2	1.9	50	24.8	67	97	40	0	0	2	1
SAVANNAH	88	65	91	58	76	5	1.4	.7	1.4	2.7	46	27.4	63	95	49	0	0	2	1
HI HILO	84	70	85	68	77	1	4.0	2.2	1.0	21.5	264	117.5	128	95	69	0	0	7	4
HONOLULU	89	74	91	82	82	2	.2	-.1	.2	1.0	117	11.4	76	79	49	0	0	1	1
KAHULUI	87	70	89	65	79	1	T	-.1	T	.5	146	16.3	130	87	56	0	0	1	0
LIHUE	84	76	85	76	80	2	T	-.8	T	2.0	69	23.2	80	80	64	0	0	0	0
ID BOISE	72	45	87	35	59	2	.1	-.1	.0	.6	81	10.1	122	76	25	0	0	2	0
LEWISTON	71	50	83	38	61	4	T	-.2	T	.1	6	8.4	88	51	25	0	0	1	0
POCATELLO	72	41	84	30	56	3	.1	-.1	.1	.4	48	7.9	98	68	25	0	1	2	0
IL CHICAGO	75	48	85	39	61	3	.4	-.2	.4	1.5	32	31.5	112	89	39	0	0	2	0
MOLINE	77	48	87	39	63	4	.6	-.1	.6	1.7	38	42.7	138	87	37	0	0	1	1
PEORIA	76	48	83	42	62	3	.5	-.2	.5	1.6	37	41.8	144	96	48	0	0	1	1
QUINCY	77	52	84	47	65	4	.9	.1	.7	3.8	76	33.0	105	94	47	0	0	2	1
ROCKFORD	75	47	86	37	61	3	1.1	.4	1.1	1.9	45	36.4	121	90	38	0	0	1	1
SPRINGFIELD	77	50	83	44	64	2	1.2	.5	1.2	3.1	83	40.4	144	94	48	0	0	1	1
IN EVANSVILLE	80	52	85	44	66	3	1.4	.9	1.1	4.0	126	38.8	119	95	40	0	0	3	1
FORT WAYNE	74	48	83	36	61	3	1.3	.7	1.0	2.7	90	39.6	145	90	36	0	0	3	1
INDIANAPOLIS	75	50	82	40	62	2	1.9	1.3	1.8	4.6	143	36.8	119	97	41	0	0	2	1
SOUTH BEND	73	50	85	41	62	3	2.5	1.8	2.3	6.2	162	39.1	132	87	43	0	0	3	1
IA DES MOINES	75	50	87	40	63	3	1.1	.5	1.1	2.5	70	38.5	146	88	41	0	0	2	1
STIOUX CITY	76	46	89	40	61	3	.7	-.2	.6	1.6	54	22.2	99	85	35	0	0	2	1
WATERLOO	74	45	88	33	59	3	.7	-.1	.7	2.1	54	38.2	136	87	39	0	0	2	1
KS CONCORDIA	77	54	88	44	66	4	.7	-.2	.5	2.0	57	23.2	98	90	43	0	0	2	1
DODGE CITY	77	54	89	49	65	2	.1	-.3	.1	1.5	72	19.5	98	92	44	0	0	2	1
GOODLAND	75	48	89	41	61	3	.2	.0	.2	1.7	106	17.2	109	82	37	0	0	1	0
TOPEKA	81	53	89	45	67	4	2.3	1.6	1.2	3.2	78	30.2	107	97	49	0	0	3	2
WICHITA	80	56	89	50	68	3	.4	-.3	.4	2.4	60	16.4	67	92	49	0	0	2	0
KY BOWLING GREEN	80	52	86	48	66	2	1.7	1.1	1.7	7.1	192	35.8	93	97	45	0	0	1	1
LEXINGTON	76	54	83	50	65	3	1.6	1.1	1.4	3.6	95	36.2	98	95	47	0	0	2	1
LOUISVILLE	79	55	84	50	67	4	1.6	.9	1.5	4.1	107	43.9	128	89	43	0	0	3	1
LA ALEXANDRIA	89	65	92	60	77	5	.3	-.3	.3	3.8	108	45.3	111	96	44	4	0	1	0
BATON ROUGE	90	68	92	62	79	6	.6	-.1	.6	5.6	113	56.0	125	98	46	5	0	1	1
LAKE CHARLES	89	69	92	65	79	6	.2	-.8	.2	9.8	150	44.8	107	99	53	2	0	2	0
NEW ORLEANS	89	69	91	62	79	6	.2	-.6	.2	4.8	74	46.0	96	97	54	4	0	2	0

Based on 1951-80 normals

Weather Data for the Week Ending October 6, 1990

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS							
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.		
																		.01 INCH OR MORE	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE	
SHREVEPORT	90	63	93	53	77	5	.2	.4	.1	3.2	83	48.8	144	95	43	4	0	0	0	0		
ME CARIBOU	56	38	69	31	47	1	1.1	.4	.4	4.5	109	28.6	104	93	62	0	1	0	0	0		
PORTLAND	67	45	81	39	56	3	3.3	.4	.4	3.4	86	30.1	97	92	52	0	0	0	0	0		
MD BALTIMORE	77	50	84	44	64	2	1.2	.2	.2	1.5	38	32.8	100	92	38	0	0	0	0	0		
SALISBURY	77	50	82	41	63	2	1.0	.1	.1	2.8	59	30.7	86	98	41	0	0	0	0	0		
MA BOSTON	73	54	86	47	63	4	4.4	.0	.0	2.1	53	35.0	109	83	42	0	0	0	0	0		
CHATHAM	68	40	70	49	61	4	4.4	.6	.6	1.9	55	23.8	103	94	46	0	0	0	0	0		
MI ALPENA	67	40	77	33	53	1	1.1	.4	.4	1.9	55	23.8	103	94	46	0	0	0	0	0		
DETROIT	73	50	84	42	61	4	4.4	.4	.4	6.4	244	31.9	132	89	39	0	0	0	0	0		
FLINT	71	46	83	38	59	3	3.3	.4	.4	3.9	141	23.1	100	86	44	0	0	0	0	0		
GRAND RAPIDS	71	49	82	40	60	3	3.3	.4	.4	5.1	134	28.3	109	92	47	0	0	0	0	0		
HOUGHTON LAKE	63	42	72	33	53	1	1.1	.2	.2	3.2	97	23.7	108	90	53	0	0	0	0	0		
LANSING	71	47	83	35	59	4	4.4	1.0	1.0	5.5	163	25.3	108	90	45	0	0	0	0	0		
MARQUETTE	60	38	67	33	49	0	0.0	.2	.2	5.2	112	25.2	86	91	59	0	0	0	0	0		
MUSKEGON	68	50	76	40	59	3	3.3	.1	.1	4.3	124	25.4	108	91	52	0	0	0	0	0		
SAULT ST. MARIE	59	38	63	32	49	1	1.1	.4	.4	5.1	114	26.1	103	95	55	0	0	0	0	0		
MN ALEXANDRIA	68	41	80	37	55	3	3.3	.1	.1	7.5	207	19.3	91	89	37	0	0	0	0	0		
DULUTH	60	40	68	34	50	5	5.5	.1	.1	7.5	207	19.3	91	89	37	0	0	0	0	0		
INT'L FALLS	56	35	67	31	46	2	2.2	.4	.4	2.0	57	29.8	86	93	43	0	0	0	0	0		
MINNEAPOLIS	71	43	82	36	57	2	2.2	.1	.1	2.4	82	30.7	136	87	37	0	0	0	0	0		
ROCHESTER	69	42	81	33	56	2	2.2	.7	.7	2.0	52	40.7	168	87	44	0	0	0	0	0		
MS GREENWOOD	88	62	90	55	75	4	4.4	.9	.9	1.0	5.5	143	98	95	44	2	0	0	0	0		
JACKSON	88	61	91	51	75	5	5.5	.3	.3	5.7	142	43.9	108	100	45	4	0	0	0	0		
MERIDIAN	90	59	96	49	74	5	5.5	.2	.2	2.2	54	53.5	127	99	41	4	0	0	0	0		
MO CAPE GIRARDEAU	79	54	85	46	67	1	1.1	1.8	1.8	2.2	92	39.0	111	98	45	0	0	0	0	0		
COLUMBIA	80	52	85	46	66	3	3.3	.7	.7	3.9	92	39.0	111	98	45	0	0	0	0	0		
KANSAS CITY	79	55	88	44	67	3	3.3	2.1	2.1	1.7	36	45.3	151	94	44	0	0	0	0	0		
SAINT LOUIS	81	58	87	53	69	6	6.6	1.2	1.2	3.4	67	36.2	119	91	44	0	0	0	0	0		
SPRINGFIELD	76	54	82	49	65	2	2.2	1.6	1.6	1.7	55	31.2	115	84	38	0	0	0	0	0		
MT BILLINGS	69	41	85	30	55	1	1.1	2.4	2.4	8.1	165	52.0	165	96	56	0	0	0	0	0		
GLASGOW	65	38	77	27	52	0	0.0	.6	.6	.7	46	10.0	81	67	29	0	0	0	0	0		
GREAT FALLS	64	38	83	26	51	1	1.1	.1	.1	.1	14	5.8	59	69	25	0	0	0	0	0		
HAVRE	65	36	77	27	50	1	1.1	.1	.1	.1	12	12.5	97	68	25	0	0	0	0	0		
HELENA	66	40	84	30	53	3	3.3	.1	.1	.1	5	5.5	53	75	30	0	0	0	0	0		
KALISPELL	60	35	76	22	47	1	1.1	.1	.1	.1	15	7.5	77	69	28	0	0	0	0	0		
MILES CITY	68	42	85	35	55	1	1.1	.1	.1	.2	12	16.0	132	92	39	0	0	0	0	0		
MISSOULA	63	37	78	29	50	1	1.1	.3	.3	.2	19	7.5	61	62	25	0	0	0	0	0		
NE GRAND ISLAND	76	49	95	41	63	4	4.4	.4	.4	.3	28	11.0	106	91	37	0	0	0	0	0		
LINCOLN	78	50	88	39	64	4	4.4	1.1	1.1	1.1	41	24.6	118	82	36	1	0	0	0	0		
NORFOLK	76	47	95	41	62	4	4.4	.6	.6	1.7	51	24.2	101	87	36	0	0	0	0	0		
NORTH PLATTE	77	42	94	36	60	4	4.4	.3	.3	1.6	69	24.2	114	84	33	1	0	0	0	0		
OMAHA	76	51	88	44	63	4	4.4	.7	.7	1.3	67	14.3	81	91	31	1	0	0	0	0		
SCOTTSSBLUFF	77	41	88	33	59	3	3.3	1.4	1.4	.8	9.9	2.4	60	21.7	82	81	43	0	0	0	0	
VALENTINE	79	42	96	32	60	5	5.5	.1	.1	.9	1.0	83	15.1	117	81	21	0	0	0	0	0	
NV ELY	74	36	80	32	55	4	4.4	.2	.2	.7	43	15.7	100	74	21	1	1	1	1	0	0	
LAS VEGAS	89	64	94	60	77	4	4.4	.1	.1	.7	78	7.4	104	68	18	0	0	0	0	0	0	
RENO	78	45	86	37	61	7	7.7	.1	.1	.2	54	3.5	113	49	19	3	0	0	0	0	0	
WINNEMOCCA	76	39	87	28	57	4	4.4	.1	.1	.3	114	4.6	90	72	23	0	0	0	0	0	0	
NH CONCORD	68	40	84	30	54	1	1.1	.6	.6	.2	51	5.6	99	62	17	0	0	0	0	0	0	
NJ ATLANTIC CITY	74	49	85	37	61	0	0.0	.1	.1	2.2	74	29.4	109	99	49	0	0	0	0	0	0	
NM ALBUQUERQUE	74	51	80	47	63	1	1.1	.5	.5	4.4	2.3	67	28.9	91	96	45	0	0	0	0	0	
CLOVIS	75	54	85	50	64	4	4.4	.1	.1	1.0	105	8.7	137	83	32	0	0	0	0	0	0	
ROSWELL	79	57	89	51	68	3	3.3	.4	.4	4.3	190	11.6	79	96	45	0	0	0	0	0	0	
NY ALBANY	70	46	86	36	58	3	3.3	.9	.9	1.8	90	6.7	74	89	42	0	0	0	0	0	0	
BINGHAMTON	65	46	77	42	56	2	2.2	.6	.6	2.2	57	34.6	127	92	45	0	0	0	0	0	0	
BUFFALO	69	50	81	40	60	3	3.3	.0	.0	3.4	86	31.0	109	94	56	0	0	0	0	0	0	
NEW YORK	74	59	87	54	67	4	4.4	.3	.3	4.4	113	35.7	128	85	48	0	0	0	0	0	0	
ROCHESTER	68	49	83	40	59	2	2.2	.7	.7	2.0	48	38.6	118	77	42	0	0	0	0	0	0	
SYRACUSE	68	50	84	40	59	3	3.3	1.0	1.0	.6	4.0	125	30.0	125	89	47	0	0	0	0	0	
NC ASHEVILLE	68	50	84	40	59	3	3.3	1.2	1.2	.6	4.0	104	35.5	119	88	50	0	0	0	0	0	
CHARLOTTE	75	50	79	43	62	1	1.1	.4	.4	3.3	1.8	40	41.3	118	100	57	0	0	0	0	0	
GREENSBORO	81	58	84	53	69	3	3.3	.3	.3	2.1	50	29.3	85	91	48	0	0	0	0	0	0	
RATTERAS	77	52	82	47	65	1	1.1	.4	.4	1.5	36	25.3	75	94	46	0	0	0	0	0	0	
NEW BERN	81	61	84	56	71	2	2.2	.8	.8	1.1	16	35.3	83	94	49	0	0	0	0	0	0	
RALEIGH	82	60	85	55	71	2	2.2	.8	.8	2.2	34	40.6	93	98	49	0	0	0	0	0	0	
WILMINGTON	81	54	85	49	67	3	3.3	.2	.2	1.4	27.5	82	98	44	0	0	0	0	0	0	0	
ND BISMARCK	83	62	96	58	73	4	4.4	.3	.3	.6	3.3	1.7	26	41.8	94	100	56	0	0	0	0	0
FARGO	66	36	84	28	51	1	1.1	.2	.2	1.3	80	11.9	88	78	26	0	0	0	0	0	0	
GRAND FORKS	69	40	80	35	54	2	2.2	.3	.3	1.8	81	15.0	88	76	32	0	0	0	0	0	0	
HILLSTON	64	38	76	29	51	0	0.0	.1	.1	1.9	81	15.1	95	76	33	0	0	0	0	0	0	
OH AKRON-CANTON	65	35	79	28	50	1	1.1	.2	.2	.3	20	8.7	73	68	24	0	0	0	0	0	0	
CINCINNATI	71	48	78	41	59	2	2.2	1.5	1.5	1.4	10.4	307	51.1	178	91	44	0	0	0	0	0	
CLEVELAND	75	52	81	45	63	2	2.2	1.7	1.7	1.7	5.8	172	44.0	138	93	46	0	0	0	0	0	
COLUMBUS	72	48	82	42	60	2	2.2	1.1	1.1	1.0	8.3	247	39.0	141	91	40	0	0	0	0	0	
COLUMBUS	75	50	82	43	62	3	3.3	1.5	1.5	1.5	6.7	216	40.6	135	91	39	0	0	0	0	0	

Based on 1951-80 normals

Weather Data for the Week Ending October 6, 1990

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP.	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	72	49	79	41	61	1	1.8	1.4	1.8	4.4	161	43.1	155	93	44	0	0	2	1
TOLEDO	74	47	84	36	61	3	.6	.1	.3	2.3	78	28.4	114	92	37	0	0	4	0
YOUNGSTOWN	70	47	79	37	59	2	1.1	.5	1.1	6.2	173	34.8	118	82	44	0	0	2	1
OK OKLAHOMA CITY	81	59	88	55	70	3	.8	.1	.8	9.2	201	37.0	142	93	52	0	0	2	1
TULSA	81	61	87	56	71	3	1.5	.6	1.5	5.6	111	32.8	104	91	51	0	0	1	0
OR ASTORIA	63	47	70	40	55	-1	1.6	.6	.5	2.3	56	49.4	116	98	66	0	0	6	2
BURNS	69	32	81	22	50	-3	.0	-.1	.0		7	3.9	57	72	23	0	4	0	0
MEDFORD	77	43	93	31	60	1	.1	-.3	.1	.1	14	9.6	81	89	28	1	1	0	0
PENDLETON	70	47	81	39	58	1	.1	-.1	.4		4	7.0	86	67	30	0	0	1	0
PORTLAND	67	49	77	41	58	0	.6	.1	T	1.0	47	22.8	99	95	50	0	0	4	0
SALEM	68	46	75	34	57	0	.4	-.2	.2	.8	40	23.0	94	95	46	0	0	4	0
PA ALLENTOWN	72	46	83	39	59	1	.2	-.5	.2	2.1	46	32.1	94	97	49	0	0	2	0
ERIE	71	51	81	43	61	4	1.3	.5	.9	8.7	186	39.0	130	88	48	0	0	2	1
HARRISBURG	74	48	85	41	61	1	.2	-.5	.2	1.8	44	30.6	100	94	44	0	0	2	0
PHILADELPHIA	76	53	85	46	65	3	.2	-.5	.2	1.9	48	29.3	91	98	49	0	0	1	0
PITTSBURGH	71	48	79	43	60	2	1.0	.4	.7	6.7	207	38.9	132	90	45	0	0	2	1
SCRANTON	70	47	80	38	59	2	.4	-.2	.2	3.4	89	34.4	127	87	44	0	0	2	0
RI PROVIDENCE	73	50	84	42	61	4	.2	-.6	.2	2.4	58	32.0	96	91	42	0	0	2	0
SC CHARLESTON	88	66	91	60	77	7	.1	-.8	.1	.2	4	30.1	69	100	51	2	0	2	0
COLUMBIA	86	58	89	47	72	4	.3	-.4	.2	2.9	60	28.4	69	98	41	0	0	2	0
FLORENCE	86	62	89	54	74	5	.3	-.4	.2	1.1	23	19.0	52	96	45	0	0	2	0
SD ABERDEEN	79	55	82	48	67	1	.2	-.7	.2	2.3	43	35.0	85	98	51	0	0	1	0
HURON	70	39	88	32	55	1	T	-.3	T	3.0	176	20.0	126	79	36	0	1	1	0
RAPID CITY	76	42	90	34	59	4	.7	.4	.6	1.3	77	22.0	136	89	30	1	0	2	1
SIoux FALLS	73	41	89	32	57	2	T	-.2	T	2.5	207	15.1	104	67	24	0	1	1	0
TN CHATTANOOGA	74	44	86	37	59	4	1.3	.8	.8	1.7	55	17.4	82	89	35	0	0	2	1
KNOXVILLE	82	54	83	50	68	2	.6	-.1	.6	4.3	87	50.6	124	99	43	0	0	2	1
MEMPHIS	80	53	85	48	66	2	1.1	.5	1.0	3.7	108	41.8	114	98	45	0	0	3	1
NASHVILLE	83	60	86	56	72	3	1.7	1.2	1.3	6.9	171	43.1	107	91	45	0	0	2	1
TX ABILENE	81	55	86	49	68	2	1.8	1.2	1.8	3.9	93	29.4	77	92	39	0	0	1	1
AMARILLO	83	64	88	59	74	3	.3	-.3	.3	5.1	143	26.9	139	93	48	0	0	1	0
AUSTIN	76	56	87	49	66	2	.3	-.1	.3	3.0	150	16.6	99	96	52	0	0	1	0
BEAUMONT	91	70	95	67	81	7	T	-.8	T	1.7	41	20.5	84	92	41	6	0	1	0
BROWNSVILLE	90	71	94	66	80	6	.6	-.4	.4	5.9	95	53.4	124	99	55	2	0	4	0
CORPUS CHRISTI	92	73	95	68	82	4	.1	-1.0	.1	4.0	65	15.7	78	94	52	6	0	2	0
DEL RIO	93	72	96	67	83	6	T	-1.0	T	2.7	36	18.0	68	92	46	7	0	1	0
EL PASO	87	68	91	66	78	2	.6	.0	.6	6.8	210	23.4	166	72	41	2	0	1	1
FORT WORTH	78	57	84	52	67	-2	1.6	1.4	1.0	4.1	258	11.2	175	97	51	0	0	3	1
GALVESTON	88	65	95	60	77	4	.2	-.6	.2	1.3	31	37.3	150	93	44	3	0	1	0
HOUSTON	88	76	91	72	82	6	1.5	.6	1.5	8.7	128	33.4	105	84	56	2	0	1	1
LUBBOCK	91	70	94	65	81	6	.3	-.7	.3	1.9	32	32.2	89	95	47	4	0	1	0
MIDLAND	78	58	85	53	68	2	1.6	1.1	1.6	2.8	115	13.8	91	95	50	0	0	1	1
SAN ANGELO	80	60	85	55	70	1	1.5	1.1	1.5	4.3	180	12.7	112	97	51	0	0	2	1
SAN ANTONIO	82	62	87	55	72	1	1.0	.4	.7	7.2	205	24.6	166	97	51	0	0	2	1
VICTORIA	90	69	94	63	80	5	.0	-.7	.0	3.7	85	31.3	136	89	43	5	0	0	0
WACO	92	71	96	66	82	6	T	-1.0	T	3.6	51	31.1	104	96	48	7	0	1	0
WICHITA FALLS	89	66	94	62	78	4	T	-.8	T	6.6	172	29.1	120	95	44	3	0	0	0
UT CEDAR CITY	86	62	93	57	74	4	.3	-.5	.3	2.0	51	33.3	152	95	45	1	0	2	0
SALT LAKE CITY	75	43	82	37	59	2	T	-.2	T	1.1	102	7.7	95	71	22	0	0	0	0
VT BURLINGTON	76	50	83	41	63	5	.0	-.2	.0	.6	53	8.2	70	60	22	0	0	0	0
VA NORFOLK	65	47	82	35	56	4	1.4	.7	.8	2.6	70	28.7	110	89	47	0	0	4	1
RICHMOND	80	58	86	52	69	3	.2	-.7	.2	1.2	23	37.6	104	94	43	0	0	1	0
ROANOKE	80	53	85	48	66	3	.1	-.7	.1	2.1	49	33.9	99	94	40	0	0	1	0
WA QUILLAYUTE	78	51	84	48	65	3	.1	-.7	.1	2.0	51	29.0	95	97	45	0	0	1	0
SEATTLE-TACOMA	60	43	67	37	51	-2	4.1	2.1	1.9	4.5	57	66.1	98	100	67	0	0	4	3
SPOKANE	62	47	70	44	55	-1	1.1	.5	.6	1.2	46	25.8	109	95	55	0	0	6	1
YAKIMA	63	40	76	29	52	-1	.1	-.1	.1	.1	11	13.4	121	75	29	0	1	3	0
WV BECKLEY	70	40	78	28	55	0	T	-.1	T		9	5.5	107	77	29	0	1	0	0
CHARLESTON	72	48	80	45	60	3	.5	-.2	.5	2.4	57	29.4	86	94	50	0	0	1	0
HUNTINGTON	76	51	83	48	64	3	.8	.1	.7	4.9	140	32.2	95	97	48	0	0	2	1
PARKERSBURG	74	50	81	45	62	1	1.1	.5	1.0	6.3	183	38.9	118	96	46	0	0	2	1
WI GREEN BAY	67	43	75	39	55	2	1.5	1.0	1.1	4.3	129	38.6	126	94	43	0	0	2	1
LACROSSE	67	43	75	39	55	2	.5	-.1	.4	5.6	156	31.1	135	93	45	0	0	2	0
MADISON	71	47	83	40	59	3	.9	.3	.7	2.7	68	33.9	131	90	40	0	0	3	1
MILWAUKEE	71	45	81	35	58	3	.5	-.1	.5	2.1	59	29.6	116	92	44	0	0	1	0
WAUSAU	73	49	84	45	61	5	.5	-.1	.5	2.4	71	32.5	130	85	42	0	0	1	0
WY CASPER	66	42	76	34	54	2	1.0	.3	.7	5.1	114	30.0	112	97	43	0	0	2	1
CHRYNNNE	70	39	82	28	54	2	.1	-.1	.1	.6	67	9.9	106	72	22	0	2	2	1
LANDER	69	41	78	32	55	2	.3	-.1	.3	1.0	85	17.4	147	76	25	0	1	1	0
SHERIDAN	73	41	82	30	57	4	.2	-.1	.2	1.7	157	8.3	77	61	18	0	1	1	0
	70	36	86	25	53	1	.9	.6	.9	1.1	80	11.1	89	76	28	0	2	1	1

Based on 1951-80 normals

September Weather and Crop Summary

WEATHER

HIGHLIGHTS: Warm, dry conditions prevailed over much of the Southeast, Corn Belt, northern and central Plains, and Northwest throughout the month. Charleston, SC, had their driest September on record with 0.18 of an inch of rain and their sixth consecutive month of below-normal rainfall. The continuing dry weather worsened long-term drought conditions along the southern Atlantic coast. The northern and middle Atlantic coast also experienced dry but cooler weather. Thunderstorms drenched much of the Great Lakes, upper Ohio Valley, southern Plains, and Southwest with needed rain, but torrential amounts produced local flooding.

SEPTEMBER 1-8: Excessive heat and high humidity continued to plague much of the country. Temperatures averaged 9-12 degrees Fahrenheit above normal in the northern and central Great Plains and middle Mississippi Valley, while high-temperature records for the date were set daily in the Corn Belt, southern Plains, and Southeast. Showers were widely scattered over the Nation, with severe thunderstorms bringing locally heavy rain to the central Rockies, northern Plains, middle Mississippi Valley, and across the South. During the latter part of the period, intense thunderstorms roared across the Great Lakes into the upper Ohio Valley, causing torrential rains and floods. Dry weather remained over much of the Great Plains.

SEPTEMBER 9-15: Hot and muggy weather continued to prevail over much of the Nation as temperatures averaged 6-12 degrees Fahrenheit above normal from the Intermountain Plateau to the Great Lakes. Record-high temperatures for the date were set daily in the Great Basin, Rockies, northern Plains, and Southeast as 24 stations in Utah reported new records on the 12th. Scattered showers and thunderstorms continued to develop in the humid air over the central and southern Plains to the Atlantic coast as severe thunderstorms brought locally heavy rains across the South. Severe thunderstorms also developed along a stalled frontal system and soaked the Great Lakes with drenching rain. Dry conditions remained in the West and over much of the northern Plains.

SEPTEMBER 16-22: Slow moving thunderstorms deluged much of the central and southern Plains and parts of the Delta with heavy rain throughout the week. The rains relieved dryness, but torrential amounts caused widespread flooding in western Texas and eastern Oklahoma. A pair of frontal systems, at midweek and week's end, spread moderate to heavy rain from the Great Plains to the northern and middle Atlantic coast. Thunderstorms developed in the warm, humid air over southern Florida through the week, but dry weather prevailed over much of the remainder of the Southeast. Abnormally warm weather continued in the Northwest and from the southern Plains to the southern Atlantic coast. Unseasonably cool air remained over the North Central and Northeastern States as 24 low-temperature records on the 18th were broken or tied from Michigan to southern New England and North Carolina.

SEPTEMBER 23-30: Dry harvest weather prevailed during the first 5 days of the period as widely scattered showers caused only light to moderate rain across the country. At month's end, however, scattered thunderstorms developed along a slow moving frontal system and spread moderate to heavy rains from the southern Plains, across the Corn Belt, and into the Northeast. At the same time,

numerous showers and thunderstorms soaked Florida with needed rain. Freezing temperatures dropped into the middle Missouri Valley on the 23th, but warmer air quickly moved into the Plains as high-temperature records were broken on the 25th and 26th.

CROP DEVELOPMENT

Early in September, moisture was very short to short in most of the Southeast and western Corn Belt, causing deteriorating crop conditions. Insect problems increased in the Southeast. Soil moisture was adequate in the Northeast and the central and northern Corn Belt. Temperatures were above normal in most areas, except the Northeast. By mid-September, general rains in the South Central, Central Plains, East Central, and the Northeast States slowed harvest but were beneficial to growing crops. The Southeast States continued to be dry, causing deteriorating crop conditions. By the end of the month, dry, warm weather in the Plains improved crop development. Soil moisture was short in the Rocky Mountain, Northwest, Central Plains, and the Southeast States.

Corn was in mostly good to fair condition. Early in September, lack of moisture in the western Corn Belt caused deteriorating crop conditions. Crop conditions lagged furthest behind in Illinois, Indiana, and Missouri. By mid-September, dry weather accelerated the crop maturity in most Southeastern States. Rain slowed corn harvest in the Texas Panhandle, but yields were favorable. By September 30, harvest was 14% complete, 7 points behind normal. Crop maturity and harvest lagged behind normal in most of the major producing States.

Soybeans were in good to fair condition. Podding was 96% complete, equal the average. Soybean condition continued to decline in the Southeast, Delta, and central Great Plains in early September. Louisiana and Georgia reported increased pressure from insects. In mid-September, the crop continued to be below normal in maturity with 41% dropping leaves, 16 points behind normal. Conditions continued to decline in the Southeast due to dry conditions. By the end of the month, harvest was 10% complete, 8 points behind normal. Sixty-three percent of the crop was dropping leaves, 10 points below normal. Percentage dropping leaves lagged over 20 points behind normal in Illinois, Indiana, and Kentucky. Illinois had 11% harvested, 23 points below normal.

Cotton was mostly good to fair. In early September, lack of moisture in Missouri and the Texas plains hindered crop development. Harvest continued in south Texas, the Delta, and south-western Arizona. California had harvest beginning in Riverside County and defoliation in the San Joaquin Valley. Harvest by mid-September was 15% complete, 1 point above normal. Wet conditions slowed harvest in the Blackland and High Plains of Texas. Louisiana had the most harvested at 45%, 18 points ahead of normal. By September 30, boll openings were 74%, 6 points above average. Harvest was 21% complete, 2 points ahead of normal. Rains in Arkansas, Louisiana, and Texas helped later bolls fill out.

Sorghum condition was fair to good. At the beginning of September, 32% of the crop was mature, 2 points below normal. Texas had rapid drying and some dry land fields wilted. By mid-September, 23% of the crop was harvested, 5 points behind normal. Nebraska reported some lodging in the east and

southeast due to chinch bug and heat stress. At the end of September, harvest was 28% complete, 4 points behind normal.

Early in September, winter wheat seeding was 7% complete, 2 points behind normal. Lack of moisture slowed seeding in Nebraska and Colorado. Seeding continued in areas with adequate moisture. At the middle of the month, seeding was 24% complete, 9 points behind normal. Oregon seeding

progressed rapidly to take advantage of favorable soil moisture. At the end of September, winter wheat planting was 45% complete, 3 points behind average. Nineteen percent of the crop was emerged, 5 points below normal. In Colorado, Nebraska, and South Dakota, seeding was over 80% complete, however, emergence was at least 12 points behind normal.

September Weather In Historical Perspective

Temperatures for September 1990 averaged over the Nation were well above the long-term mean and ranked as the 3rd warmest (fig. 1). The national precipitation index ranks September as the 10th driest on record (fig. 2).

January-September mean temperature ranks 1990 as the third hottest such period on record (fig. 3). The January-September mean temperature for each of the last 5 years has been above the long-term mean, producing an unusually high filtered curve which rivals the extremely hot 1930's.

Regional rankings for the nine climatically homogeneous regions are listed in table 1 (see the Weekly Weather and Crop Bulletin, Vol. 77, No. 36, Sept. 11, 1990, page 9 for a map of the regions). Both the Northwest and the West North Central regions had the hottest September on record in 1990, while the West had the 3rd hottest. The month was extremely dry in the Northwest (2nd driest September), Southeast (3rd driest), and West North Central (11th driest).

The Southeast has been extremely dry during the last 6 months, resulting in a rapidly-growing drought area. April-September precipitation ranks 1990 as the 3rd driest such period on record (fig. 4). The filtered curve in the graph suggests that region has had a decreasing trend in April-September precipitation during the last 15 years.

Figure 1

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

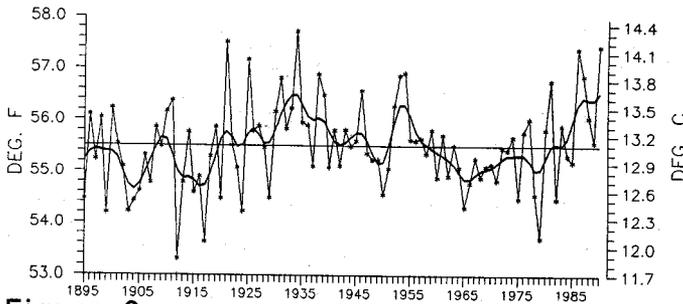


Figure 2

U.S. NATIONAL MEAN PRECIPITATION INDEX
SEPTEMBER, 1895-1990

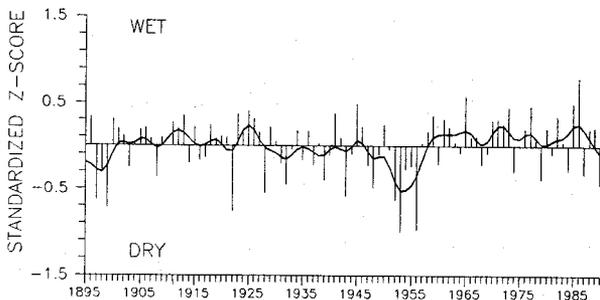


TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR SEP 1990, BASED ON THE PERIOD 1895-1990.
1 = DRIEST/COLDEST, 96 = WETTEST/HOTTEST.

REGION	PRECIPITATION	TEMPERATURE
NORTHEAST	38	28
EAST NORTH CENTRAL	22	76
CENTRAL	26	56
SOUTHEAST	3	62
WEST NORTH CENTRAL	11	96
SOUTH	65	77
SOUTHWEST	68	90
NORTHWEST	2	96
WEST	44	94

Figure 3

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

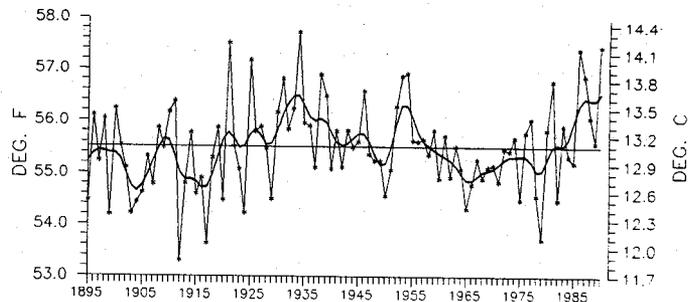
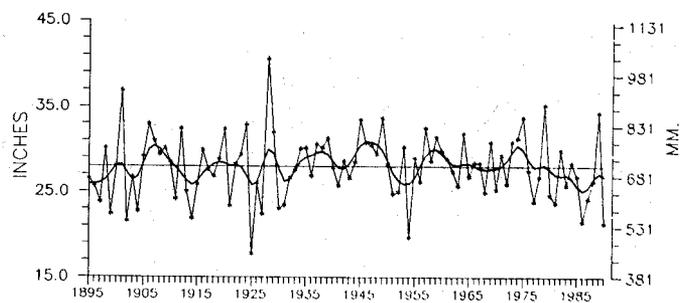
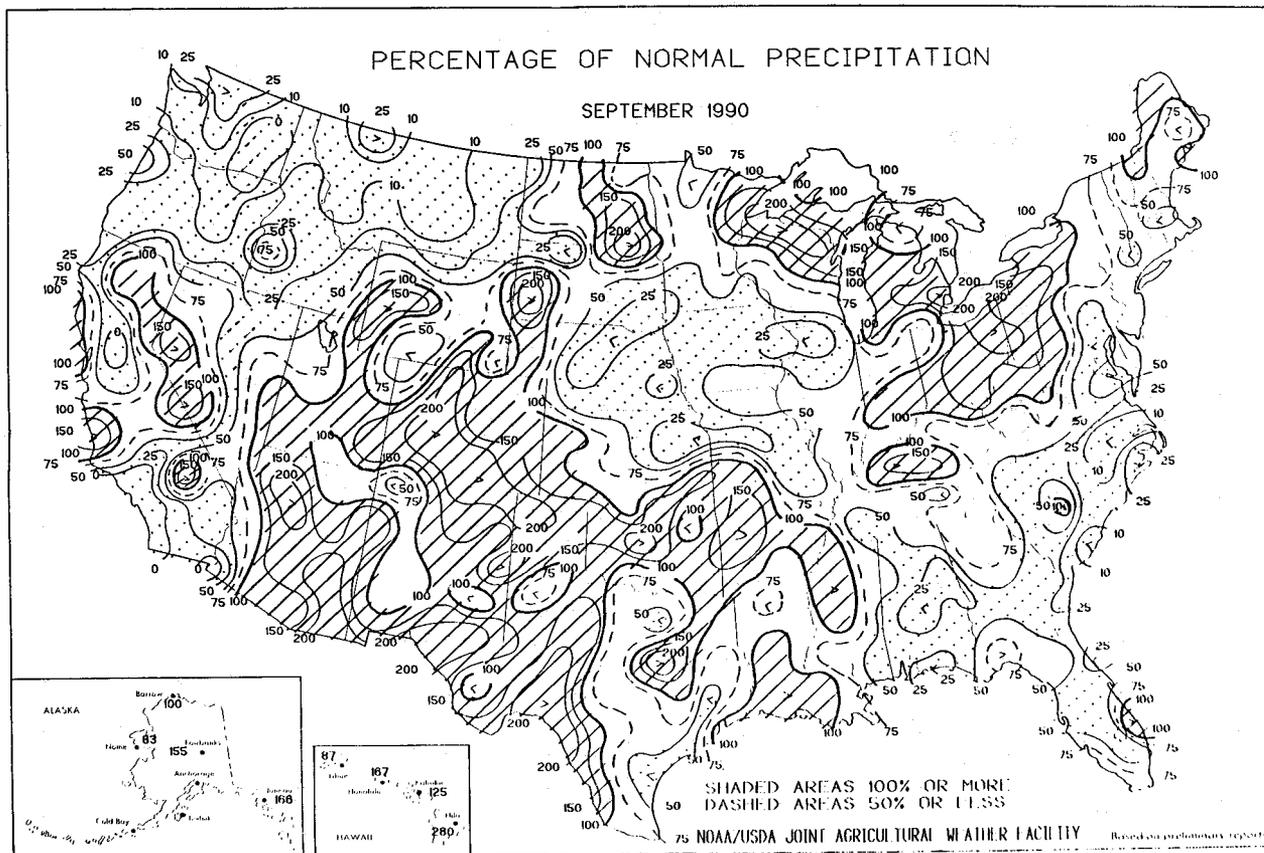
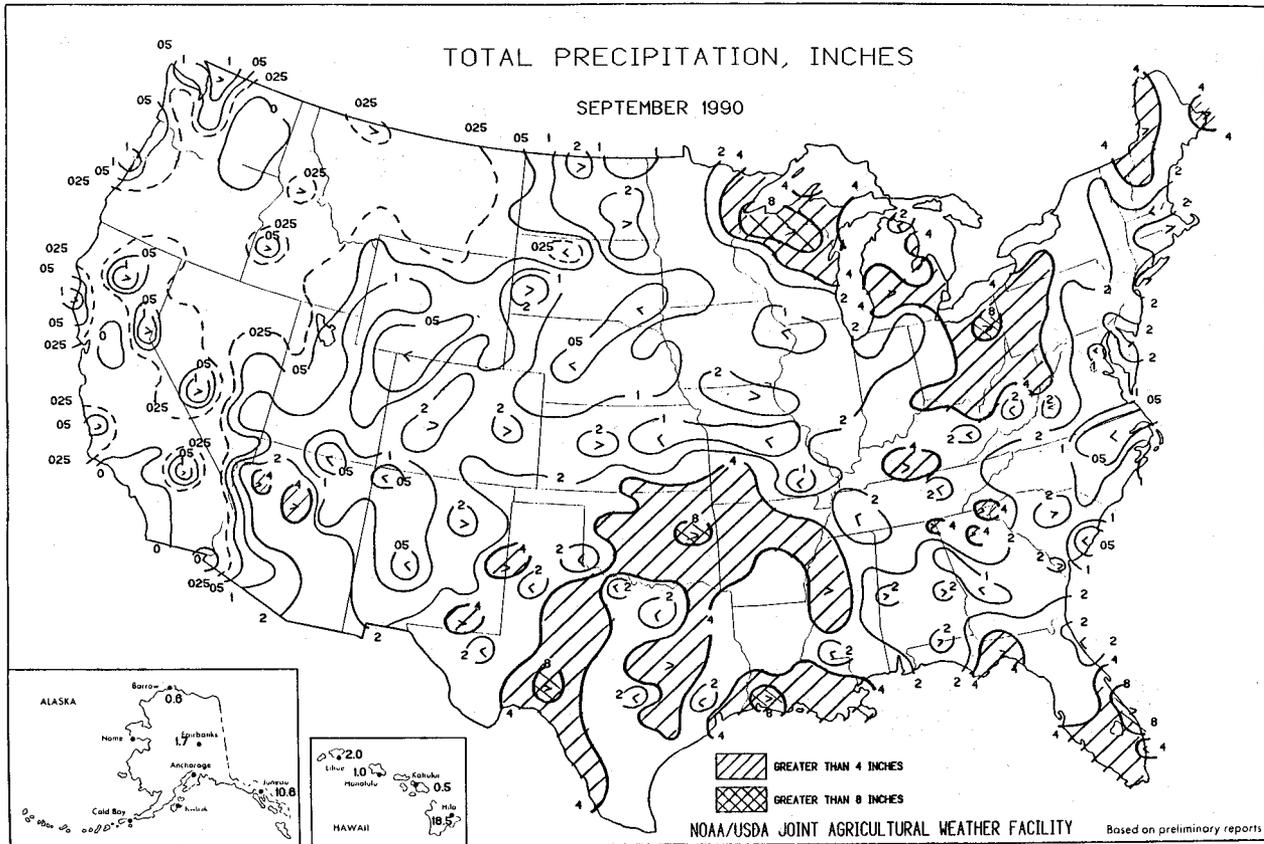
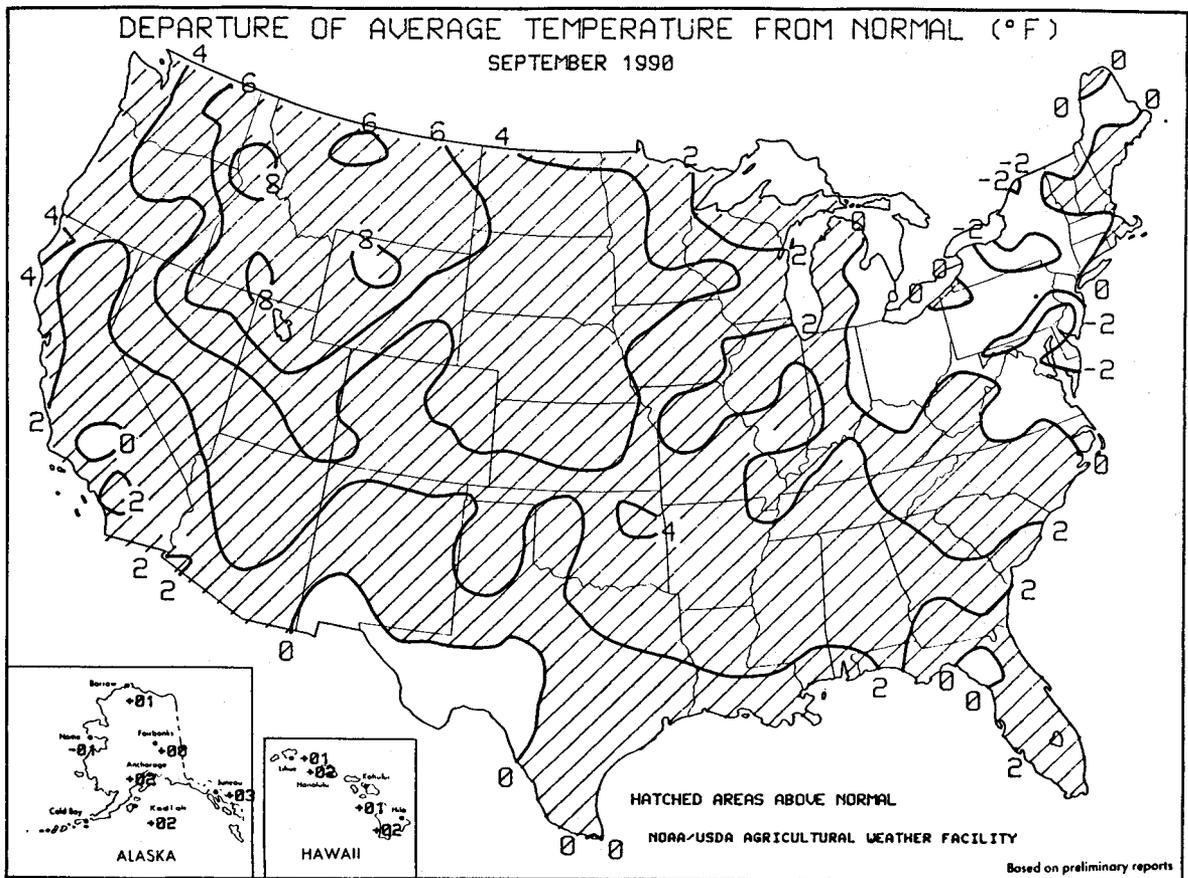
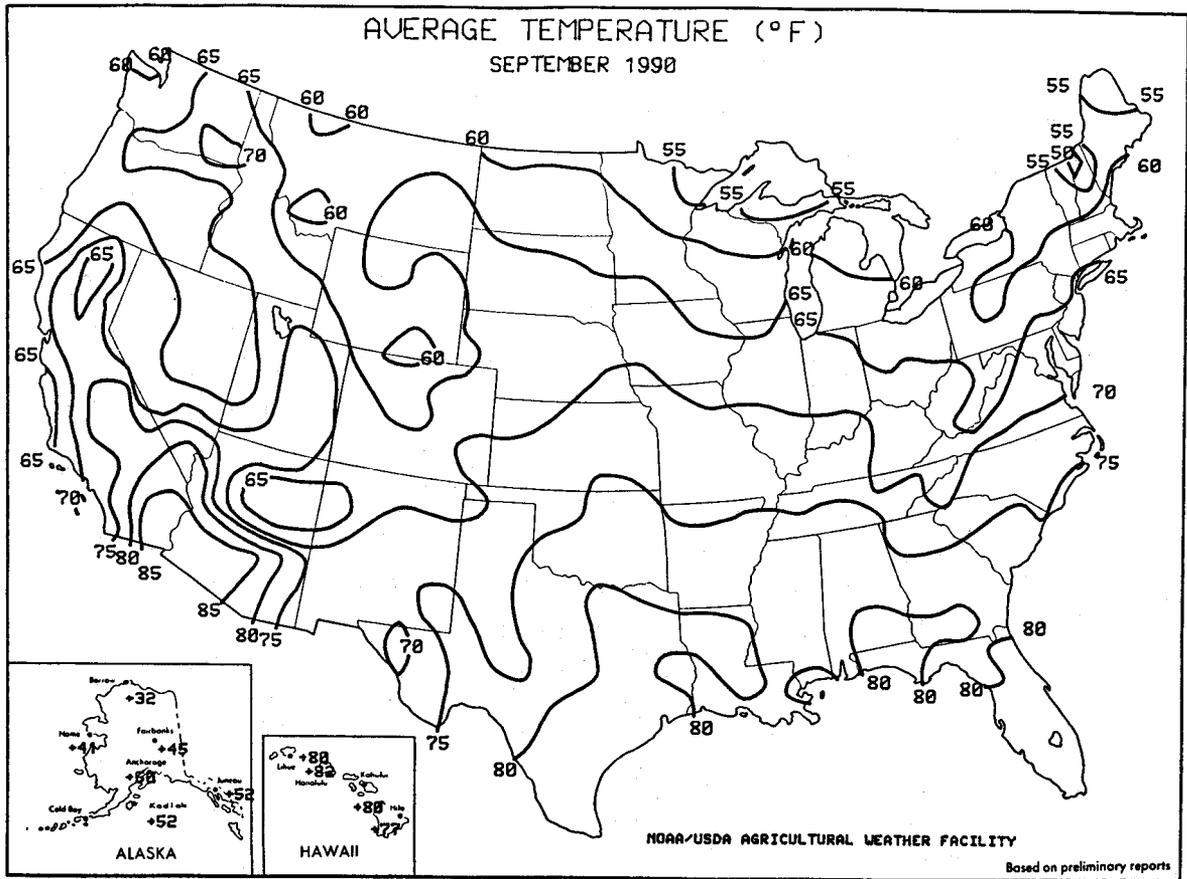


Figure 4

SOUTHEAST REGION PRECIPITATION
APRIL-SEPTEMBER, 1895-1990







Temperature and Precipitation Data for September 1990

States and Stations	Temperature of		Precipitation Inches		States and Stations	Temperature of		Precipitation Inches		States and Stations	Temperature of		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
AL BIRMINGHAM	78	3	2.0	-2.3	KY PADUCAH	72	2	2.4	-1.1	DAYTON	65	-1	2.6	0.2
HUNTSVILLE	76	3	2.3	-1.7	LA ALEXANDRIA	81	3	3.5	0.5	MANSFIELD	63	-1	4.9	1.9
MOBILE	79	0	2.6	-3.9	BATON ROUGE	80	2	5.1	0.6	TOLEDO	64	0	1.7	-0.8
MONTGOMERY	79	2	1.1	-3.6	LAKE CHARLES	79	1	9.6	3.9	YOUNGSTOWN	62	-1	5.2	2.1
AK ANCHORAGE	50	2	6.4	4.0	NEW ORLEANS	80	1	4.6	-1.3	OK OKLAHOMA CITY	77	4	7.4	3.9
BARROW	32	1	0.6	0.0	SHREVEPORT	80	3	2.9	-0.4	TULSA	78	5	4.2	-0.2
FAIRBANKS	45	0	1.7	0.6	ME CARIBOU	53	0	3.8	0.3	OR ASTORIA	61	3	0.7	-2.5
JUNEAU	51	2	10.6	4.2	PORTLAND	60	1	3.1	-0.1	BURNS	62	3	T	-0.4
KODIAK	52	2	8.9	2.6	MD BALTIMORE	67	-2	1.1	-2.4	MEDFORD	69	4	0.1	-0.6
NOME	41	-1	1.9	-0.5	SALISBURY	66	-2	2.4	-1.6	PENLETON	68	5	T	-0.6
AZ FLAGSTAFF	60	2	6.2	4.7	MA BOSTON	65	0	1.7	-1.7	PORTLAND	67	5	0.3	-1.2
PHOENIX	88	3	1.1	0.5	CHATHAM	63	1	2.1	-1.6	SALEM	65	3	0.4	-1.2
PRESCOTT	68	3	1.9	0.4	MI ALPENA	57	0	1.6	-1.5	PA ALLENTOWN	63	-2	2.0	-2.0
TUCSON	82	2	1.6	0.3	DETROIT	65	1	6.1	3.8	ERIE	63	1	7.7	3.8
WINSLOW	68	-1	0.9	0.1	FLINT	62	0	3.1	0.7	HARRISBURG	65	-2	1.7	-1.9
YUMA	90	2	T	-0.2	GRAND RAPIDS	63	0	4.2	1.0	PHILADELPHIA	68	-1	1.7	-1.7
AR FORT SMITH	77	3	4.9	1.7	HOUGHTON LAKE	58	1	3.0	0.2	PITTSBURGH	64	-1	6.0	3.3
LITTLE ROCK	77	2	3.6	-0.7	LANSING	62	1	4.0	1.1	SCRANTON	62	-1	3.2	-0.1
CA BAKERSFIELD	76	-1	0.1	0.0	MARQUETTE	54	-1	4.8	0.8	WILLIAMSPORT	62	-2	2.0	-1.6
BISHOP	68	0	0.3	0.1	MUSKOGON	62	1	3.8	0.9	RI PROVIDENCE	64	0	2.3	-1.2
EUREKA	62	5	0.2	-0.7	SAULT ST. MARIE	55	0	4.0	0.1	SC CHARLESTON	79	3	0.2	-4.7
FRESNO	76	2	0.2	0.0	MN ALEXANDRIA	62	4	1.5	-0.8	COLUMBIA	76	1	2.6	-1.6
LOS ANGELES	71	1	T	-0.1	DULUTH	56	2	6.5	3.3	FLORENCE	75	1	0.9	-3.2
REDDING	75	-1	1.2	0.1	INT'L FALLS	56	3	1.2	-1.9	SD GREENVILLE	72	0	2.1	-2.5
SACRAMENTO	74	2	0.0	-0.3	MINNEAPOLIS	64	4	1.9	-0.6	ABERDEEN	64	5	3.0	1.5
SAN DIEGO	72	2	T	-0.1	ROCHESTER	62	4	1.3	-2.0	HURON	67	6	0.6	-0.8
SAN FRANCISCO	66	3	0.2	0.0	ST. CLOUD	60	1	1.7	-1.1	RAPID CITY	66	5	2.4	1.4
STOCKTON	-	-	T	-0.2	GREENWOOD	79	3	4.9	1.6	STIOUX FALLS	67	5	0.5	-2.3
CO ALAMOSA	58	3	1.5	0.8	JACKSON	78	2	4.8	1.3	TN BRISTOL	69	0	1.5	-1.5
CO. SPRINGS	65	4	1.5	0.2	MERIDIAN	79	3	1.7	-1.8	CHATTANOOGA	75	2	3.7	-0.8
DENVER	67	4	1.5	0.2	TUPELO	78	4	2.4	-1.2	KNOXVILLE	72	1	2.7	-0.3
GRAND JUNCTION	70	3	1.2	0.6	MO CAPE GIRARDEAU	73	-	1.8	-2.0	MEMPHIS	78	4	5.2	1.6
PUEBLO	68	3	1.8	1.0	COLUMBIA	71	2	0.9	-3.0	NASHVILLE	75	2	2.1	-1.6
CT BRIDGEPORT	66	0	1.8	-1.5	KANSAS CITY	72	2	1.3	-3.0	TX ABILENE	77	1	4.8	1.7
HARTFORD	64	1	2.1	-1.8	SAINT LOUIS	74	4	0.8	-1.9	AMARILLO	72	2	2.7	1.0
DC WASHINGTON	70	-2	0.9	-2.3	SPRINGFIELD	73	3	5.8	1.6	AUSTIN	81	2	1.8	-1.8
FL APALACHICOLA	79	0	5.2	-3.5	MT BILLINGS	67	7	0.1	-1.2	BEAUMONT	81	2	5.3	0.0
DAYTONA BEACH	80	1	1.6	-5.1	LASGOW	64	7	0.1	-0.8	BROWNSVILLE	81	0	3.9	-1.3
FT. MYERS	84	2	7.4	-1.2	GREAT FALLS	62	5	0.1	-0.9	COMBUS CHRISTI	82	1	2.7	-4.0
JACKSONVILLE	80	0	2.6	-3.8	HAVRE	63	6	T	-1.0	DEL RIO	79	-2	6.2	3.5
KEY WEST	84	1	5.3	-1.0	HELENA	64	8	0.1	-0.7	EL PASO	74	-1	3.5	2.1
MIAMI	83	1	3.5	-4.5	KALISPELL	60	6	T	-1.1	FORT WORTH	80	2	1.1	-2.3
ORLANDO	82	1	2.5	-3.9	MILES CITY	68	7	0.2	-0.8	GALVESTON	82	2	7.2	1.1
TALLAHASSEE	79	1	4.9	-1.6	MISSOULA	63	7	0.1	-0.9	HOUSTON	80	1	1.6	-3.6
TAMPA	83	2	2.4	-3.8	NE GRAND ISLAND	69	5	0.7	-1.8	LAREDO	82	-2	6.0	2.5
WEST PALM BEACH	83	1	11.7	2.4	LINCOLN	71	5	0.6	-2.3	LUBBOCK	74	2	1.2	-0.8
GA ATHEN	74	1	3.2	-0.4	NORFOLK	68	4	1.0	-1.1	MIDLAND	75	1	2.9	0.8
ATLANTA	76	3	3.0	-0.1	NORTH PLATTE	68	6	0.3	-1.3	SAN ANGELO	75	-1	6.2	3.2
AUGUSTA	76	1	1.1	-2.4	OMAHA	70	4	1.0	-2.5	SAN ANTONIO	80	1	3.7	0.0
MACON	78	2	1.8	-1.4	SCOTTSDRUFF	66	4	1.0	-0.1	VICTORIA	81	2	3.6	-2.6
SAVANNAH	79	2	1.3	-3.9	VALENTINE	66	5	0.7	-0.8	WACO	81	1	6.6	3.4
HI HILO	77	2	18.5	11.8	NV ELKO	64	6	0.2	-0.3	WICHITA FALLS	79	3	1.8	-1.6
HONOLULU	82	2	1.0	0.4	ELY	60	4	0.6	0.0	UT BLANDING	66	-	1.6	0.7
KAHULUI	80	1	0.5	0.1	LAS VEGAS	82	2	0.2	-0.1	CEDAR CITY	66	3	1.1	0.2
LIHUE	80	1	2.0	-0.2	RENO	65	5	0.3	0.0	SALT LAKE CITY	72	7	0.6	-0.3
ID BOISE	70	7	0.5	-0.1	WINNEMUCCA	65	6	0.2	-0.1	VT BURLINGTON	59	1	2.0	-1.2
LEWISTON	73	9	T	-0.8	NH CONCORD	60	1	2.3	-0.8	VA LYNCHBURG	67	-1	2.0	-1.2
POCATELLO	66	7	0.3	-0.3	NJ ATLANTIC CITY	65	-3	1.9	-1.0	NORFOLK	72	-1	1.0	-3.3
IL CAIRO	-	-	1.9	-1.6	NM ALBUQUERQUE	71	1	1.0	0.1	RICHMOND	69	-1	1.9	-1.6
CHICAGO	66	1	1.0	-3.1	OH CLOVIS	71	2	3.8	2.0	ROANOKE	68	0	1.9	-1.2
MOLINE	67	2	1.0	-2.7	ROSWELL	75	4	1.4	-0.3	WA COLVILLE	63	5	T	-0.9
PEORIA	66	0	1.0	-2.6	NY ALBANY	62	0	1.8	-1.4	QUILLAYUTE	60	3	0.4	-5.8
QUINCY	69	2	2.8	-1.3	BINGHAMTON	58	-2	2.8	-0.5	SEATTLE-TACOMA	63	4	0.1	-1.9
ROCKFORD	65	2	0.8	-2.8	BUFFALO	62	-1	3.6	0.3	SPOKANE	65	6	T	-0.7
SPRINGFIELD	68	1	1.9	-1.3	NEW YORK	69	0	1.9	-1.6	WALLA WALLA	-	-	0.0	-0.8
EVANSVILLE	71	2	2.5	-0.1	ROCHESTER	61	-2	3.4	0.7	YAKIMA	65	4	T	-0.3
FORT WAYNE	65	0	1.5	-1.0	SYRACUSE	61	-1	3.4	0.2	WV PECKLEY	64	1	1.9	-1.7
INDIANAPOLIS	67	0	2.7	0.0	NC ASHVILLE	68	1	1.4	-2.4	HARRISTON	69	1	4.3	1.3
SOUTH BEND	65	1	3.8	0.6	CHARLOTTE	74	2	1.8	-1.8	ELKINS	63	1	4.1	0.9
IA DES MOINES	68	3	1.4	-1.7	GREENSBORO	71	1	1.2	-2.5	HUNTINGTON	68	-1	5.4	2.4
DUBUQUE	64	2	0.6	-3.5	HATTERAS	74	0	0.6	-5.2	PARKERSBURG	67	-1	3.2	0.4
STIOUX CITY	68	4	0.9	-1.6	NEW BERN	74	0	1.5	-4.3	WI GREEN BAY	62	3	5.1	2.0
WATERLOO	65	3	1.5	-2.0	RALEIGH	72	1	0.3	-3.0	LA CROSSE	65	4	1.8	-1.7
KS CONCORDIA	73	5	1.2	-1.8	WILMINGTON	75	0	1.4	-4.3	MADISON	64	3	1.6	-1.4
DOUGL CITY	73	4	1.4	-0.4	ND BISMARCK	62	4	1.2	-0.1	MILWAUKEE	66	4	1.9	-1.0
GOODLAND	69	4	1.5	0.1	FARGO	62	4	1.8	-0.1	WAUSAU	60	3	4.1	0.2
TOPEKA	72	3	0.8	-2.6	GRAND FORKS	60	4	1.8	-0.2	WY CASPER	63	5	0.5	-0.2
WICHITA	74	4	2.0	-1.4	WILLISTON	62	5	0.3	-1.0	CHRYSTENNE	62	4	0.8	-0.3
KY HOWLING GREEN	69	2	5.4	2.2	OH AKRON-CANTON	63	-1	9.0	6.1	LANDER	65	7	1.5	0.6
JACKSON	72	3	1.9	-2.2	NC CINCINNATI	68	0	4.1	1.2	SHERIDAN	64	7	0.2	-0.9
LEXINGTON	69	0	2.1	-1.2	OH CLEVELAND	63	-1	7.3	4.4	PR SAN JUAN	83	1	2.2	-3.8
LOUISVILLE	72	2	2.6	-0.8	COLUMBUS	66	0	5.3	2.5					

Based on 1951-80 normals.

National Agricultural Summary

October 1-7, 1990

HIGHLIGHTS: Corn harvest was 23 percent (%) complete, 9 percentage points behind the 5-year average. Soybean harvest was 27% complete, 7 points behind average. Thirty percent of the cotton was harvested, 4 points ahead of normal. Winter wheat planting was 60% complete, 2 points behind average. Sorghum was 36% harvested, 3 points behind average.

Scattered showers through the week slowed or stopped harvest in most areas from **southeastern Arizona**, to the **northern Mississippi Valley**, and through the **Ohio Valley**. These rains were beneficial to growing crops and pastures. Maturing crops benefited from the above-average temperatures throughout most of the United States. The **Southeastern States** remained dry.

SMALL GRAINS: Winter wheat planting was 60% complete, 2 points behind normal. Thirty-five percent of the crop was emerged, 3 points behind average. Planting advanced 30 points from last week in Oklahoma and over 20 points in Idaho and Michigan. In Colorado, Nebraska, and South Dakota, planting was over 90% complete. Grasshopper infestations concerned winter wheat growers in southeastern Nebraska.

CORN: Corn was mostly good with 87% of the crop mature, 7 points behind normal. Twenty-three percent of the crop was harvested, 9 points behind normal. Crop maturity and harvest lagged behind normal in most of the major producing States. In Illinois, harvest was only 17% complete, 26 points behind normal. Western Kentucky had a very active harvest. Kansas harvest was slowed in central and eastern counties due to rain. Most Ohio corn was safe from frost, with harvested corn testing 26% moisture. Texas plains' corn harvest continued with good to excellent yields after rains.

SOYBEANS: Soybeans were mostly good to fair with 76% of the acreage dropping leaves, 7 points below normal. Harvest was 27% complete, 7 points behind normal. Percentage of leaves dropping progressed over 20 points from last week in Indiana, Michigan, and Ohio. Harvest was 15 and 14 points above average in Nebraska and South Dakota, respectively. However, in Illinois and Indiana, harvest was at least 25 points behind average. Ohio soybeans were good and only a few fields were still susceptible to frost damage.

COTTON: The cotton crop was mostly good to fair. Eighty percent of the acres was opening bolls, 5 points above average. Harvest was 30% complete, 4 points ahead of normal. Louisiana had 73% of the crop harvested, 15 points ahead of average. Missouri had 19% harvested, 25 points behind normal. Heavy rains in the Trans-Pecos area of Texas affected cotton maturity and delayed harvest. California cotton defoliation increased and harvest was active.

SORGHUM: Sorghum was mostly good to fair with 83% of the acres mature, 3 points ahead of normal. Harvest was 36% complete, 3 points behind average. Louisiana had 91% harvested, 6 points behind normal. Missouri had 19% harvested, 29 points behind normal. Recent rains in Texas benefited late-planted sorghum, but more hot weather is needed for the crop to mature.

OTHER FIELD CROPS: Rice harvest was 69% complete, 12 points behind normal. Arkansas' harvest was 51% complete, 31 points behind normal. North Dakota potatoes were mostly poor to fair with 94% dug, 6 points ahead of normal. Sunflowers were 36% harvested, 14 points ahead of normal. Colorado dry beans were 94% cut and 70% threshed. Tennessee burley tobacco was 100% harvested, 3 points above average; dark fired 98%, equal to average; and dark air cured 96%, 1 point behind average. Georgia peanuts were very poor to fair, with 89% dug and 80% threshed. Digging was difficult due to dry soils, and yields were disappointing. North Carolina peanuts were fair to good, with 40% dug and 23% threshed. Louisiana sugarcane was fair with 82% planted, 7 points behind normal.

FRUIT AND NUTS: Golden delicious apple harvest in the Hood River area in Oregon was almost finished, while the Newton apple harvest had just started. Arizona lemon harvest continued in the west. Fall-melon harvest continued in the central areas, with some fields lost to whitefly infestations. Pennsylvania apple and grape harvests were 65% complete, both 9 points above last year. New York apple harvest was 80% finished in the Lake Champlain area and 70% finished in the Hudson Valley area. Arkansas pecan prospects were poor to very poor. Texas pecans neared maturity in the north, with above-average quality, while harvest continued in the south and central areas of the State. California soft dates were harvested with some high-wind droppage, and the majority of the raisin crop was picked and boxed.

VEGETABLES: Some western Arizona cauliflower and broccoli were damaged by hail and rain. Delaware lima beans were 91% harvested, 10 points above average. New Jersey fall vegetable and cranberry harvest was active. Texas High Plains' watermelon, cabbage, carrot, and pepper harvests were virtually complete. California broccoli and iceberg lettuce continued in light supply with good to variable quality.

PASTURES AND LIVESTOCK: Pastures were mostly fair to good. North and South Dakota reported poor to fair conditions. Livestock was in mostly fair to good condition, with Colorado reporting livestock in good to excellent. Livestock was being moved to winter pasture.

(Continued from front cover)

continued to prevail over the remainder of the Nation as a number of record-high temperatures for the date were broken or tied in the **eastern two-thirds of the country** on the 5th and 6th. At week's end, Hurricane Klaus caused torrential rains in the northern islands of the lesser Antilles. Klaus weakened to a depression as the storm churned westward through the Bahamas on Tuesday, the 9th.

Crop Progress

RICE % HARVESTED			
	1990	1989	AVG.
AR	51	80	82
CA	55	30	41
LA	97	95	96
MS	79	70	88
TX	100	100	100
5 STATES	69	77	81

THESE 5 STATES PRODUCED 97% OF THE 1989 RICE CROP.

COTTON % BOLLS OPENING			
	1990	1989	AVG.
AL	98	80	94
AZ	100	98	97
AR	92	78	91
CA	100	100	100
GA	93	79	86
LA	100	96	98
MS	99	83	94
MO	88	87	89
NM	86	94	88
NC	96	89	96
OK	65	60	60
SC	93	89	92
TN	94	88	96
TX	62	57	52
14 STATES	80	74	75

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

COTTON % HARVESTED			
	1990	1989	AVG.
AL	67	15	38
AZ	22	14	13
AR	30	12	42
CA	5	5	8
GA	54	9	27
LA	73	37	58
MS	58	7	48
MO	19	32	44
NM	5	3	4
NC	20	5	12
OK	5	0	5
SC	39	8	24
TN	38	22	41
TX	20	17	18
14 STATES	30	15	26

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

WINTER WHEAT % PLANTED			
	1990	1989	AVG.
AR	5	5	8
CA	0	0	0
CO	90	91	95
GA	3	3	7
ID	67	72	69
IL	15	32	32
IN	18	34	34
KS	70	85	75
MI	55	75	45
MO	20	27	28
MT	85	83	70
NE	95	92	93
NC	10	7	8
OH	22	27	34
OK	60	75	55
OR	64	44	32
SD	92	94	95
TX	56	72	64
WA	85	79	75
19 STATES	60	69	62

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

SOYBEANS % DROPPING LEAVES			
	1990	1989	AVG.
AL	68	55	51
AR	28	24	36
GA	69	45	63
IL	78	95	97
IN	81	85	96
IA	98	99	98
KS	90	80	85
KY	42	53	62
LA	53	72	60
MI	90	95	90
MN	99	99	99
MS	47	46	61
MO	59	76	79
NE	98	95	96
NC	38	29	25
OH	90	82	94
SC	22	26	24
SD	100	100	96
TN	44	62	66
19 STATES	76	80	83

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

SOYBEANS % HARVESTED			
	1990	1989	AVG.
AL	21	12	12
AR	2	2	8
GA	5	2	5
IL	24	49	53
IN	13	21	38
IA	55	75	49
KS	30	15	25
KY	5	4	11
LA	29	30	24
MI	5	15	10
MN	53	79	53
MS	13	9	15
MO	12	13	19
NE	50	34	35
NC	2	2	2
OH	12	7	30
SC	2	0	0
SD	57	74	43
TN	8	8	7
19 STATES	27	36	34

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

WINTER WHEAT % EMERGED			
	1990	1989	AVG.
AR	0	0	1
CA	0	0	0
CO	71	59	75
GA	2	2	4
ID	29	35	32
IL	4	4	8
IN	10	9	16
KS	40	45	45
MI	25	40	0
MO	7	6	12
MT	47	56	43
NE	75	78	80
NC	5	4	0
OH	4	5	8
OK	25	25	30
OR	38	23	14
SD	79	84	79
TX	30	38	38
WA	63	50	53
19 STATES	35	37	38

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

CORN % HARVESTED			
	1990	1989	AVG.
CO	7	7	11
GA	96	88	93
IL	17	29	43
IN	9	15	28
IA	25	28	31
KS	60	50	55
KY	42	46	51
MI	5	4	10
MN	14	15	23
MO	42	54	55
NE	25	20	23
NC	75	59	67
OH	7	4	17
PA	3	4	11
SD	21	24	18
TX	92	87	89
WI	5	9	15
17 STATES	23	25	32

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

CORN % MATURE			
	1990	1989	AVG.
CO	87	84	86
GA	100	100	100
IL	93	99	100
IN	73	86	95
IA	99	99	99
KS	98	97	98
KY	80	88	95
MI	50	75	80
MN	94	98	93
MO	94	99	100
NE	98	97	97
NC	100	100	100
OH	54	34	79
PA	30	37	59
SD	96	96	93
TX	100	100	100
WI	68	86	84
17 STATES	87	91	94

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

GRAIN SORGHUM % MATURE			
	1990	1989	AVG.
AR	91	98	NA
CO	52	62	65
IL	54	87	NA
KS	70	45	70
LA	98	100	100
MS	95	89	96
MO	61	87	89
NE	98	92	95
NM	90	NA	NA
OK	70	65	65
SD	97	100	85
TX	96	83	83
12 STATES	83	NA	NA
EXCL. STATES WITH NA	83	71	80
THESE 12 STATES PRODUCED 98% OF THE 1989 GRAIN SORGHUM CROP.			
NA - NOT AVAILABLE.			

GRAIN SORGHUM % HARVESTED			
	1990	1989	AVG.
AR	69	84	87
CO	28	9	12
IL	4	24	40
KS	20	15	20
LA	91	99	97
MS	86	70	86
MO	19	45	48
NE	20	24	28
NM	10	NA	NA
OK	7	12	15
SD	47	46	26
TX	66	65	65
12 STATES	36	NA	NA
EXCL. STATES WITH NA	36	37	39
THESE 12 STATES PRODUCED 98% OF THE 1989 GRAIN SORGHUM CROP.			
NA - NOT AVAILABLE.			

Crop Condition
PERCENT

FOR WEEK ENDING OCTOBER 7, 1990

SOYBEANS					
STATE	VP	P	F	G	EX
AL	29	34	32	5	0
AR	0	23	45	32	0
GA	36	42	20	2	0
IL	0	1	14	80	5
IN	0	0	23	72	5
IA	0	0	13	72	15
KS	12	6	50	23	9
KY	3	6	55	33	3
LA	3	7	59	28	3
MI	0	3	17	55	25
MN	0	3	40	45	12
MS	6	34	31	29	0
MO	0	4	65	31	0
NE	0	10	53	35	2
NC	2	17	56	24	1
OH	2	8	28	48	14
SC	3	26	46	25	0
SD	0	4	27	60	9
TN	2	17	62	19	0
19 STATE	2	8	33	50	7
PREV WEEK	2	9	35	48	6
PREV YEAR	NA				

GRAIN SORGHUM					
STATE	VP	P	F	G	EX
AR	1	6	61	32	0
CO	2	5	25	55	13
IL	0	0	50	44	6
KS	0	2	41	45	12
LA	0	13	31	56	0
MS	0	11	32	47	10
MO	0	0	56	44	0
NE	3	8	42	43	4
NM	0	10	30	50	10
OK	0	1	50	49	0
SD	0	16	9	70	5
TX	0	6	45	46	3
12 STATE	1	5	42	46	6
PREV WEEK	0	7	42	46	5
PREV YEAR	NA				

CORN					
STATE	VP	P	F	G	EX
CO	0	3	15	63	19
GA	21	28	40	6	5
IL	0	1	12	79	8
IN	0	1	19	72	8
IA	0	1	12	72	15
KS	0	2	18	50	30
KY	2	14	42	41	1
MI	0	5	15	50	30
MN	1	4	32	56	7
MO	0	0	44	55	1
NE	1	4	25	61	9
NC	9	31	39	21	0
OH	2	7	27	50	14
PA	1	6	19	48	26
SD	0	3	19	59	19
TX	0	0	21	68	11
WI	0	0	11	79	10
17 STATE	1	3	20	64	12
PREV WEEK	1	4	18	66	11
PREV YEAR	NA				

COTTON					
STATE	VP	P	F	G	EX
AL	1	8	78	13	0
AZ	0	0	50	50	0
AR	0	4	17	70	9
CA	0	0	10	85	5
GA	14	20	51	15	0
LA	0	0	38	62	0
MS	0	12	50	33	5
MO	0	0	100	0	0
NM	0	7	40	53	0
NC	0	8	34	56	2
OK	0	0	42	50	8
SC	1	34	65	0	0
TN	4	11	71	14	0
TX	0	1	46	48	5
14 STATE	1	4	44	47	4
PREV WEEK	1	4	40	52	3
PREV YEAR	NA				

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

State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service.

ALABAMA: Rainfall 0.50 in. north; 1.00 to 3.00 in. local areas; mostly under 0.30 in. central, south. Temperatures 4 to 8° above normal.

Days suitable for fieldwork 6.0. Soil moisture 42% very short, 43% short, 15% adequate. Scattered showers benefitted pastures, small grains. Corn 94% harvested, 76% 1989, 84% avg. Sorghum 85% harvested, 69% 1989, 70% avg.; 7% very poor, 31% poor, 49% fair, 13% good. Cotton 98% bolls opened, 80% 1989, 94% avg.; 67% harvested, 15% 1989, 38% avg.; 1% very poor, 8% poor, 78% fair, 13% good. Peanuts 91% dug, 86% 1989, 66% avg.; 83% combined, 78% 1989, 52% avg. Soybeans 87% turning color, 75% 1989, 77% avg.; 68% dropping leaves, 55% 1989, 51% avg.; 50% mature, 45% 1989, 33% avg.; 21% harvested, 12% 1989, 12% avg.; 29% very poor, 34% poor, 32% fair, 5% good. Winter wheat 19% seeded, 25% 1989, 21% avg. Pastures 29% very poor, 37% poor, 28% fair, 6% good. Livestock 14% poor, 60% fair, 26% good. Primary activities: Harvesting row crops, hay; destroying cotton stalks; controlling insects in vegetables; preparing land, seeding winter annuals; routine care of livestock, poultry, catfish.

ARIZONA: Heavy rains early in period, particularly southern areas; southwest rain, hail; clear, dry, warmer 3rd to 5th; increased cloudiness 6th, light showers southeast. Temperatures 5° below to 10° above normal. Extremes 50°; 101° deserts, 32°; 87° higher elevations. Precipitation 0.01 in. north central to 1.21 in. southeast.

Cotton harvested 22%, 14% 1989, 13% avg.; rain, hail delayed activities early in period; crop rated 50% fair, 50% good. Alfalfa harvest continued; rain delayed cutting, baling early in week; new stand establishment normal; crop mostly good. Lemon harvest continued west; rain, hail damaged cauliflower, broccoli. Fall melon harvests continued central; some fields lost to whitefly infestations. Apple, lettuce harvest continued east; also mixed vegetables.

ARKANSAS: Above normal temperatures first part of week. Scattered showers over the remainder of the week slowed or stopped harvest across the State. Extremes 44°; 92°. Rainfall 0.15 to 3.25 in.

Days suitable for fieldwork 5.0. Soil moisture 19% short, 64% adequate 17% surplus. Main activities: Harvesting rice, corn, soybeans, grain sorghum; seed small grains; disking rice stubble; fertilizing, reseeding, clipping, baling hay; various health work with livestock. Rice: 51% harvested, 80% 1989, 82% avg.; 89% ripe, 96% 1989, 97% avg.; 42% fair, 58% good. Cotton: 30% harvested, 12% 1989, 42% avg.; 92% open bolls, 78% 1989, 91% avg.; 4% poor, 17% fair, 70% good, 9% excellent. Corn 88% harvested, 96% 1989, 95% avg.; 25% fair, 75% good. Sorghum: 69% harvested, 84% 1989, 87% avg.; 91% mature, 98% 1989; 99% turning color, 100% 1989; 1% very poor, 6% poor, 61% fair, 32% good. Soybeans 2% harvested, 2% 1989, 8% avg.; 11% mature, 9% 1989, 20% avg.; 23% poor, 45% fair, 32% good. Wheat 5% planted, 5% 1989, 8% avg.; 0% emerged, 0% 1989, 1% avg.; 30% fair, 70% good. Oats 6% planted, 4% 1989, 8% avg. Cotton yields varied. Apple harvest near complete. Pecan prospects very poor, poor. Rice yields average. Sorghum yields average to good. Group V soybean harvest continued. Pasture 28% poor, 65% fair, 7% good. Livestock good, some fly problems.

CALIFORNIA: After high pressure gave way to a weak front early in the week clouds spread across northern areas. Strong northern winds followed with a gradual warm up late in the week.

Open weather permitted good progress of field activities. Rice harvest gained momentum. Cotton defoliation increased; harvest active. Dry bean, sugarbeet, corn for grain harvests continued. Alfalfa, field corn green chopping underway. Small grain field preparation continued; manure applications some fields. Alfalfa hay, Sudan grass harvests progressed. Late variety apple harvest continued. Soft dates harvested; some high wind droppage. Avocado, fig harvests progressed. Majority of the raisin crop picked, boxed. Several table grape varieties harvested. Wine grape harvest winding down. Packing of Asian pear, Wonderful pomegranates, peaches, nectarines continued. Low volume of Roysum plums packed. Persimmon, olive harvest gained momentum. Almond, pistachio harvest winding down. Walnut harvest steady. Valencia orange harvest low volume. Navel oranges sizing well. Desert lemon harvest steady. Desert grapefruit harvest slow. Broccoli light supply, generally good quality. Cauliflower moderate supply, variable quality. Celery heavy supply, variable quality. Iceberg head lettuce light supply, variable quality. Tomato, sweet corn harvest continued. Potato harvest underway Hemet Parris area. Sweetpotato harvest active. Onion, garlic planting active westside. Livestock good statewide. Cattle movement from summer to winter pastures. Range remain poor. Sheep grazed harvested crop residues in central, southern portions of the State.

COLORADO: Cold front moved across the State on 2nd to 3rd bringing 0.10 to 0.20 in. of rain to most river basins. The remainder of the period was mostly dry until another, stronger front moved through on 6th to 7th. There was more precipitation with this front, particularly in the east. Temperatures for the period were within a degree or two of normal at most locations.

Days suitable for fieldwork 5.0. Soil moisture 3% very short, 30% short, 63% adequate 4% surplus. Alfalfa 3rd cutting 79% complete; 4th cutting 27% complete. Dry beans 94% cut, 70% threshed. Corn 87% mature, 7% harvested. Corn silage harvest 89% complete. Sorghum 52% mature, 28% harvested. Dry onions 92% harvested. Summer potatoes 77% harvested. Fall potatoes 53% harvested. Sugarbeets 7% harvested. Winter wheat 90% seeded, 71% emerged. Pasture, range feed 2% very poor, 7% poor, 38% fair, 43% good, 10% excellent. Livestock mostly good to excellent.

FLORIDA: Very warm, 6 to 8° above normal over the Panhandle, 3 to 6° above normal elsewhere. Maximum temperatures frequently reached upper 80s to low 90s; few mid 90s, hottest temperature of 97°, Plant City, Lisbon. Coolest readings low, mid 60s Panhandle, north, mid, upper 60s central, interior south, low to mid 70s lower southeast coast. Scattered showers during the week produced only local rain totals exceeding 1.00 in. Mainly along lower southeast coast. Much of State received less than 0.50 in. of rain; few areas received no rain.

GEORGIA: Temperatures 2 to 4° above normal north, 5 to 8° above normal central, south.

Warmest highs around 80 northeast mountains, mid 90s Florida border, southeast. Lows mid, upper 40s mountains, upper 30s at higher elevations, low 50s central, low 60s extreme south, southeast. Showers numerous north, almost none southeast, extreme south. Most stations north 0.25 in., over 1.00 in. few isolated areas. Elsewhere generally under 0.30 in.

Days suitable for fieldwork 6.1. Soil moisture 50% very short, 36% short, 13% adequate, 1% surplus. Cotton harvest very active, one of fastest ever. Sorghum 7% very poor, 28% poor, 55% fair, 10% good; 66% harvested for grain, 60% 1989, 61% avg. Peanuts 36% very poor, 26% poor, 34% fair, 4% good; 89% dug, 89% 1989, 77% avg.; 80% threshed, 77% 1989, 65% avg. Digging difficult because of dry soils, yields disappointing. More soybeans abandoned, some areas near total failure. Wheat 20% very poor, 23% poor, 45% fair, 12% good. Rye 8% very poor, 31% poor, 57% fair, 4% good; 14% planted, 24% 1989, 27% avg. Other small grains 9% planted, 12% 1989, 13% avg.; All small grain seeding very slow because of dry soils. Apples 14% very poor, 7% poor, 2% fair, 77% good; 76% harvested, 62% 1989, 81% avg. Pecans 15% very poor, 22% poor, 63% fair; 3% harvested, 1% 1989, 2% avg.; drought reducing nut size. Hay 13% very poor; 21% poor, 47% fair, 18% good, 1% excellent. Pasture 14% very poor, 23% poor, 43% fair, 19% good, 1% excellent. Cattle, hogs fair to good. Main activities: Peanut, cotton harvests, seeding small grain north.

HAWAII: Fair weather continued over islands. Skies remained sunny with occasional showers. Winds variable 5 to 20 mph. Temperatures high 60s to low 90s. Rainfall none to 4.50 in.

Days suitable for farm work 7.0. Papaya production on seasonal decline. Sugar, pineapple harvest continuous.

IDAHO: Temperatures slightly above normal, precipitation fell all areas, below average.

Days suitable for fieldwork 6.0. Soil moisture 15% very short, 41% short, 43% adequate, 1% surplus. Potatoes 65% harvested, 48% 1989, 55% avg. Sugarbeets 26% harvested, 14% 1989, 17% avg. Despite colder temperatures, high winds some areas, potato, sugarbeet harvests progressed well. Alfalfa 3rd cutting 90% harvested, 95% 1989, 88% avg. Light showers fell north, relieved dry soil moisture condition somewhat, allowed seeding winter cereals. Dry bean harvest wrapping up most areas; 96% harvested, 87% 1989, 87% avg. Onion harvest slightly ahead; 85% harvested, 80% 1989, 81% avg. Corn for silage 71% harvested. Corn for grain harvest just underway. Hops 100% harvested. Apple harvest continued; 56% harvested, 53% 1989, 52% avg. Livestock good to excellent. Activities: Gathering sheep, cattle off summer ranges, shearing range ewes, working cow herds, breeding ewes, selling livestock. Range pasture 7% very poor, 27% poor, 40% fair, 24% good, 2% excellent.

ILLINOIS: Temperatures 2 to 6° above normal. Precipitation generally 0.75 to 2.50 in. Isolated areas 2.50 to 3.00 in.

Days suitable for fieldwork 5.25. Soil moisture 12% short, 86% adequate, 2% surplus. Soybeans turning yellow 94%, 100% 1989, 100% avg. Sorghum coloring 89%, 100% 1989. Corn borer damage appearing in corn. Pasture 2% poor, 32% fair, 62% good, 4% excellent.

INDIANA: Temperatures 3 to 6° above normal. Lows upper 40s to mid 50s, highs low to mid 60s. Precipitation 1.33 to 3.00 in.

Days suitable for fieldwork 4.9. Topsoil 1% short, 80% adequate, 19% surplus. Subsoil 1% short, 92% adequate, 7% surplus. Silo filling 80%,

76% 1989, 89% avg. Tobacco 84% harvested, 93% 1989, 97% avg. Apples harvested 63%. Pasture 4% poor, 18% fair, 66% good, 12% excellent. 1991 winter wheat cropland 56% plowed, 66% 1990, 63% avg. Good harvesting conditions early, slowed by rain later in week.

IOWA: Temperatures 3 to 5° above normal. Extremes 35°; 89°. Rainfall 0.40 to 2.63 in.; average 1.04 in.

Days suitable for fieldwork 5.4. Topsoil 18% short, 82% adequate. Subsoil 8% short, 92% adequate. Pasture 7% poor, 27% fair, 54% good, 12% excellent. Winter wheat 75% sown, 83% 1989, 60% avg. Corn lodging 3% none, 55% light, 40% moderate, 2% heavy. Corn ear droppage 65% light, 33% moderate, 2% heavy. Livestock mostly good. Some grazing of stubble, corn stalk fields.

KANSAS: Temperatures 2 to 4° above normal over central, western areas; 3 to 5° above normal over eastern third of State. Precipitation generally light west, central areas; moderate eastern third.

Days suitable for fieldwork 4.5. Surface moisture 40% short, 58% adequate, 2% surplus. Subsurface moisture 48% short, 52% adequate. Harvest corn, sorghum, soybean good progress generally on or ahead schedule. Rain toward weekend delayed progress central, eastern counties. Wheat seeding good progress; only slightly behind schedule. Rain slowed seeding, provided adequate moisture for germination, early growth. Early seeded fields showing good emergence. Ranges, pastures furnish adequate forage but shorter days, cooler nights slowing growth. Wheat, pasture cattle already moving into State.

KENTUCKY: Temperatures 3 to 5° above seasonal normals; highs 70s to lower 80s, lows 50s. Precipitation 1.50 to 2.00 in. all but southeast, 0.75 in. Most rain 4th.

Days suitable for fieldwork 4.4. Soil moisture improved to 2% very short, 13% short, 78% adequate, 7% surplus. Corn harvest very active western half. Some late planted corn not yet mature. Burley 4% stripped, another 15% ready for stripping. Most crops expected to be good quality, some houseburn reported. Burley market will officially open November 19th. Nearly 4th soybeans still have leaves entirely green. Condition late hay crops fair to mostly good. Pasture 6% poor, 24% fair, 59% good, 11% excellent.

LOUISIANA: Temperatures 5 to 6° above normal. Extremes 50°; 94°. Rainfall 0.16 to 0.77 in.

Days suitable for fieldwork 5.7. Soil moisture 10% very short, 31% short, 57% adequate, 2% surplus. Cotton open bolls 100%, 96% 1989, 98% avg.; harvested 73%, 37% 1989, 58% avg. Hay final cutting 88%, 91% 1989, 90% avg. Rice ripe 100%, 100% 1989, 100% avg.; harvested 97%, 95% 1989, 96% avg. Second crop management, harvest continued. Sorghum ripe 98%, 100% 1989, 100% avg.; harvested 91%, 99% 1989, 97% avg. Soybeans turning color 85%, 93% 1989, 83% avg.; shedding leaves 53%, 72% 1989, 60% avg.; harvested 29%, 30% 1989, 24% avg.; 3% very poor, 7% poor, 59% fair, 28% good, 3% excellent. Spraying for stinkbugs, south, continued. Sugarcane planted 82%, 94% 1989, 89% avg.; 14% poor, 57% fair, 29% good. Sweetpotatoes harvested 66%, 63% 1989, 75% avg. Wheat planted 2%, 2% 1989, 3% avg. Livestock 45% fair, 53% good, 2% excellent. Pasture 2% very poor, 9% poor, 69% fair, 20% good. Vegetables 16% poor, 65% fair, 19% good.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.36 in. Temperature 64°, normal 62°. Extremes 32°; 82°.

Days suitable for fieldwork 5.9. Topsoil 37% short, 58% adequate, 5% surplus. Subsoil 5% very short, 21% short, 74% adequate. Corn good; 88% mature, .87% 1989, 91% avg.; grain 48% harvested, 47% 1989, 55% avg.; silage 84% harvested, 90% 1989, 92% avg. Soybeans fair to good; 78% turned, 88% 1989, 89% avg.; 53% shedding leaves, 61% 1989, 70% avg.; 7% harvested, 12% 1989, 15% avg. Wheat 8% seeded, 8% 1989, 18% avg. Barley 42% seeded, 27% 1989, 42% avg. Rye 40% seeded, 27% 1989, 42% avg. Oats 14% seeded, 3% 1989, 14% avg. Sweetpotatoes 76% harvested, 65% 1989, 65% avg. Hay supplies adequate. Alfalfa hay fourth cut 69% complete, 60% 1989, 73% avg. Other hay third cut 78% complete, 60% 1989, NA% avg.; fourth cut 33% complete, 23% 1989, NA avg. Apples fair to good; 69% harvested, 84% 1989, 73% avg. Pasture fair to good.

DELAWARE: Precipitation 0.28 in. Temperature 64°, normal 63°. Extremes 39°, 81°.

Days suitable for fieldwork 6.6. Topsoil 29% short, 71% adequate. Subsoil 14% short, 86% adequate. Corn good; 95% mature, 94% 1989, 98% avg.; grain 67% harvested, 66% 1989, 62% avg.; silage 99% harvested, 88% 1989, 95% avg. Soybeans good; 78% turned, 47% 1989, 70% avg.; 44% shedding leaves, 27% 1989, 47% avg.; 11% harvested, 4% 1989, 3% avg. Barley 49% seeded, 18% 1989, 21% avg. Rye 33% seeded, 16% 1989, 21% avg. Lima beans 91% harvested, 81% 1989, 81% avg. Hay supplies adequate. Alfalfa hay fourth cut 92% complete, 78% 1989, 91% avg. Apples fair to good; 74% harvested, 76% 1989, 55% avg. Pasture good.

MICHIGAN: Temperatures 1 to 4° above normal. Extremes 32°; 87°. Precipitation 0.10 to 2.18 in. across the State.

Days suitable for fieldwork 4.5. Soil moisture 63% adequate, 37% surplus. Corn 50% mature, 75% 1989, 80% avg.; 5% harvested, 4% 1989, 10% avg.; 5% poor, 15% fair, 50% good, 30% excellent. Soybeans 90% dropping leaves, 95% 1989, 90% avg.; 5% harvested, 15% 1989, 10% avg.; 3% poor, 17% fair, 55% good, 25% excellent. Winter wheat 55% seeded, 75% 1989, 45% avg. Pasture 5% poor, 20% fair, 45% good, 30% excellent. Major activities: Harvesting potatoes, soybeans, dry beans, sugarbeets, corn silage, hay, apples, grapes, vegetables, seeding winter wheat, storing farm equipment.

MINNESOTA: Temperatures 2° below normal to 3° above normal. Extremes 18°; 86°. Precipitation 0.02 to 1.54 in., greatest weekly total 2.10 in.

Days suitable for fieldwork 5.3. Topsoil 14% very short, 20% short, 60% adequate, 6% surplus. Corn 94% mature, 98% 1989, 93% avg.; 14% combined, 15% 1989, 23% avg. Soybeans 96% mature, 97% 1989, 91% avg.; 53% combined, 79% 1989, 53% avg. Sugarbeets 45% harvested, 23% 1989, 43% avg. Potatoes 79% harvested, 84% 1989, 81% avg. Sunflowers 45% harvested, 37% 1989, 25% avg. Field corn 79% silage, 87% 1989, 75% avg. Corn 4% plowed, tilled, 7% 1989, 6% avg. Soybeans 15% plowed, tilled, 22% 1989, 18% avg. Hay, small Grain stubble 76% plowed, tilled, 90% 1989, 77% avg. Soybeans 11% moisture, 12% 1989, 13% avg. Corn 24% moisture, 22% 1989, 24% avg. Field corn 1% very poor, 4% poor, 32% fair, 56% good, 7% excellent. Soybeans 3% poor, 40% fair, 45% good, 12% excellent.

MISSISSIPPI: Temp. 4° above normal. Extremes 45°; 97°. Mostly wet north, dry south. Rainfall 0.94 in., 0.23 in. above normal. Soil temperature 78°.

Days suitable for fieldwork 4.8, 4.2 1989, 5.2 avg. Soil moisture 7% very short, 38% short, 35% adequate, 20% surplus. Cotton 58% harvested, 7% 1989, 48% avg.; 12% poor, 50% fair, 33% good, 5% excellent. Corn 86% harvested, 56% 1989, 83% avg.; 7% poor, 40% fair, 43% good, 10% excellent. Rice 97% mature, 94% 1989, 98% avg.; 79% harvested, 70%

1989, 88% avg.; 2% poor, 12% fair, 79% good, 7% excellent. Soybeans 79% turning color, 71% 1989, 79% avg.; 47% shedding leaves, 46% 1989, 61% avg.; 13% harvested, 9% 1989, 15% avg.; 6% very poor, 34% poor, 31% fair, 29% good. Sorghum 95% mature, 89% 1989, 96% avg., 86% harvested, 70% 1989, 86% avg.; 97% silage harvested, 92% 1989, 93% avg.; 11% poor, 32% fair, 47% good, 10% excellent. Hay 92% harvested, 91% 1989, 92% avg. Peanuts 90% harvested, 84% 1989, 83% avg. Sweetpotatoes 66% harvested, 54% 1989, 62% avg. Wheat 14% planted, 14% 1989, 14% avg.; 9% emerged, 7% 1989.; 7% avg.; 2% poor, 54% fair, 44% good. Pasture, livestock fair to good. Activities: Harvesting crops.

MISSOURI: Temperatures mostly 1 to 4° above normal. Precipitation 0.50 in. west central, 1.00 in. east central, northeast, 2.50 in. elsewhere.

Days suitable for fieldwork 4.8. Topsoil 40% short, 57% adequate, 3% surplus. Subsoil 46% short, 54% adequate. Corn harvested 19% east central to 85% southeast. Soybeans harvested 3% south central to 15% northeast. Sorghum harvested 36% southeast, less than 14% elsewhere. Pasture 3% very poor, 6% poor, 63% fair, 25% good, 3% excellent.

MONTANA: Temperature 2° below normal northwest, slightly above normal remainder. All areas received moisture except east.

Days suitable for fieldwork 6.5. Topsoil 83% short, 17% adequate. Subsoil 73% short, 27% adequate. Dry beans 86% harvested, 92% 1989, 85% avg. Corn silage 88% harvested, 94% 1989, 86% avg. Potatoes 59% harvested, 43% 1989, 51% avg. Sugarbeets 22% harvested, 19% 1989, 15% avg. Pasture, range feed 6% very poor, 17% poor, 46% fair, 27% good, 4% excellent. Newly seeded winter wheat 4% very poor, 16% poor, 46% fair, 32% good, 2% excellent.

NEBRASKA: Temperatures 1° below normal northwest to 4° above normal east central. Extremes 30°; 95°. Precipitation 0.20 in. north up to 1.40 in. east central.

Days suitable for fieldwork 5.7. Topsoil 63% short, 37% adequate. Subsoil 77% short, 23% adequate. Some irrigated corn harvested, most still needs to dry down more. Southern sorghum growers needed a frost to kill plants, allow maturation. Lodging, caused by insect damage, heat stress, becoming severe Southeast, moisture levels too high to harvest yet. Grasshoppers infestations causing concern to winter wheat growers, Southeast. Western producers finishing up cutting forage crops, corn silage; some making fourth alfalfa cutting. Dry edible bean harvest nearly complete, sugarbeet harvest will get in high gear soon. Pasture, range 9% very poor, 35% poor, 41% fair, 15% good. Cattle moving into harvested fields as soon as they become available. Many producers feeding hay to supplement pastures until crops harvested. Cattle moving into east central district from North Dakota, Montana, Canada.

NEVADA: High pressure system early resulted in sunny days, slightly above normal temperatures. Thunderstorms common extreme south. Cold, dry front moved through mid week dropping temperatures all areas. Near normal temperatures followed. Temperatures again fell end of period, below normal all areas. Extremes 19°; 95°.

Good progress digging 1990 potato crop. Late cuttings alfalfa hay still in progress some localities. Main ranch, farm activities included harvesting remaining acreage of alfalfa seed, hay, potatoes, onions, small grains, irrigating winter grain where water was available, garlic, chopping corn, leveling land, fixing fences, controlling rodents, fall weeds, working machinery, weaning, vaccinating calves, working, moving cattle.

NEW ENGLAND: Precipitation 0.20 in. Rhode Island, 0.35 to 1.25 in. Connecticut, Massachusetts, New Hampshire; 0.45 to 2.10 in. Maine, Vermont. Temperatures high 40s to mid 50s north, mid 50s to low 60s south; 1 to 4° above normal. Maximum temperatures high 60s to mid 80s north, high 70s to mid 80s south. Minimum temperatures 30 to low 40s.

Days suitable for fieldwork 6.0. Soil moisture north 71% adequate, 29% surplus; south 18% short, 82% adequate. Grazing availability 15% short, 81% adequate, 4% surplus. Pasture 4% poor, 15% fair, 79% good, 2% excellent. Maine potatoes 82% harvested, 85% 1989, 77% avg.; good. Rhode Island potatoes 87% harvested, 70% 1989, 85% avg.; good. Connecticut River Valley potatoes 70% harvested, 75% 1989, 68% avg.; good. Field corn 63% harvested, 61% 1989, 62% avg.; good. Sweet corn 99% harvested; good. Second cut hay 98% harvested, 99% 1989, 99% avg.; good. Third crop hay 98% harvested, 88% 1989, 81% avg.; good. Apples 67% harvested; size medium to large; good. Peaches 100% harvested; fair to good. Pears 89% harvested; fair to good. Major farm activities: Cutting hay, picking apples, chopping corn, sowing winter cover crops, harvesting vegetables.

NEW JERSEY: Temperatures much above normal. Extremes 33°; 88°. Rainfall 0.38 in. north, 0.07 in. central, 0.42 in. south. Heaviest 24 hour total 0.70 in. on 4th, 5th. Estimated soil moisture percent field capacity averaged 79% north, 58% central, 51% south. Four inch soil temperatures averaged 58° north, 61° central, 63° south.

Above normal temperatures increased late season crop growth. Many areas could use a good rain. Fall vegetable, apple, cranberry harvest active. Sweetpotato digging continued. Corn silage making active. Harvest of corn for grain, soybeans progressed as fields matured. Grain, cover crop seeding continued. Growth of early seeding remained good but rain would be beneficial. Pasture growth normal.

NEW MEXICO: Temperatures 3° below normal at Quemado to 6° above normal at Roswell. Precipitation a trace at Farmington to over 1.00 in. at Carlsbad, Las Cruces.

Days suitable for fieldwork 4.5. Soil moisture 6% short, 86% adequate, 8% surplus. Light to moderate freeze in higher elevations. Rains hampered harvest activities. Chile, apple harvest continues. Chile poor to fair; 50% harvested. Apples fair to excellent; 67% harvested. Peanuts good to fair; 15% harvested but moisture content is high. Army worms still a problem in wheat fields on the high plains. Cattle, sheep fair to excellent. Range 9% poor, 36% fair, 46% good, 9% excellent.

NEW YORK: Unseasonably warm. Temperatures 4 to 6° above normal. Extremes 28°; 86°. Scattered frost on 3rd. Rainfall above normal. Most rain fell on 4th. High winds on 4th toppled some trees, caused power outages.

Days suitable for fieldwork 4.8. Soil moisture mostly adequate to surplus. Pastures 50% fair, 41% good, 9% excellent. Hay, corn condition good. Third cutting alfalfa 87% complete, 75% 1989, 75%. Wetness slowed corn harvest. Silage corn 45% harvested, 42% 1989, 45% avg. Grain corn 6% harvested, 7% 1989, 5% average. Dry bean harvest in full swing. Apple harvest in full swing. Lake Champlain area growers nearly 80% finished. Hudson Valley crop 70% harvested. Red Delicious harvest at peak in the Lake Ontario region. Vegetable harvests winding down. Storage cabbage harvest continued. Pumpkin harvest peaked.

NORTH CAROLINA: Temperatures 3 to 4° above normal across the State. Extremes 38°; 90°. Precipitation 0.16 to 1.58 in.

Days suitable for fieldwork 6.3. Soil moisture 40% very short, 44% short, 16% adequate. Pasture 7% very poor, 23% poor, 50% fair, 20% good. Livestock feed from pasture 71%. Harvested: Flue cured tobacco 96%; corn silage 96%; corn for grain 75%; burley tobacco 98%; sweetpotatoes 48%; apples 75%; sorghum 40%; peanuts dug 40%; peanuts threshed 23%. Cotton opening bolls 96%; Soybeans dropping leaves 38%. Planted: wheat 10%; oats 13%; barley 16%; rye 25%. Crop condition: Cotton 8% poor, 34% fair, 56% good, 2% excellent; soybeans 2% very poor, 17% poor, 56% fair, 24% good, 1% excellent; peanuts 54% fair, 46% good; sorghum 16% poor, 58% fair, 26% good; sweetpotatoes, 4% poor, 36% fair, 60% good; apples 6% poor, 53% fair, 41% good. Major activities: Harvesting flue cured, burley tobacco; harvesting corn for grain, cutting corn for silage; cutting hay; harvesting peanuts; harvesting sorghum, sweetpotatoes, apples; planting small grains; harvesting, defoliating cotton; land preparation. Other activities included: Seeding pastures; harvesting vegetables; harvesting soybeans; tending livestock; general farm maintenance.

NORTH DAKOTA: Temperatures 1° below to 2° above normal. Precipitation none to 0.04 in. statewide.

Days suitable for fieldwork 6.9. Topsoil 57% very short, 43% short. Subsoil 59% very short, 41% short. Corn for grain 2% poor, 81% fair, 17% good; 90% ripe and beyond, 92% 1989, 81% avg. Corn for silage 8% very poor, 2% poor, 57% fair, 33% good; 96% cut, 96% 1989, 89% avg. Potatoes 46% very poor, 54% fair; 94% dug, 92% 1989, 88% avg. Soybeans 3% poor, 85% fair, 12% good; 71% combined, 78% 1989, 56% avg. Sugarbeets 17% poor, 66% fair, 17% good; 53% lifted, 24% 1989, 47% avg. Dry beans 19% poor, 58% fair, 23% good; 96% combined, 93% 1989, 75% avg. Sunflower 2% very poor, 5% poor, 50% fair, 43% good; 36% harvested, 43% 1989, 22% avg. Winter wheat 98% planted, 99% 1989, 94% avg. Rye 99% planted, 99% 1989, 95% avg. Pastures 38% very poor, 31% poor, 31% fair. Stockwater 14% very short, 40% short, 46% adequate.

OHIO: High temperatures low to mid 70s; lows mid 40s to mid 50s. Overall temperatures 3 to 6° above normal with highest readings reaching the 80s. Rainfall 1.00 to 2.00 in.

Days suitable for fieldwork 4.5. Soil moisture 65% adequate, 35% surplus. Activities: Harvesting late season crops, seeding wheat, working on equipment. Corn good; most stands safe from frost. Crop needs more drying time; harvested corn testing 26% moisture. Soybeans good; only a few stands susceptible to frost damage. A frost could speed harvest now by killing weeds. Winter wheat seeding slow, delayed by late harvest of soybeans, corn. Pasture 1% very poor, 4% poor; 24% fair, 57% good, 14% excellent. Hay stands good; some hay being made, conditions not the best. Sugarbeet harvest 12% complete; processing tomatoes 88%, potato digging 67%, fall apple picking 38% complete.

OKLAHOMA: Temperatures 2° below normal Panhandle to 3° above normal east central. Precipitation 0.06 in. Panhandle to 1.31 in. northeast.

Days suitable for fieldwork 4.6. Topsoil 93% adequate, 7% surplus. Subsoil 30% short, 70% adequate. Wheat 1% poor, 15% fair, 69% good, 15% excellent; 60% planted, 75% 1989, 55% avg.; 25% emerged, 25% 1989, 30% avg. Planting accelerated because of recent improved soil moisture. Cotton 42% fair, 50% good, 8% excellent; 65% open bolls, 60% 1989, 60% avg.; 5% harvested, 0% 1989, 5% avg. Sorghum 1% poor, 50% fair, 49% good; 70% mature, 65% 1989, 65% avg.; 7% harvested, 12% 1989, 15%

avg. Soybeans 45% mature, 40% 1989, 55% avg.; 15% harvested, 20% 1989, 10% avg. Peanuts 65% mature, 85% 1989, 75% avg.; 5% harvested, 10% 1989, 10% avg. Corn 70% harvested, 85% 1989, 90% avg. Pastures 2% poor, 60% fair, 35% good, 3% excellent. Cattle good; marketings average, prices firm to slightly higher than preceding week.

OREGON: Temperatures at or above normal in western State. Cooling trend latter half week. In general, eastern State below normal except extreme north. Well below freezing minimums several eastern locations, 19° on 6th. Fairly significant rainfall western areas lesser amounts eastern sections. Astoria 1.63 in., Laurel Mountain 1.37, Portland 0.62 in.

Winter wheat 64% planted, last year, 32% avg. 38% wheat emerged, 23% last year, 14% avg. Barley 25% planted, 27% last year 24% avg. Soil moisture 74% short, 26% adequate. Eastern winter wheat planting, haying activities. West planting of grass seed. Cranberry harvest underway. Valley apple harvest winding down. Hazelnut harvest continued, some delays from rain. At Hood River, Golden Delicious harvest almost finished, Newtown apple harvest started. The Red Delicious winding down Milton Freewater. Table beet, carrot, sweet corn harvests final stages Willamette Valley. Cauliflower harvest mid valley. Potato harvest underway north central, northeast. Potatoes, onions coming Malheur County. Recent frosts ended most vegetable harvest Hermiston. Livestock good to excellent. Cattle movement from summer grazing to home meadows. West, east pasture, range poor to excellent. Statewide, range, pasture 20% poor, 53% fair, 25% good, 2% excellent.

PENNSYLVANIA: Normal temperatures, below normal rainfall. Temperature 58°, at normal. Extremes 32°; 85°. Precipitation 0.57 in., 0.19 in. below normal.

Days suitable for fieldwork 5. Soil moisture 8% short, 69% adequate, 23% surplus. Corn 90% dented 91% 1989, 94% avg.; 30% mature, 37% 1989, 59% avg.; 3% harvested, 4% 1989, 11% avg. Ensilage corn 37% harvested, 42% 1989, 63% avg. Corn 1% very poor, 6% poor, 19% fair, 48% good, 26% excellent. Soybean harvest 2% complete, 5% 1989, 12% avg.; 4% poor, 20% fair, 53% good, 23% excellent. Potato harvest 73% complete, 75% 1989, 77% avg. Fall plowing 60% complete, 64% 1989, 73% avg. Winter wheat 52% planted, 50% 1989, 52% avg. Barley 75% planted, 63% 1989, 73% avg. Third cutting alfalfa 81% complete, 79% 1989. Fourth cutting alfalfa 47% complete, 37% 1989. Quality of hay made during week mostly fair. Amount of feed being obtained from pasture 11% poor, 53% fair, 36% good. Apple harvest 65% complete, 56% 1989. Grapes harvest 65% complete, 54% 1989. Activities: Harvesting hay, haylage, potatoes, corn, corn silage, soybeans, fruits, vegetables; fall plowing, planting; maintaining machinery; caring for livestock.

PUERTO RICO: Rainfall 1.83 in. was 0.01 in. below normal. Rainfall 5.82 in. at Morovis, 3.98 in. at Toro Negro, 3.96 in. at Negro Corozal. Highest 24 hour total was 3.06 in. at Toro Negro. Temperature 82 to 83° on the coasts, 76 to 77° in the Interior with Mean Station temperature 62° at Cerro Maravilla to 84° at San Juan WSFO. Extremes 56°; 94°.

SOUTH CAROLINA: Temperatures 1° above normal northwest to 6° or more above normal near the coast. Rainfall 0.50 in. mountains to 0.30 in. elsewhere.

Days suitable for fieldwork 6.3. Soil moisture 30% very short, 63% short, 7% adequate. Cotton 1% very poor, 34% poor, 65% fair, 93% open bolls, 89% 1989, 92% avg.; 39% harvested, 8% 1989, 24% avg.

Soybeans 3% very poor, 26% poor, 46% fair, 25% good, 66% leaves turning, 51% 1989, 50% avg.; 22% shedding leaves, 26% 1989, 24% avg.; 20% matured, 6% 1989, 14% avg.; 2% harvested, 0% 1989, 0% avg. Corn poor to fair, 95% harvested, 82% 1989, 87% avg. Sorghum fair, 66% harvested, 42% 1989, 47% avg. Tobacco 77% stalks destroyed, 64% 1989, 70% avg. Peanuts fair, 40% harvested, 42% 1989, 31% avg. Pastures 1% very poor, 30% poor, 53% fair, 16% good.

SOUTH DAKOTA: temperatures 1° below to 8° above normal. Extremes 24°; 95°. Precipitation moderate to heavy southeast, 0.25 in. or less in Black Hills. Maximum 1.70 in. Harvest season precipitation normal to 1.00 in. below normal west, northeast above normal, central to southeast below normal. Range 2.20 in. above to 1.87 in. below normal.

Days suitable 5.5. Subsoil 29% critically short, 52% short, 19% adequate. Topsoil 23% critically short, 43% short, 33% adequate, 1% surplus. Range, pasture 31% poor, 31% fair, 36% good, 2% excellent. Row crop mostly good. Winter wheat mostly good, winter rye fair to good. Winter grains spotty germination west due to dry conditions. Dry weather causing fast dry down. Green bug, corn borer, blackbird problems. Major activities: Combining, fieldwork, fencing.

TENNESSEE: High pressure with fair weather dominated. Cold front 3rd, 4th brought widespread, heavy rainfall. Another front 7th brought additional rainfall west. Temperatures above normal all areas except northeast. Rainfall exceeded 5.00 in. many sections west, less than 1.00 in. east.

Days suitable for fieldwork 4.8. Soil moisture 3% very short, 25% short, 70% adequate, 2% surplus. Corn 94% mature, 100% 1989, 96% avg.; 52% harvested for grain, 60% 1989, 65% avg. Cotton 94% open bolls, 88% 1989, 96% avg.; 38% harvested, 22% 1989, 41% avg.; 4% very poor, 11% poor, 71% fair, 14% good. Sorghum 48% harvested, 82% 1989, 80% avg. Soybeans 44% shedding leaves, 62% 1989, 66% avg., 24% mature, 30% 1989, 37% avg.; 2% very poor, 17% poor, 62% fair, 19% good. Burley Tobacco 100% harvested, 100% 1989, 97% avg.; 10% stripped, 12% 1989, 9% avg. Dark fired tobacco 98% harvested, 100% 1989, 98% avg. Dark air cured tobacco 96% harvested, 100% 1989, 97% avg. Pastures 3% very poor, 5% poor, 59% fair, 31% good, 2% excellent. Cattle 2% poor, 30% fair, 65% good, 3% excellent. Cotton, corn, sorghum, snap bean, tobacco harvests; fall land preparation main activities.

TEXAS: Upper level trough, weak cool front middle, latter part week responsible for much rain across State. Systems strongest west bringing above normal rainfall, below normal temperatures. Remainder State below normal rains, above normal temperatures. Temperatures above normal east, south, rest State below normal. Rainfall varied widely.

Crops: Corn harvest delayed by early weeks rain. Fields dried, harvest continued good to excellent yields. Harvest virtually complete Blacklands. Grain sorghum harvest Plains delayed by early week rains. Added moisture should benefit late planted milo, hotter weather, needed for crop mature. Harvest Plains full swing one to two weeks. Sorghum turning color 100%, 96% 1989, 98% avg. Cotton progressing well Plains, hot weather needed for crop to mature. Irrigated cotton looks good, some dryland fields below average. Defoliation increased Low Plains, harvested started early planted cotton. Heavy rains Trans Pecos affected cotton maturity, delayed harvest. Small grain conditions, emergence improved Plains because recent moisture. Planting progressed Blacklands

some armyworm damage reported emerged fields. Planting continued east, south despite dry conditions. Moisture needed to improve emergence. Soybean harvest continued north poor yields. Harvest continued Upper Coast, Plains. Producers report insect damage. Rice harvest first crop virtually complete. Draining fields second crop began late week. Peanuts progressing well Plains, high moisture conditions delaying some harvest activities. Harvest Blacklands progressed yields lower than originally thought. good yields reported Edwards Plateau. Other field crops: Peanuts 27% harvested, 11% 1989, 21% avg. Pecans 2% harvested, 1% 1989, 4% avg. Soybeans 43% harvested, 42% 1989, 33% avg. Sugarbeets 1% harvested, 3% 1989, 5% avg. Sunflowers 23% harvested, 14% 1989, 28% avg. Oats 32% planted, 42% 1989, 44% avg.

Commercial Vegetables: Rio Grande Valley, most vegetables doing well. Some white fly problems showing up. Citrus trees continue pushed out. San Antonio Winter Garden, planting winter vegetables continued. Eastern State, hot weather slowed planting some areas. Sweetpotato, pumpkins being harvested. Crops fair shape. High Plains, watermelon harvest virtually complete. Onions, cabbage, carrots, peppers harvested. Trains Pecos, okra harvest full swing, chile harvest delayed because recent heavy rains. Pecans nearing maturity northern parts State with above average quality reported. Harvest continued south, central.

Range and Livestock: Ranges, pastures conditions significantly improved Plains, while conditions continued good rest State. Livestock conditions good, prices strong. Areas south could use some moisture. Range, pasture 4% very poor, 11% poor, 39% good, 9% excellent.

UTAH: Temperatures 30° above normal. Precipitation was variable, light to heavy for individual stations.

Days suitable for fieldwork 6.5. Soil moisture 86% short, 14% adequate. Major farm activities: Picking apples, harvesting alfalfa hay, continued planting of fall crops. Winter wheat 80% seeded, 82% 1989, 84% avg. Winter wheat emergence underway in most areas. Fourth crop alfalfa cutting well underway, nearing completion in some areas. Alfalfa seed harvest nearing completion. Field corn 92% mature, 79% 1989, 79% avg. Corn for grain harvest well underway. Corn silage 83% harvested, 88% 1989, 83% avg. Apple harvest continuing normally. Onion harvest nearing completion. Potato harvest well underway. Range, pasture 46% poor, 50% fair, 4% good. Cattle, sheep being moved off summer range.

VIRGINIA: Temperatures above normal. Extremes 31°; 86°. Precipitation was below normal 0.07 to 0.50 in.

Days suitable for fieldwork 6.1. Topsoil 14% very short, 49% short, 31% adequate, 6% surplus. Corn mature 97%, 97% 1989, 93% avg. Corn for grain 59% harvested, 57% 1989, 54% avg. Corn silage 82% harvested, 74% 1989, 79% avg. Soybean 1% poor, 32% fair, 66% good, 1% excellent. Soybeans, 3% harvested, 1% 1989, 1% avg. Peanut 33% fair, 67% good. Peanuts, 55% dug, 65% 1989, 33% avg. Peanuts combined 39%, 43% 1989, 19% avg. Flue tobacco harvested 93%, 93% 1989, 82% avg. Burley

tobacco 98% harvested, 100% 1989, 91% avg. Sun tobacco 100% harvested, 100% 1989, 99% avg. Wheat 11% seeded, 3% 1989, 5% avg. Barley 23% seeded, 13% 1989, 19% avg. Oats 33% seeded, 16% 1989, 21% avg. Apple, sweetpotato harvest continued. Some hay harvested. Snap bean, cucumber, pepper harvest also continued. Pasture 23% poor, 41% fair, 29% good, 7% excellent. Livestock mostly good.

WASHINGTON: Temperatures 10° below normal to 40° above normal, east; 20° below normal to 20° above normal, west. Precipitation none to 0.65 in. east; 0.95 to 3.11 in. west.

Days suitable for fieldwork 5.5. Soil moisture 48% short, 52% adequate. Range, pasture 2% very poor, 40% poor, 33% fair, 25% good. Hay, other roughage 2% short, 96% adequate, 2% surplus. Winter wheat planted 85%, 79% 1989, 75% avg. Winter wheat emerged 63%, 50% 1989, 53% avg. Potatoes harvested 61%, 67% 1989, 59% avg. Dry beans harvested 64%, 77% 1989, 86% avg. Corn silage harvested 71%, 83% 1989, 79% avg. Alfalfa hay, 3rd cutting, 99%, 98% 1989, 97% avg. Fall seeding continued. Moisture was received across the State, which improved soil moisture conditions. The dry bean, mint, potato, apple, grape, fall raspberry, vegetable harvests continued. Some livestock were moved off of ranges, placed on winter pastures, while others were placed on winter feeding programs.

WEST VIRGINIA: Temperature 61°, 2 to 70° above normal. Extremes 35°, 88°. Precipitation 0.68 in.

Days suitable for fieldwork 5.0. Soil moisture 39% short, 61% adequate. Pasture 40% fair, 51% good, 9% excellent. Cattle, sheep good. Corn good; 93% dough, 47% mature, 28% harvested. Hay good; second cutting 92% complete, third cutting 75% complete. Wheat 57% planted. Tobacco good to fair; 97% harvested. Farm activities: Hay, tobacco, corn harvest, marketing livestock, seeding wheat.

WISCONSIN: Temperature 57°, 40° below normal. Extremes 26°; 86°. Precipitation 0.50 to 1.30 in.

Days suitable for fieldwork 4.2. Soil moisture 7% short, 74% adequate, 19% surplus. Pasture 4% fair, 82% good, 14% excellent. General condition of crops 10% fair, 84% good, 6% excellent. Soybeans 87% shed, 93% 1989, 86% avg.; 4% harvested, 17% 1989, 15% avg. Corn 11% fair, 79% good, 10% excellent. Corn for grain 5% harvested, 9% 1989, 15% avg. Corn silo filling 50% complete, 75% 1989, 63% avg. Fall tillage 15% complete, 15% 1989, 16% avg.

WYOMING: Temperatures above normal. Precipitation below normal.

Days suitable for fieldwork 6.0. Topsoil 43% short, 57% adequate. 1991 winter wheat 95% seeded, 95% 1989, 95% avg.; 75% emerged, 75% 1989, 70% avg.; fair. Corn for grain 35% dented, 35% 1989, 35% avg.; 50% mature, 55% 1989, 60% avg.; 15% harvested, 10% 1989, 5% avg. Corn silage 90% harvested, 95% 1989, 90% avg. Dry beans 85% combined, 80% 1989, 80% avg. Sugarbeets 30% dug, 25% 1989, 25% avg. Sugar content 15.8%. Potatoes 80% harvested, 85% 1989, 65% avg. Range, pasture 5% very poor, 10% poor, 80% good, 5% excellent. Hay supplies for wintering livestock adequate or better 80% State. Livestock mostly good.

International Weather and Crop Summary

HIGHLIGHTS

September 30 - October 6, 1990

USSR ... In Western USSR, persistent wetness continues in the north. Dry weather helps fieldwork in the south. In the New Lands, widespread light rain causes only brief delays in spring grain harvesting.

EUROPE ... Widespread rain and warm temperatures favor winter grains in the north. Scattered heavy rain reduces dryness in sections of the south.

EASTERN ASIA ... Warm, dry weather favors summer crop harvests across the north. Heavy rain and flooding continue in sections of southern Japan.

SOUTH ASIA ... Variable showers continue, maintaining generally adequate reservoir levels but possibly damaging some flowering cotton.

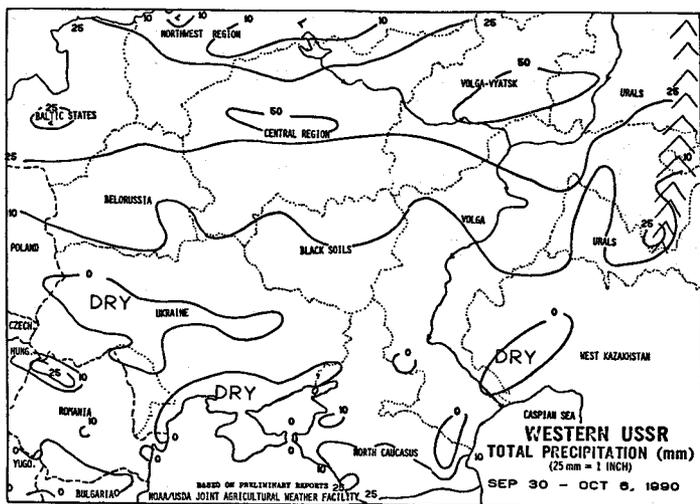
SOUTHEAST ASIA ... Inundating rains cover portions of Vietnam and Thailand.

SOUTH AMERICA ... Beneficial rain helps Argentina's crops. Locally heavy showers fall again in south-central Brazil.

AUSTRALIA ... Rain benefits winter grains in Western Australia. Dryness continues in crop areas of Queensland and northern New South Wales.

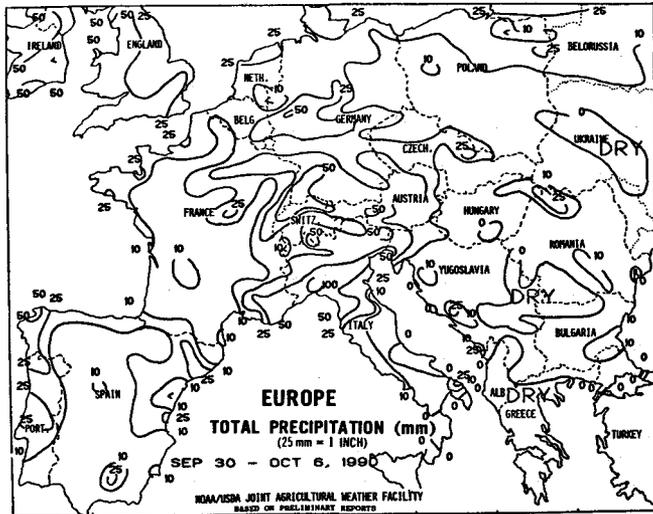
CANADA ... Cool, wet weather slows late grain and oilseed harvests.

MEXICO ... Tropical Storm Rachel soaks the west coast farming region, disrupting harvest activities.

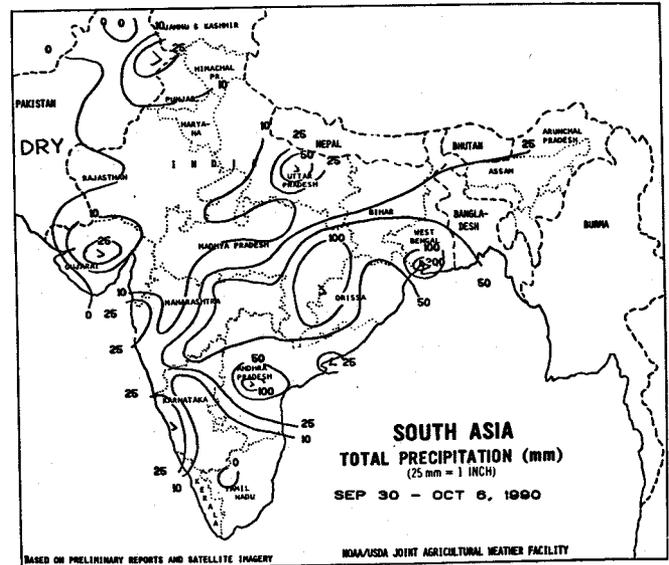


USSR ... In Western USSR, wet weather (15-50mm, with isolated amounts up to 55mm) continued over the Baltic States, Belorussia, and the Central Region. Persistent wetness in these areas since September has caused significant delays in potato harvests, reduced the quality of grain crops, and created unfavorable conditions for establishment of 1991 winter grain crops. Further south, mostly dry weather covered the Ukraine, southern Black Soils Region, North Caucasus, and the lower Volga, helping the corn, sunflower, and sugarbeet harvests, as well as winter grain planting. Topsoil moisture is adequate for winter grain emergence in the south, except in Moldavia, where topsoil moisture is limited. Weekly average temperatures were near normal in the west and 1 to 3 degrees Celsius (C) below normal in the east. Extreme minimum temperatures ranging from -1 to -3 degrees C covered crop areas as far south as the central Ukraine, ending the growing season.

In the New Lands, widespread light precipitation (less than 10mm) covered most of the region, causing only brief delays in spring grain harvesting. Greatest amounts of rain (10-25mm) covered crop areas adjacent to the Urals and Altay Kray Oblast. Weekly average temperatures were 1 to 3 degrees C above normal in the east. By October 1, reports indicated small grains and pulses had been harvested on 92 percent of the sown area. In south-central USSR cotton areas, unseasonably warm and generally dry weather continued to favor boll maturation and cotton harvesting.

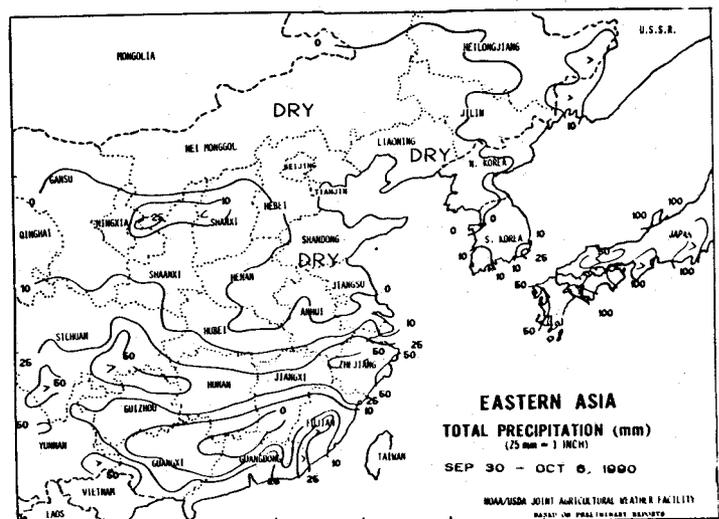


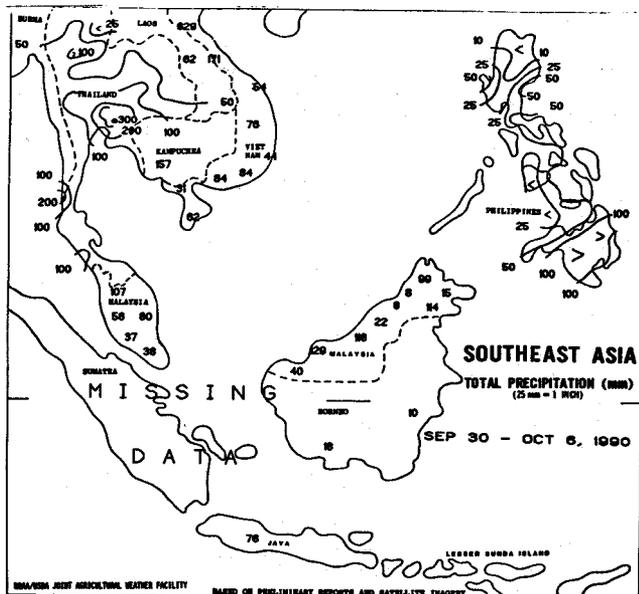
EUROPE ... Widespread moderate to heavy rain (15-50mm, with isolated amounts greater than 50mm) kept soils favorably moist for recently planted winter grains from Ireland eastward to western Germany and Denmark. Light to moderate rain (5-15mm, with isolated rainfall greater than 15mm) covered northeastern Europe. Warmer-than-normal temperatures (mean weekly temperatures 1-3 degrees C above normal) accelerated germination and early growth of winter grains across most northern and eastern crop areas. In the south, moderate to heavy rain (15-60mm, with isolated amounts up to 100mm) across northwestern Spain, southern France, and northern Italy helped reduce long-term dryness and increase reservoir levels. Unfavorably dry weather continued in much of the Balkans.



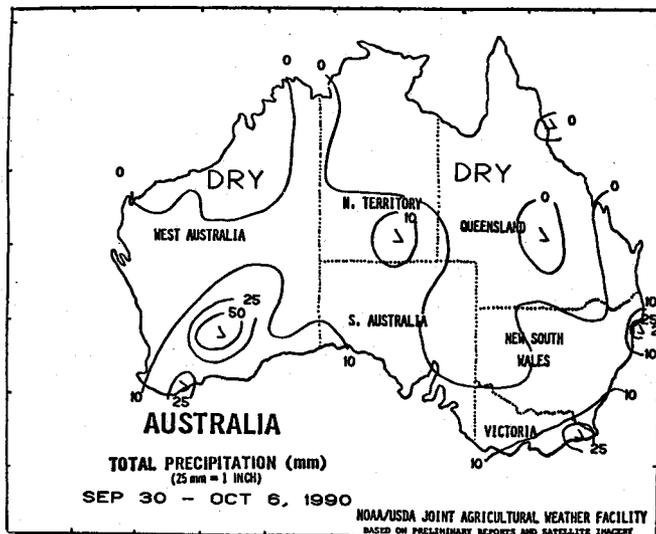
SOUTH ASIA ... In India, drier weather returned to primary crop regions of western Madhya Pradesh and northern Maharashtra, benefiting maturing summer crops. Rainfall totaled less than 10mm over previously flooded locations. Dry weather also dominated crop regions of Karnataka and Tamil Nadu but, in contrast, moderate to heavy showers (50-100mm or more) covered summer crop areas of southern and eastern Maharashtra and Andhra Pradesh, possibly damaging flowering cotton in local areas. Moderate showers (25-50mm or more) continued over most eastern rice areas, but inundating rains (100-200mm or more) caused more flooding in eastern Madhya Pradesh and northeastern Orissa. In the north, showers (15-27mm) lingered over northern Pakistan and India's Punjab state, maintaining unfavorably wet conditions for maturing cotton and rice but improving irrigation reserves for wheat planting, normally just beginning in October.

EASTERN ASIA ... Mostly dry and warm weather (mean weekly temperatures 1-4 degrees C above normal) provided near optimal conditions for summer crop harvest across much of the North China Plain, Manchuria, and the Korean Peninsula. Winter grain planting also advanced rapidly in growing areas of the North China Plain. In the south, widespread rain (10-60mm, with isolated amounts in excess of 60mm) benefited filling late-crop rice and reduced recent dryness from Sichuan and Yunnan eastward to Jiangxi and Guangdong. Much of Hubei, however, remained abnormally dry. In Japan, remnants of Typhoon Gene brought further heavy rain (30-100mm, with isolated amounts up to 200mm) to many southern sections early in the week, continuing flooding and rice harvest delays. Typhoon Hattie approached the southern islands of Japan at the end of the reporting period, following a path very similar to that taken by Typhoon Gene.

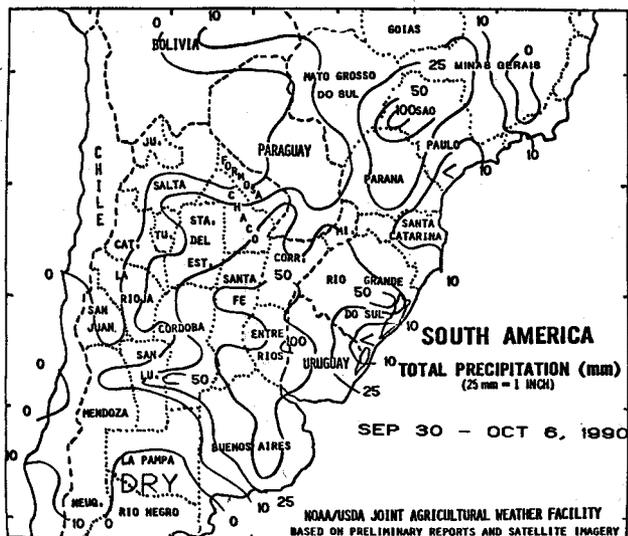




SOUTHEAST ASIA ... Tropical Storm Ira hit north-central Vietnam on the 3rd, bringing heavy showers (100-300mm or more) and local flooding to many primary rice regions. Sustained winds from the storm reached 35 knots, causing some wind damage in northern coastal areas. In Thailand, inundating rains (150-300mm or more) from the remnants of Ira covered a large section of the irrigated rice region near Bangkok southeastward to Kampuchea, causing flooding and possibly damaging secondary grains. Mostly moderate showers (25-50mm or more) elsewhere in Thailand maintained favorable conditions for secondary crops. In the Philippines, unseasonably light rain (25mm or less) dominated most grain areas of northern and western Luzon, favoring rice harvests. Moderate to heavy showers (25-50mm or more) elsewhere improved moisture for fall corn and rice planting.



AUSTRALIA ... Widespread rain (5-40mm, with isolated amounts greater than 40mm) returned to crop areas of Western Australia, favoring vegetative to heading winter grains. Scattered, mostly light rain (less than 10mm) fell in crop areas of South Australia, northwestern Victoria, and central New South Wales. In northeastern New South Wales and southeastern Queensland, abnormally dry conditions continued to stress reproductive to filling winter grains. Harvest of winter grains in the northernmost growing areas of east-central Queensland was beginning. Mean weekly temperatures ranged from slightly below normal in the east to above normal in South Australia and Western Australia.



SOUTH AMERICA ... In Argentina, beneficial rain (25-72mm) fell over important crop areas of southern Cordoba, southern Santa Fe, and Buenos Aires. The moisture helped wheat, nearing weather-sensitive growth stages, and moistened topsoils for early planting of summer crops. The late-week rain spread northward into Argentina's cotton areas of Chaco and Formosa, favoring planting and emergence. Temperatures averaged 3-4 degrees C above normal for the week, promoting wheat growth. In south-central Brazil, showers covered nearly all crop areas, with the exception of far northern coffee areas of Minas Gerais, where tree flowering is underway. Locally heavy showers (25-50mm, with an isolated amount of 113mm) soaked western Sao Paulo and northern Parana, hampering fieldwork. Variable rainfall ranged from less than 10mm in western Mato Grosso do Sul to over 40mm in southern Rio Grande do Sul.

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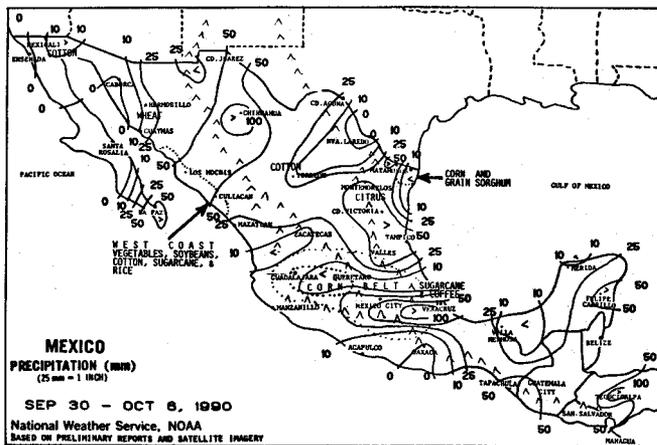
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National Oceanic and Atmospheric Administration
 National Weather Service/Climate Analysis Center
 Managing Editor **Douglas Le Comte**
 Meteorologists **Tom Heddinghaus (202) 382-1444**
Vilhelm Bjerknes, Bob Stefanski, and Wes Byrd.

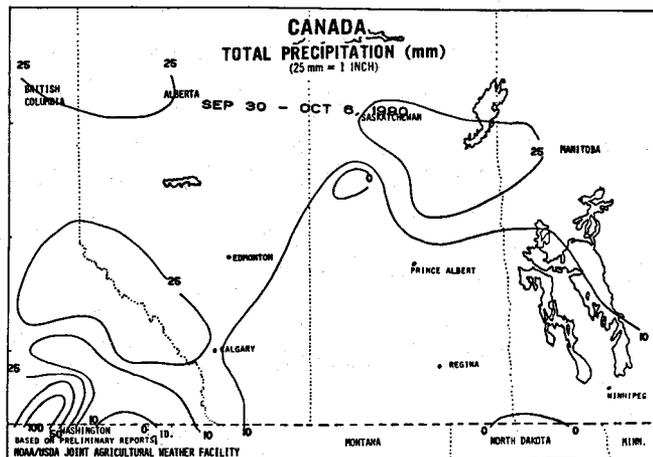
Subscriptions (202) 447-7917 . . . **Joyce Houston**

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



MEXICO ... Tropical Storm Rachel hit the west coast farming area and spread heavy late-season rain (50-100mm or more) from the major soybean, vegetable, and sugarcane area of Sinaloa northeastward to the north-central interior state of Chihuahua. Harvest activities were disrupted by the storm, while reservoir levels increased in the northwestern mountain watersheds. Highly variable showers fell over the remainder of the country. Light rainfall across much of the Southern Plateau caused minimal interference in corn harvesting. However, locally heavy showers (50-100mm or more) disrupted harvest progress in southeastern portions of the Plateau. Widespread tropical showers (generally 10-25mm) helped corn growth in the Yucatan peninsula.



CANADA ... Cool, wet weather the latter half of the week slowed late spring grain and oilseed harvests across the Prairies, although latest reports indicate that spring grain and canola harvests are virtually complete. Precipitation totaled only 1-7mm in most primary areas, but weekly temperatures averaged 2-4 degrees C below normal, reducing evaporation rates.

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