

# 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

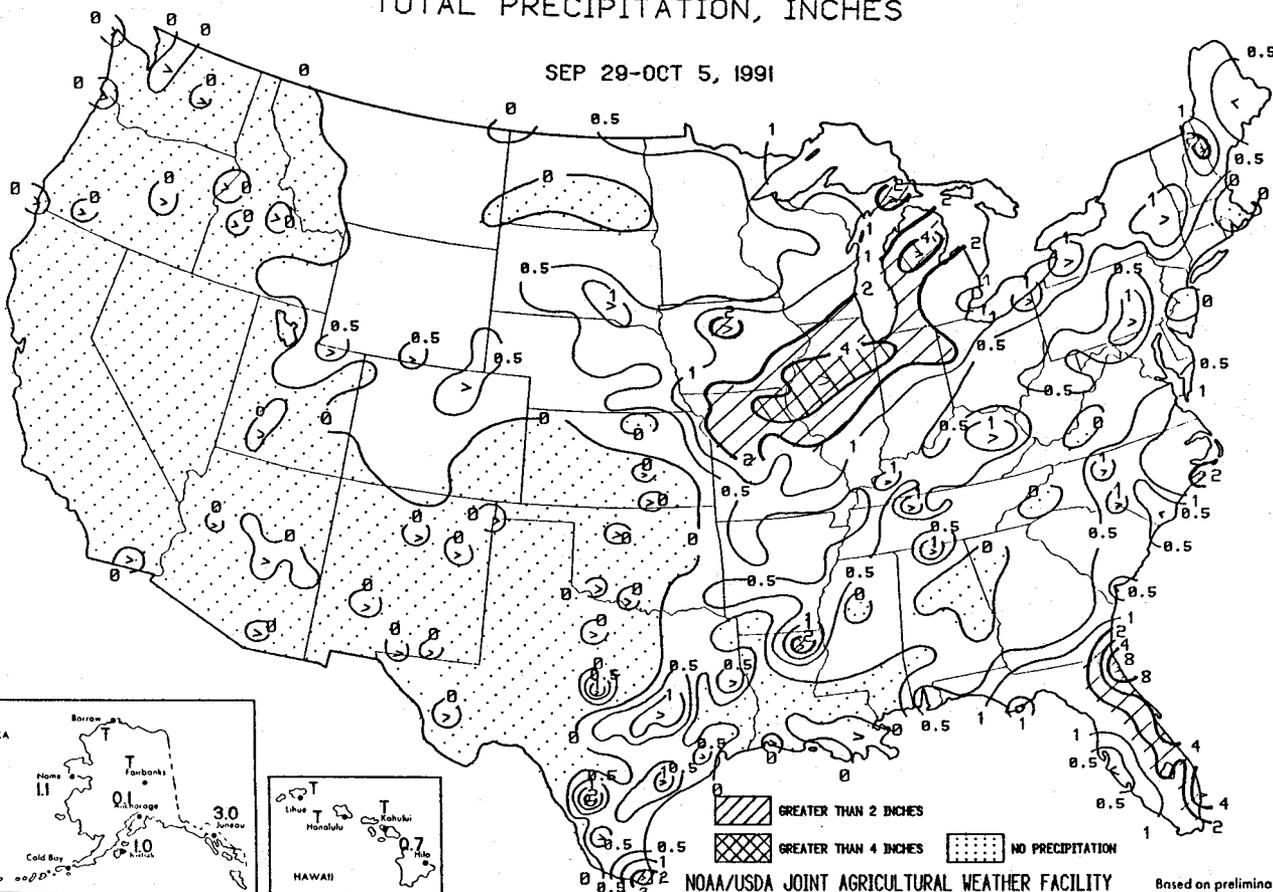
Volume 78, No. 40

Washington, D.C.

October 8, 1991

## TOTAL PRECIPITATION, INCHES

SEP 29-OCT 5, 1991



NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Based on preliminary reports

## HIGHLIGHTS

September 29 - October 5, 1991

Quiet weather prevailed until midweek in all but the Nation's fringes, but a strong cold front ended the tranquility east of the Rockies thereafter. Eastern Florida endured copious rain and coastal flooding for much of the week. Jacksonville, FL, recorded 11 inches of rain for the week, including nearly 7 inches on Tuesday. On the same day, clusters of storms dropped heavy rain on parts of southern Texas. Three fast-moving low pressure systems grazed the U.S.-Canadian border with light precipitation. Caribou, ME, received its first ever measurable September snowfall on Sunday night (2.5 inches). On Wednesday, thunderstorms erupted from Missouri to Michigan in advance of the strong cold front. Warm air surged into the Plains and the East ahead of the system, replacing an early-week chill (minimum of 22° F on Sunday in Watertown, NY). Maximum temperatures (Continued to back cover)

## Contents

## Page

Highlights & Total Precipitation Map .....	1
Crop Moisture Maps .....	2
Drought Severity Maps .....	3
Precipitation Needed to End Drought & Temperature Departure Maps .....	4
Extreme Maximum & Minimum Temperature Maps .....	5
National Weather Data for Selected Cities .....	6
September Weather and Crop Summary .....	9
September Precipitation & Temperature Maps .....	10
September Weather Data for Selected Cities .....	12
September Weather in Historical Perspective .....	13
National Agricultural Summary .....	14
Crop Progress and Condition Tables .....	15
State Summaries of Weather and Agriculture .....	17
International Weather and Crop Summary & September Temperature/Precipitation Table ..	23
Subscription and Mailing Permit Information ..	28

### CROP MOISTURE (SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)

October 5, 1991



**CROP MOISTURE:**  
 DEPICTS SHORT TERM (UP TO ABOUT 4 WEEKS) ABNORMAL DRYNESS OR WETNESS AFFECTING AGRICULTURE. RESPONDS RAPIDLY, CAN CHANGE CONSIDERABLY WEEK TO WEEK, AND INDICATES NORMAL CONDITIONS AT THE BEGINNING AND END OF THE GROWING SEASON.

**USES...** APPLICABLE IN MEASURING THE SHORT TERM, WEEK-TO-WEEK, STATUS OF DRYNESS OR WETNESS AFFECTING WARM SEASON CROPS AND FIELD OPERATIONS.

**LIMITATIONS...** MAY NOT BE APPLICABLE TO GERMINATING AND SHALLOW ROOTED CROPS WHICH ARE UNABLE TO EXTRACT THE DEEP OR SUBSOIL MOISTURE FROM A 5-FOOT PROFILE, OR FOR COOL SEASON CROPS GROWING WHEN TEMPERATURES ARE AVERAGING BELOW ABOUT 55°F. IT IS NOT GENERALLY INDICATIVE OF THE LONG TERM (MONTHS, YEARS) DROUGHT OR WET SPELLS WHICH ARE DEPICTED BY THE DROUGHT SEVERITY INDEX.

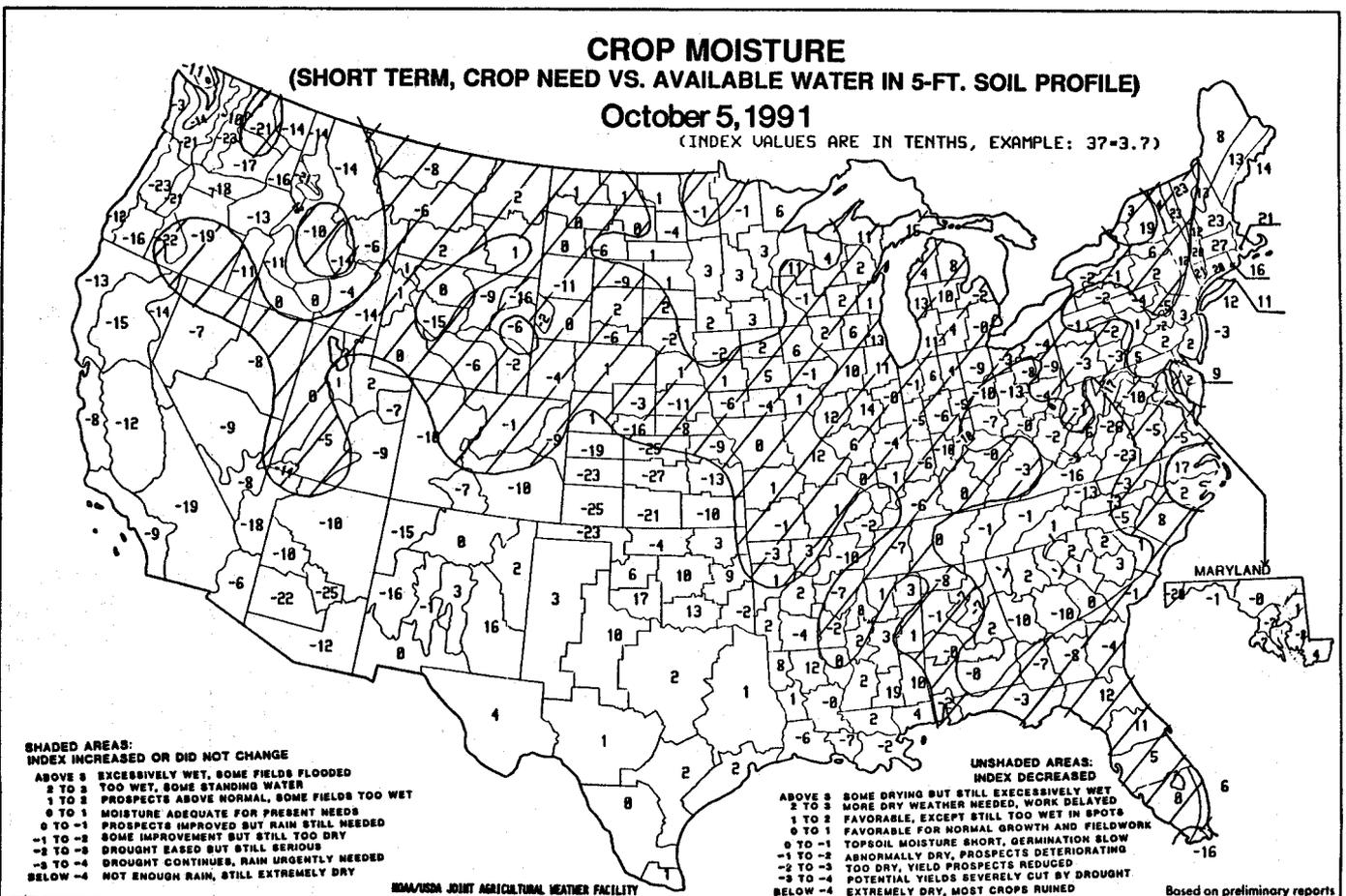
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Based on preliminary reports

### CROP MOISTURE (SHORT TERM, CROP NEED VS. AVAILABLE WATER IN 5-FT. SOIL PROFILE)

October 5, 1991

(INDEX VALUES ARE IN TENTHS, EXAMPLE: 37=3.7)



**SHADED AREAS:**  
 INDEX INCREASED OR DID NOT CHANGE  
 ABOVE 8 EXCESSIVELY WET, SOME FIELDS FLOODED  
 2 TO 3 TOO WET, SOME STANDING WATER  
 1 TO 2 PROSPECTS ABOVE NORMAL, SOME FIELDS TOO WET  
 0 TO 1 MOISTURE ADEQUATE FOR PRESENT NEEDS  
 0 TO -1 PROSPECTS IMPROVED BUT RAIN STILL NEEDED  
 -1 TO -2 SOME IMPROVEMENT BUT STILL TOO DRY  
 -2 TO -3 DROUGHT EASED BUT STILL SERIOUS  
 -3 TO -4 DROUGHT CONTINUES, RAIN URGENTLY NEEDED  
 BELOW -4 NOT ENOUGH RAIN, STILL EXTREMELY DRY

**UNSHADED AREAS:**  
 INDEX DECREASED  
 ABOVE 8 SOME DRYING BUT STILL EXCESSIVELY WET  
 2 TO 3 MORE DRY WEATHER NEEDED, WORK DELAYED  
 1 TO 2 FAVORABLE, EXCEPT STILL TOO WET IN SPOTS  
 0 TO 1 FAVORABLE FOR NORMAL GROWTH AND FIELDCROPS  
 0 TO -1 TOPSOIL MOISTURE SHORT, GERMINATION SLOW  
 -1 TO -2 ABNORMALLY DRY, PROSPECTS DETERIORATING  
 -2 TO -3 TOO DRY, YIELD PROSPECTS REDUCED  
 -3 TO -4 POTENTIAL YIELDS SEVERELY CUT BY DROUGHT  
 BELOW -4 EXTREMELY DRY, MOST CROPS RUINED

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

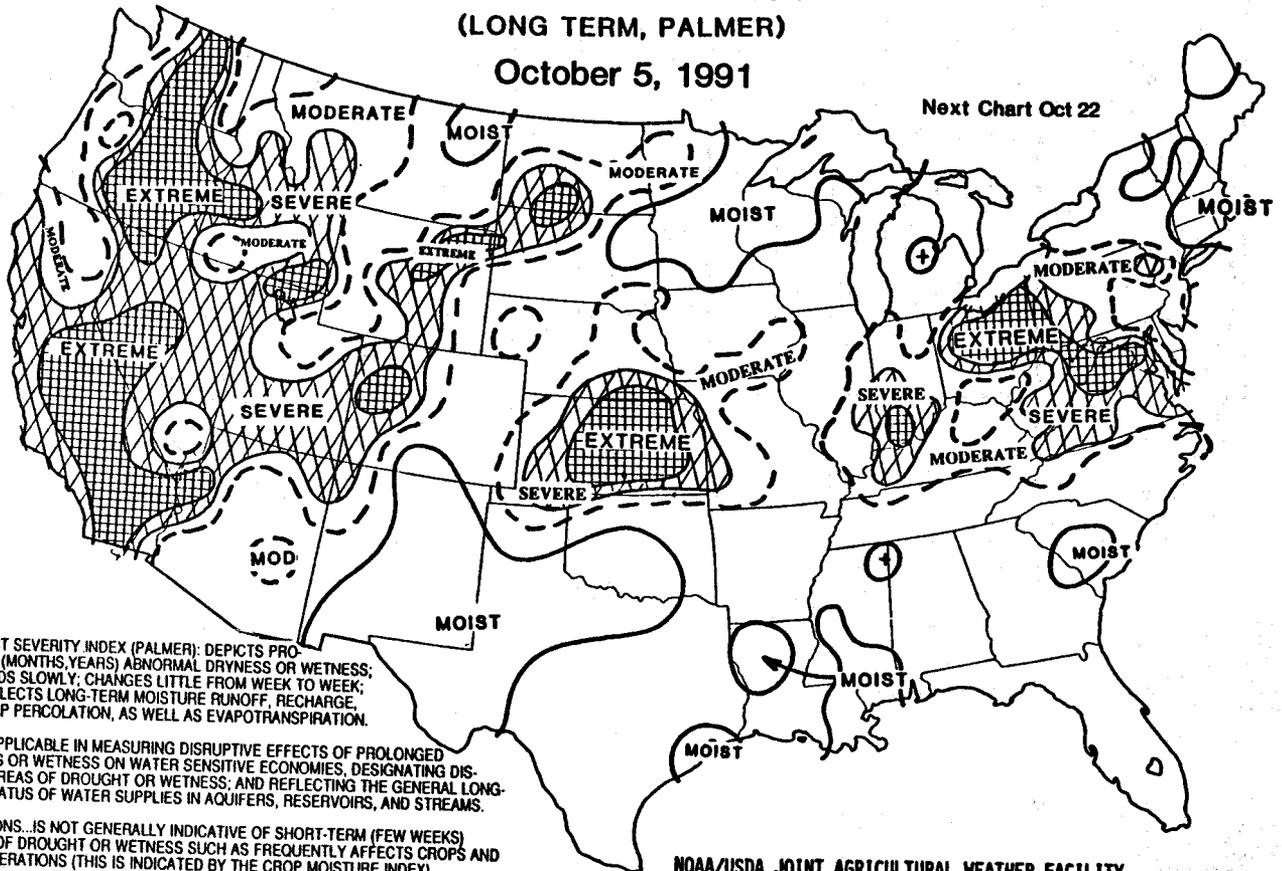
Based on preliminary reports

### DROUGHT SEVERITY

(LONG TERM, PALMER)

October 5, 1991

Next Chart Oct 22



DROUGHT SEVERITY INDEX (PALMER): DEPICTS PROLONGED (MONTHS, YEARS) ABNORMAL DRYNESS OR WETNESS; RESPONDS SLOWLY; CHANGES LITTLE FROM WEEK TO WEEK; AND REFLECTS LONG-TERM MOISTURE RUNOFF, RECHARGE, AND DEEP PERCOLATION, AS WELL AS EVAPOTRANSPIRATION.

USES... APPLICABLE IN MEASURING DISRUPTIVE EFFECTS OF PROLONGED DRYNESS OR WETNESS ON WATER SENSITIVE ECONOMIES, DESIGNATING DISASTER AREAS OF DROUGHT OR WETNESS; AND REFLECTING THE GENERAL LONG-TERM STATUS OF WATER SUPPLIES IN AQUIFERS, RESERVOIRS, AND STREAMS.

LIMITATIONS... IS NOT GENERALLY INDICATIVE OF SHORT-TERM (FEW WEEKS) STATUS OF DROUGHT OR WETNESS SUCH AS FREQUENTLY AFFECTS CROPS AND FIELD OPERATIONS (THIS IS INDICATED BY THE CROP MOISTURE INDEX).

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

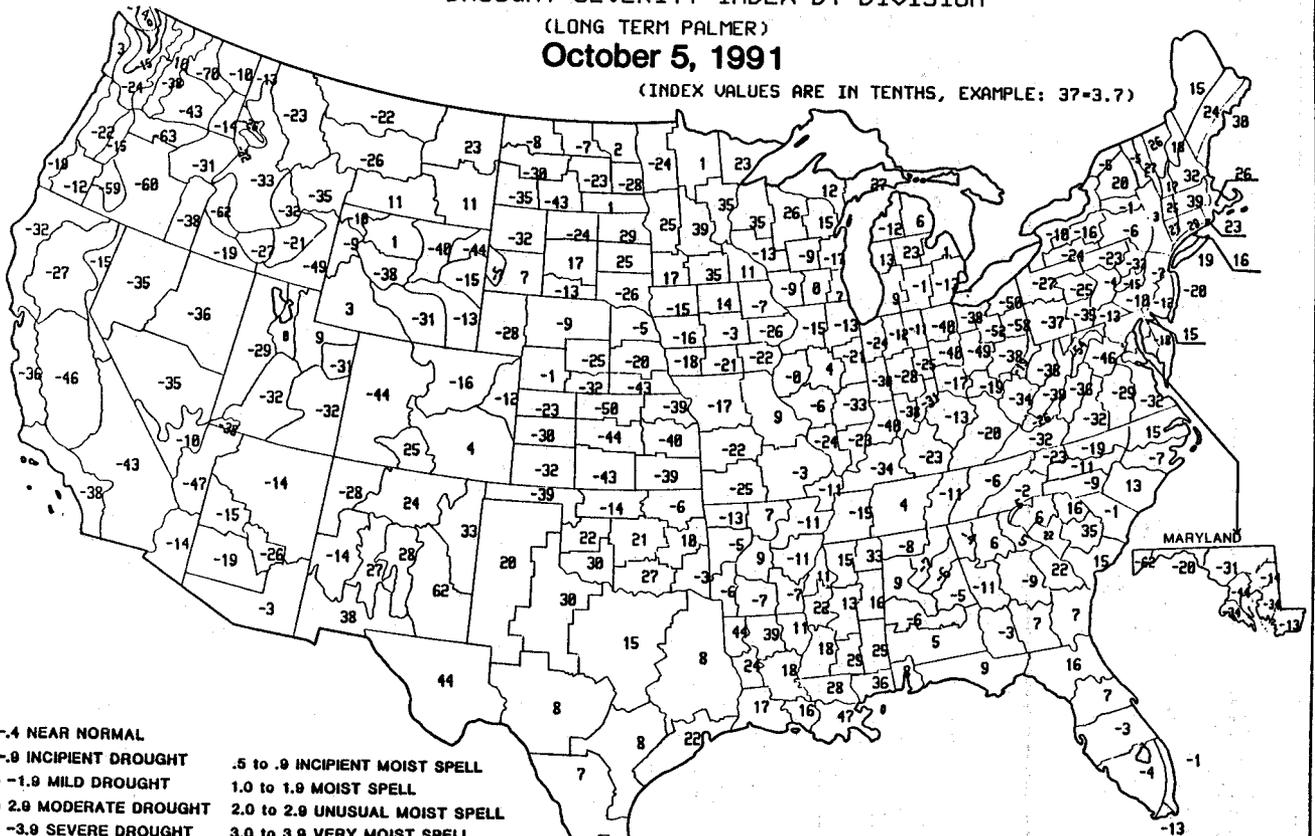
Based on preliminary reports

### DROUGHT SEVERITY INDEX BY DIVISION

(LONG TERM PALMER)

October 5, 1991

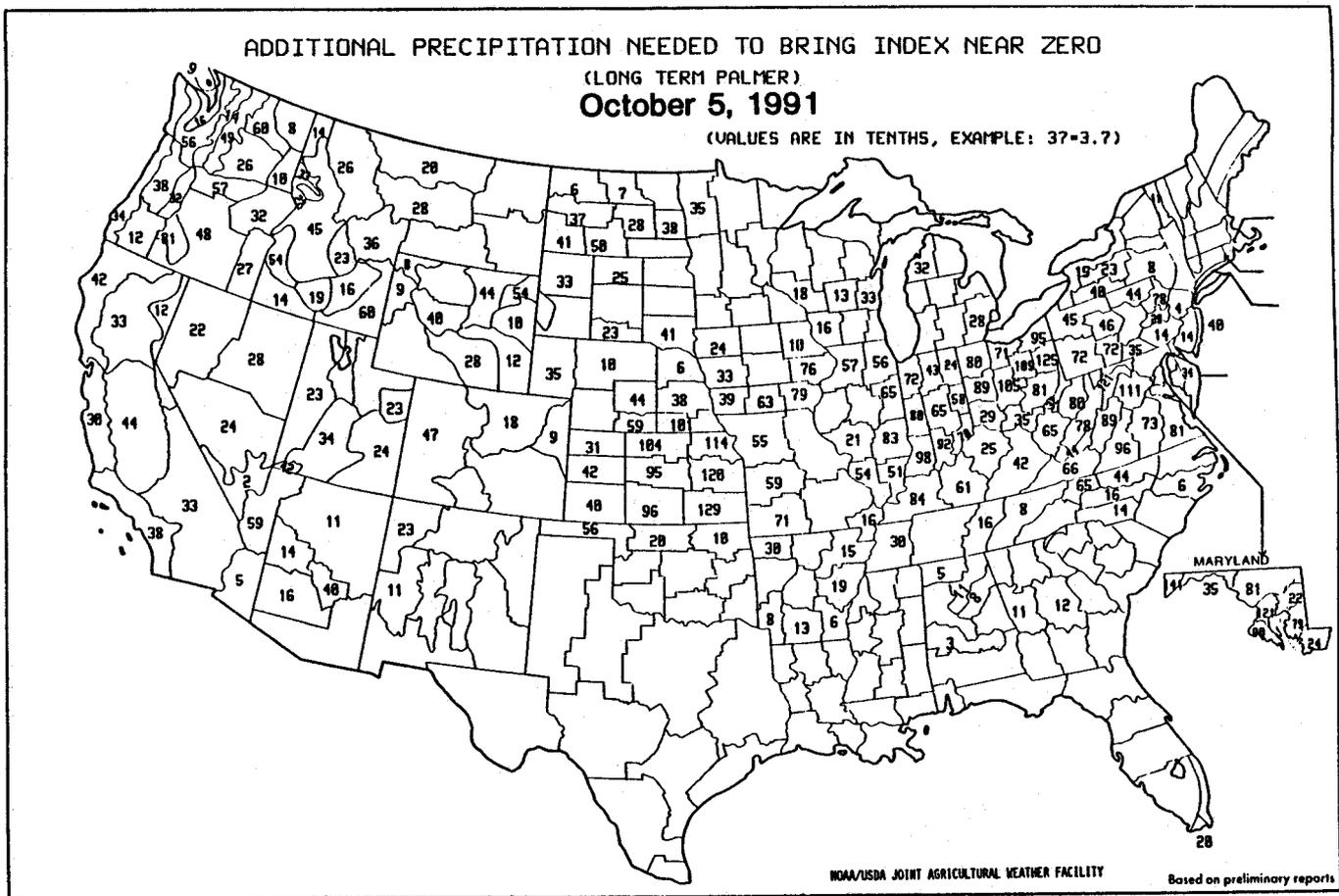
(INDEX VALUES ARE IN TENTHS, EXAMPLE: 37-3.7)



- |                               |                                |
|-------------------------------|--------------------------------|
| .4 to -.4 NEAR NORMAL         | .5 to .9 INCIPIENT MOIST SPELL |
| -.5 to -.9 INCIPIENT DROUGHT  | 1.0 to 1.9 MOIST SPELL         |
| -1.0 to -1.9 MILD DROUGHT     | 2.0 to 2.9 UNUSUAL MOIST SPELL |
| -2.0 to -2.9 MODERATE DROUGHT | 3.0 to 3.9 VERY MOIST SPELL    |
| -3.0 to -3.9 SEVERE DROUGHT   | ABOVE +4.0 EXTREME MOIST SPELL |
| BELOW -4.0 EXTREME DROUGHT    |                                |

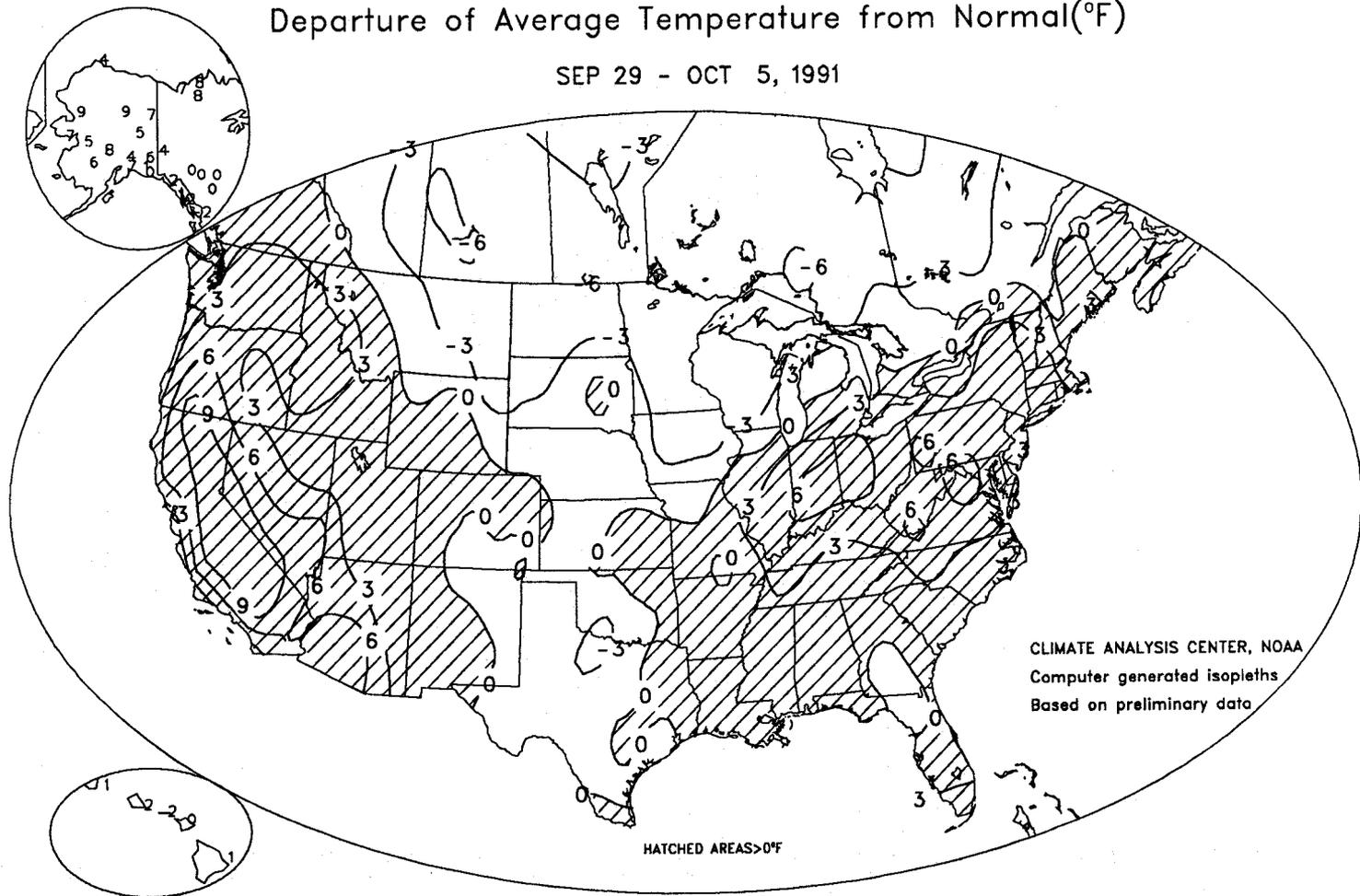
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

Based on preliminary reports



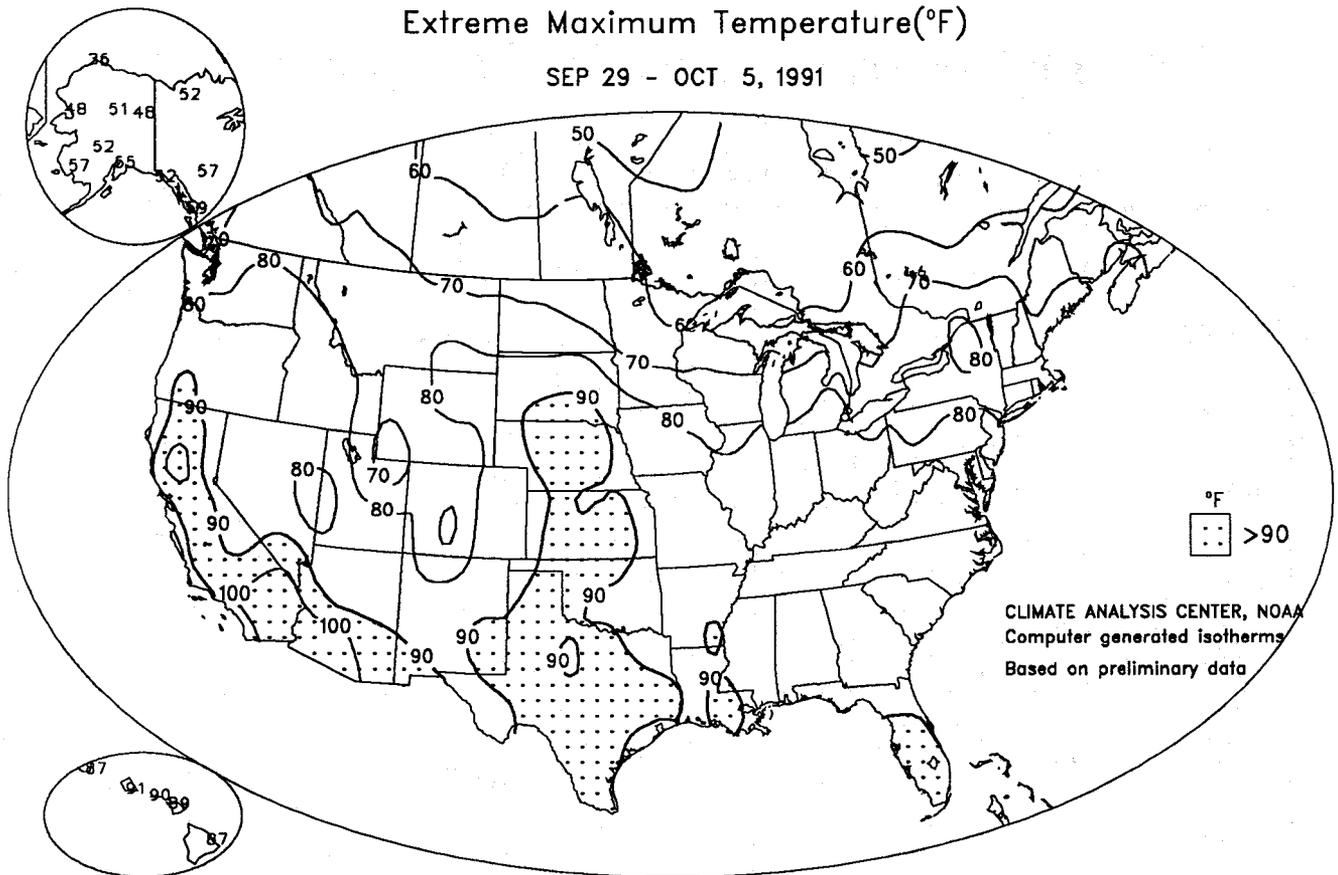
Departure of Average Temperature from Normal(°F)

SEP 29 - OCT 5, 1991



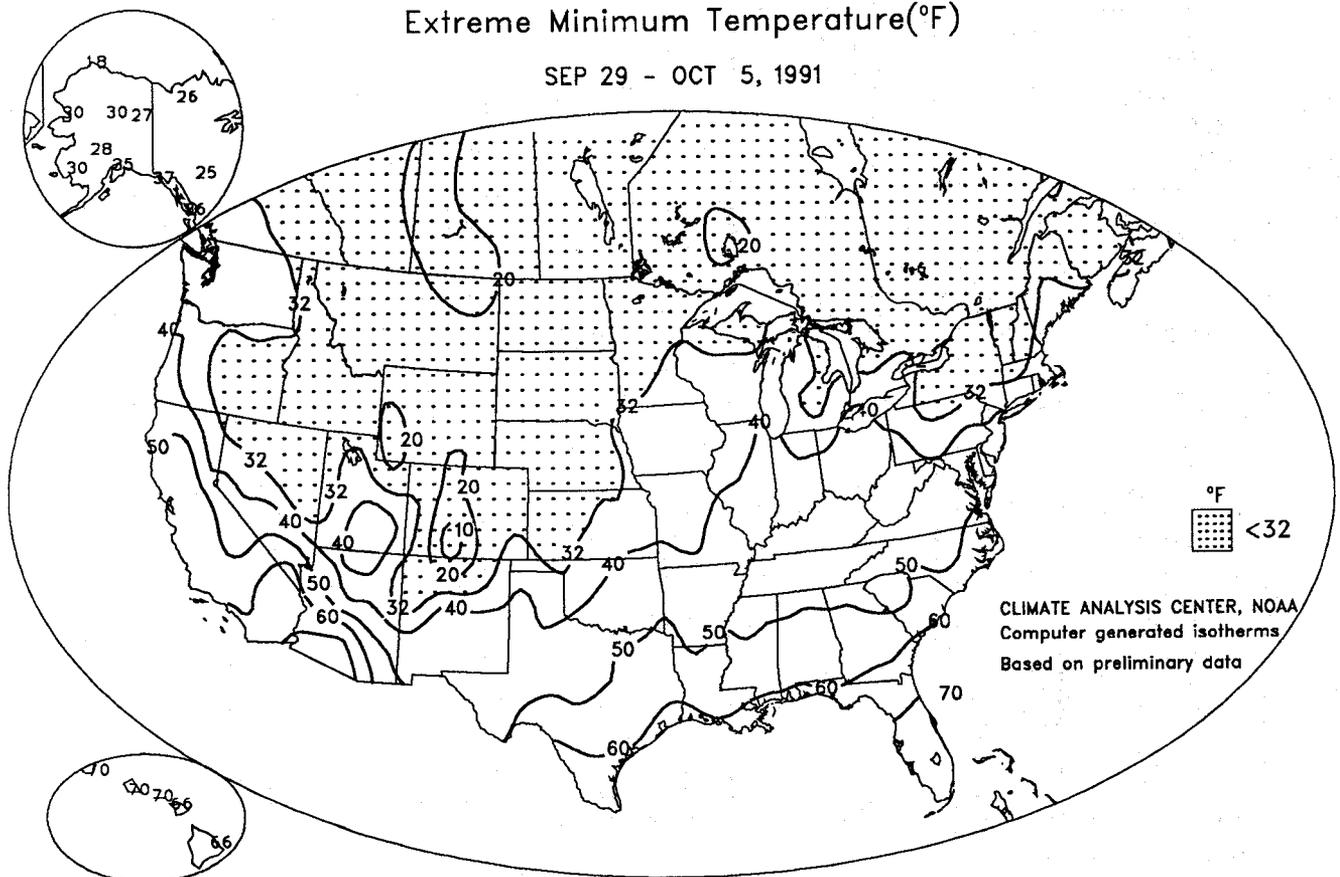
### Extreme Maximum Temperature(°F)

SEP 29 - OCT 5, 1991



### Extreme Minimum Temperature(°F)

SEP 29 - OCT 5, 1991



# National Weather Data for Selected Cities

Weather Data for the Week Ending **October 5, 1991**

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS							
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sept 1	PCT. NORMAL SINCE Sept 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE		.50 INCH OR MORE	
																			90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	83	58	85	52	71	2	T	-7	T	3.0	63	45.3	104	91	44	0	0	0	0	0	0	
MOBILE	84	64	88	57	74	1	T	-2	T	2.6	36	72.7	136	89	52	0	0	0	0	1	1	
MONTGOMERY	85	59	88	50	72	1	T	-8	T	4.0	78	55.7	141	95	45	0	0	0	0	1	0	
AK ANCHORAGE	53	43	55	35	48	1	T	-1	T	3.5	127	12.1	107	84	53	0	0	0	3	0	0	
BARROW	31	21	36	18	26	4	T	-1	T	.4	56	1.3	36	97	79	0	0	7	2	0	0	
FAIRBANKS	53	27	58	25	40	5	T	-1	T	1.2	93	7.2	86	92	44	0	0	7	1	0	0	
JUNEAU	51	44	58	41	48	2	T	3.3	1.6	18.0	236	59.5	162	99	83	0	0	7	7	4	4	
KODIAK	54	39	59	34	46	2	T	-6	.6	10.6	143	65.6	150	96	62	0	0	0	5	5	1	
NOME	47	38	51	28	43	8	T	-7	.4	10.6	148	12.4	103	96	72	0	0	2	6	6	1	
AZ PHOENIX	102	75	104	74	89	9	T	-1	.0	.8	111	4.3	85	34	12	7	7	0	0	0	0	
PRESCOTT	84	48	86	43	66	6	T	-3	T	1.4	85	11.1	75	63	16	0	0	0	0	0	0	
TUCSON	98	65	99	63	82	6	T	-2	.0	1.5	103	7.8	89	47	12	7	7	0	0	0	0	
YUMA	105	76	109	74	90	8	T	-1	.0	.4	132	2.2	129	58	17	7	7	0	0	0	0	
AR FORT SMITH	83	54	89	45	69	0	T	-7	.0	4.9	132	29.1	95	96	40	0	0	0	1	0	0	
LITTLE ROCK	81	60	86	50	71	2	T	-6	.1	2.2	47	42.6	112	75	50	0	0	0	2	0	0	
CA BAKERSFIELD	97	67	100	64	82	9	T	.0	.0	T	7	4.6	114	54	21	7	7	0	0	0	0	
EUREKA	67	51	76	48	59	3	T	-4	.0	T	3	17.8	75	98	72	0	0	0	0	0	0	
FRESNO	97	64	99	61	81	11	T	-1	.0	T	0	8.5	118	70	22	7	7	0	0	0	0	
LOS ANGELES	77	63	88	61	70	2	T	.0	.0	.1	75	8.1	95	92	60	0	0	0	0	0	0	
REDDING	100	58	103	55	79	7	T	-3	.0	.0	0	17.3	65	55	11	7	7	0	0	0	0	
SACRAMENTO	97	58	101	55	77	9	T	-1	.0	T	12	12.7	116	79	19	6	0	0	0	0	0	
SAN DIEGO	79	64	87	63	72	2	T	.0	.0	.3	133	11.1	173	91	54	0	0	0	0	0	0	
SAN FRANCISCO	73	54	86	52	64	1	T	-1	.0	T	15	11.3	89	95	55	0	0	0	0	0	0	
CO DENVER	70	44	84	29	57	-1	T	.7	.4	.3	1.0	70	16.9	131	84	33	0	1	3	0	0	
GRAND JUNCTION	76	47	81	37	61	0	T	.2	.0	2.3	268	6.4	108	62	20	0	0	0	1	0	0	
PURDLO	77	42	88	28	60	0	T	-2	.0	1.3	144	10.6	113	71	23	0	1	0	0	0		
CT BRIDGEPORT	72	55	77	39	64	3	T	-5	.2	3.7	98	31.7	102	89	58	0	0	0	1	0	0	
HARTFORD	72	49	79	32	61	3	T	-4	.5	4.4	6.0	134	37.5	113	95	52	0	2	1	0	0	
DC WASHINGTON	79	60	85	52	70	5	T	-4	.2	3.7	102	21.9	72	92	55	0	0	0	2	0	0	
FL APALACHICOLA	81	69	86	65	75	1	T	-3	.4	2.7	28	88.5	191	94	72	0	0	0	5	0	0	
DAYTONA BEACH	85	72	90	71	79	2	T	4.0	2.7	1.9	7.4	98	64.0	160	99	69	1	0	0	7	2	
JACKSONVILLE	82	70	87	68	76	1	T	11.0	9.8	4.7	12.4	171	78.3	176	97	69	0	0	0	5	4	
KEY WEST	89	81	91	79	85	3	T	.5	-9	.4	5.8	81	33.7	111	84	66	3	0	0	3	0	
MIAMI	88	76	91	73	82	2	T	5.4	3.6	2.6	13.2	141	50.5	107	96	63	2	0	4	3	3	
ORLANDO	86	72	91	72	79	1	T	2.9	1.8	1.5	7.0	98	58.1	134	100	66	2	0	6	2	2	
TALLAHASSEE	83	67	88	63	75	2	T	1.6	.6	1.2	2.1	29	70.0	129	94	64	0	0	5	1	1	
TAMPA	87	73	91	70	80	2	T	.2	-7	.2	3.7	54	40.7	100	97	62	2	0	3	0	0	
WEST PALM BEACH	89	75	92	72	82	2	T	4.0	1.9	2.4	9.1	85	68.2	143	97	63	3	0	5	2	2	
GA ATLANTA	80	60	83	55	70	2	T	.1	-6	.1	2.1	59	49.7	128	87	49	0	0	1	0	0	
AUGUSTA	83	58	88	49	71	2	T	.1	-5	.1	1.5	38	52.1	145	100	50	0	0	1	0	0	
MACON	83	60	86	52	71	1	T	.2	-4	.2	.9	23	47.8	130	98	51	0	0	1	0	0	
SAVANNAH	81	66	84	62	73	2	T	.5	-2	.3	.9	16	64.3	148	92	59	0	0	3	0	0	
HI HILO	85	68	87	66	77	1	T	-1.1	-3	9.7	124	126.1	138	94	59	0	0	0	4	0	0	
HONOLULU	89	74	91	70	82	2	T	-3	T	6	69	11.7	78	77	46	3	0	0	0	0	0	
KAHULUI	87	70	89	66	79	0	T	-1	T	1.0	297	10.3	82	83	49	0	0	0	0	0	0	
LIHUE	85	74	87	70	80	1	T	-8	T	1.0	37	25.2	87	86	58	0	0	0	0	0	0	
ID BOISE	77	44	85	31	60	3	T	-1	.0	.2	32	6.5	79	66	20	0	1	0	0	0	0	
LEWISTON	76	45	84	36	61	3	T	.0	-2	.0	2	26	8.8	92	55	18	0	0	0	0	0	
POCATELLO	71	39	80	22	55	2	T	.1	-1	.1	7	86	11.0	138	77	24	0	2	1	0	0	
IL CHICAGO	70	48	82	38	59	0	T	3.2	2.5	2.6	5.7	125	26.1	93	92	48	0	0	4	1	1	
MOLINE	72	47	82	37	59	0	T	2.7	1.9	2.0	5.2	123	24.4	79	95	47	0	0	4	1	1	
PEORIA	74	50	82	38	62	2	T	4.7	4.0	2.7	8.2	200	27.8	96	95	55	0	0	4	3	3	
QUINCY	74	52	84	39	63	1	T	5.5	4.6	2.1	8.1	168	30.6	98	88	48	0	0	4	3	3	
ROCKFORD	68	45	78	36	56	-2	T	2.6	1.9	2.3	7.2	171	24.2	81	93	51	0	0	4	1	1	
SPRINGFIELD	77	52	83	39	64	2	T	3.8	3.1	3.2	8.2	223	30.7	110	96	45	0	0	4	1	1	
IN EVANSVILLE	83	54	86	45	68	5	T	.7	-2	.7	3.3	108	23.0	70	94	37	0	0	4	1	1	
FORT WAYNE	78	50	84	40	64	6	T	2.7	2.1	2.0	4.9	165	33.3	122	90	41	0	0	4	2	2	
INDIANAPOLIS	81	54	85	41	67	7	T	.8	.3	.6	1.9	62	27.5	89	93	40	0	0	2	1	1	
SOUTH BEND	74	51	83	36	62	3	T	3.9	3.2	2.5	6.6	178	27.2	92	94	50	0	0	4	2	2	
IA DES MOINES	69	46	87	35	57	-2	T	1.4	.8	1.3	6.7	30.4	116	88	47	0	0	4	1	1	1	
SIOUX CITY	68	45	87	35	57	-2	T	.8	.3	.6	3.0	104	21.4	96	88	40	0	0	4	1	1	
WATERLOO	64	40	77	35	52	-4	T	1.8	1.1	1.4	4.7	122	34.7	124	94	55	0	0	4	1	1	
KS CONCORDIA	74	50	88	35	62	-1	T	.0	.0	.0	6	15.3	64	78	39	0	0	0	0	0	0	
DODGE CITY	79	48	94	30	64	0	T	-3	T	T	0	7.1	39	80	28	1	1	0	0	0	0	
GOODLAND	73	44	87	30	59	0	T	-3	T	T	0	7.1	39	80	28	1	1	0	0	0	0	
TOPEKA	76	52	91	39	64	1	T	.3	-4	.3	2.5	62	21.7	77	95	43	1	0	2	0	0	
WICHITA	81	51	93	36	66	1	T	-7	T	2.1	53	21.3	88	86	32	2	0	0	0	0	0	
KY BOWLING GREEN	81	52	85	43	67	3	T	.7	.1	.7	3.5	95	34.8	91	99	52	0	0	1	1	1	
LEXINGTON	78	55	82	43	67	4	T	1.6	1.1	1.4	3.7	102	32.2	88	90	48	0	0	2	1	1	
LOUISVILLE	82	56	86	44	69	6	T	.5	-1	.5	3.2	86	29.3	86	88	40	0	0	2	0	0	
LA ALEXANDRIA	85	61	89	53	73	0	T	-6	T	2.0	60	61.1	150	96	44	0	0	0	0	0	0	
BATON ROUGE	86	63	92	56	75	2	T	.0	-7	.0	6.3	129	63.4	142	94	52	1	0	0	0	0	
LAKE CHARLES	84	65	88	61	74	1	T	-1.0	T	3.7	57	61.6	148	98	50	0	0	0	0	0	0	
NEW ORLEANS	86	67	90	62	76	2	T	.0	-9	.0	3.4	54	95.7	199	92	56	2	0	0	0	0	

Based on 1951-80 normals

Weather Data for the Week Ending October 5, 1991

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS							
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE Sept 1	PCT. NORMAL SINCE Sept 1	TOTAL IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	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	85	60	89	54	73	1	.1	-.6	.1	3.5	94	67.0	198	96	41	0	0	0	0	0	0	0
ME CARIBOU	58	41	67	32	49	1	.8	-.1	.5	3.7	93	27.4	100	95	63	0	0	3	1	1	0	0
PORTLAND	64	47	74	33	56	3	.6	-.2	.4	6.0	158	46.5	151	95	63	0	0	0	3	1	0	0
MD BALTIMORE	79	56	85	46	68	3	.1	-.1	.1	3.1	79	21.4	66	94	49	0	0	0	1	1	0	0
SALISBURY	78	53	84	43	66	3	.4	-.5	.4	5.1	111	37.5	105	99	55	0	0	0	1	1	0	0
MA BOSTON	69	53	80	39	61	2	.1	-.7	.1	6.3	162	31.3	97	87	57	0	0	0	0	0	0	0
CHATHAM	65	53	71	44	59	1	.1	-.7	.1	3.5	82	25.8	75	88	69	0	0	0	1	1	0	0
MI ALPENA	61	39	69	29	50	2	2.1	1.5	1.8	4.3	124	26.4	115	96	55	0	0	2	5	1	1	0
DETROIT	75	51	85	40	63	2	.9	-.4	.7	1.8	69	21.9	91	87	42	0	0	0	3	1	1	0
FLINT	70	46	83	29	58	1	1.6	1.2	1.2	2.3	85	24.6	108	93	52	0	0	1	4	1	1	0
GRAND RAPIDS	67	47	78	32	57	0	2.1	1.4	1.4	4.9	134	32.3	125	96	60	0	0	1	6	1	1	0
HOUGHTON LAKE	60	42	70	35	51	-1	4.5	4.0	2.2	7.4	233	28.3	129	95	56	0	0	0	5	5	2	1
LANSING	70	46	81	27	58	3	1.5	1.0	1.1	2.6	78	23.4	100	98	56	0	0	1	5	1	1	0
MARQUETTE	54	33	65	28	44	-5	1.9	1.1	1.6	4.8	107	26.7	91	93	64	0	0	4	5	1	1	0
MUSKOGON	65	47	71	31	56	0	3.0	2.4	2.6	6.3	188	30.9	132	92	52	0	0	1	5	1	1	0
SAULT ST. MARIE	57	35	66	30	46	-4	1.6	-.9	.8	7.2	164	24.5	98	93	59	0	0	2	6	1	1	0
MN ALEXANDRIA	58	40	67	30	49	-3	.1	-.3	.1	4.4	167	26.2	124	91	45	0	0	1	1	0	0	0
DULUTH	53	38	58	33	46	-4	.8	-.2	.3	9.8	269	35.5	144	95	50	0	0	0	4	4	0	0
INT'L FALLS	54	34	60	27	44	-4	.7	-.1	.4	5.2	148	23.9	116	97	50	0	0	3	5	0	0	0
MINNEAPOLIS	64	41	74	36	52	-3	4	-.1	.2	5.7	202	28.1	125	91	44	0	0	0	4	4	0	0
ROCHESTER	61	38	74	33	50	-4	.3	-.4	.2	2.6	68	27.8	115	90	48	0	0	0	3	0	0	0
MS GREENWOOD	84	58	88	48	71	2	.2	-.7	.1	3.7	99	53.2	131	93	43	0	0	0	0	0	0	0
JACKSON	85	58	89	52	72	1	.2	-.4	.2	3.7	93	52.7	130	99	48	0	0	0	1	0	0	0
MERIDIAN	86	59	89	53	72	3	.2	-.7	.1	6.1	150	60.6	144	94	44	0	0	0	1	0	0	0
MO CAPE GIRARDEAU	81	55	85	46	68	-1	.8	-.1	.6	3.3	78	31.4	89	94	38	0	0	0	3	1	1	0
COLUMBIA	77	51	82	38	64	1	1.4	-.5	.6	4.8	107	26.7	89	91	48	0	0	0	4	1	1	0
KANSAS CITY	74	52	87	36	63	-2	2.2	1.2	2.0	4.3	87	23.1	76	90	44	0	0	0	2	1	1	0
SAINT LOUIS	80	58	85	44	69	-5	2.0	1.5	1.5	5.0	164	24.5	90	81	38	0	0	0	4	4	1	0
SPRINGFIELD	77	53	83	41	65	1	.9	-.0	.5	4.5	92	27.4	87	90	43	0	0	0	2	1	1	0
MT BILLINGS	64	40	82	27	52	-2	.3	-.0	.3	3.4	230	18.4	150	81	39	0	0	2	1	0	0	0
GLASGOW	59	35	74	17	47	-5	.1	-.1	.1	.7	69	10.4	106	85	35	0	0	2	3	0	0	0
GREAT FALLS	64	37	80	26	51	-2	.2	-.1	.2	1.2	105	12.6	98	85	31	0	0	3	2	0	0	0
HAVRE	61	39	74	22	50	-2	.2	-.1	.1	1.3	27	8.7	86	76	35	0	0	2	1	0	0	0
HELENA	67	38	80	26	53	2	.2	-.2	.1	1.3	134	9.6	99	79	27	0	0	1	0	0	0	0
KALISPELL	68	32	77	23	50	2	.0	-.2	.0	.7	54	11.5	95	90	26	0	0	0	4	0	0	0
MILES CITY	60	40	78	22	50	-4	.2	-.2	.1	3.8	304	19.0	156	86	42	0	0	2	2	0	0	0
MISSOULA	71	37	79	25	54	4	.2	-.2	.1	3.3	27	8.8	85	74	19	0	0	2	1	0	0	0
NE GRAND ISLAND	70	43	90	28	57	-2	.2	-.2	.2	1.0	37	24.7	119	85	40	1	0	1	1	0	0	0
LINCOLN	72	45	89	28	58	-2	.3	-.3	.3	1.2	36	19.3	81	85	37	0	0	1	1	0	0	0
NORFOLK	69	46	92	31	57	0	.9	-.5	.6	2.4	102	25.0	118	78	39	1	0	1	2	3	1	0
NORTH PLATTE	71	41	91	27	56	0	.4	-.2	.3	2.2	118	17.2	98	92	34	1	0	2	3	0	0	0
OMAHA	67	49	87	34	58	-2	.6	-.0	.6	2.7	69	31.4	119	79	50	0	0	0	1	1	1	0
SCOTTSBLUFF	70	41	85	27	55	0	.5	-.3	.3	1.4	112	12.9	99	88	28	0	0	1	4	0	0	0
VALENTINE	69	41	95	23	55	0	.5	-.2	.4	1.0	66	19.6	125	84	31	2	0	1	2	0	0	0
NV ELY	75	31	79	22	53	2	.0	-.2	.0	1.3	163	8.3	116	79	20	0	0	5	0	0	0	0
LAS VEGAS	95	66	98	63	80	7	.0	-.1	.0	.1	18	3.4	110	29	11	7	0	0	0	0	0	0
RENO	86	44	88	42	65	10	.0	-.1	.0	.6	214	3.9	76	64	14	0	0	0	0	0	0	0
WINNEMUCCA	82	34	85	28	58	4	.0	-.1	.0	.8	188	5.7	102	58	13	0	0	2	0	0	0	0
NH CONCORD	69	44	80	30	57	3	.6	-.1	.4	6.1	170	28.3	105	97	51	0	0	2	3	0	0	0
NJ ATLANTIC CITY	76	53	82	42	64	3	.2	-.4	.1	2.9	86	28.8	90	99	59	0	0	0	2	0	0	0
NM ALBUQUERQUE	81	49	86	42	65	2	.0	-.5	.0	1.4	149	7.9	125	60	18	0	0	0	0	0	0	0
CLOVIS	76	49	89	43	63	-1	.0	-.5	.0	3.5	159	19.8	136	78	30	0	0	0	0	0	0	0
ROSWELL	81	52	93	50	67	1	.0	-.3	.0	4.1	208	17.5	194	76	29	1	0	0	0	0	0	0
NY ALBANY	71	49	78	28	60	4	1.5	-.8	.8	4.8	130	25.7	95	98	50	0	0	2	2	2	2	0
BINGHAMTON	70	47	77	29	59	5	.1	-.6	.1	2.8	72	24.7	87	93	47	0	0	1	3	0	0	0
BUFFALO	70	48	79	32	59	3	1.2	-.5	.4	4.4	114	30.4	109	95	54	0	0	1	4	0	0	0
NEW YORK	74	59	80	45	67	4	.2	-.5	.2	3.8	95	32.0	98	87	54	0	0	0	1	0	0	0
ROCHESTER	70	46	80	30	58	2	.5	-.1	.2	3.4	110	22.8	95	96	50	0	0	1	4	0	0	0
SYRACUSE	72	48	80	28	60	4	.8	-.1	.3	5.0	133	29.4	99	98	47	0	0	1	4	0	0	0
NC ASHEVILLE	76	49	79	42	62	1	.4	-.8	.2	1.2	29	35.3	101	100	47	0	0	0	0	0	0	0
CHARLOTTE	81	59	86	52	70	4	.4	-.3	.2	2.1	51	39.3	114	91	47	0	0	0	2	0	0	0
GREENSBORO	79	56	84	48	68	4	1.8	1.0	1.6	5.5	131	37.2	110	93	50	0	0	0	3	1	1	0
HAYTERAS	78	65	80	58	72	2	1.9	.7	1.4	6.3	96	55.9	132	95	55	0	0	0	3	1	1	0
NEW BERN	80	61	84	55	71	2	1.1	.1	.5	5.5	85	42.4	97	97	54	0	0	0	3	1	1	0
RALEIGH	80	57	84	48	69	4	.9	-.3	.7	4.1	110	31.6	95	96	50	0	0	0	2	1	1	0
WILMINGTON	80	62	83	54	71	2	.4	-.5	.3	3.7	59	51.8	117	93	56	0	0	0	3	0	0	0
ND BISMARCK	58	36	72	29	47	-5	.2	-.2	.1	2.5	163	13.5	100	84	39	0	0	3	0	0	0	0
FARGO	60	38	65	29	49	-3	.2	-.3	.1	1.3	61	19.3	114	82	38	0	0	3	1	0	0	0
GRAND FORKS	57	37	65	29	47	-4	.1	-.3	.0	3.5	152	18.8	118	86	44	0	0	3	4	0	0	0
WILLISTON	56	35	71	21	46	-6	.1	-.2	.1	2.8	185	16.6	139	88	38	0	0	2	1	0	0	0
OH AKRON-CANTON	74	51	80	41	63	5	.4	-.2	.3	2.9	87	17.7	62	91	50	0	0	0	2	0	0	0
CINCINNATI	79	55	83	43	67	6	.2	-.4	.2	2.8	85	31.9	101	86	39	0	0	0	1	0	0	0
CLEVELAND	75																					

Weather Data for the Week Ending October 5, 1991

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sept 1	PCT. NORMAL SINCE Sept 1	TOTAL, IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE	MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	PRECIP.	
																			.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	78	55	84	43	67	6	.1	-.4	.1	3.3	123	30.0	108	83	42	0	0	0	0	0
TOLEDO	76	52	84	38	64	6	.2	-.3	.1	.9	32	18.2	73	91	45	0	0	0	1	0
YOUNGSTOWN	75	49	81	38	62	5	.3	-.4	.1	3.2	92	20.4	70	88	47	0	0	0	0	0
OK OKLAHOMA CITY	79	54	87	42	67	-1	.0	-.7	.0	11.9	299	31.9	123	85	37	0	0	0	0	0
TULSA	81	57	89	45	69	1	.1	-.9	.0	6.2	124	21.9	70	86	42	0	0	0	0	0
OR ASTORIA	70	44	75	36	57	1	.0	-1.0	.0	.1	2	37.8	89	96	50	0	0	0	1	0
BURNS	77	31	84	23	54	1	.0	-1.1	.0	.3	3	4.4	66	61	11	0	0	0	0	0
MEDFORD	92	45	96	41	69	9	.0	-1.3	.0	.0	0	10.6	90	81	15	0	0	0	0	0
PENDLETON	76	47	86	37	62	4	.0	-1.2	.0	.0	0	9.2	114	54	18	0	0	0	0	0
PORTLAND	78	49	85	46	64	5	.0	-1.5	.0	.0	1	21.4	93	95	34	0	0	0	0	0
SALEM	80	44	85	40	62	4	.0	-1.5	.0	.0	2	22.0	90	89	28	0	0	0	0	0
PA ALLENTOWN	75	51	80	38	63	4	.1	-.7	.1	3.4	74	25.9	76	96	49	0	0	0	1	0
ERIE	74	52	81	40	63	6	.6	-.2	.3	3.9	86	23.0	77	85	50	0	0	0	0	0
HARRISBURG	77	54	82	40	65	5	1.3	-.6	1.3	2.7	67	24.4	81	95	49	0	0	0	1	0
PHILADELPHIA	78	58	84	49	68	6	.4	-.7	.4	3.6	93	29.2	91	92	49	0	0	0	0	1
PITTSBURGH	77	51	82	42	64	6	.4	-.2	.4	3.9	122	26.3	90	91	45	0	0	0	0	0
SCRANTON	73	51	80	32	62	5	.4	-.7	.4	2.6	71	21.3	79	91	50	0	0	0	0	0
RI PROVIDENCE	71	50	78	36	61	3	.4	-.8	.4	5.1	124	35.3	106	94	59	0	0	0	0	0
SC CHARLESTON	81	65	83	60	73	2	.3	-.2	.3	2.9	53	46.3	106	93	60	0	0	0	0	0
COLUMBIA	83	57	88	47	70	1	.6	-.5	.3	2.7	57	58.1	142	99	52	0	0	0	2	0
FLORENCE	82	60	86	52	71	2	.6	-.1	.5	2.8	62	39.4	107	93	52	0	0	0	2	0
GREENVILLE	80	55	83	47	68	2	.1	-.8	.1	1.5	29	42.8	104	96	49	0	0	0	1	0
SD ABERDEEN	66	42	84	29	54	0	.0	-1.3	.1	1.5	29	42.8	104	96	49	0	0	0	1	0
HURON	68	43	89	29	56	1	.1	-1.2	.1	.6	36	21.6	137	76	32	0	1	2	0	0
RAPID CITY	67	41	89	25	54	-2	.4	-.2	.4	2.1	131	21.7	134	84	35	0	0	0	1	0
SIoux FALLS	65	43	85	30	54	-2	.4	-.2	.4	1.0	88	16.0	110	82	35	0	2	2	0	0
TN CHATTANOOGA	83	53	84	50	68	2	.3	-.4	.4	4.0	129	23.9	113	85	40	0	0	1	1	0
KNOXVILLE	80	53	83	48	67	1	.3	-.4	.4	2.4	50	42.9	105	96	43	0	0	0	1	0
MEMPHIS	85	60	88	50	72	4	.9	-.3	.3	3.4	101	42.0	115	99	47	0	0	0	1	0
NASHVILLE	81	55	83	45	68	2	.3	-.3	.9	2.4	59	45.0	112	86	37	0	0	0	1	1
TX ABILENE	81	56	89	45	68	2	.0	-.4	.3	5.7	138	32.6	86	92	42	0	0	0	1	0
AMARILLO	79	47	92	40	63	-1	.0	-.6	.0	6.0	172	24.3	126	79	34	0	0	0	0	0
AUSTIN	86	63	92	55	75	0	1.2	-.4	.9	2.1	105	12.4	74	85	26	1	0	0	0	0
BEAUMONT	86	66	90	63	76	2	.0	-.3	.9	3.4	82	35.3	145	90	42	2	0	0	2	1
BROWNSVILLE	87	70	90	68	79	0	3.3	-1.0	.7	7.1	119	62.3	145	95	49	1	0	0	0	0
CORPUS CHRISTI	87	68	91	66	77	0	3.3	-2.2	2.9	8.9	149	29.3	147	96	59	1	0	0	4	1
DEL RIO	86	64	93	57	75	-1	.0	-1.0	.0	8.6	118	36.3	138	99	55	2	0	0	2	0
EL PASO	86	54	91	48	70	1	.0	-.6	.0	7.1	224	17.4	124	70	37	2	0	0	0	0
FORT WORTH	84	59	91	50	72	-1	.0	-.2	.0	1.8	118	8.2	128	73	22	2	0	0	0	0
GALVESTON	82	72	85	67	77	0	.0	-.8	.0	4.6	117	34.4	139	90	39	1	0	0	0	0
HOUSTON	86	63	91	58	77	0	.1	-.9	.0	5.5	82	50.5	159	91	60	0	0	0	0	0
LUBBOCK	80	52	92	40	66	0	.0	-.9	.1	2.9	49	44.2	123	98	47	1	0	0	1	0
MIDLAND	81	53	91	44	67	-2	.0	-.5	.0	6.8	286	20.2	134	87	32	1	0	0	0	0
SAN ANGELO	82	56	91	49	69	-2	.0	-.4	.0	4.0	169	20.1	178	85	30	1	0	0	0	0
SAN ANTONIO	87	63	92	55	75	0	.0	-.6	.0	4.8	139	16.8	114	88	35	1	0	0	0	0
VICTORIA	87	64	91	58	76	0	.6	-.7	.4	1.4	34	27.5	120	88	40	2	0	0	1	0
WACO	87	59	95	49	73	-1	.0	-.5	.5	3.1	44	46.5	156	99	53	1	0	0	3	0
WICHITA FALLS	82	54	91	42	68	-3	.0	-.7	.0	3.8	103	31.9	132	90	40	2	0	0	0	0
UT CEDAR CITY	77	42	81	36	60	2	.0	-.2	.0	8.3	213	24.3	111	90	37	1	0	0	0	0
SALT LAKE CITY	74	48	80	38	61	2	.0	-.2	.0	1.1	111	9.0	112	67	16	0	0	0	0	0
VT BURLINGTON	66	48	76	29	57	4	.8	-.2	.0	2.6	249	13.2	113	75	25	0	0	0	0	0
VA NORFOLK	66	48	76	29	57	4	.8	-.2	.0	5.9	163	25.4	98	99	55	0	1	4	0	0
VA RICHMOND	79	60	86	50	69	3	1.3	-.4	1.2	3.3	68	35.3	98	98	55	0	0	0	3	1
VA ROANOKE	80	57	86	50	69	5	.7	-.1	.5	3.4	82	28.8	85	96	50	0	0	0	2	1
WA QUILLAYUTE	82	52	86	46	67	5	.0	-.8	.0	.2	4	30.7	100	95	39	0	0	0	0	0
WA SEATTLE-TACOMA	68	41	79	38	55	1	.0	-1.9	.0	2.2	2	67.2	101	97	51	0	0	0	1	0
WA SPOKANE	71	48	79	45	60	3	.0	-.6	.0	.0	0	25.4	108	98	46	0	0	0	0	0
WA YAKIMA	73	42	81	32	57	4	.0	-.2	.0	.0	1	9.7	88	61	17	0	1	0	0	0
WV BECKLEY	78	39	85	31	59	3	.0	-1.1	.0	.1	20	5.4	105	88	25	0	2	0	0	0
WV CHARLESTON	80	54	85	47	67	6	.3	-.4	.3	2.9	70	29.3	86	89	44	0	0	0	1	0
HUNTINGTON	81	54	85	47	67	5	.4	-.2	.4	6.0	173	30.9	91	97	46	0	0	0	1	0
PARKERSBURG	80	54	85	47	67	5	.5	-.1	.5	2.8	81	29.7	90	94	40	0	0	0	2	0
WI GREEN BAY	78	53	81	43	65	4	.8	-.2	.7	4.6	142	34.8	114	94	49	0	0	0	2	1
WI LACROSSE	60	41	70	35	50	-3	.6	-.0	.5	3.2	89	19.5	85	93	52	0	0	0	3	0
WI MADISON	62	41	75	36	52	-5	.4	-.2	.4	1.8	45	27.3	106	96	50	0	0	0	2	0
WI MILWAUKEE	63	40	72	32	51	-4	1.1	-.5	.8	5.0	146	29.2	115	97	56	0	1	3	3	1
WI WAUSAU	64	48	77	39	56	0	2.7	2.1	2.3	7.0	214	29.7	119	90	56	0	0	0	4	1
WY CASPER	58	39	71	33	48	-5	.4	-.3	.2	4.4	100	29.9	112	96	49	0	0	0	3	3
WY CHEYENNE	65	41	83	27	54	2	.1	-1.1	.1	.5	60	10.5	112	78	26	0	0	0	2	0
WY LANDER	68	41	78	24	53	0	.5	-.3	.3	2.0	170	17.4	147	81	31	0	3	3	0	0
WY SHERIDAN	69	41	82	26	55	2	.1	-.2	.1	.5	51	11.2	105	74	24	0	1	1	1	0
WY SHERIDAN	65	41	85	29	53	1	.3	-.0	.2	1.7	125	12.4	99	83	36	0	1	3	0	0

Based on 1951-80 normals

# September Weather and Crop Summary

## Weather

September's weather was typically transitional, as late-summer hot spells were interspersed with Canadian high pressure system intrusions. The month's most notable cold snap (September 19-21, over 100 daily record lows set) immediately followed summer's last heat wave (September 12-17, about 130 daily record highs notched), and cut the growing season short in parts of the western Corn and Soybean Belt.

The West enjoyed September's finest weather, especially toward month's end. Temperature anomalies generally exceeded +4° F from central Washington to south-central California. Portland, OR, not only had its warmest September ever, but also received a mere 0.02 inches of rain (3rd driest September). In contrast, cool, wet weather plagued the southern Plains, with temperature departures reaching -4° F from western Texas to southern Oklahoma. Elsewhere, temperatures were slightly below normal from the Great Lakes to New England, near normal in the Southeast, and somewhat above normal in the northern Plains.

Rainfall patterns were highly variable, but a few trends were clear. Two to four times the normal rainfall drenched southern Plains cotton areas. Oklahoma City, OK, on the northeastern cotton cropland fringe, received a September-record 11.85 inches of rain (348 percent of normal). Unusually dry weather prevailed in the central Plains and the Southeast. Savannah, GA, garnered only 0.35 inches of rain to set a September record for dryness. Rainfall for the Corn Belt as a whole was below normal for the 4th consecutive month. A few locations in the mid-Atlantic region reported a 6th drier-than-normal month in a row, for example, Scranton, PA, and Baltimore, MD. Several rainfall records for dryness were tied or broken in the Pacific Northwest. Olympia and Seattle, WA, which both normally receive greater than 2 inches of September rainfall, recorded record-tying traces of rain.

Locally heavy rain was common in the southern Plains until the 20th. The rainfall event of the 18th and 19th seemed to be especially damaging to cotton, because several inches of rain fell while temperatures plummeted into the 40's. Rain was common in the upper Mississippi Valley until the 17th, with the month's most significant rainfall occurring on the 7th and 8th. Additional heavy rain fell on the 13th and 14th. In the West, frequent afternoon thunderstorms rumbled during the first half of September. A 24-hour rainfall record was established in Utah on the 7th as over 8 inches of rain deluged North Ogden. The month's final episode of significant rain affected the East on the 24th and 25th. The last few days of September were nearly dry nationwide.

Snow is still an infrequent word during September, but a couple of non-mountain locations managed to set snowfall records. Duluth, MN, set a September monthly record due to a 2.4-inch snowfall on the 17th and 18th. Caribou, ME, recorded its first ever measurable September snow on the 29th and 30th (2.5 inches).

Record heat appeared in the South on the 12th and made a quick trek toward the north and east. Greer, SC, set seven consecutive daily record highs. The late heat wave helped to smash records in New York, NY, and Philadelphia, PA, for the total number days on which the temperature reached 90° F during a year. On the

16th, New York's Central Park temperature reached the 90° F mark for the 38th time. The old record was set in 1944. Philadelphia attained a 90° F reading for the 52nd time, toppling the record set in 1988. But summer ended suddenly east of the Rockies. On the 19th and 20th, temperatures sagged below freezing from Nebraska and Iowa northward, damaging immature soybeans in the western Corn Belt. Cool weather continued in the East until month's end. Buffalo, NY, tied a September record with a 32° F reading on the 30th. Meanwhile, the West basked in unusual warmth. The mercury reached a daily record of 102° F in Sacramento, CA, on the final day of the month.

## Crop Development

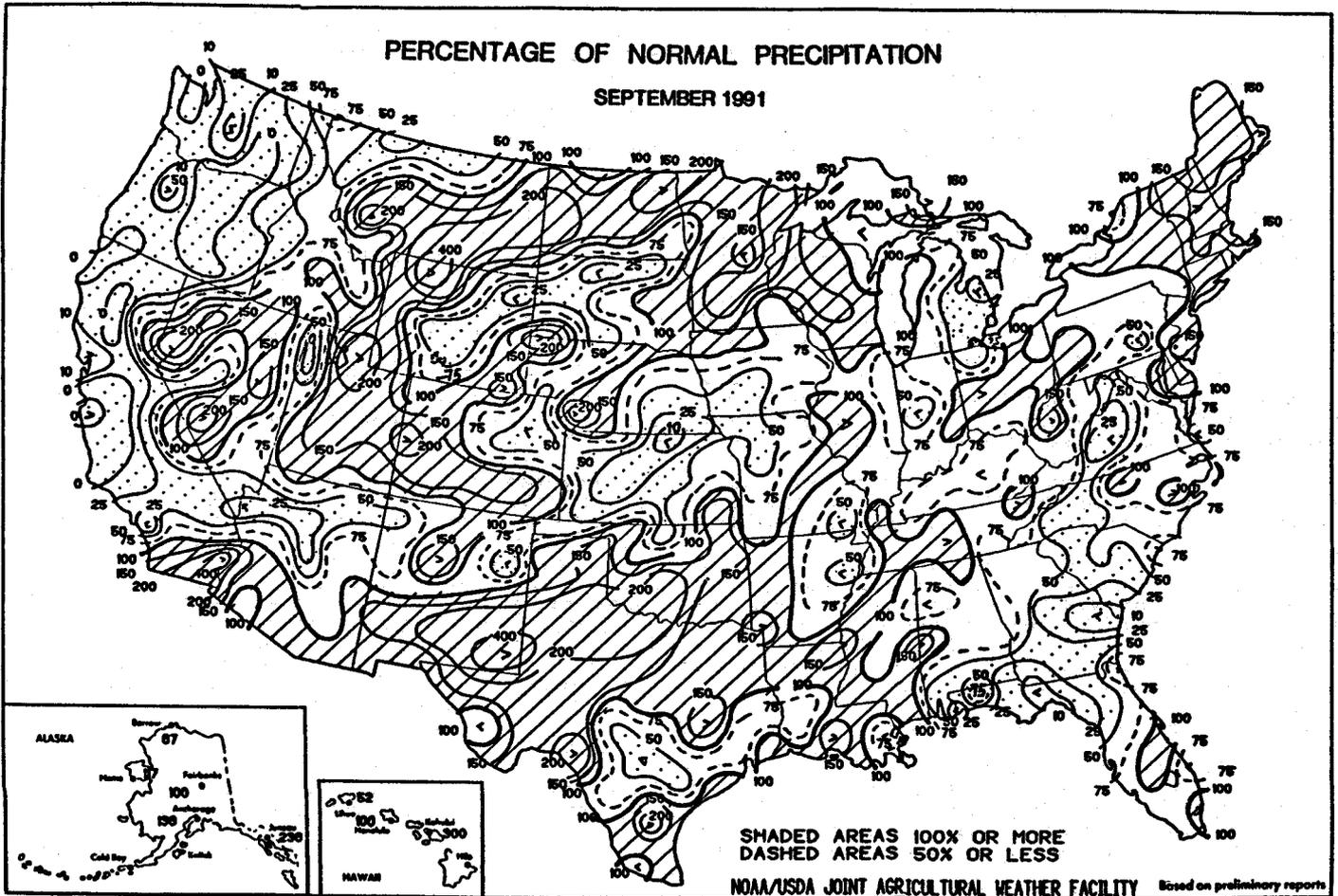
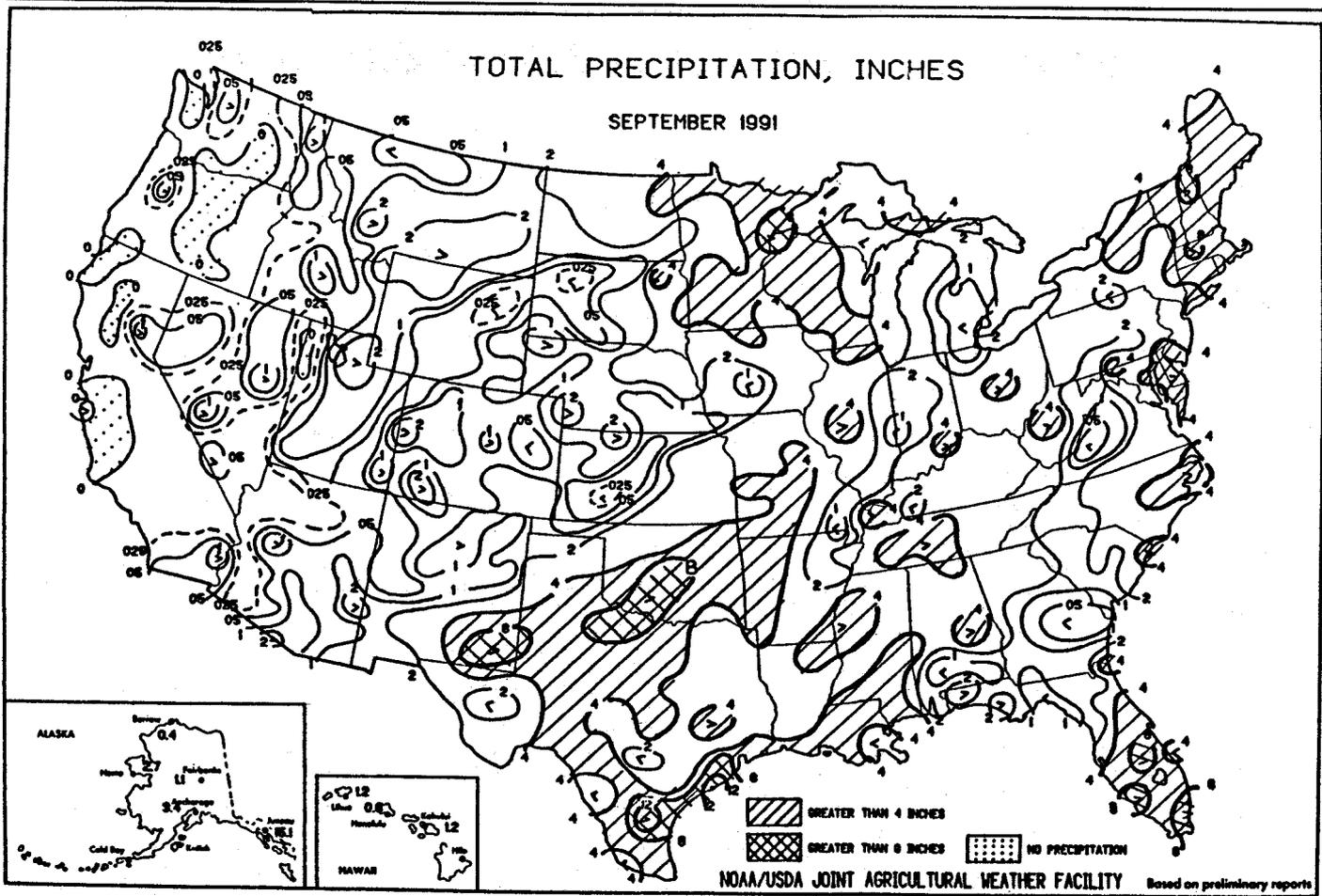
Harvests of principal field crops were getting underway between rains in early September as thunderstorms frequented the eastern two-thirds of the Nation. The West, meanwhile, remained mostly dry. Widespread rains fell over Texas, Oklahoma, and the East during the latter half of the month, while dry weather prevailed elsewhere. Soils remained excessively dry in the central regions of Kansas, Oregon, Washington, and Virginia throughout the month, and soil moisture remained short to adequate across the Midwest. Above-normal temperatures early in the month brought crops to maturity ahead of schedule in most States and minimized the impact of lower temperatures later in the month.

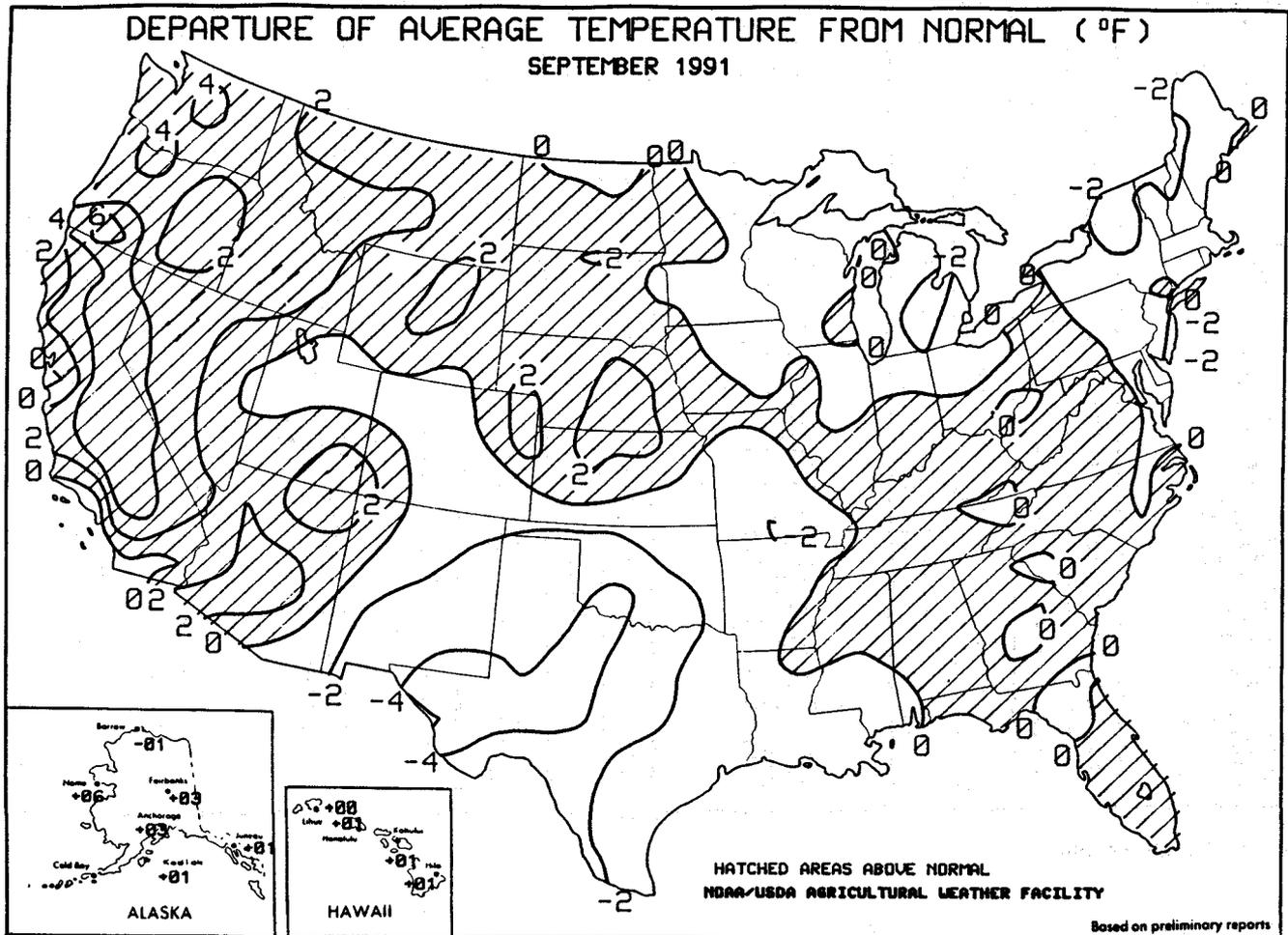
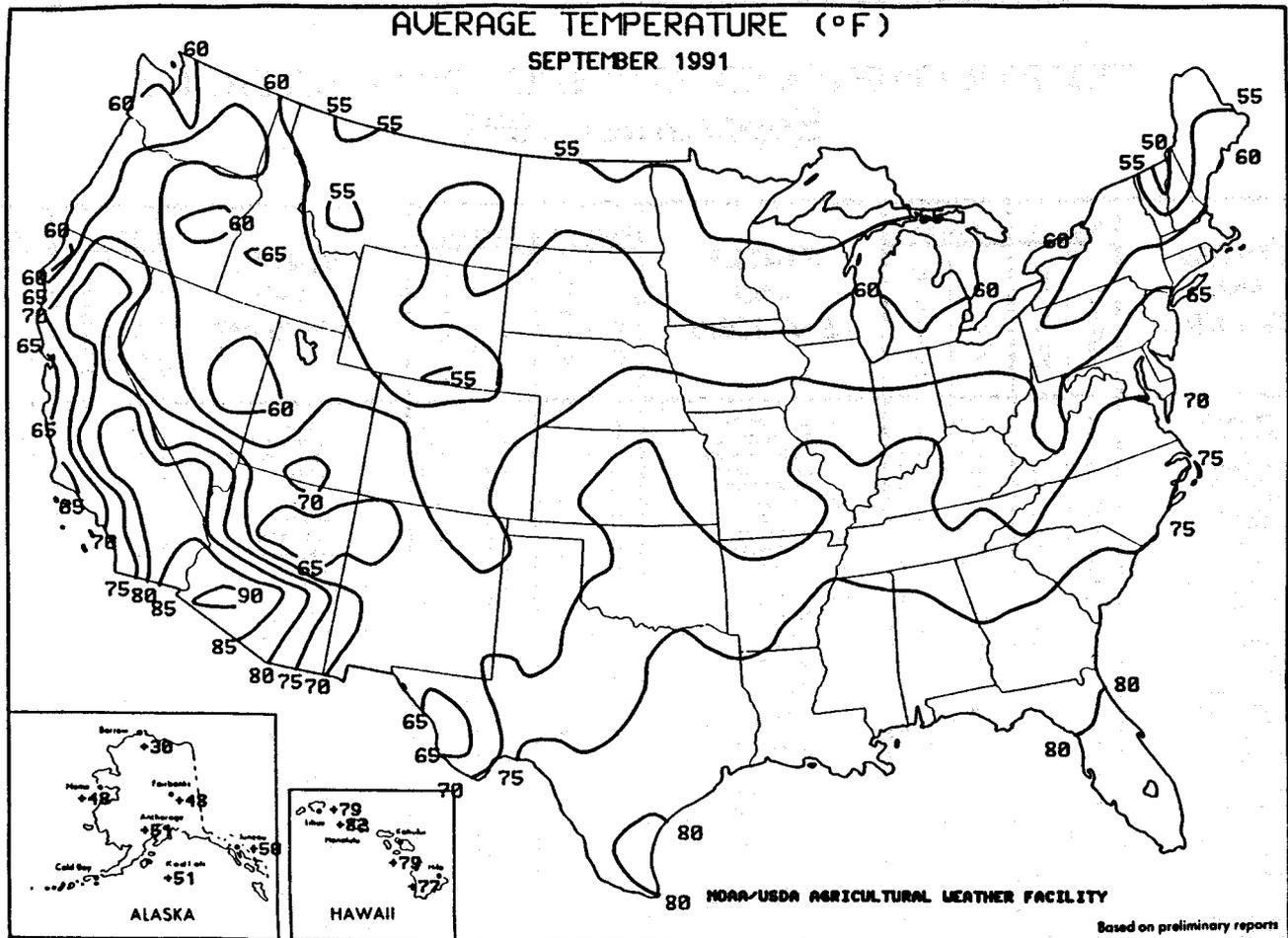
**Winter wheat** seeding of the 1992 crop was getting underway at the beginning of September, and rains during the first half of the month provided necessary soil moisture. Planting progressed at a near-normal pace throughout the month, reaching 48 percent (%) complete by September 29, matching the 5-year average progress for the date. Dry weather during the second half of the month heightened concerns over soil moisture in Kansas and the northern Great Plains, compelling some growers to delay planting.

**Corn** harvest was underway in the South entering September and starting in the Cornbelt. Rains early in the month provided some relief from drought conditions in the eastern Cornbelt, but corn was generally too mature to benefit. Harvest was in full swing throughout the month and progressed much faster than usual. Harvest was 36% complete in the 17 major producing States by the end of the month, 23 percentage points ahead of last year and 17 points ahead of the average. Ninety-four percent of the crop was mature, compared with 71% last year and 80% average. Crop maturity was slightly behind normal in Colorado, Iowa, and Texas but ahead of schedule in the other major States.

The **soybean** crop, paced by much earlier-than-normal development in the eastern Cornbelt and South Dakota, entered September with progress of pod setting and leaf dropping ahead of both last year and the historic average. Harvest was just getting underway in the earliest maturing fields. Rains early in the month benefited late-seeded acreage, and high temperatures kept crop development ahead of schedule. An early freeze hit the Midwest the third week in September, and some damage to late-planted fields was reported in north-central Iowa, northern Missouri, and south-central Minnesota. Crop condition remained poor throughout the month in Kansas as rainfall was sparse. By the end of the month, harvest was in full swing in the Northern States and getting underway in the southern Mississippi Valley and

(Continued to back cover)





# TEMPERATURE AND PRECIPITATION SUMMARY

## September 1991

STATES AND STATIONS	Temp. °F		Precip.		STATES AND STATIONS	Temp. °F		Precip.		STATES AND STATIONS	Temp. °F		Precip.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	75	1	4.3	-1.3	LA ALEXANDRIA	76	-1	2.0	-1.0	TOLEDO	63	0	0.7	-1.8
AL HUNTSVILLE	74	1	4.5	0.5	LA BATON ROUGE	77	0	6.3	1.9	TOLEDO YOUNGSTOWN	62	0	3.0	-0.1
AL MOBILE	77	-1	1.9	-4.7	LA LAKE CHARLES	77	-1	3.6	-2.0	OK OKLAHOMA CITY	71	-3	11.9	8.4
AL MONTGOMERY	77	0	4.0	-0.7	LA NEW ORLEANS	78	0	3.4	-2.4	OK TULSA	73	-1	6.2	1.8
AK ANCHORAGE	51	3	3.4	1.0	ME SHREVEPORT	76	-2	3.4	0.2	OR ASTORIA	61	2	0.1	-3.1
AK BARRON	30	-1	0.4	-0.2	ME CARIBOU	53	-1	3.5	0.0	OR BURNS	59	0	0.1	-0.5
AK FAIRBANKS	48	3	1.2	0.1	ME PORTLAND	58	-1	5.4	2.2	OR MEDFORD	71	6	T	-0.7
AK JUNEAU	50	1	15.0	8.6	MD BALTIMORE	69	0	3.0	-0.4	OR PENDELTON	65	1	T	-0.6
AK KODIAK	51	1	10.0	3.7	MD SALISBURY	67	-1	4.7	0.8	OR PORTLAND	67	5	T	-1.6
AK NOME	48	2	2.7	0.4	MA BOSTON	64	-1	6.3	2.9	OR SALEM	65	4	T	-1.5
AZ FLAGSTAFF	60	0	0.3	-1.2	MA CHATHAM	62	0	4.8	1.1	PA ALLENTOWN	65	0	3.3	-0.7
AZ PHOENIX	89	4	0.8	0.2	MI ALPENA	56	-2	2.2	-0.8	PA ERIE	64	1	3.2	-0.7
AZ PRESCOTT	67	2	1.5	-0.2	MI DETROIT	63	0	0.9	-1.3	PA HARRISBURG	65	-2	1.4	-2.2
AZ TUCSON	81	0	1.5	0.2	MI FLINT	59	-2	0.6	-1.7	PA PHILADELPHIA	69	1	3.6	0.2
AZ WINSLOW	67	-2	0.7	-0.1	MI GRAND RAPIDS	60	-2	2.9	-0.3	PA PITTSBURGH	65	0	3.4	0.7
AR FORT SMITH	90	3	0.6	0.3	MI HOUGHTON LAKE	56	-1	2.9	0.1	PA SCRANTON	62	-1	2.6	-0.6
AR LITTLE ROCK	73	-1	4.8	1.6	MI LANSING	59	-3	1.0	-1.9	PA WILLIAMSPORT	63	-1	3.4	-0.2
CA BAKERSFIELD	74	-1	2.0	-2.2	MI MARQUETTE	52	-2	3.1	-0.8	RI PROVIDENCE	63	0	5.1	1.6
CA BISHOP	81	4	T	-0.1	MI MUSKEGON	60	-1	3.3	0.4	SC CHARLESTON	77	2	2.3	-2.6
CA EUREKA	69	1	0.2	0.0	MI SAULT ST. MARIE	54	-1	5.8	2.0	SC COLUMBIA	75	0	2.4	-1.8
CA FRESNO	57	1	0.0	-0.9	MN ALEXANDRIA	58	0	4.4	2.1	SC FLORENCE	75	0	2.2	-1.8
CA LOS ANGELES	80	6	T	-0.2	MN DULUTH	53	-1	9.4	6.2	SD GREENVILLE	72	0	1.4	-3.2
CA REDDING	68	-2	0.1	0.0	MN INT'L FALLS	52	-1	4.9	1.8	SD HURON	61	2	0.6	-0.9
CA SACRAMENTO	79	3	0.0	-1.0	MN MINNEAPOLIS	59	-1	5.4	3.0	SD RAPID CITY	62	1	1.9	0.6
CA SAN DIEGO	75	3	T	-0.2	MN ROCHESTER	57	-2	2.3	-0.8	SD SIOUX FALLS	61	0	0.6	-0.4
CA SAN FRANCISCO	69	-1	0.3	0.1	MS ST. CLOUD	57	0	3.9	1.1	TN BRISTOL	62	-1	4.0	1.2
CA STOCKTON	63	-1	T	-0.2	MS GREENWOOD	76	0	3.7	0.4	TN CHATTANOOGA	68	1	2.4	-0.6
CO ALAMOSA	--	-	T	-0.2	MS JACKSON	76	0	3.4	-0.1	TN KNOXVILLE	74	2	3.1	0.2
CO CO. SPRINGS	55	0	0.7	0.0	MS MERIDIAN	76	1	6.0	2.5	TX MEMPHIS	75	1	1.5	-2.1
CO DENVER	61	0	0.6	-0.7	MO TUPELO	75	1	3.1	-0.6	TX NASHVILLE	72	0	5.5	1.8
CO GRAND JUNCTION	62	0	0.8	-0.4	MO CAPE GIRARDEAU	--	-	2.5	-1.2	TX ABILENE	71	-5	6.0	2.9
CO PUEBLO	67	-1	2.3	1.6	MO COLUMBIA	67	-2	3.4	-0.5	TX AMARILLO	77	-3	2.0	0.3
CT BRIDGEPORT	65	-1	1.3	0.5	MO KANSAS CITY	69	-1	2.1	-2.2	TX AUSTIN	67	-2	2.2	-1.3
CT HARTFORD	65	-1	3.5	0.2	MO SAINT LOUIS	72	3	3.0	0.3	TX BEAUMONT	78	-1	7.1	1.8
DC WASHINGTON	62	-1	5.7	1.8	MO SPRINGFIELD	68	-1	3.6	-0.7	TX BROWNSVILLE	80	-2	5.6	0.3
FL APALACHICOLA	71	0	3.5	0.3	MT BILLINGS	61	1	3.1	1.9	TX CORPUS CHRISTI	79	-2	8.6	2.0
FL DAYTONA BEACH	79	0	1.8	-6.8	MT GLASGOW	59	1	0.6	-0.3	TX DEL RIO	77	-3	7.1	4.4
FL FT. MYERS	81	1	5.5	-1.2	MT GREAT FALLS	58	1	1.0	0.0	TX EL PASO	71	-4	1.8	0.4
FL JACKSONVILLE	83	1	8.3	-0.3	MT HAVRE	58	1	0.3	-0.6	TX FORT WORTH	75	-3	4.6	1.2
FL KEY WEST	79	0	6.2	-0.2	MT HELENA	58	3	1.3	0.4	TX GALVESTON	79	-1	5.5	-0.6
FL MIAMI	84	0	5.4	-1.1	MT KALISPELL	55	1	0.7	-0.4	TX HOUSTON	77	-2	2.8	-2.4
FL ORLANDO	82	1	11.2	3.1	MT MILES CITY	61	1	3.8	2.8	TX LAREDO	80	-4	4.7	1.2
FL TALLAHASSEE	82	1	4.5	-1.1	NE GRAND ISLAND	58	3	0.3	-0.7	TX LUBBOCK	68	-3	6.8	4.7
FL TAMPA	80	1	0.6	-5.9	NE LINCOLN	68	2	0.9	-2.0	TX MIDLAND	70	-4	3.8	1.7
FL WEST PALM BEACH	82	1	3.4	-2.8	NE NORFOLK	65	2	1.5	-0.6	TX SAN ANGELO	72	-4	4.8	1.8
GA ATHENS	73	0	2.2	-1.4	NE NORTH PLATTE	64	2	1.8	0.1	TX SAN ANTONIO	78	-2	1.4	-2.3
GA ATLANTA	75	2	2.0	-1.1	NE OMAHA	66	1	2.1	-1.4	TX VICTORIA	79	-1	2.9	-3.3
GA AUGUSTA	75	0	1.4	-2.2	NE SCOTTSBLUFF	63	1	0.9	-0.2	TX WACO	77	-2	3.8	0.6
GA MACON	76	0	0.7	-2.6	NV VALENTINE	63	2	0.6	-0.8	UT WICHITA FALLS	72	-4	8.3	4.9
GA SAVANNAH	78	1	0.4	-4.8	NV ELKO	60	2	0.6	0.1	UT Blanding	--	-	1.3	0.4
HI HILO	77	1	9.0	2.4	NV ELY	56	0	1.3	0.6	UT CEDAR CITY	64	1	1.1	0.2
HI HONOLULU	82	1	0.5	-0.1	NV LAS VEGAS	82	2	0.1	-0.2	UT SALT LAKE CITY	64	0	2.6	1.7
HI KAHULUI	79	0	1.2	0.8	NV RENO	66	5	0.6	0.3	VT BURLINGTON	58	-1	5.1	2.0
HI LIHUE	79	0	1.2	-1.1	NV WINNEMUCCA	63	4	0.8	0.5	VA LYNCHBURG	70	2	0.7	-2.5
ID BOISE	66	3	0.2	-0.4	NH CONCORD	58	-1	5.5	2.4	VA NORFOLK	72	0	2.0	-2.2
ID LEWISTON	66	2	0.2	-0.5	NJ ATLANTIC CITY	65	-2	2.6	-0.2	VA RICHMOND	72	1	2.7	-0.8
ID POCATELLO	60	1	0.7	0.0	NM ALBUQUERQUE	68	-1	1.4	0.6	VA ROANOKE	69	1	0.2	-3.0
IL CAIRO	--	-	3.5	1.5	NM CLOVIS	65	-4	3.5	1.6	VA QUILLAYUTE	61	3	0.4	-0.5
IL CHICAGO	64	-1	2.5	-1.6	NM ROSWELL	68	-3	4.1	2.3	WA SEATTLE-TACOMA	60	3	0.1	-6.0
IL MOLINE	65	0	2.5	-1.2	NY ALBANY	60	-1	3.3	0.1	WA SPOKANE	63	3	0.0	-2.0
IL PEORIA	65	0	3.6	0.0	NY BINGHAMTON	59	-1	2.6	-0.7	WA WALLA WALLA	62	3	T	-0.7
IL QUINCY	66	-1	2.6	-1.6	NY BUFFALO	62	0	3.2	-0.2	WA YAKIMA	68	2	0.0	-0.8
IL ROCKFORD	63	0	4.6	0.9	NY NEW YORK	69	0	3.6	0.1	WV BECKLEY	64	3	0.1	-0.2
IL SPRINGFIELD	67	-1	4.4	1.2	NY ROCHESTER	60	-2	2.9	0.2	WV CHARLESTON	64	2	2.6	-1.0
IN EVANSVILLE	70	1	2.6	-0.1	NY SYRACUSE	60	-2	4.2	0.9	WV CHARLESTON	68	0	5.5	2.5
IN FORT WAYNE	64	-1	2.2	-0.4	NC ASHEVILLE	67	0	1.2	-2.6	WV ELKINS	62	-0	1.9	-1.3
IN INDIANAPOLIS	68	1	1.1	-1.6	NC CHARLOTTE	74	2	1.7	-1.9	WV HUNTINGTON	69	0	2.3	-0.7
IN SOUTH BEND	63	-1	2.7	-0.5	NC GREENSBORO	71	1	3.7	0.0	WV PARKERSBURG	66	-1	3.8	1.0
IA DES MOINES	65	0	0.9	-2.2	NC HATTERAS	75	1	4.4	-1.4	WI GREEN BAY	58	0	2.6	-0.6
IA DUBUQUE	61	-1	3.8	-0.3	NC NEW BERN	74	0	4.4	-1.4	WI LA CROSSE	60	-1	3.9	0.4
IA SIOUX CITY	64	1	2.2	-0.3	NC RALEIGH	72	0	3.2	-0.1	WI MADISON	60	0	4.0	0.9
IA WATERLOO	61	-1	2.9	-0.5	NC WILMINGTON	75	0	3.3	-2.4	WI MILWAUKEE	63	1	4.3	1.5
KS CONCORDIA	70	3	0.2	-2.8	ND FARCO	59	2	2.5	1.1	WI WAUSAU	56	-2	4.0	0.1
KS DODGE CITY	70	1	0.2	-1.6	ND GRAND FORKS	59	1	1.3	-0.6	WI CASPER	60	1	0.4	-0.3
KS GOODLAND	66	2	0.8	-0.7	ND WILLISTON	57	1	3.4	1.4	WY CHEYENNE	58	0	1.9	0.8
KS TOPEKA	69	1	2.2	-1.3	OH AKRON-CANTON	64	0	2.5	-0.5	WY LANDER	60	2	0.4	-0.4
KS WICHITA	70	-1	2.1	-1.3	OH CINCINNATI	69	1	2.6	-0.3	WY SHERIDAN	60	2	1.5	0.3
KY BOWLING GREEN	71	1	2.8	-0.4	OH CLEVELAND	65	0	3.4	0.5	PR SAN JUAN	83	1	5.0	-1.0
KY JACKSON	69	3	2.6	-0.5	OH COLUMBUS	66	0	4.0	1.3					
KY LEXINGTON	69	0	2.1	-1.2	OH DAYTON	66	-1	3.2	0.9					
KY LOUISVILLE	72	2	2.7	-0.6	OH MANSFIELD	63	-1	3.1	0.1					
KY PADUCAH	71	1	3.3	-0.2										

Based on 1951-80 normals

# September Weather in Historical Perspective

By a narrow margin, September 1991 was warmer than normal for the Nation as a whole (46th warmest in 97 years, fig. 1), becoming the eighth consecutive month with above-normal temperatures. Areally-averaged precipitation was nearly normal nationally but varied widely by climatic regions (table 1). The areally weighted precipitation index, which gives a more accurate comparison to the local normal climate, ranked September as the 38th driest on record (fig. 2).

Warm weather cloaked the Northwest (11th warmest September on record) and the West (5th warmest). But in the Northeast, East North Central, and

South regions (fig. 3), temperatures were within the coldest third of the September rankings.

September precipitation was considerably below normal in the Northwest (3rd driest), Southeast (24th driest), and the Central regions (29th driest). With the exception of the Southeast, the regions comprising the southern half of the Nation had rainfall rankings within the wettest third of the September distribution. The net effect on long-term drought and wetness was a decrease in both wet and dry areas (fig. 4). At month's end, about 15 percent of the Nation was in a severe to extreme drought, while 8 percent of the Nation was too wet.

TABLE 1. TEMPERATURE AND PRECIPITATION RANKINGS FOR SEP 1991, BASED ON THE PERIOD 1895-1991. 1 = DRIEST/COLDEST, 97 = WETTEST/HOTTEST.

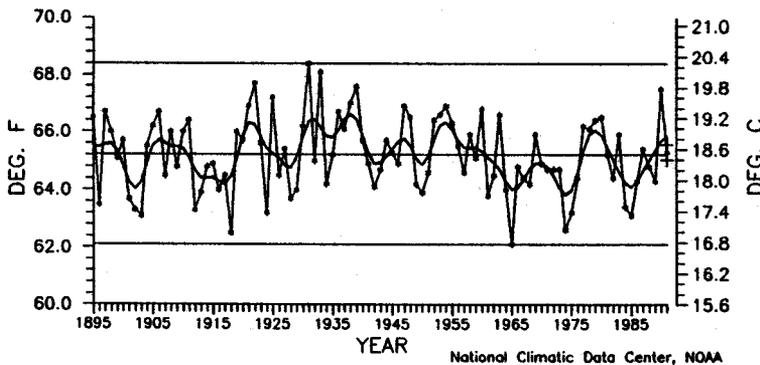
REGION	PRECIPITATION	TEMPERATURE
NORTHEAST	64	24
EAST NORTH CENTRAL	55	23
CENTRAL	29	49
SOUTHEAST	24	51
WEST NORTH CENTRAL	53	69
SOUTH	75	19
SOUTHWEST	83	49
NORTHWEST	3	87
WEST	70	93
NATIONAL	51	52

Figure 3



Figure 1

U.S. NATIONAL TEMPERATURE SEPTEMBER, 1895-1991



STRAIGHT HORIZONTAL LINES ARE:  
 MAXIMUM VALUE (TOP),  
 LONG-TERM AVERAGE (MIDDLE),  
 MINIMUM VALUE (BOTTOM).  
 CONFIDENCE INTERVAL FOR CURRENT YEAR IS INDICATED BY 'x'.

Figure 2

U.S. NATIONAL WEIGHTED MEAN PRECIPITATION INDEX SEPTEMBER, 1895-1991

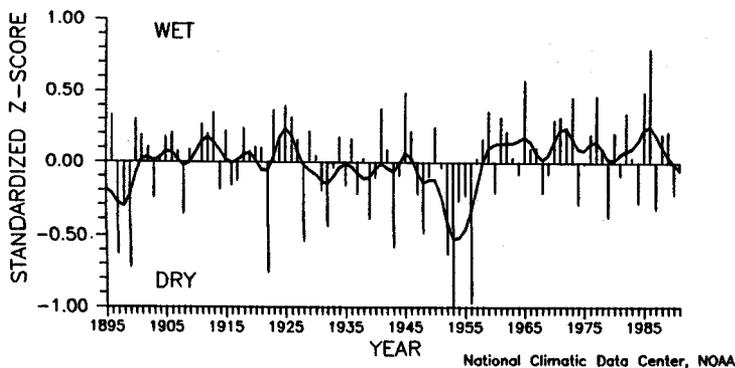
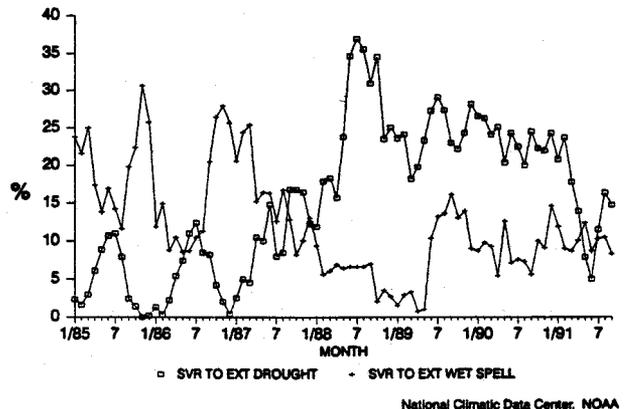


Figure 4

U.S. PERCENT AREA DRY AND WET JANUARY 1985 THROUGH SEPTEMBER 1991



National Climatic Data Center, NOAA

## National Agricultural Summary

September 30 - October 6, 1991

**HIGHLIGHTS:** Field crop harvests remained in full swing and winter grain seeding progressed as little rain fell in most parts of the country. Continued dry weather over most of the western half of the Nation heightened concerns.

**SMALL GRAINS:** Winter wheat seeding advanced to 63 percent (%) complete in the 19 major producing States, 6 percentage points ahead of last year and 3 points ahead of the 5-year average. Rainfall from the central Great Plains across the East benefited seeded acreage, while mostly open weather in the West allowed planting to progress unhindered. Wheat emergence and growth were slowed by dry conditions in Kansas. Harvests of spring seeded grains were completed in the Northwest and northern Rocky Mountains.

**CORN:** Corn harvest continued to progress ahead of last year and the historic average, reaching 49% complete in the 17 major States, compared with 21% last year and 30% average. Harvest remained well ahead of schedule in the eastern Corn Belt and South Dakota despite rains. Crop condition ratings showed little change from the previous week.

**SOYBEANS:** Soybean harvest advanced sharply in the northern producing States, and gained momentum in the South. Harvest was 41% complete in the 19 major producing States, 16 points ahead of last year and 8 points ahead of the average. Leaves were dropping on 82% of the acreage, compared with 74% last year and 80% average. Condition of that portion of the crop remaining for harvest rated mostly fair to good for the 19 major States.

**COTTON:** Above-normal temperatures in both the East and the West were beneficial to the late-maturing cotton crop. Bolls were opening on 73% of the acreage in the 14 major producing States, compared with 80% last year and 73% average. Harvest was 24% complete, compared with 28% last year and 26% average. Harvest was in full swing in the East and getting underway in California.

**GRAIN SORGHUM:** Sorghum maturity and harvest continued to outpace both last year and the historic average, with development most advanced in the Midwest. Eighty-four percent of the crop was mature in the 12 major States, compared with 82% last year. Harvest advanced to 54% complete, surpassing last year's progress by 18 percentage points. Crop condition ratings remained mostly fair to good in the 12 major producing States.

**RICE:** Rice harvest was 73% complete in the five major producing States, 9 points ahead of last year but 2 points behind the average. Harvest moved to 75% complete in Arkansas, compared with 56% last week and passed the midway point in Mississippi. California's harvest was 25% complete.

**OTHER FIELD CROPS:** Alfalfa and other hay cutting remained active across the Nation, with California reporting severe whitefly damage to some acreage. Dry bean harvest neared completion in the northern tier States. Corn silage harvest and silo filling were well along. Flax harvest neared completion in North Dakota. Peanut digging continued in the Southeast and got underway in Texas. Dry, hard soils were slowing digging in Georgia. Fall potato harvest was well along in North Dakota, and past the midway point in most States. Sugarbeet harvest was gaining momentum in the northern Rocky Mountains. Sunflower harvest was in full swing in the northern Great Plains, as was sweetpotato digging in the Southeast. Tobacco harvest was near completion.

**FRUIT AND NUTS:** Lemon, apple, and pistachio harvests continued in Arizona. California's harvests of late-variety table, juice, and wine grapes continued. Almond, walnut, and pistachio harvests also continued. Florida citrus groves were in excellent condition with harvests increasing in early oranges, grapefruit, and tangerines. Apple picking continued in Georgia, and pecan harvest got underway. Apple picking continued in Michigan and New England. Cranberry harvest was in full swing in the Northeast and southern Oregon. Apple maturity was progressing rapidly in Washington, but fruit was slow to color due to hot daytime temperatures.

**VEGETABLES:** Arizona fall vegetable harvests remained active, as did the Colorado onion harvest. Broccoli, cauliflower, and lettuce supplies remained moderate in California's Salinas-Watsonville and Santa Maria producing regions. Harvest of tomatoes for processing was declining. Volumes of cucumbers, sweet corn, eggplant, peppers, and squash were increasing in Florida. Tomato harvest was virtually complete in Ohio. Sweet corn, tomatoes, cauliflower, onions, and carrots were being harvested in the Pacific Northwest.

**PASTURES AND LIVESTOCK:** Forage supplies were short in many parts of Kansas, and supplemental feeding was necessary in some instances. Stockmen were hauling water for livestock in some areas. Cattle were being moved onto stalk fields as available in Nebraska. Extended dry weather concerned livestock producers in Oregon, and stockwater supplies were short in North Dakota. Texas rangelands were in good shape, and stocker cattle were being received in large numbers for placement on wheat pastures.

Crop Progress

For Week Ending October 6, 1991

	Corn % Harvested		
	1991	1990	Avg.
CO	11	7	10
GA	99	96	93
IL	80	16	39
IN	65	8	25
IA	27	21	31
KS	70	60	55
KY	64	37	47
MI	20	4	5
MN	26	11	22
MO	70	40	53
NE	52	25	24
NC	76	75	65
OH	44	5	14
PA	22	3	8
SD	52	21	17
TX	80	91	89
WI	22	4	13
17 States	49	21	30

These 17 states produced 95% of the 1990 corn crop.

	Soybeans % Dropping Leaves		
	1991	1990	Avg.
AL	41	68	53
AR	30	26	32
GA	68	69	60
IL	99	76	93
IN	100	76	91
IA	97	95	97
KS	96	85	80
KY	55	40	57
LA	34	52	57
MI	98	85	90
MN	91	97	98
MS	45	47	57
MO	73	58	75
NE	100	96	96
NC	42	37	26
OH	100	88	91
SC	21	20	21
SD	100	100	95
TN	50	46	61
19 States	82	74	80

These 19 states produced 95% of the 1990 soybeans crop.

	Soybeans % Harvested		
	1991	1990	Avg.
AL	5	21	13
AR	11	0	6
GA	5	5	4
IL	72	23	47
IN	59	13	32
IA	33	47	53
KS	45	25	20
KY	7	4	9
LA	8	28	23
MI	30	5	10
MN	46	50	59
MS	8	13	14
MO	21	11	18
NE	74	49	41
NC	2	2	2
OH	56	10	23
SC	0	0	0
SD	74	56	40
TN	6	5	6
19 States	41	25	33

These 19 states produced 95% of the 1990 soybeans crop.

	Rice % Harvested		
	1991	1990	Avg.
AR	75	48	74
CA	25	25	22
LA	94	96	96
MS	55	79	84
TX	100	100	100
5 States	73	64	75

These 5 states produced 98% of the 1990 rice crop.

	Winter Wheat % Planted		
	1991	1990	Avg.
AR	11	0	5
CA	0	0	0
CO	94	90	94
GA	7	3	6
ID	58	64	68
IL	33	14	28
IN	40	20	30
KS	75	65	70
MI	65	55	45
MO	20	19	26
MT	84	85	75
NE	98	93	94
NC	12	10	8
OH	45	16	27
OK	68	56	64
OR	36	50	27
SD	92	92	93
TX	54	54	65
WA	68	83	75
19 States	63	57	61

These 19 states produced 91% of the 1990 winter wheat crop.

	Grain Sorghum % Mature		
	1991	1990	Avg.
AR	90	90	95
CO	69	52	59
IL	89	50	84
KS	75	70	65
LA	96	94	99
MS	97	95	96
MO	89	59	83
NE	100	94	94
NM	25	30	NA
OK	71	74	65
SD	100	97	85
TX	86	96	83
12 States	84	82	NA
Excl. States with NA	85	83	79

These 12 states produced 98% of the 1990 grain sorghum crop.

NA - not available.

	Grain Sorghum % Harvested		
	1991	1990	Avg.
AR	80	67	83
CO	26	28	15
IL	52	3	34
KS	30	20	20
LA	87	90	95
MS	72	86	86
MO	49	18	43
NE	65	21	29
NM	3	10	NA
OK	8	6	15
SD	60	47	26
TX	78	64	64
12 States	54	36	NA
Excl. States with NA	54	36	40

These 12 states produced 98% of the 1990 grain sorghum crop.

NA - not available.

COTTON  
% HARVESTED

	1991	1990	AVG.
AL	38	67	42
AZ	16	20	15
AR	33	27	36
CA	1	2	3
GA	13	54	31
LA	38	69	57
MS	33	58	49
MO	45	18	38
NM	10	10	1
NC	22	19	12
OK	1	4	4
SC	20	37	22
TN	36	34	40
TX	24	19	19

14 States 24 28 26

These 14 states produced 99% of the 1990 cotton crop.

COTTON  
% BOLLS OPENING

	1991	1990	AVG.
AL	90	97	93
AZ	94	100	97
AR	83	90	90
CA	99	100	99
GA	80	93	86
LA	92	99	98
MS	91	99	95
MO	89	87	89
NM	77	86	87
NC	96	95	94
OK	45	66	59
SC	90	92	91
TN	94	92	93
TX	54	62	50

14 States 73 80 73

These 14 states produced 99% of the 1990 cotton crop.

Crop Condition  
PERCENT

For Week Ending October 6, 1991

Cotton

State	VP	P	F	G	EX
AL	0	8	37	53	2
AZ	0	0	22	67	11
AR	0	7	23	70	0
CA	0	0	10	90	0
GA	0	0	27	55	18
LA	0	2	36	62	0
MS	0	0	34	61	5
MO	0	0	67	33	0
NM	0	18	36	46	0
NC	0	0	25	75	0
OK	0	0	40	60	0
SC	0	0	46	54	0
TN	0	0	47	53	0
TX	0	13	45	36	6
14 State	0	7	37	52	4
Prev Week	0	5	34	55	6
Prev Year	1	4	44	47	4

Grain Sorghum

State	VP	P	F	G	EX
AR	5	3	74	18	0
CO	1	11	24	51	13
IL	0	4	35	61	0
KS	13	33	37	14	3
LA	0	23	53	24	0
MS	0	1	46	53	0
MO	5	27	49	19	0
NE	21	11	35	30	3
NM	0	18	4	74	4
OK	0	0	26	74	0
SD	0	8	27	60	5
TX	0	4	22	65	9
12 State	8	16	33	38	5
Prev Week	10	13	34	37	6
Prev Year	0	7	42	46	5

Corn

State	VP	P	F	G	EX
CO	0	2	16	68	14
GA	0	0	32	56	12
IL	11	14	36	34	5
IN	13	27	44	16	0
IA	0	2	35	55	8
KS	4	3	25	32	36
KY	0	12	64	22	2
MI	1	4	25	45	25
MN	0	5	33	55	7
MO	4	13	58	24	1
NE	4	5	29	55	7
NC	0	0	21	77	2
OH	8	24	38	27	3
PA	21	24	29	22	4
SD	3	6	27	48	16
TX	0	0	9	62	29
WI	0	6	13	59	22
17 State	5	9	33	44	9
Prev Week	4	10	34	44	8
Prev Year	1	3	20	64	12

Soybeans

State	VP	P	F	G	EX
AL	0	5	34	61	0
AR	0	2	45	52	1
GA	0	3	50	46	1
IL	3	12	32	46	7
IN	3	16	42	34	5
IA	1	5	39	47	8
KS	12	14	51	21	2
KY	0	9	53	38	0
LA	3	21	46	30	0
MI	1	4	20	45	30
MN	4	11	38	38	9
MS	0	0	11	89	0
MO	4	16	50	27	3
NE	5	17	51	24	3
NC	0	2	30	68	0
OH	4	17	37	36	6
SC	0	7	41	52	0
SD	0	7	18	63	12
TN	0	0	42	49	9
19 State	3	10	38	43	6
Prev Week	3	12	42	39	4
Prev Year	2	8	33	50	7

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 under 0.20 in.; over 0.50 in. isolated areas. Temperatures around normal. Days suitable for fieldwork 6.4. Soil moisture 58% short, 42% adequate. Corn 91% harvested, 93% 1990, 85% avg. Sorghum 62% harvested, 85% 1990, 70% avg.; 7% poor, 32% fair, 61% good. Peanuts 82% dug, 91% 1990, 65% avg.; 71% combined, 83% 1990, 52% avg.; 50% fair, 50% good. Cotton 90% bolls opened, 97% 1990, 93% avg.; 38% harvested, 67% 1990, 42% avg.; 8% poor, 37% fair, 53% good, 2% excellent. Soybeans 71% turning color, 87% 1990, 77% avg.; 41% dropping leaves, 68% 1990, 53% avg.; 21% mature, 49% 1990, 36% avg.; 5% harvested, 21% 1990, 13% avg.; 5% poor, 34% fair, 61% good. Winter wheat 12% seeded, 18% 1990, 21% avg. Pastures 50% fair, 50% good. Livestock 19% fair, 78% good, 3% excellent. Activities: Harvesting corn, hay, sorghum, soybeans, fall vegetables; digging, combining peanuts; defoliating, harvesting cotton; preparing land, seeding winter annuals; mowing pastures; maintaining harvest equipment; general care of livestock, poultry, catfish.

**ARIZONA:** Sunny, hot throughout period. Thunderstorms north 29th through 1st. Clear skies, dry northerly winds lowered humidity 2nd to 5th. Precipitation none to 0.02 in. northwest. Temperatures normal to 10° above. Extremes 30°, 92° higher elevations; 48°, 107° deserts.

Cotton bolls opening 94%, 100% 1990, 97% avg.; Cotton harvested 16%, 20% 1990, 15% avg.; activities included monitoring insects, defoliating, harvesting. Cotton 22% fair, 67% good, 11% excellent; weed, insect infestations light to moderate. Alfalfa harvest moderate; weed, insect infestations light to moderate; alfalfa rated good. Lemons harvested west; cantaloupe harvested, central. Mixed vegetables harvested central, east. Apples, pistachios harvested, east.

**ARKANSAS:** Temperatures below normal, with scattered showers weekend. Temperature extremes 35°, 89°. Rainfall none to 0.75 in.

Days suitable for fieldwork 7. Soil moisture 46% short, 54% adequate. Corn harvested 95%, 88% 1990, 95% avg. Pasture 4% poor, 32% fair, 61% good, 3% excellent. Alfalfa 15% poor, 16% fair, 69% good. Other hay condition 15% poor, 31% fair, 54% good. Livestock good. Activities: Harvesting rice, cotton, grain sorghum, corn, hay, apples; seeding supplemental cool season forage. Cotton harvest was at its peak, with modules accumulated throughout the growing area; gins running 24 hours a day.

**CALIFORNIA:** Strong high pressure over the State allowed many areas to warm to near record values. The low pressure system off of the coast moved further westward taking with it all residual hurricane moisture, so the State remained dry.

Open weather permitted progress field activities. Rice harvest active. Stubble burned, allocation basis; pollution control. Field draining ongoing. Cotton defoliation gained momentum, harvest increasing. Corn grain, corn silage, dry beans, safflower, sugarbeets harvested. Sugarbeets treated worms, leafhoppers. Alfalfa, sudan grass harvests

normal. Some alfalfa severe whitefly damage. Field preparation small grains continued. Oat seeding underway limited areas. Harvest late variety table, juice, wine grapes continued. Raisin crop 75% boxed. Almond, walnut, pistachio harvest continued. Orchard floor work ongoing. Fuji, Granny Smith, Gala apples picked. Fuji color delayed. Shinko asian pears, figs, quince, persimmons harvested. Prune harvest virtually complete. Some plum dormant spraying, Roysum plums picked. Manzanillo olive harvest increasing, low yields. Early Foothill, Wonderful pomegranates harvested. Soft variety dates picked. Citrus progressed well, preparations made for upcoming Navel harvest. Riverside county lemons, avocados picked. Harvest Other Area grapefruit continued. Broccoli, cauliflower moderate supply, Salinas Watsonville, Santa Maria. Quality good. Lettuce central coast moderate supply, declining. Quality variable. Supply fairly heavy from Santa Maria. Fall planting continued desert regions. Harvesting Fresno area expected next week. Celery fairly heavy supply, good quality. Cantaloupes, honeydew harvest declining seasonally. Watermelons harvested westside. Processed tomatoes harvest season declines. Harvest fall potatoes increasing. Range conditions very poor to good northern State. Southern areas very poor to poor. Supplemental feeding continued.

**COLORADO:** Light rain, drizzle early on 30th. Dry with seasonal temperatures 1st to 3rd. Cold front through northern, eastern areas on 4th with sharp drop in temperatures and 0.10 to 0.20 in. of moisture. Temperatures rebounded quickly for weekend. Temperatures 3 to 6° above normal most areas.

Days suitable for fieldwork 6.2. Soil moisture 7% very short, 43% short, 48% adequate, 2% surplus. Third cutting alfalfa hay 77% complete, 79% 1990, 79% avg.; fourth cutting 38% complete, 27% 1990, 23% avg. Oats 97% harvested, 100% 1990, 99% avg. Dry beans 84% harvested, 70% 1990, 80% avg. Sorghum is 69% mature, 52% 1990, 59% avg.; sorghum 26% harvested, 28% 1990, 15% avg. Fall potatoes 80% harvested, 53% 1990, 76% avg. Corn 79% mature, 87% 1990, 84% avg.; corn for grain 11% harvested, 7% 1990, 10% avg.; corn silage 90% harvested, 89% 1990, 92% avg. Corn 2% poor, 16% fair, 68% good, 14% excellent; sorghum 1% very poor, 11% poor, 24% fair, 51% good, 13% excellent. Onion harvest 84% complete, 92% 1990, 81% avg. Winter wheat 94% seeded, 90% 1990, 94% avg.; winter wheat 72% emerged, 71% 1990, 72% avg. Winter wheat 4% poor, 20% fair, 68% good, 8% excellent. Livestock mostly good. Pasture, range feed excellent.

**FLORIDA:** Daily temperatures near normal north, 1 to 3° above normal elsewhere. Highs, mid to upper 80s north, upper 80s to low 90s elsewhere. Unseasonably cool north late weekend, temperatures dropping 10 to 15° below normal. Weekly lows: mid 40s Panhandle to mid 70s southeast. Rainfall at all areas. Most totals 1.00 to 3.00 range. Localized flooding midweek over northeast.

Soil moisture mostly short to adequate, scattered areas surplus. Haying, peanut harvesting, sugarcane planting, active. Cotton harvest gaining momentum. Small grain planting underway. Sugarcane continues normal progress.

State's pastures mostly good to excellent. Pasture ratings 10% fair, 80% good, 10% excellent. States herds mostly good to excellent. Citrus groves, trees excellent condition. All areas wet. Harvest increasing on early oranges, all grapefruit, early tangerines, K-Early Citrus Fruit. Caretakers cutting cover crops, draining wet areas, planting new trees. Frequent showers, thunderstorms slowed most field activities over major vegetable producing areas. Harvest continued northern areas, increasing central areas. Increasing volume cucumbers, sweet corn, eggplant, peppers, squash. First radishes, tomatoes harvested.

**GEORGIA:** Temperatures around normal. Highs near 80° northeast mountains, mid 80s central and south. Lows around 40° mountains, 50s extreme southeast. Rain only 1 day north, 4 days southeast. Rainfall 0.20 in. north, under 0.33 in. elsewhere, except some over 1.00 in. along Florida border, coast.

Days suitable for fieldwork 5.9. Soil moisture 10% very short, 49% short, 41% adequate. Sorghum 27% fair, 68% good, 5% excellent; 66% harvested for grain, 66% 1990, 62% avg. Peanuts 43% fair, 57% good; 81% dug, 89% 1990, 76% avg.; 66% threshed, 80% 1990, 62% avg.; dry, hard soils slowing harvest. Wheat 18% poor, 60% fair, 22% good; 1% emerged, 2% 1990, 4% avg.; dry soils limiting seeding. Rye 2% poor, 67% fair, 31% good; 20% planted, 14% 1990, 23% avg. Other small grains, 2% poor, 75% fair, 23% good; 12% planted, 9% 1990, 11% avg. Apples 13% fair, 87% good; 80% harvested, 76% 1990, 78% avg. Pecans 2% very poor, 27% poor, 18% fair, 53% good; 6% harvested, 3% 1990, 2% avg. Hay, pastures fair to mostly good. Cattle, hogs good.

**HAWAII:** Sunshine, showers, mainly windward, higher elevations, occurred in State. Honolulu experienced record high of 91° on 2nd. Light Kona winds brought hazy conditions to Kilauea Volcano, and Hawaii island to Oahu earlier in week. Water use restriction in Lalamilo area began October 1st, affecting irrigation. In Maui, cooler evening temperatures slowed progress in some crops. Rainfall none to 1.3 in.

Days suitable for fieldwork 7.0. Hot weather insect, disease infestations continued a problem in some crops. Banana, cucumber, papaya production remained active.

**IDAHO:** Temperatures 1 to 6° above normal across State. Only scattered precipitation fell. Pocatello received most with 0.23 in.

Days suitable for fieldwork 7. Soil moisture 17% very short, 44% short, 39% adequate. Winter wheat 58% planted, 64% 1990, 68% avg.; 24% emerged, 27% 1990, 31% avg. Potato good; 51% harvested, 61% 1990, 60% avg. Sugarbeets 21% harvested, 25% 1990, 18% avg. Third cutting alfalfa 84% complete, 88% 1990, 91% avg. Apple harvest 31% complete, 52% 1990, 57% avg. Dry bean harvest 91% complete, 96% 1990, 90% avg. Onion harvest 71% complete, 83% 1990, 83% avg. Sweet corn harvest 100% complete. Hop harvest 100% complete, 98% 1990, 99% avg. Corn for grain 9% harvested, 4% 1990, 12% avg. Corn for silage 71% harvested, 69% 1990. Irrigation water supplies 13% very poor, 22% poor, 30% fair, 35% good. Activities: Fall plowing, fertilizing, planting of winter wheat, harvesting of potatoes, sugarbeets, onions, dry beans, apples. Livestock good to excellent. Pasture, range 75% of normal.

**ILLINOIS:** Temperatures 1 to 6° below normal central to northern part of the State, in the south 1° above normal. Precipitation generally 0.05 to 4.61 in. across the State.

Days suitable for fieldwork 5.50. Soil moisture 49% short, 46% adequate, surplus 5%. Winter wheat emerged 6%, 0% 1990, 2% avg. Pasture condition as a % of normal, where 100% = normal, was 75%.

**INDIANA:** Temperatures 0 to 4° above normal. Highs upper 60s to upper 70s. Lows upper 40s to lower 50s. Statewide rains, up to 4.00 in. More north, less south.

Days suitable for fieldwork 6.5. Topsoil 74% short, 26% adequate. Subsoil 83% short, 17% adequate. Corn moisture content 18%, 26.5% 1990, 22.5% avg. Soybean moisture content 12%, 14% 1990, 14% avg. Tobacco harvested 95%, 86% 1990, 84% avg. Winter wheat seeding 40%, 20% 1990, 30% avg. Silo filling virtually complete. Pasture 48% of normal. Wheat acres plowed 64%, 52% 1990, 61% avg. Fall apple harvest 71%. Corn harvest at record pace, soybean harvest slightly below. Plowing of land, seeding for winter wheat, rye continues.

**IOWA:** Temperatures 3 to 6° below normal. Extremes 21°; 87°. Very hard freeze north on 7th. Precipitation light northwest; heavy southeast. Rainfall trace to 4.53 in.; average 1.22 in.

Days suitable for fieldwork 5.7. Topsoil 32% short, 64% adequate, 4% surplus. Subsoil 36% short, 62% adequate, 2% surplus. Pasture condition 79% of normal. Winter wheat 50% planted, 70% 1990, 62% avg. Fall row crop tilling 3% complete, 0% 1990, 5% avg. Fall fertilizer application 2% complete, 0% 1990, 3% avg. Livestock mostly good, some stress from changing weather.

**KANSAS:** Temperatures 3° above normal west, central; 2° above normal east. Rainfall short; northeast received 1.01 in., east central 0.39 in.; less than 0.10 in. all other areas.

Days suitable for fieldwork 6.5. Surface moisture 97% short, 3% adequate. Subsurface moisture 91% short, 9% adequate. Row crops harvest, wheat seeding progressing well. Wheat emergence, growth hindered by dry conditions. Pastures rate fair to poor statewide, generally poor. Forage short many areas, supplemental feeding in some instances. Stockwater short, stockmen hauling water some areas.

**KENTUCKY:** High temperatures low 70s, 6° below normal. Low temperatures 40s, 4° below normal. Precipitation variable, around 0.40 in. western half, about 1.00 in. eastern areas.

Days suitable for fieldwork 5.8. Soil moisture 16% very short, 64% short, 20% adequate. Most burley housed, some late crops still in field. Condition housed burley mostly good, some houseburn, mold. Burley stripping 9% complete, ahead 1990, avg. Corn harvest continues ahead normal, soybean harvest becoming active. Fall wheat 24% seeded, 15% 1990, 21% avg. Pasture condition fair, need general rain.

**LOUISIANA:** Temperatures 0.2° to 1.4° above normal. Extremes 47°; 91°. Rainfall none central, southwest, to 1.63 in. north central.

Days suitable for fieldwork 6.3. Soil moisture 32% short, 68% adequate. Hay 88% final cutting, 88% 1990, 89% avg. Pecans 20% poor, 55% fair, 25% good; 5% harvested, 0% 1990, 0% avg. Rice 98% ripe, 99% 1990, 100% avg. Soybeans 54% leaves turning color, 84% 1990, 82% avg. Sweet potatoes 71% fair, 29% good; 68% harvested, 66% 1990, 73% avg. Sugarcane 11% fair, 69% good, 20% excellent; 92% planted, 78% 1990, 89% avg.; 1% harvested, 0% 1990, 1% avg. Wheat 5% planted, 2% 1990, 3% avg.; 1% emerged, 0% 1990, 1% avg. Some producers were waiting for rain to resume, begin planting. Vegetables 19% poor, 55% fair, 26% good. Pastures 3% poor, 10% fair, 9% good, 78% excellent. Livestock 19% fair, 79% good, 2% excellent. Flooding of crawfish ponds active.

**MARYLAND & DELAWARE:** MARYLAND: Precipitation 0.11 in. Temperature 64.6°, normal 62.1°. Extremes 29°; 86°.

Days suitable for fieldwork 5.6. Topsoil 5% very short, 18% short, 72% adequate, 5% surplus. Subsoil 14% very short, 36% short, 50% adequate. Field corn fair, soybeans, sorghum fair to good. Field corn 56% harvested for grain, 47% 1990, 51% avg.; 95% harvested for silage, 83% 1990, 88% avg. Soybeans 88% turned, 75% 1990, 70% avg.; 67% shedding leaves, 49% 1990, 49% avg. Sorghum 89% mature, N/A 1990, N/A avg.; 20% harvested, N/A 1990, N/A avg. Sweet Potatoes 58% harvested, 71% 1990, 64% avg. Small grains good. Barley 39% seeded, 42% 1990, 37% avg. Rye 42% seeded, 39% 1990, 36% avg. Other hay third cut 38% complete, 77% 1990, N/A avg.; fourth cut 15% complete, 31% 1990, N/A avg. Alfalfa fourth cut 69% complete, 69% 1990, 65% avg.; fifth cut 10% complete, 13% 1990, 6% avg. Hay supplies short to adequate. Pasture poor to fair. Apples good, 67% harvested, 67% 1990, 67% avg. Activities: Harvesting hay, vegetables, tobacco; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

DELAWARE: Precipitation 0.16 in. Temperature 64.6°, normal 62.8°. Extremes 39°; 83°.

Days suitable for fieldwork 5.5. Topsoil 29% short, 71% adequate. Subsoil 43% short, 57% adequate. Field corn, sorghum good, soybeans fair to good. Field corn 75% harvested for grain, 65% 1990, 58% avg. Soybeans 69% turned, 74% 1990, 66% avg.; 40% shedding leaves, 41% 1990, 39% avg. Sorghum 92% turned, N/A 1990, N/A avg.; 86% mature, N/A 1990, N/A avg.; 25% harvested, N/A 1990, N/A avg. Lima beans 88% harvested, 91% 1990, 82% avg. Small grain good. Barley 24% seeded, 45% 1990, 24% avg. Rye 29% seeded, 30% 1990, 21% avg. Other hay fourth cut 68% complete, N/A 1990, N/A avg. Hay supplies adequate. Pasture good. Apples good, 66% harvested, 73% 1990, 57% avg. Activities: Harvesting hay, vegetables; repairing fence; hauling manure; spreading fertilizer; maintaining machinery; caring for livestock.

**MICHIGAN:** Temperatures 5° below to 4° above normal. Extremes 28°; 85°. Precipitation 0.64 to 3.93 in. across State.

Days suitable for fieldwork 4.5. Soil moisture 15% short, 75% adequate, 10% surplus. Corn 20% harvested, 4% 1990, 5% avg.; 1% very poor, 4% poor, 25% fair, 45% good, 25% excellent. Soybeans 98% dropping leaves, 85% 1990, 90% avg.; 30% harvested, 5% 1990, 10% avg.; 1% very poor, 4% poor, 20% fair, 45% good, 30% excellent. Winter wheat 65% planted, 55% 1990, 45% avg. Pasture 80% of normal. Activities: Planting wheat, harvesting corn, soybeans, dry beans, sugarbeets, picking apples, repairing, storing equipment, making cider.

**MINNESOTA:** Temperatures 3 to 5° below normal. Extremes 24°; 82°. Precipitation 0.02 to 0.53 in. Greatest weekly total 0.77.

Days suitable for fieldwork 5.8. Topsoil 3% very short, 12% short, 76% adequate, 9% surplus. Field corn 95% mature, 92% 1990, 94% avg.; 26% picked/combined, 11% 1990, 22% avg.; 91% silage cut 76% 1990, 79% avg.; 23% moisture 31% 1990, 25% avg.; 9% stubble plowed, 4% 1990, 6% avg. Soybeans 86% mature, 94% 1990, 93% avg.; 46% combined, 50% 1990, 59% avg.; 13% moisture, 12% 1990, 12% avg.; 12% stubble plowed, 14% 1990, 19% avg. Potatoes 70% harvested, 77% 1990, 80% avg. Sugarbeets 50% harvested 24% 1990, 33% avg. Sunflowers 45% harvested, 46% 1990, 33% avg.

**MISSISSIPPI:** Temperature 71°, 0.7° above normal. Extremes 40°; 89°. Mostly dry Statewide. Rainfall 0.25 in., 0.48 below normal. Soil temperature 74°.

Days suitable for fieldwork 6.2, 4.8 1990, 4.9 avg. Soil moisture 7% very short, 32% short, 57% adequate, 4% surplus. Corn 95% mature, 99% 1990, 98% avg.; 72% harvest, 86% 1990, 82% avg.; silage harvest 95%, 100% 1990, 99% avg.; 68% fair, 32% good. Cotton open bolls 91%, 99% 1990, 95% avg.; 33% harvest, 58% 1990, 49% avg.; 34% fair, 61% good, 5% excellent. Peanuts 87% harvest, 90% 1990, 85% avg. Rice 93% mature, 97% 1990, 98% avg.; 55% harvest, 79% 1990, 84% avg.; 54% fair, 46% good. Sorghum 97% mature, 95% 1990, 96% avg.; 72% harvest, 86% 1990, 86% avg.; 89% silage harvested, 97% 1990, 94% avg.; 1% poor, 46% fair, 53% good. Soybeans 76% coloring, 79% 1990, 79% avg.; 45% shedding leaves, 47% 1990, 57% avg.; 8% harvest, 13% 1990, 14% avg.; 11% fair, 89% good. Sweet potatoes 69% harvest, 66% 1990, 62% avg. Wheat planted 16%, 14% 1990, 14% avg.; 9% emerged, 9% 1990, 8% avg.; 3% poor, 50% fair, 47% good. Hay 95% harvested, 92% 1990, 92% avg. Pecans 2% very poor, 35% poor, 40% fair, 23% good. Livestock 9% fair, 82% good, 9% excellent. Pasture 90% of normal. Activities: Harvesting crops, planting wheat, winter grazing.

**MISSOURI:** Temperatures 1° below normal St. Joseph to 5° above normal St. Louis. Precipitation over 2.00 in. north, up to 4.00 isolated areas, southern areas around 0.50 in.

Days suitable for fieldwork 5.3. Topsoil 41% short, 51% adequate, 8% surplus. Corn harvested 53% north central to 90% or more southwest, southeast districts. Soybeans turning color 88%, 82% 1990, 91% avg. Soybeans dropping leaves ranges 36% southeast district to about 90% northwest, north central. Soybeans mature 54%, 35% 1990, 54% avg. Soybean harvested 6% southwest, southeast districts to around 29% northwest, north central, west central. Sorghum mature least advanced southwest 64%, most advanced 96% northwest, 99% southeast. Sorghum harvested ranges from around 20% northeast, east central to 71% southeast. Wheat seeded, lowest 11% east central, highest 35% south central. Wheat emerged 9%, 6% 1990, 11% avg. Pasture 8% very poor, 27% poor, 46% fair, 19% good.

**MONTANA:** Temperatures slightly below normal east, normal to slightly above normal elsewhere. Precipitation heaviest central, south central: under 0.50 in., high of 0.83 in. Mostly dry west.

Days suitable for fieldwork 5.5. Topsoil 35% short, 61% adequate, 4% surplus. Subsoil 49% short, 49% adequate, 2% surplus. Winter wheat emerged 41%, 47% 1990, 45% avg.; 3% poor, 31% fair, 55% good, 11% excellent. Potatoes harvested 44%, 59% 1990, 62% avg. Sugarbeets harvested 9%, 22% 1990, 16% avg. Dry beans harvested 97%, 86% 1990, 88% avg. Corn silage harvested 91%, 88% 1990, 87% avg. Pasture, range feed 93% of normal.

**NEBRASKA:** Temperatures 3 to 6° below normal. Midweek precipitation averaged 0.50 in.

Days suitable for fieldwork 6.0. Topsoil 81% short, 17% adequate, 2% surplus. Subsoil 86% short, 14% adequate. Corn 52% harvested, 25% 1990, 24% avg. Soybeans 74% harvested, 49% 1990, 41% avg. Wheat sown 98%, 93% 1990, 94% avg.; 75% emerged, 64% 1990, 76% avg. Cattle moved onto stalk fields as available.

**NEVADA:** Temperatures well above normal. Extremes 16°; 102°. No measurable precipitation. High pressure was stable, bringing dry, warm daytime temperatures, cool overnight lows. Temperatures 2° above normal; western areas 8 to 11° above normal.

Irrigation water supplies very short north, adequate south. Potato harvest complete 50%, 40% 1990, 50% avg. Onion harvest complete 70%, 90% 1990, 70% avg. Alfalfa third cutting complete 85%, 70% 1990, 80% avg. Southern area completing

5th, 6th cuttings. Alfalfa seed harvest 90% complete, 95% 1990, 85% avg. Livestock good, movement to winter range, market underway. Pastures, ranges poor condition most areas. Activities: Continuing harvest, livestock movement, general maintenance.

**NEW ENGLAND:** Precipitation 0.10 to 1.35 in. south, 0.05 to 0.80 in. Maine, 0.65 to 2.45 in. New Hampshire, Vermont. Temperatures high 40s to mid 60s; 4 to 8° above normal. Maximum temperatures high 60s to low 80s; minimum temperatures mid 20s to high 30s.

Days suitable for fieldwork 4.9. Soil moisture 67% adequate, 33% surplus. Grazing availability 27% short, 66% adequate, 7% surplus. Fieldwork 2.3 days ahead of schedule. Maine potatoes 63% harvested, 78% 1990, 71% avg.; good. Rhode Island potatoes 87% harvested, 87% 1990, 85% avg.; fair to good. Connecticut Valley potatoes 83% harvested, 70% 1990, 67% avg.; fair to good. Field corn 70% harvested, 59% 1990, 61% avg.; fair to good. Sweet corn 100% harvested, 100% 1990, 100% avg.; fair to good. Second cut hay 100% complete, fair. Third cut hay 80% complete, 94% 1990, 82% avg.; good. Apples 73% harvested, 73% 1990, 75% avg.; size small to medium, fair to good. Pears 98% harvested, size small to medium, fair to good. Cranberry harvest 55% complete, berry size small to average, good. Activities: Cutting hay, harvesting apples, potatoes, field corn, planting cover crops.

**NEW JERSEY:** Temperatures much above normal. Extremes 30°; 86°. Rainfall 0.32 in. north, 0.28 in. central, 0.15 in. south. Heaviest 24 hour total 0.66 in. 5th, 6th. Estimated soil moisture percent field capacity, averaged 91% north, 81% central, 74% south. Four inch soil temperature 57° north, 61° central, 63° south.

Soil moisture adequate most areas. Late season crops well advanced. Harvest of corn, soybeans active. Irish potato digging active. Fall variety apple harvest in progress. Cranberry harvest general. Plowing, planting active for cover crops. Pasture growth seasonally good.

**NEW MEXICO:** Mild, dry conditions prevailed across the State for much of the week. Temperatures near normal for many areas, late surge of cool air caused readings 3 to 6° below normal across the east central, southeast plains. Rainfall was limited to brief mountain showers early in the week.

Days suitable for fieldwork 6.5. Soil moisture 32% short, 68% adequate. Crop conditions: Alfalfa 5% poor, 47% fair, 43% good, 5% excellent. Corn 8% poor, 8% fair, 84% good. Irrigated wheat 25% fair, 75% good. Dryland wheat 29% fair, 71% good. Chile 44% fair, 56% good. Lettuce 50% fair, 50% good. Pecans, apples fair to good. Cattle, sheep fair to good. Range 93% of normal.

**NEW YORK:** Week began with unseasonably cold weather. All but extreme southeast areas had freezing temperatures. Warming trend the rest of the week. Extremes 21°; 85°. Rainfall was quite heavy from the Mohawk Valley through the Adirondacks, and in Hudson, Champlain Valleys with many places receiving 1.00 to 2.00 in.

Days suitable for fieldwork 5.5. Soil moisture mostly adequate. Pasture condition 47% of normal. Corn silage harvest reached 66% finished, 44% 1990, 44% avg. Progress was as much as two weeks ahead of normal. Grain corn harvest was about a week ahead of schedule. Potatoes 82% harvested. Dry bean harvest well underway. Third cutting of alfalfa 88% complete, 86% 1990, 81% avg. Apple picking mostly complete in eastern areas. Apple color development slow in western areas. Grape

harvest has gone smoothly. Late summer precipitation helped size berries considerably. Growing season for tender vegetables ended. Only hardy, late season crops remained for harvest.

**NORTH CAROLINA:** Temperatures normal to slightly above. Precipitation none to 3.20 in.

Days suitable for fieldwork 5.4. Soil moisture 2% very short, 26% short, 63% adequate, 9% surplus. Crop condition: Cotton 25% fair, 75% good; peanuts 3% poor, 28% fair, 69% good; soybeans 2% poor, 30% fair, 68% good; sweet potatoes 2% poor, 27% fair, 71% good; sorghum 4% poor, 30% fair, 64% good, 2% excellent; Pasture 2% poor, 31% fair, 66% good, 1% excellent. Harvested: Flue cured tobacco 97%; Burley Tobacco 98%; corn silage 94%; corn for grain 76%; sorghum for grain 52%; sweet potatoes 32%; apples 82%; peanuts dug 50%; peanuts threshed 30%; cotton 22%. Soybeans dropping leaves 42%; wheat emerged 8%. Planted: Wheat 12%; oats 25%; barley 23%; rye 29%. Activities: harvesting tobacco, corn, sorghum, sweet potatoes, soybeans, truck crops, apples, peanuts, hay; harvesting, defoliating cotton; planting small grains. Activities: Land preparation; seeding pastures; tending livestock; equipment repair; general farm maintenance.

**NORTH DAKOTA:** Temperatures 7° below normal north central to 5° below normal south central, southeast. Extremes 20° southwest, south central; 82° south central. Precipitation 0.01 in. east central, south central, southeast to 0.36 in. north central.

Days suitable for fieldwork 6.6. Topsoil 18% very short, 36% short, 46% adequate. Subsoil 25% very short, 56% short, 19% adequate. Corn for grain 70% harvested, 8% 1990, 20% avg. Corn for silage 98% cut, 95% 1990, 90% avg. Sunflower 34% harvested, 32% 1990, 25% avg. Flax 96% combined, 99% 1990, 84% avg. Potatoes 91% dug, 91% 1990, 91% avg. Soybeans 87% combined, 66% 1990, 63% avg. Dry edible beans 97% combined, 95% 1990, 83% avg. Sugarbeets 100% good; 60% lifted, 47% 1990, 41% avg. Winter wheat 97% planted, 97% 1990, 93% avg. Rye 98% planted, 98% 1990, 94% avg. Pasture conditions 72% of normal. Stockwater supplies 11% very short, 54% short, 35% adequate.

**OHIO:** High temperatures the low to mid 70s with low temperatures mostly in the upper 40s to the lower 50s across the State. Much of the rain fell over the weekend beginning on evening of the 3rd the northern portions of State in the range of 0.25 in. to 1.00 in. of precipitation, 0.10 in. to 0.75 in. in central, southern areas.

Harvest activities held up temporarily in those areas, most of the State was still dry. Days suitable for fieldwork 6.5. Soil moisture 58% short, 40% adequate, 2% surplus. Pastures 9% very poor, 24% poor, 37% fair, 26% good, 4% excellent. Tomato harvest 98%, 100% 1990, 98% avg. Potato harvest 78%, 67% 1990, 70% avg. Fourth cut alfalfa 54%, 0% 1990, 0% avg. Fourth cut other hay 29%, 0% 1990, 0% avg. Corn for silage 95%, 43% 1990, 66% avg. Activities: Harvesting corn, soybeans, potatoes, repairing machinery, baling hay, hauling manure, weed control, fall tillage.

**OKLAHOMA:** Temperatures 2° below normal northeast to 6° below normal southwest. Precipitation 0.02 in. east central; none elsewhere.

Days suitable for fieldwork 6.0. Topsoil 36% short, 43% adequate, 21% surplus. Subsoil 34% short, 66% adequate. Wheat 68% planted, 56% 1990, 64% avg.; 28% up to stand, 22% 1990, 30% avg. Cotton 45% open bolls, 66% 1990, 59% avg.; 1% harvested, 4% 1990, 4% avg. Cotton good. Sorghum 71% mature, 74% 1990, 65% avg.; 8% harvested, 6% 1990, 15% avg. Sorghum good. Soybeans 54% mature, 40% 1990, 48% avg.; 25%

harvested, 12% 1990, 34% avg. Peanuts 80% mature, 64% 1990, 80% avg; 8% harvested, 6% 1990, 11% avg. Corn 87% harvested, 71% 1990, 91% avg. Pasture condition 107%. Crop insect activity light to moderate. Cattle good; marketings average; prices mixed.

**OREGON:** Temperatures above normal statewide except extreme Northeast. Southwest, south central 5° above normal. Elsewhere 0 to 5° above normal. Only precipitation recorded in extreme east central, northeastern areas; totaled 0.10 or less.

Soil moisture 76% short, 24% adequate. 1992 winter wheat planted, 36%. 1992 winter wheat emerged, 11%. 1992 barley planted, 12%. Hay harvest finishing. Corn silage harvest continued. Field preparation, seeding holding throughout State, lack of precipitation. Cranberry harvest continued, southern coast. Tall fescue, rye grass seeding started, Willamette Valley. Hazelnuts dropping, good nut size. Early wine grapes starting. Winter pear harvest continues, Upper Hood River Valley. Pear harvest to conclude 10/20, Medford district. Apple harvest underway in most areas. Harvest of blackberries, final stages. Red raspberries being pruned. Sweet corn, tomatoes, cauliflower harvest continued, wester areas. Potato harvest continues, excellent digging conditions; statewide. Sweet corn harvest winding down. Onion, carrot harvest continues, Umatilla County. Livestock mostly good to excellent. Extended dry period concerned livestock producers, statewide. Weanings continued. Cattle continue to come off ranges. Statewide range, pasture, 4% very poor, 13% poor, 33% fair, 46% good, 4% excellent.

**PENNSYLVANIA:** Slightly above normal temperature, below normal rainfall. Temperature 62°, 2° above normal. Extremes 27°; 84°. Precipitation 0.59 in., 0.22 in. below normal.

Days suitable for fieldwork 6. Soil moisture 83% short, 17% adequate. Corn 100% dent, 87% 1990, 90% avg.; 74% mature, 29% 1990, 48% avg.; 22% harvested, 3% 1990, 8% avg. Ensilage corn harvested 83% complete, 36% 1990, 55% avg. Corn crop 21% very poor, 24% poor, 29% fair, 22% good, 4% excellent. Soybean harvest 9% complete, 2% 1990, 9% avg. Soybean 17% very poor, 24% poor, 29% fair, 26% good, 4% excellent. Potato harvest 81% complete, 71% 1990, 73% avg. Fall plowing 70% complete, 59% 1990, 69% avg. Winter wheat 57% planted, 49% 1990, 49% avg. Barley 78% planted, 71% 1990, 70% avg. Third cutting alfalfa 89% complete, 79% 1990. Fourth cutting alfalfa 58% complete, 47% 1990. Quality of hay made during week mostly fair. Feed obtained from pastures 39% very poor, 27% poor, 29% fair, 5% good. Apple harvest 71% complete, 62% 1990. Grape harvest 85% complete, 64% 1990. Activities: Repairing fence; hauling manure; harvesting hay, potatoes, fruits, corn silage, corn, soybeans; maintaining machinery; caring for livestock; fall plowing, planting.

**PUERTO RICO:** Rainfall of 1.84 in. was normal. Highest rainfall was 5.32 in. at Maunabo 2 SE, 5.21 in. at Pico Del Este Luquillo, 3.33 in. at Canovanas. Highest 24 hour total 1.65 in. at Pico Del Este Luquillo. Divisional temperatures 81° on the coast, 73 to 77° Interior with mean station temperature 65.4° at Pico Del Este Luquillo to 82.2° at Ponc 4E. Extremes 58°; 95°.

**SOUTH CAROLINA:** Temperatures near normal across the State. Rainfall none mountains to 0.60 in. south.

Days suitable for fieldwork 5.5. Soil moisture 9% very short, 49% short, 42% adequate. Apples good; 91% harvested, 91% 1990, 75% avg.

Corn fair to good; 96% harvested, 94% 1990, 87% avg. Cotton 46% fair; 54% good; 90% open bolls, 92% 1990, 91% avg.; 20% harvested, 37% 1990, 22% avg. Fall hay fair to good; 78% harvested, 70% 1990, 76% avg. Peanuts fair to good; 52% harvested; 38% 1990, 29% avg. Sorghum fair to good; 58% harvested, 65% 1990, 49% avg. Soybeans 7% poor, 41% fair, 52% good; 55% leaves turning, 61% 1990, 50% avg.; 21% shedding leaves, 20% 1990, 21% avg., 12% mature, 18% 1990, 14% avg. Sweet potatoes fair to good; 64% harvested, 52% 1990, 39% avg. Tobacco 84% stalks destroyed, 73% 1990, 70% avg. Winter grazing fair to good, 43% planted, 38% 1990, 43% avg.; 25% emerged, 21% 1990, 27% avg. Pastures 4% poor, 48% fair, 48% good. Livestock good.

**SOUTH DAKOTA:** Temperatures normal to 7° below normal. Extremes 12°; 99°. Rainfall over 1.00 in. south central, 0.50 to 0.75 in southeast, 0.10 in or less north.

Days suitable for fieldwork 5.5. Topsoil 30% critical, 43% short, 25% adequate, 2% surplus. Subsoil 33% critical, 44% short, 23% adequate. Sunflowers 2% very poor, 5% poor, 25% fair, 58% good, 10% excellent. Livestock 12% fair, 75% good, 13% excellent. Pasture conditions 79% of normal.

**TENNESSEE:** Temperatures below normal middle, east; slightly above normal west. Cold front 5th produced widespread rain, numerous thunderstorms. Rainfall below normal statewide.

Days suitable for fieldwork 6.0. Soil moisture 5% very short, 36% short, 59% adequate. Corn 94% mature, 91% 1990, 95% avg.; 62% harvested grain, 49% 1990, 61% avg. Cotton 94% open bolls, 92% 1990, 93% avg.; 47% fair, 53% good. Sorghum 92% mature, 89% 1990, 95% avg.; 45% harvested, 46% 1990, 73% avg. Soybeans 50% shedding leaves, 46% 1990, 61% avg.; 22% mature, 21% 1990, 33% avg.; 6% harvested, 5% 1990, 6% avg.; 42% fair, 49% good, 9% excellent. Burley tobacco 98% harvested, 98% 1990, 98% avg.; 14% stripped, 7% 1990, 10% avg. Dark fired tobacco 98% harvested, 94% 1990, 97% avg. Dark air cured tobacco 82% harvested, 80% 1990, 94% avg. Wheat 14% seeded, 12% 1990, 17% avg. Pastures 1% very poor, 2% poor, 43% fair, 49% good, 5% excellent. Cattle 1% very poor, 1% poor, 10% fair, 83% good, 5% excellent.

**TEXAS:** Warmer temperatures helped improve most crop conditions throughout State early in week, cool temperatures returned by weekend. Dry conditions in most areas ideal for small grain planting. Harvest activities in full swing after recent wet conditions. Some final hay cuttings underway in East Texas, Upper Coast. Rangelands should provide good winter grazing with abundant forage many areas. Stocker cattle being received in large numbers, placed on wheat pastures.

**Crops:** Corn harvest been active with good yields reported in High Plains. Silage harvest continued in Trans Pecos. Warm, dry weather has allowed good progress on sorghum harvest in High Plains, where operations are underway. Cotton benefitted from warm temperatures last week, needs every degree possible to mature. Boll weevil population continued to cause problems in some fields. Some leaf damage apparent on High Plains, Trans Pecos. Harvest preparation underway in Plains, where some fields have been stripped. Small grain planting underway throughout State. Armyworms continued to cause problems on emerged fields. Wheat, oats beginning to provide forage for grazing in most areas. Soybean harvest made excellent progress, some good yields reported. Peanut harvest began most areas of State. Grades good, yields improving. Statewide peanut condition 86% of normal.

**Commercial Vegetables:** High Plains, carrots, cabbage harvest continued with yield, quality

good. East Texas, cole crop planting began. Some insect problems on turnip, squash. Trans Pecos, land preparation for cole crops began. Red chile pepper harvest continued to progress. Pecan aphid problems diminishing in most parts of State. Warmer temperatures should help improve nut development. Qualities extremely good, although pecans small.

**Range and Livestock:** Winter pasture planting continued in most areas. Summer grass growth had begun to slow down. Hornfly populations heavy in some areas. Calves weaned, shipped to market. Small grains beginning to provide forage for grazing. Range, pasture 1% very poor, 4% poor, 22% fair, 48% good, 25% excellent.

**UTAH:** Maximum, minimum temperatures about 5° above normal. Precipitation heavy in the western division, to light elsewhere; none Uinta Basin.

Days suitable for fieldwork 6.8. Soil moisture 20% short, 80% adequate. Winter wheat seeding 90% complete, 75% 1990, 81% avg.; 27% emerged, 30% 1990. Corn for grain 15% harvested, 29% 1990, 24% avg.; corn silage 88% harvested, 82% avg. Alfalfa fourth cutting 70% complete, 73% 1990, 63% avg. Alfalfa seed harvest 87% complete, 89% 1990, 85% avg. Potatoes 74% harvested, 55% 1990, 64% avg. Dry onions 79% harvested, 91% 1990, 87% avg. Pasture, range mostly good to excellent. Apples 74% harvested, 55% 1990, 61% avg. Cattle moved from summer range 58% complete, 58% 1990, 50% avg. Sheep moved from summer range 70% complete, 65% 1990, 56% avg.

**VIRGINIA:** Temperatures below normal at the beginning of the week, above normal by end. Precipitation was above normal in the east, below normal in the west.

Days suitable for fieldwork 5.5. Topsoil 33% very short, 36% short, 30% adequate, 1% surplus. Corn mature 97%, 97% 1990, 94% avg. Corn silage harvested 95%, 89% 1990, 81% avg. Corn for grain 67% harvested, 59% 1990, 55% avg. Soybeans harvested 6%, 3% 1990, 2% avg. Soybean 2% very poor, 25% poor, 53% fair, 16% good, 4% excellent. Flue tobacco 93% harvested, 93% 1990, 84% avg. Fire tobacco harvest completed. Burley tobacco harvested 98%, 98% 1990, 94% avg. Sun tobacco harvest completed. Apples harvested 72%, 72% 1990, 62% avg. Peanuts dug 67%, 55% 1990, 35% avg. Peanuts combined 50%, 39% 1990, 22% avg. Peanut 12% fair, 63% good, 25% excellent. Sweet potato harvest nearly 50% completed. Wheat 11% seeded, 11% 1990, 6% avg. Barley 22% seeded, 23% 1990, 19% avg. Oats 33% seeded, 33% 1990, 23% avg. Pasture 23% very poor, 37% poor, 19% fair, 17% good, 4% excellent. Harvested vegetables.

**WASHINGTON:** Temperatures 3° above normal to 2° below normal, east; 3° above normal to 8° above normal, west. Rainfall none to 0.01 in. west, none elsewhere.

Days suitable for fieldwork 7. Soil moisture 56% short, 44% adequate. Hay, other roughage 9% short, 71% adequate, 20% surplus. Irrigation

water 100% short. Range, pasture 68% poor, 24% fair, and 8% good. Winter wheat 41% fair, 59% good. Potatoes 100% good. Dry beans 100% good. Corn 100% good. Winter Wheat 68% planted, 58% emerged. Potatoes 54% harvested. Corn for grain 4% harvested. Alfalfa hay, 3rd cutting 96%. Soil moisture continued to plague dryland grain producers. Most farmers have seeded or are seeding summer fallow land in eastern areas. Producers will seed in the dry earth with or without rain within the next two weeks. Potato and corn silage continued across the producing areas. Carrot, sweet corn harvest continued in central areas. Golden Delicious apple harvest was complete in Yakima county except for the latest districts. Red delicious harvest was nearing or in full swing in most parts of the State. Apple fruit maturity is developing quite rapidly; however, fruit color development has remained stagnant because of hot daytime temperatures.

**WEST VIRGINIA:** Temperature 63°. Extremes 36°; 90°. Precipitation avg. 0.46 in.

Days suitable for fieldwork 5.5. Soil moisture 42% very short, 33% short, 25% adequate. Corn, 4% poor, 71% fair, 25% good; 95% mature, 65% harvested. Tobacco, good; 92% harvested. Hay, 22% very poor, 25% poor, 37% fair, 16% good; 86% second cutting, 86% third cutting. Wheat, 8% sown. Apples poor. Pastures, 50% very poor, 13% poor, 31% fair, 6% good; 43% of normal. Cattle, good. Sheep, poor. Activities: General maintenance, fencing, cutting hay, harvesting corn, chopping silage, harvesting tobacco, harvesting apples, planting wheat.

**WISCONSIN:** Temperature 49°, 4° below normal. Extremes 25°; 79°. Precipitation 0.40 to 2.50 in. Killing frost September 19th to 21st north; September 26th to 28th south.

Days suitable for fieldwork 5.1. Soil moisture 12% short, 75% adequate, 13% surplus. Pasture condition 78% of normal, 88% 1990, 78% avg. General condition of crops 2% poor, 14% fair, 71% good, 13% excellent. Corn 6% poor, 13% fair, 59% good and 22% excellent. Corn harvested 22%, 4% 1990, 13% avg. Corn silo filling 77% complete, 49% 1990, 62% avg. Soybean 4% poor, 15% fair, 69% good, 12% excellent. Soybean leaves 90% shed, 84% 1990, 86% avg. Soybeans 32% harvested, 4% 1990, 14% avg. Fall tillage 16%, 15% 1990, 16% avg.

**WYOMING:** Temperatures mostly above normal. Precipitation below normal north, central, mostly above normal elsewhere.

Days suitable for fieldwork 6.0. Topsoil 44% short, 54% adequate, 2% surplus. Dry beans 85% combined, 85% 1990, 80% avg. Corn 25% dented, 35% 1990, 35% avg.; 55% mature, 50% 1990, 55% avg.; 20% harvested, 15% 1990, 10% avg. Corn silage 95% harvested, 90% 1990, 90% avg. Sugarbeets 20% dug, 30% 1990, 25% avg. Potatoes 70% harvested, 80% 1990, 65% avg. 1992 winter wheat 95% planted, 95% 1990, 95% avg.; 65% emerged, 75% 1990, 70% avg.; mostly fair to good. Ranges, pastures good to excellent. Livestock mostly good. Hay supplies for livestock 54% adequate, 46% surplus.

**SEPTEMBER 1991**  
**MONTHLY DATA FROM SELECTED FOREIGN CITIES**  
**CLIMATE ANALYSIS CENTER-NMC-NWS-NOAA**  
 \*\*\* = DATA NOT AVAILABLE

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

**September 29 - October 5, 1991**

USSR ... In Western USSR, abundant sunshine and unseasonably warm weather in eastern areas help summer crop harvests. In the New Lands, favorable weather conditions allow rapid spring grain harvesting.

EUROPE ... Somewhat drier weather helps harvesting in the west; rain increases in the east.

EASTERN ASIA ... Typhoon Nat brings beneficial rain to southeast China, while favorable harvest conditions continue throughout the rest of the country. Heavy rains continue to flood Japan.

SOUTHEAST ASIA ... Heavy rains exacerbate flooding in Indochina. Scattered showers improve conditions for Philippine fall grains.

SOUTH ASIA ... The monsoon continues its seasonal withdrawal, favoring summer crop maturation and fall planting prospects.

SOUTH AMERICA ... In Argentina, freezing temperatures stress winter wheat. Widespread showers favor corn germination and coffee flowering in southern Brazil.

AUSTRALIA ... Heat and dryness stress winter crops in the east, while rain helps crop growth in the west.

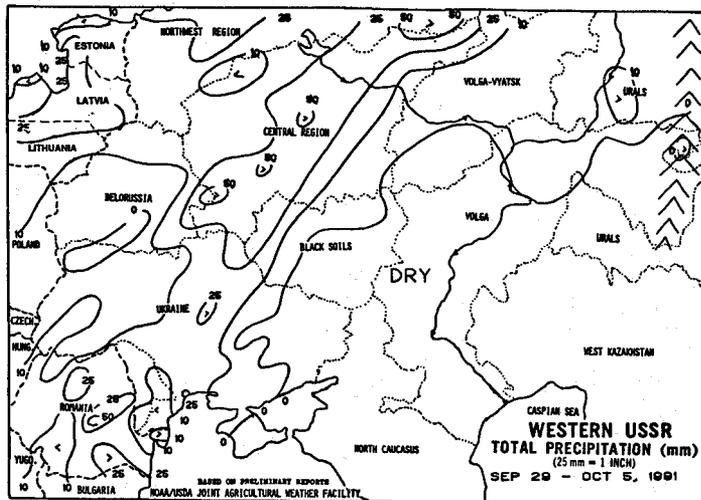
CANADA ... Prairie grain and oilseed harvests are virtually complete.

MEXICO ... Widespread showers delay southern summer crop harvesting, while dry weather aids winter grain planting in the northwest.

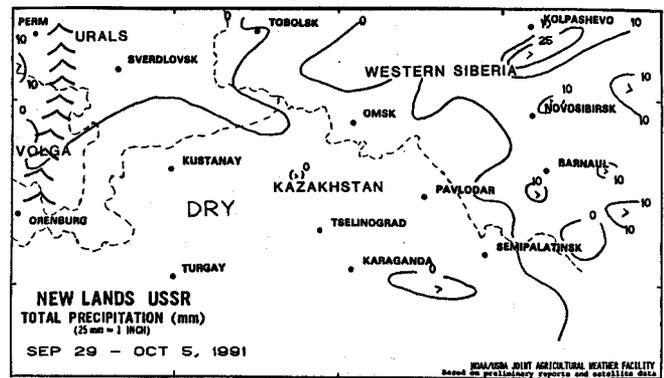
COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
NORWAY	OSLO	17	4	26	-3	10	0.9	75	-17
SWEDEN	STOCKHOLM	16	8	25	2	12	-0.2	48	-4
FINLND	HELSINKI	14	6	25	-1	10	-0.3	58	-12
U KING	GLASGOW	18	8	26	0	13	-0.2	81	-17
	EDINBURGH	17	9	25	-1	13	0.5	69	10
	BIRMINGHAM	20	10	28	2	15	1.6	75	19
	LONDON	21	10	28	3	15	1.7	43	-32
IRELND	DUBLIN	18	11	24	3	14	1.3	42	-31
ICELND	REYKJAVIK	10	6	14	1	8	-0.2	73	6
DENMRK	COPENHAGEN	18	10	24	4	14	-0.2	63	1
LUXEMB	LUXEMBOURG	21	12	29	7	17	2.9	46	-14
SWITZL	ZURICH	22	13	28	7	17	3.3	85	-6
	GENEVA	24	13	29	8	18	3.5	133	43
FRANCE	PARIS	23	12	31	6	18	2.3	61	12
	STRASBOURG	23	12	29	7	17	2.5	137	87
	BOURGES	24	13	31	8	19	2.8	51	-13
	BORDEAUX	26	16	33	10	21	3.7	148	65
	TOULOUSE	27	16	31	8	21	3.5	79	23
	MARSEILLE	27	18	31	13	23	2.7	106	48
SPAIN	VALLADOLID	27	13	34	6	20	2.4	25	-4
	MADRID	29	15	36	7	22	1.6	14	-20
GERMNY	LEIPZIG	22	11	28	5	17	2.5	12	-33
	DRESDEN	21	12	27	6	16	1.8	25	-23
	HAMBURG	19	11	27	3	15	1.4	61	-7
	BERLIN	21	12	29	6	17	2.1	18	-32
	DUSSELDORF	22	12	30	5	17	1.7	37	-25
	STUTTGART	22	10	28	5	16	1.9	77	17
	NURNBERG	21	10	28	4	16	2.1	65	17
	MUNICH	22	10	28	3	16	2.2	42	-31
AUSTRI	VIENNA	22	12	27	9	17	1.6	21	-31
	INNSEBRUCK	23	11	27	5	17	3.1	55	-25
CZECH	PRAGUE	21	9	26	3	15	1.6	14	-27
POLAND	WARSAW	21	9	27	3	15	1.5	16	-25
	LODZ	20	9	29	1	15	1.8	15	-38
	KATOWICE	20	8	28	1	14	1.4	42	-10
	PRZEMYSL	20	10	26	3	15	1.4	78	23
HUNGAR	BUDAPEST	23	12	30	4	18	1.4	7	-29
YUGOSL	SARAJEVO	24	10	30	4	17	3.1	29	-73
ROMANI	BUCHAREST	25	10	30	3	17	-0.4	10	-27
BULGAR	SOFIA	23	11	32	7	17	0.8	40	3
ITALY	MILAN	26	16	31	4	21	2.8	135	66
	VERONA	26	15	28	9	20	1.9	50	-15
	VENICE	25	17	27	12	21	1.9	35	-28
	GENOA	27	21	30	17	24	1.5	240	125
	ROME	27	19	30	17	23	2.0	108	41
	NAPLES	28	19	31	17	23	3.2	50	-37
GREECE	THESSALONIKA	27	16	32	12	21	-0.8	46	13
	LARISSA	28	14	34	8	21	-1.1	40	1
	ATHENS	28	19	30	15	23	-1.1	0	-14
TURKEY	ISTANBUL	24	17	30	13	20	0.5	106	65
	ANKARA	25	7	30	0	16	-2.0	11	-26
CYPRUS	LARNACA	31	19	36	16	25	-0.2	0	-5
USSR	TALLINN	15	8	24	2	11	0.0	76	6
	LENINGRAD	15	8	23	4	11	0.4	40	-19
	KAUNAS	19	9	25	1	14	1.7	13	-41
	MINSK	18	9	25	4	14	1.8	51	2
	KAZAN	15	8	23	-1	12	0.4	34	-8
	MOSCOW	15	7	23	1	11	0.2	74	10
	SVERDLOVSK	15	7	28	-1	11	1.1	49	13
	OMSK	18	8	28	-1	13	2.4	43	18
	KUSTANAY	20	9	27	2	14	2.1	60	34
	KRASNOYARSK	15	5	23	-2	10	1.3	73	32
	NOVOSIBIRSK	17	8	24	2	12	2.3	88	55
	BARNAUL	18	8	24	3	13	1.6	42	14
	KHABAROVSK	17	9	24	3	13	-0.3	85	-12
	VLADIVOSTOK	20	13	27	2	17	1.0	43	-91
	KIEV	20	10	26	3	15	1.6	7	-42
	LVOV	20	9	26	2	14	1.3	74	20
	KIROVOGRAD	21	9	25	5	15	1.1	1	-35

SEPTEMBER 1991

COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)			COUNTRY	CITY	TEMPERATURE (C)					PRECIPITATION (MM)		
		AVG	AVG	HI	LO	DPART	DPART	TOTAL	F/NRM			AVG	AVG	HI	LO	DPART	DPART	TOTAL	F/NRM
		MAX	MIN	MAX	MIN	AVG						MAX	MIN	AVG	MAX	MIN			
USSR	ODESSA	21	14	26	7	17	0.2	16	-24	TANZAN	DAR ES SALAAM	30	19	32	16	24	-0.1	6	-24
	YALTA	22	15	25	9	18	-1.1	22	-12	GABON	LIBREVILLE	28	23	28	20	25	-0.1	14	-92
	VORONEZH	19	8	25	2	13	0.4	25	-18	TOGO	LOME	29	23	30	21	26	0.4	63	15
	SARATOV	18	10	25	5	14	1.7	16	-13	B FASO	OUAGADOUGOU	33	23	37	21	28	1.6	55	-99
	KHARKOV	20	9	25	2	15	0.6	7	-30	IVRY C	ABIDJAN	28	23	31	21	26	1.0	17	-47
	VOLGOGRAD	21	9	26	4	15	-0.6	9	-12	MOZAMB	MAPUTO	28	18	37	14	23	1.7	16	-31
	ROSTOV	21	11	26	4	16	-0.5	42	8	ZAMBIA	KABWE	29	15	33	10	22	0.0	0	-1
	ASTRAKHAN	23	11	29	4	17	0.1	17	-3	ZIMBAB	HARARE	28	14	31	8	21	2.0	2	-8
	KRASNODAR	23	12	28	4	18	0.1	59	30	S AFRI	PRETORIA	26	13	29	9	20	1.8	6	-16
	ORENBURG	20	9	29	-1	15	1.2	20	-8		KROONSTAD	24	8	32	1	16	0.6	39	14
	TSELINOGRAD	21	9	29	2	15	3.5	24	0		JOHANNESBURG	23	9	27	5	16	0.7	14	-12
	KARAGANDA	21	8	31	1	14	2.4	16	-2		BETHAL	24	8	28	1	16	1.3	0	-25
	TBILISI	26	16	31	10	21	1.7	5	-40		DURBAN	24	16	33	12	20	1.3	101	31
	TASHKENT	29	13	36	6	21	1.4	4	2		CAPE TOWN	19	10	31	3	14	0.6	75	38
	ASHKHABAD	31	17	40	10	24	0.8	0	-5	CANADA	TORONTO	21	9	33	-1	15	-0.5	53	-10
SYRIA	DAMASCUS	34	13	43	9	23	-0.3	0	0		MONTREAL	19	8	27	-2	14	-1.3	68	-20
ISRAEL	JERUSALEM	28	16	34	13	22	-0.1	1	1		WINNIPEG	18	6	29	-3	12	-0.2	90	36
PAKIST	KARACHI	31	25	37	17	28	-0.5	0	-31		REGINA	19	5	34	-3	12	0.5	34	-2
INDIA	AMRITSAR	34	23	37	16	29	-0.1	40	-55		SASKATOON	19	5	30	-2	12	0.6	14	-18
	NEW DELHI	35	25	36	21	30	0.4	125	-1		LETHBRIDGE	21	5	29	-3	13	0.6	25	-13
	AHMEDABAD	34	24	39	22	29	0.4	8	-169		CALGARY	19	4	26	-2	12	1.0	26	-12
	INDORE	32	20	36	18	26	0.4	10	-202		EDMONTON	18	6	25	-2	12	0.9	13	-26
	CALCUTTA	33	26	35	21	30	0.6	278	-27		VANCOUVER	19	11	23	7	15	0.7	9	-58
	VERAVAL	31	22	34	19	26	-0.9	6	-101	MEXICO	GUADALAJARA	24	16	29	12	20	-0.3	229	69
	BOMBAY	31	25	34	23	28	1.0	60	-249		MEXICO CITY	21	13	25	9	17	0.9	89	-28
	POONA	30	21	33	18	26	0.6	121	3		ACAPULCO	32	25	36	22	29	1.0	48	-378
	BEGAMPET	32	23	35	21	28	1.7	150	-33		BERMUD ST. GEORGES	29	24	30	22	27	0.8	191	29
	MADRAS	35	26	37	22	30	0.6	88	-30		BAHAMA NASSAU	32	23	34	22	28	0.4	120	-55
	MANGALORE	31	24	32	22	27	1.1	51	-217		CUBA HAVANA	31	24	33	22	28	0.6	157	13
H KONG	HONG KONG	31	26	34	23	29	1.0	182	-139		JAMAIC KINGSTON	34	26	35	24	30	1.5	31	-81
N KREA	PYONGYANG	24	13	29	3	18	-0.3	138	-12		P RICO SAN JUAN	32	25	34	23	29	0.9	125	-27
S KREA	SEOUL	26	17	31	10	22	1.2	165	23		GUADEL RAIZET	32	24	33	22	28	1.6	66	-96
JAPAN	SAPPORO	23	10	29	0	16	-1.1	58	-85		MARTINQ LAMENTIN	32	23	32	23	27	1.3	0	-211
	NAGOYA	29	22	33	16	25	2.6	150	-60		BARBAD BRIDGETOWN	31	26	32	22	28	0.7	76	-70
	TOKYO	27	22	32	17	24	1.4	325	132		TRINID PORT OF SPAIN	31	23	33	22	27	0.7	101	-85
	YOKOHAMA	26	22	32	17	24	1.3	400	201		COLOMB BOGOTA	19	8	21	2	14	0.8	51	-6
	KYOTO	30	21	35	16	26	2.8	96	-106		VENEZU CARACAS	32	25	35	23	28	0.8	32	-18
	OSAKA	30	23	35	18	26	2.3	109	-54		F GUIA CAYENNE	32	23	32	22	27	1.0	0	-65
THAILN	PHETCHABUN	32	24	34	23	28	1.0	144	-88		BRAZIL FORTALEZA	31	23	32	22	27	0.2	1	-25
	BANGKOK	33	25	35	23	29	0.7	268	-74		RECIFE	28	22	29	19	24	-0.5	50	-36
MALAYS	KUALA LUMPUR	32	23	33	22	28	1.3	207	22		BELO HORIZONTE	26	17	31	13	21	0.1	47	12
VIETNM	HANOI	33	26	35	19	29	1.4	124	-130		CAMPO GRANDE	31	19	35	14	25	2.1	113	51
CHINA	HARBIN	20	8	26	0	14	0.1	59	-8		FRANCA	27	17	31	13	22	1.3	35	-30
	HAMI	28	8	34	2	18	-0.3	0	-3		RIO DE JANEIRO	23	18	30	16	20	-1.9	72	19
	LANCHOW	24	12	31	6	18	2.6	19	-27		LONDRINA	27	15	32	12	21	1.3	92	-12
	BEIJING	25	16	30	11	21	1.3	72	14		SANTA MARIA	23	13	34	7	18	1.3	50	-101
	TIENTISIN	26	17	30	12	22	1.0	121	77		PERU LIMA	20	16	26	12	18	1.7	3	-1
	LHASA	20	7	22	-1	13	-0.6	49	-15		BOLIVI LA PAZ	14	-1	18	-9	7	-1.9	15	-16
	KUNMING	22	15	26	12	19	1.3	186	67		CHILE SANTIAGO	20	6	29	0	13	1.7	17	-7
	CHENGCHOW	28	16	33	10	22	1.5	11	-60		ARGENT IGUAZU	28	16	34	11	22	**	102	**
	YECHANG	29	20	35	16	24	0.9	44	-66		FORMOSA	27	18	36	12	22	2.4	188	106
	HANKOW	28	21	36	16	24	1.1	37	-44		CERES	22	12	31	4	17	0.6	52	10
	CHIHKIANG	29	19	35	16	24	0.8	33	-26		CORDOBA	22	10	34	3	16	0.8	2	-33
	NANCHANG	29	22	37	16	26	0.7	67	-9		RIO CUARTO	19	9	33	1	14	0.4	34	3
	TAIPEI	30	26	35	22	28	1.6	465	244		ROSARIO	21	11	30	3	16	2.2	51	-3
	CANTON	32	24	34	21	28	1.2	98	-84		BUENOS AIRES	20	10	30	1	15	2.0	96	34
	NANNING	34	24	35	21	29	2.2	4	-115		SANTA ROSA	19	8	29	-1	13	1.2	68	33
CNRY I	LAS PALMAS	28	22	32	14	25	1.5	6	0		TRES ARROYOS	16	8	26	1	12	1.4	112	44
MOROCC	CASABLANCA	26	20	32	16	23	1.6	35	28		MIDW I MIDWAY ISLAND	30	25	32	21	28	1.7	43	-74
	MARRAKECH	32	20	41	14	26	1.4	27	22		N CALD NOUMEA	25	18	29	16	21	0.9	17	-30
ALGERI	ALGER	32	19	36	16	25	2.5	10	-20		FIJI NAUSORI	25	19	28	16	22	-0.8	160	-26
	BATNA	30	15	35	10	22	1.5	6	-15		SAMOA PAGO PAGO	29	25	30	22	27	0.5	76	-94
TUNISI	TUNIS	31	21	36	18	26	2.2	56	18		TAHITI PAPEETE	29	22	32	18	25	0.7	115	59
NIGER	NIAMEY	36	26	40	22	31	3.0	35	-61		N ZEAL AUCKLAND	17	11	18	5	14	0.7	104	6
MALI	TIMBUKTU	39	27	43	24	33	2.1	4	-28		PA N G PORT MORESBY	29	22	33	20	26	-0.8	5	-35
	BAMAKO	32	23	37	20	27	1.2	111	-108		AUSTRL DARWIN	31	24	34	22	27	-0.6	1	-11
MAURIT	NOUAKCHOTT	35	26	44	23	31	1.4	0	-35		MOREE	23	8	31	1	15	0.0	3	-31
SENEGL	DAKAR	30	26	37	22	28	0.6	74	-82		BRISBANE	25	11	32	6	18	-0.3	2	-33
CHAG A	DIEGO GARCIA	29	25	30	23	27	0.7	289	51		PERTH	18	9	24	4	14	-0.7	53	-12
LIBYA	TRIPOLI	34	21	44	18	28	1.9	2	-15		CEDUNA	21	7	33	3	14	-0.6	19	-11
	BENGHAZI	31	21	38	17	26	0.6	0	-2		ADELAIDE	17	9	26	5	13	-0.2	79	19

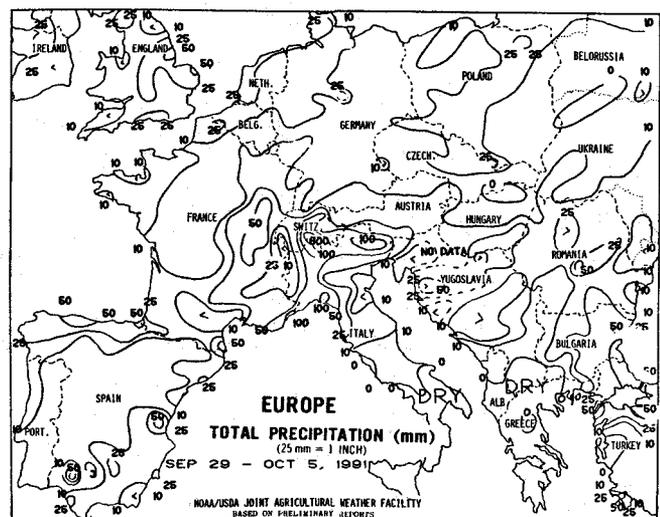


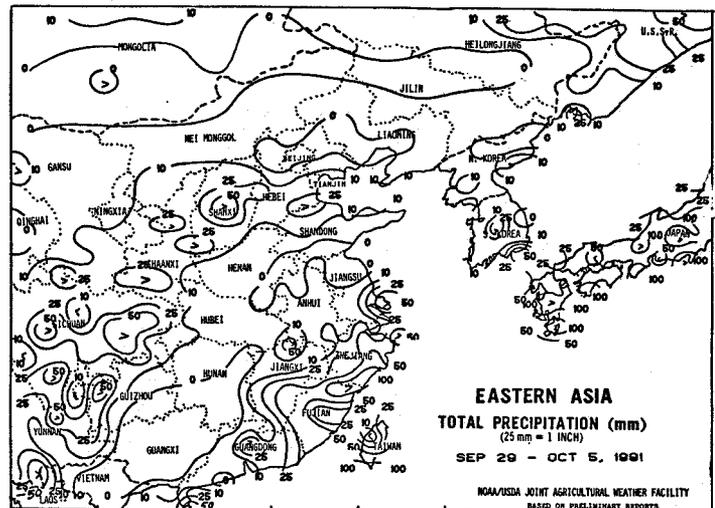
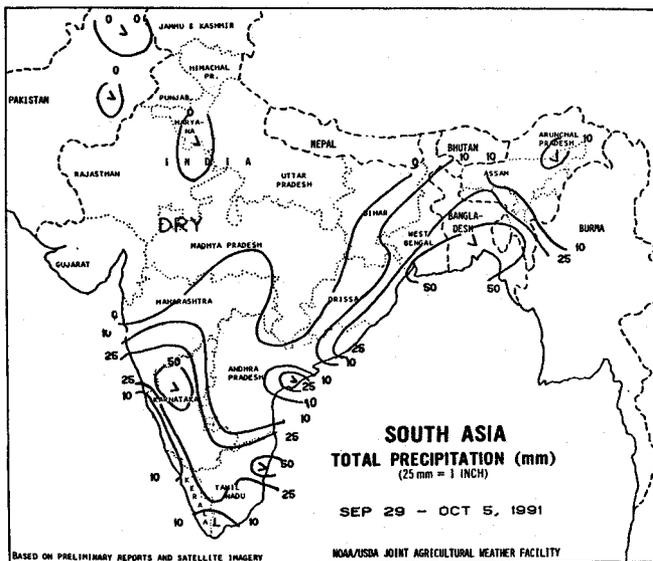
**WESTERN USSR** ... High pressure provided abundant sunshine and unseasonably warm weather over the eastern Ukraine, Black Soils Region, North Caucasus, and the Volga Valley. The warm, dry weather in these areas helped corn, sugarbeet, potato, and sunflower harvests to progress without delay. As of September 30, reports indicated that sugarbeet, sunflower, and potato harvests were 52, 48, and 82 percent complete, respectively. Corn harvesting was just getting underway. Elsewhere, a stationary front produced light to moderate precipitation (15-50mm) in a narrow band that stretched northeastward from Moldova, through the central Ukraine, into the Central Region. Although the rain in these areas slowed summer crop harvesting, it helped to boost topsoil moisture for winter grain establishment. Moisture was becoming limited for winter grains in the eastern Ukraine, the eastern North Caucasus, and the lower Volga. Weekly average temperatures were 2-6 degrees Celsius (C) above normal in the west and 6-8 degrees C above normal in the east.



**NEW LANDS** ... Unseasonably warm, dry weather covered most of the region, helping spring grain harvesting advance toward completion. Weekly average temperatures were 6-8 degrees C above normal in the west and 3-5 degrees C above normal in the east. In South Central USSR cotton areas, unseasonably warm, dry weather followed early-week showers, providing favorable conditions for boll maturation and harvesting.

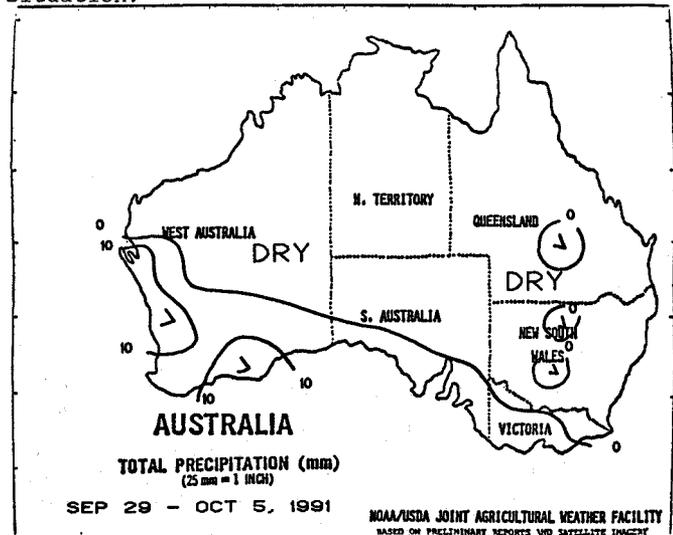
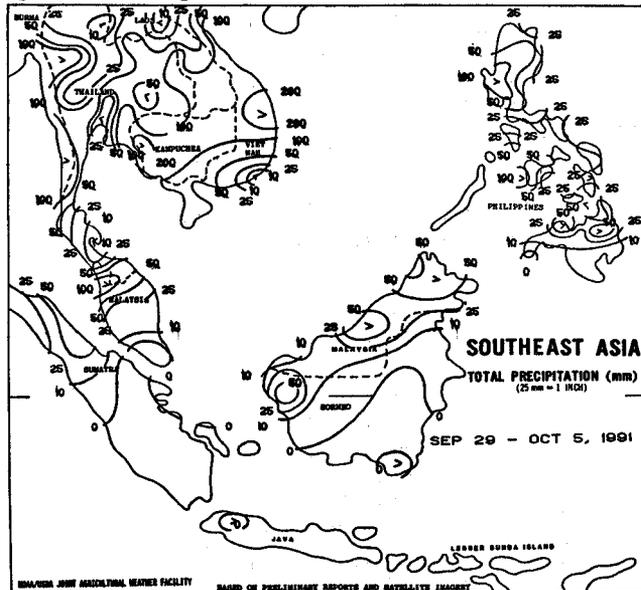
**EUROPE** ... The heaviest weekly rainfall (25-100mm or more) halted fieldwork from eastern France across the Alpine regions of Switzerland and northern Italy to the Balkans. Wet weather (15-56mm) in England and along the North Sea coast of extreme northern France, the Benelux, and Germany slowed sugarbeet harvesting and winter grain planting. Showers (1-15mm) diminished in central and southwestern France and Germany, improving field conditions for corn and sugarbeet harvesting, and wheat planting. Significant showers (10-68mm) continued over extreme northwestern and southeastern Spain. Rainfall increased over most of Poland and Czechoslovakia, with weekly totals of 8-26mm benefiting the establishment of winter grains. Mostly dry weather (less than 5mm) was confined to extreme southeastern Poland and Hungary, favoring potato and sugarbeet harvesting. Corn harvesting was slowed in Romania, however, as wet weather (15-83mm) covered much of southeastern Europe. The exception was Greece, where dry weather returned after the previous week's significant rainfall.





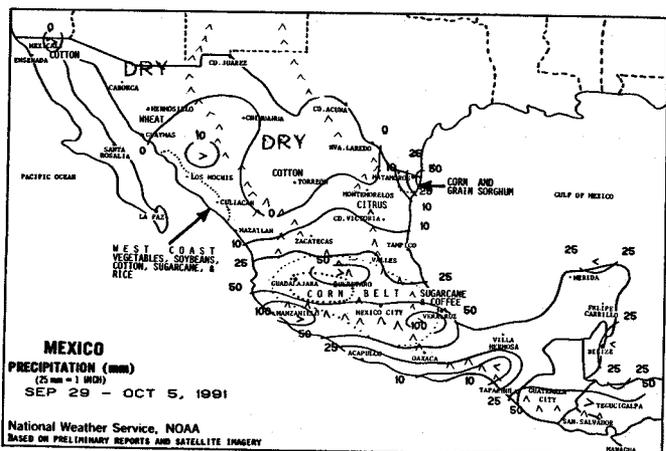
**SOUTH ASIA** ... The southwest monsoon continued its seasonal retreat, resulting in dry, warm weather as far south as Andhra Pradesh and as far east as India's eastern states. The seasonable weather was favorable for maturing summer crops and field preparations for winter wheat planting in northern India and Pakistan. Moderate showers (25-83mm), limited to portions of the southern interior and eastern coast, continued to improve irrigation for dry season crops.

**EASTERN ASIA** ... After buzzing around the South China Sea for a couple of weeks, minimal Typhoon Nat hit southern China near the border of Fujian and Guangdong. At landfall, Nat had sustained winds of 55-65 knots (63-75 mph) and dumped 50-150mm across portions of Fujian, southeastern Jiangxi and southern Zhejiang, alleviating long-term dryness. Dry weather continued from the southern North China Plain to southwestern China (Guangxi and southern Hunan), favoring maturing late-season crops and summer crop harvesting but depleting soil moisture reserves for upcoming winter wheat planting. Light to moderate showers (10-30mm) fell across Hebei, northern Shandong, Shanxi, and Shaanxi, delaying late-summer crop harvesting while favoring soil moisture for winter wheat. Dry weather returned to Manchuria aiding corn and soybean harvesting. After the passage of Typhoon Mireille, an early-week frontal system deposited additional heavy rains across southern and central Japan, exacerbating the flood situation.

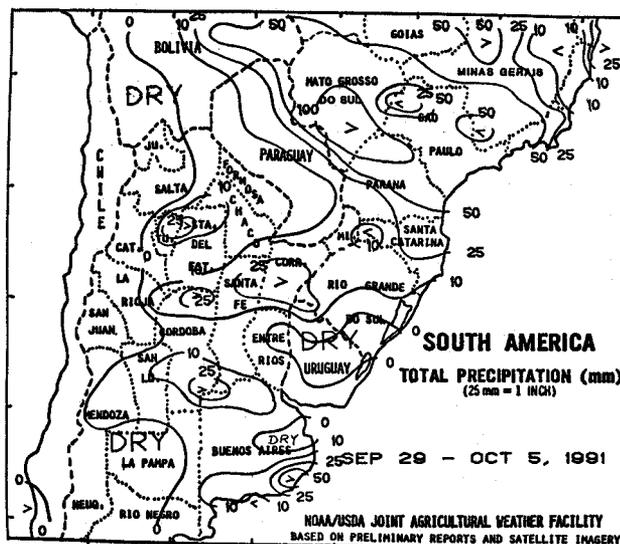


**SOUTHEAST ASIA** ... Heavy showers (100-200mm) continued over many locations in Indochina, maintaining flood levels near Bangkok and along the Mekong River from eastern Thailand to southern Vietnam. Inundating showers (113-394mm) were also reported along the central Vietnam coast. Further south, rainfall averaged less than 25mm over western Malaysia's major palm areas. However, moderate to heavy showers (20-88mm) continued in eastern Malaysia, as well as rice areas of northernmost western Malaysia. Unfavorably dry weather persisted over Indonesia, preventing early fieldwork in Java's rice areas. In the Philippines, scattered showers (25-50mm or more) benefited many fall grain regions throughout the islands. More widespread moisture is needed, however, to improve conditions for vegetative rice and corn following September's drying trend in the central and southern islands.

**AUSTRALIA** ... Dryness continued with warmer temperatures in southern Queensland and northern New South Wales, placing additional stress on winter wheat. Only light rains fell across South Australia, central and southern New South Wales, and Victoria. As temperatures rise during the early summer, more rain will be needed to counter balance increased water loss. Western Australia received 8-13mm of rain, aiding grain-filling winter wheat. Weekly temperatures averaged 3-4 degrees C above normal in the east and near to slightly above normal in the west.

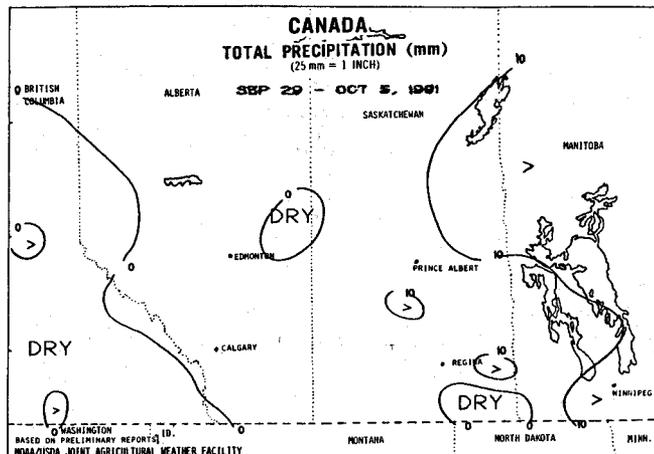


**MEXICO** ... Moderate to heavy rain (27-107mm) covered the Southern Plateau corn belt, delaying corn harvesting. Heavier rains, greater than 125mm, caused possible flooding along the west coast near Manzanillo and in the east near Veracruz. Light, scattered showers permitted winter wheat planting in the northwest, where irrigation reserves are adequate.



**SOUTH AMERICA** ... During October 1-3, minimum temperatures of -1 to -3 degrees C occurred in the winter wheat region of central and southern Buenos Aires in Argentina. Winter wheat is highly vulnerable to freeze damage in the reproductive stage. Argentina's wheat crop normally advances through the weather-sensitive reproductive phase from late September to early November. Additionally, frost was possible in the west-central orchard areas of the Rio Negro Valley. Scattered showers (5-31mm) benefited winter wheat development throughout the region, but more rainfall is needed to prevent moisture stress. In southern Brazil, widespread moderate to heavy rain (20-111mm) covered northern Parana, Sao Paulo, and eastern Minas Gerais, which aided corn development, coffee flowering, and pre-planting soil moisture for soybeans. Further to the south, lighter rain (10-25mm) favored maturing winter wheat. Weekly temperatures averaged 3-5 degrees C below normal in the central crop region of Argentina, and near normal in southern Brazil.

**CANADA** ... Grain and oilseed harvests are virtually complete in Alberta and Saskatchewan, with both Provinces reporting harvest progress percentages in the upper 90's. Light, scattered rain (2-10mm) across the region caused only minor delays in final harvests. In Manitoba, moderate rain (5-18mm) continued to improve soil moisture.



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

Annual subscriptions: domestic second class \$35, first class \$50, foreign \$50 (in U.S. funds by international money order or check drawn on U.S. bank) payable to U.S. Department of Commerce, NOAA. POSTMASTER: Send address changes to Weekly Weather and Crop Bulletin, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, DC 20250. Order subscriptions from the office and address listed above. Second class postage paid at Washington, DC, and additional mailing offices.

U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Weather Service/Climate Analysis Center  
Managing Editor . . . . . **Douglas Le Comte**  
Meteorologists . . . . . **Brad Rippey** (202)382-1444  
**Vilhelm Bjerknes and Wes Byrd.**

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

U.S. DEPARTMENT OF AGRICULTURE  
Economics Management Staff  
Editor . . . . . **Sharon Lee**  
National Agricultural Statistics Service  
Agricultural Statistician . . . **Martin Owens** (202) 447-2157  
World Agricultural Outlook Board  
Agricultural Weather Analysts . . **Ray Motha** (202) 447-9805  
**Tom Puterbaugh, Mark Brusberg, and Bob Stefanski.**

(Continued from front cover)  
briefly topped 90° F in the **central and southern Plains**. But by Thursday and Friday, snow was falling in the **northern Rockies** and **northern Plains**, while thunderstorms pounded the **Midwest**. Snowfall totals reached 3 inches in **Great Falls, MT**, and 5 inches in the **Black Hills of South Dakota**. Meanwhile, damaging thunderstorm winds or large hailstones were reported at more than 50 locations from **northeastern Texas** to **northern Indiana**. At week's end, storminess edged toward the **east coast** as dry, cool air settled across the eastern two-thirds of the Nation. Dry, warm weather continued in the **West**.

(Continued from p. 9)  
Gulf coast. Nationwide, harvest was 23% complete by September 29, compared with 9% last year and 16% average.

**Cotton** progress remained behind schedule entering September due to the effects of late seeding in the Delta and cool early-season weather in the West. Picking was underway in south-central Texas and was beginning in Alabama. Picking became more widespread in the East as the month progressed, while frequent rains in Texas complicated harvest. California and New Mexico growers had yet to begin picking at the end of September, while Nationwide progress had advanced to 16% complete, 5 points behind last year and 3 points behind the average.

**Grain sorghum** harvest was in full swing in Texas and the Delta by the beginning of September, with crop maturity running behind normal in Colorado and the Delta but ahead of schedule elsewhere. Lack of rainfall stressed crop condition in Kansas, Nebraska, and Missouri, while condition rated mostly fair to good for the 12 major producing States. Harvest was 42% complete by the end of September, well ahead of 28% last year and 33% average.

Entering September, **rice** harvest was 30% complete, 6 points ahead of last year and 3 points ahead of the average. Harvest was well along in Louisiana and Texas, and in the early stages in Arkansas and Mississippi. California's harvest got underway the third week in September, while Texas growers were finishing. Nationwide, harvest had progressed to 61% complete by the end of the month, 9 points ahead of last year but 5 points behind the average.

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

SECOND CLASS MAIL  
POSTAGE AND FEES PAID  
NOAA PERMIT NO.  
ISSN 0043 1974

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

WEEKLY NEWS BULLETIN  
SECOND CLASS