

WEEKLY WEATHER AND CROP BULLETIN

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

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

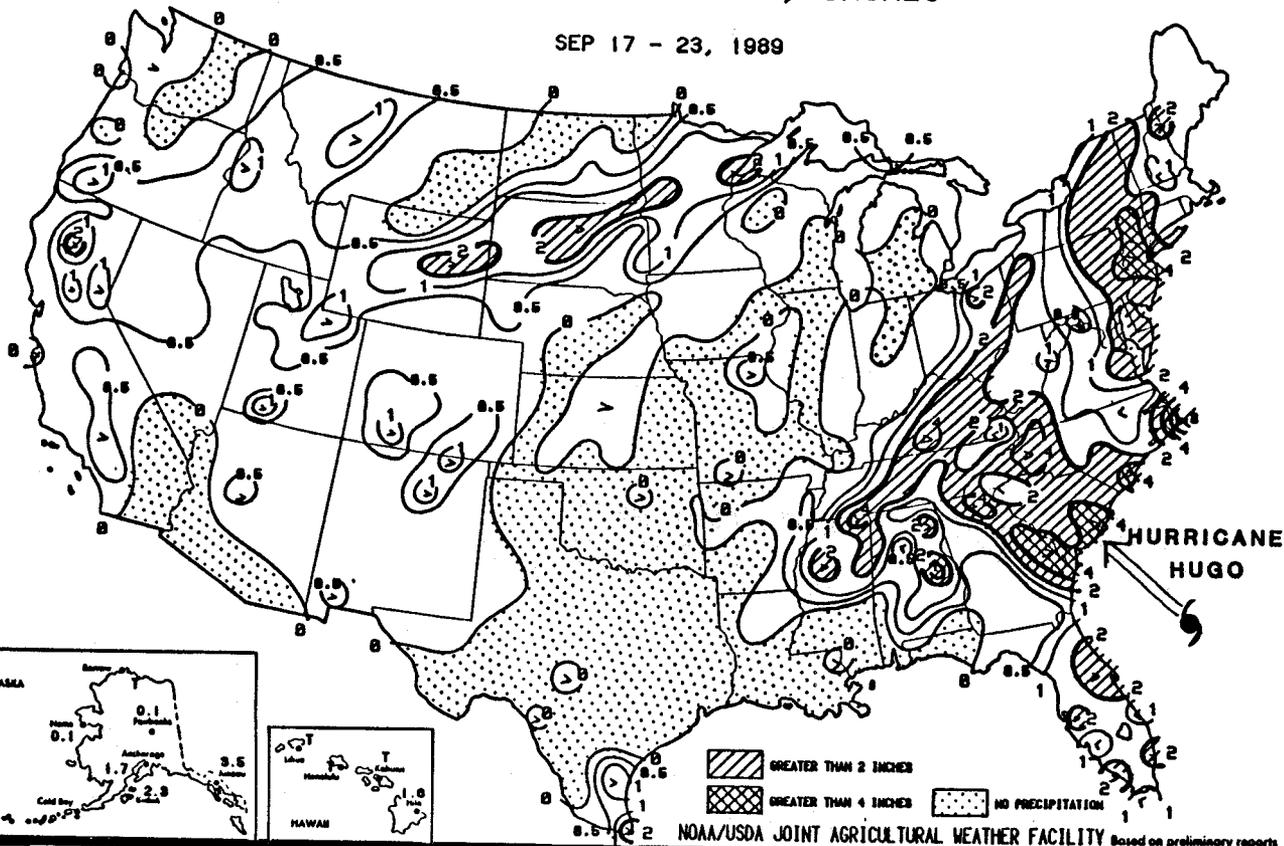
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TOTAL PRECIPITATION, INCHES

SEP 17 - 23, 1989



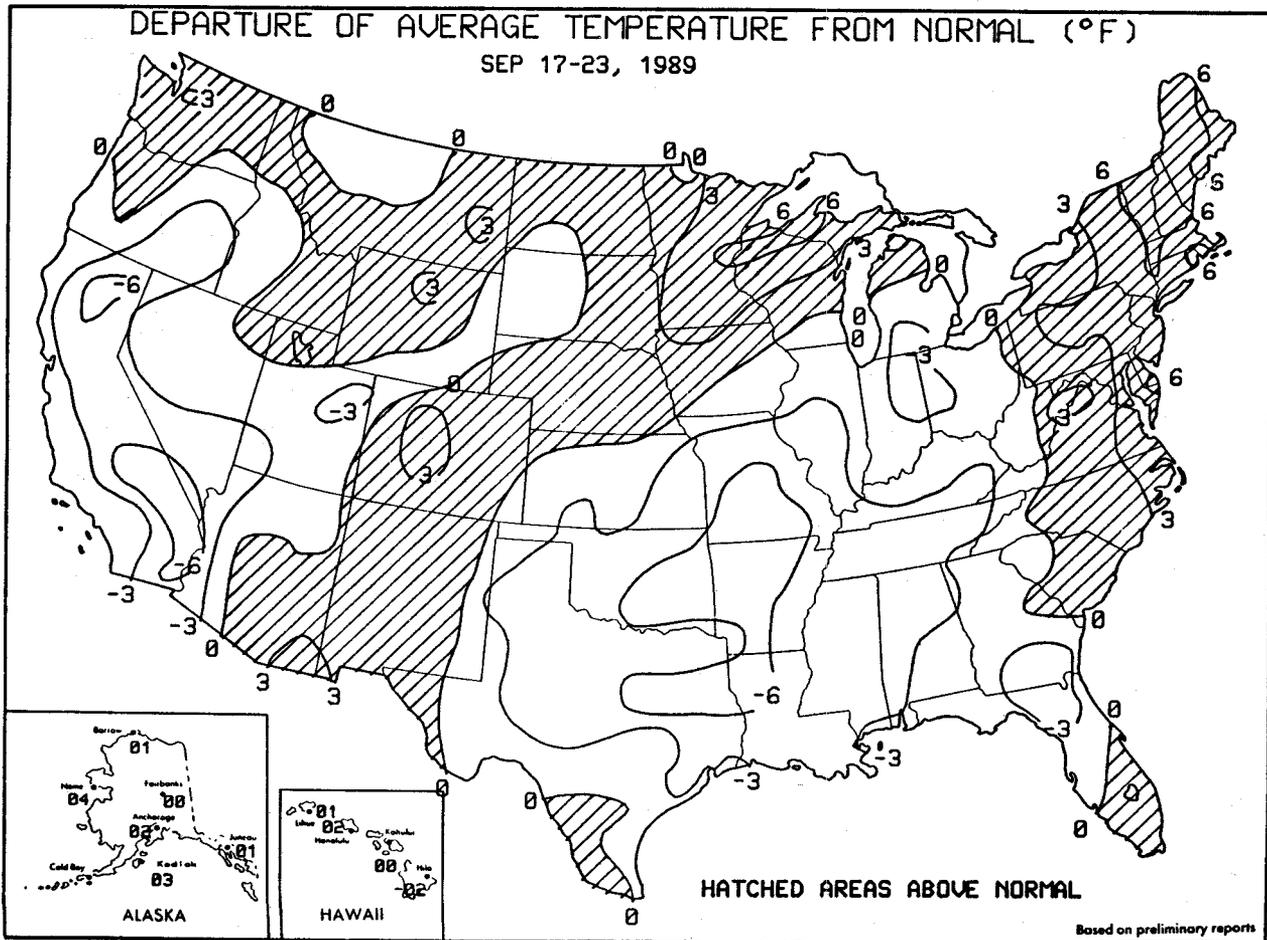
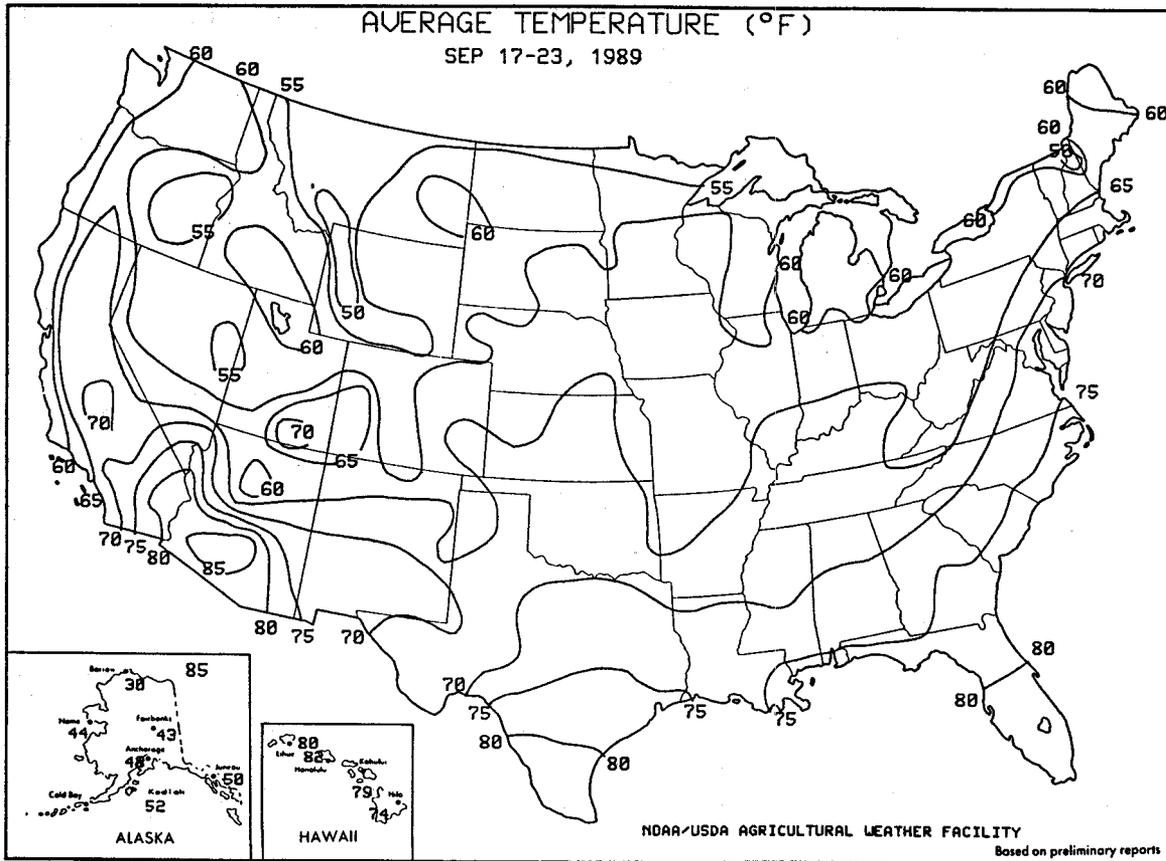
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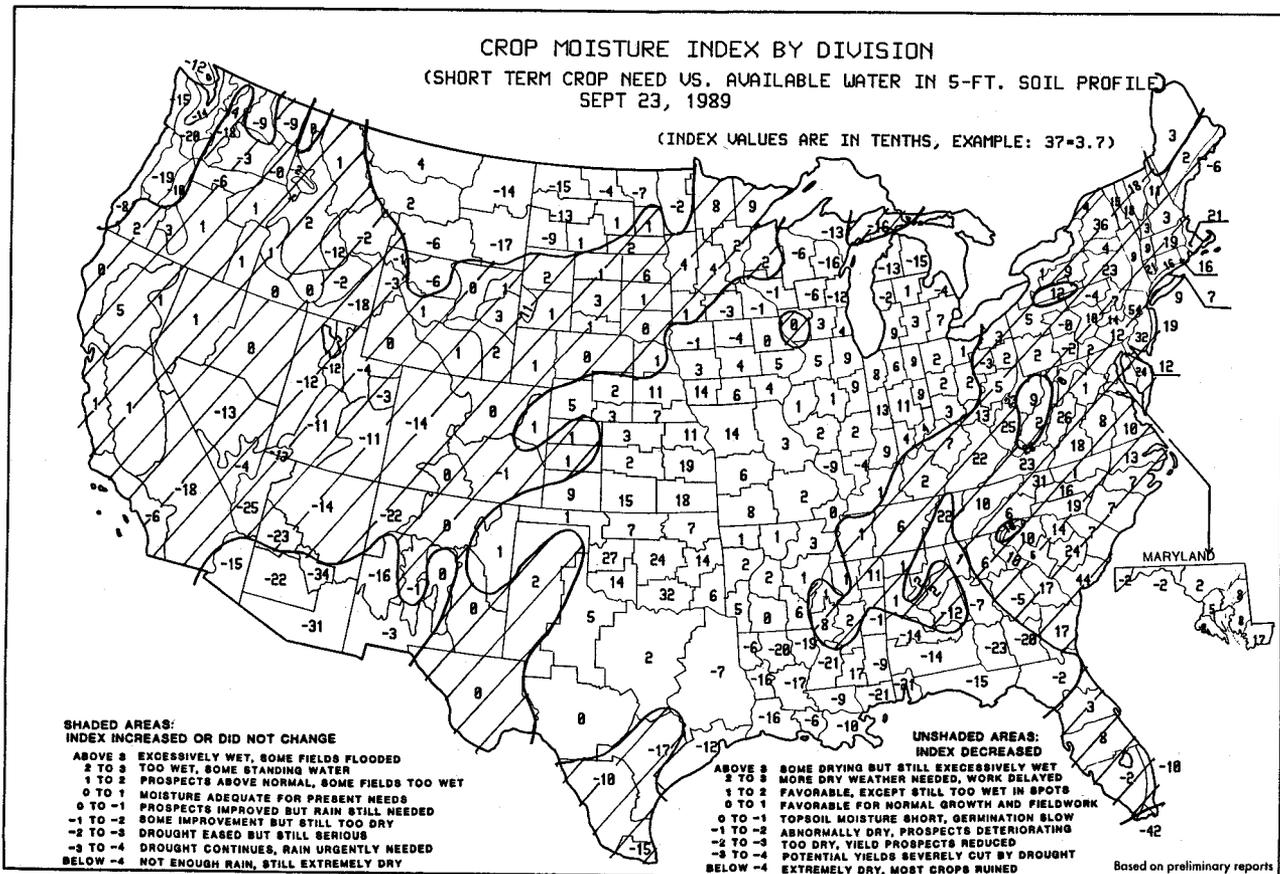
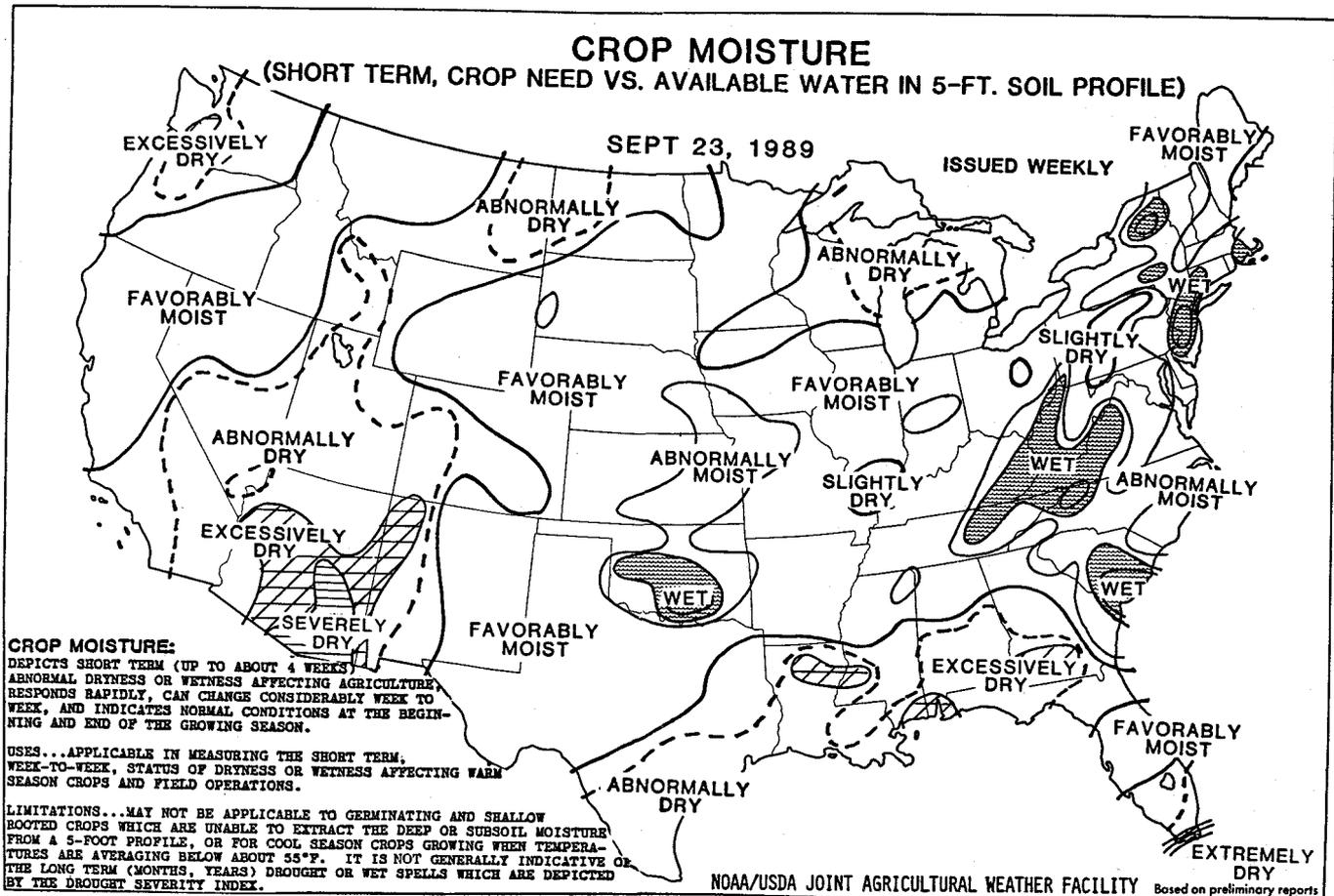
Hurricane Hugo tore through the **Virgin Islands** and **Puerto Rico** with torrential rain and winds of 140 mph early in the week before crashing into the **South Carolina coast** at **Charleston** with winds of 135 mph on Thursday night. Hugo's high wind and storm surge caused widespread destruction in the **Caribbean** and **South Carolina**. Hugo tracked inland, bringing heavy rain from the **Southeast**, across the **upper Ohio Valley**, and to the **lower Great Lakes**. Persistent showers covered the **eastern seaboard** preceding Hugo due to a stalled front, while moisture from the remains of the Pacific Hurricane Octave brought continued rain across the **Pacific Coast States**. A cold front spread heavy rain from **Wyoming** to **northern Minnesota** on Wednesday, while a trailing cold front moved rapidly across the **East** at week's end, bringing more

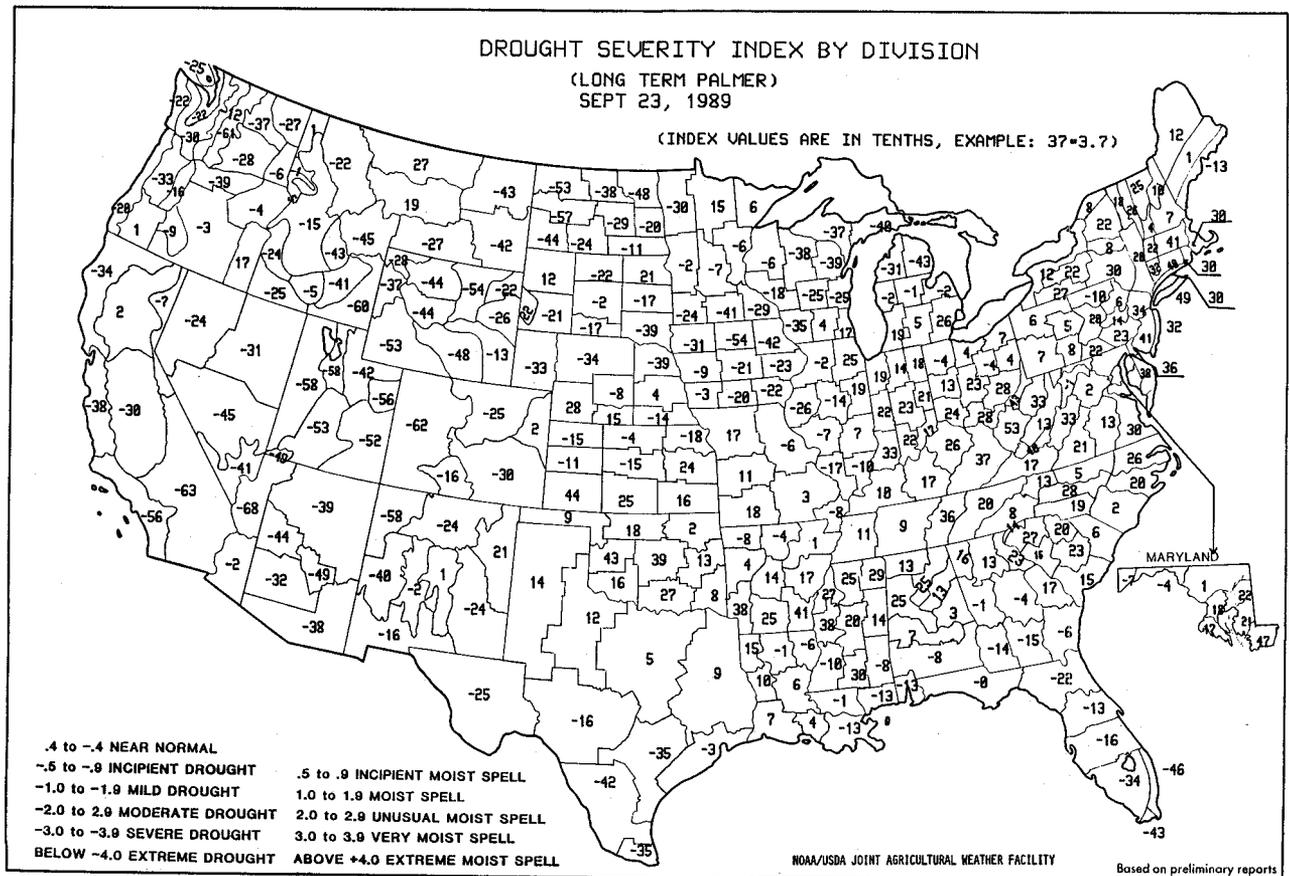
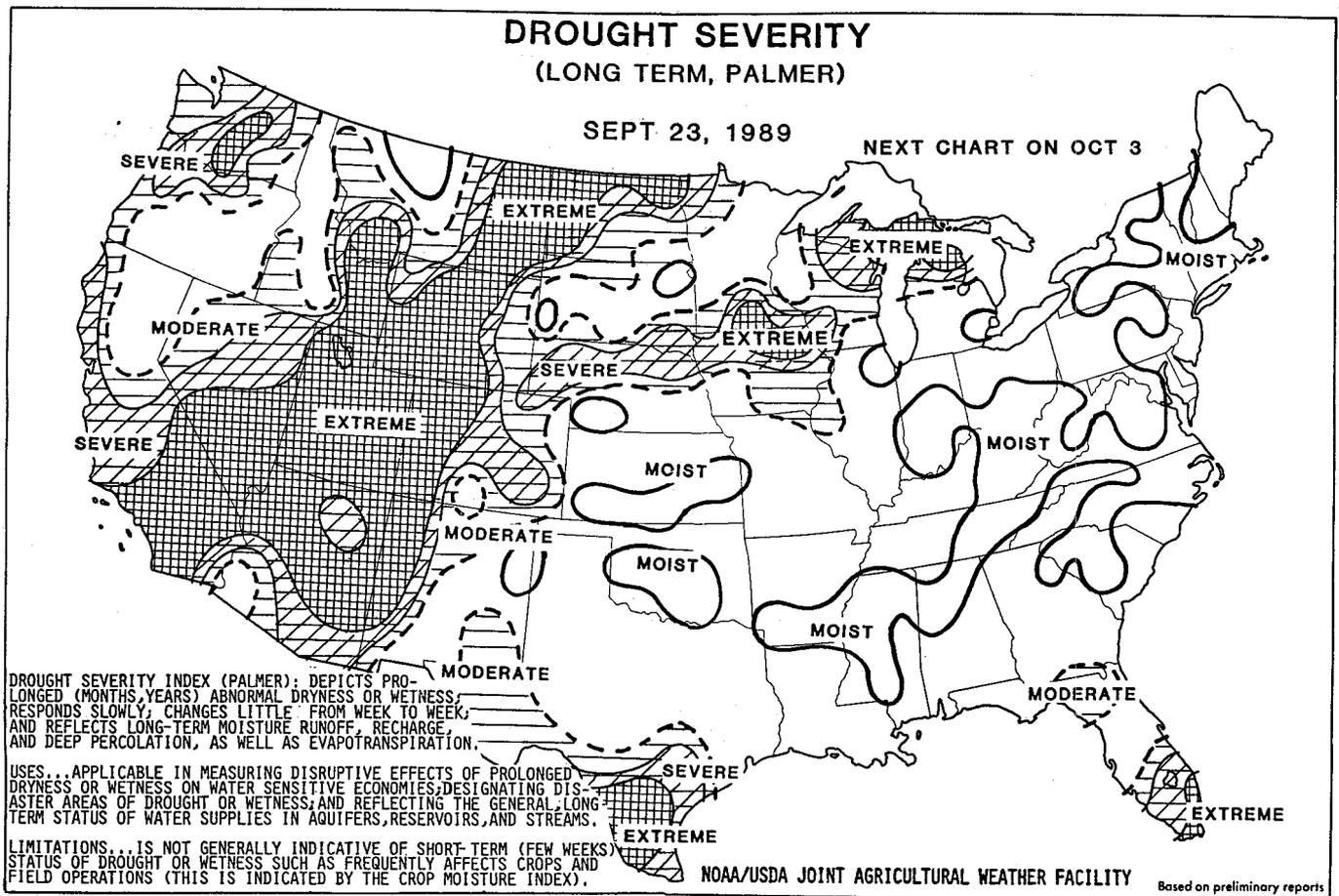
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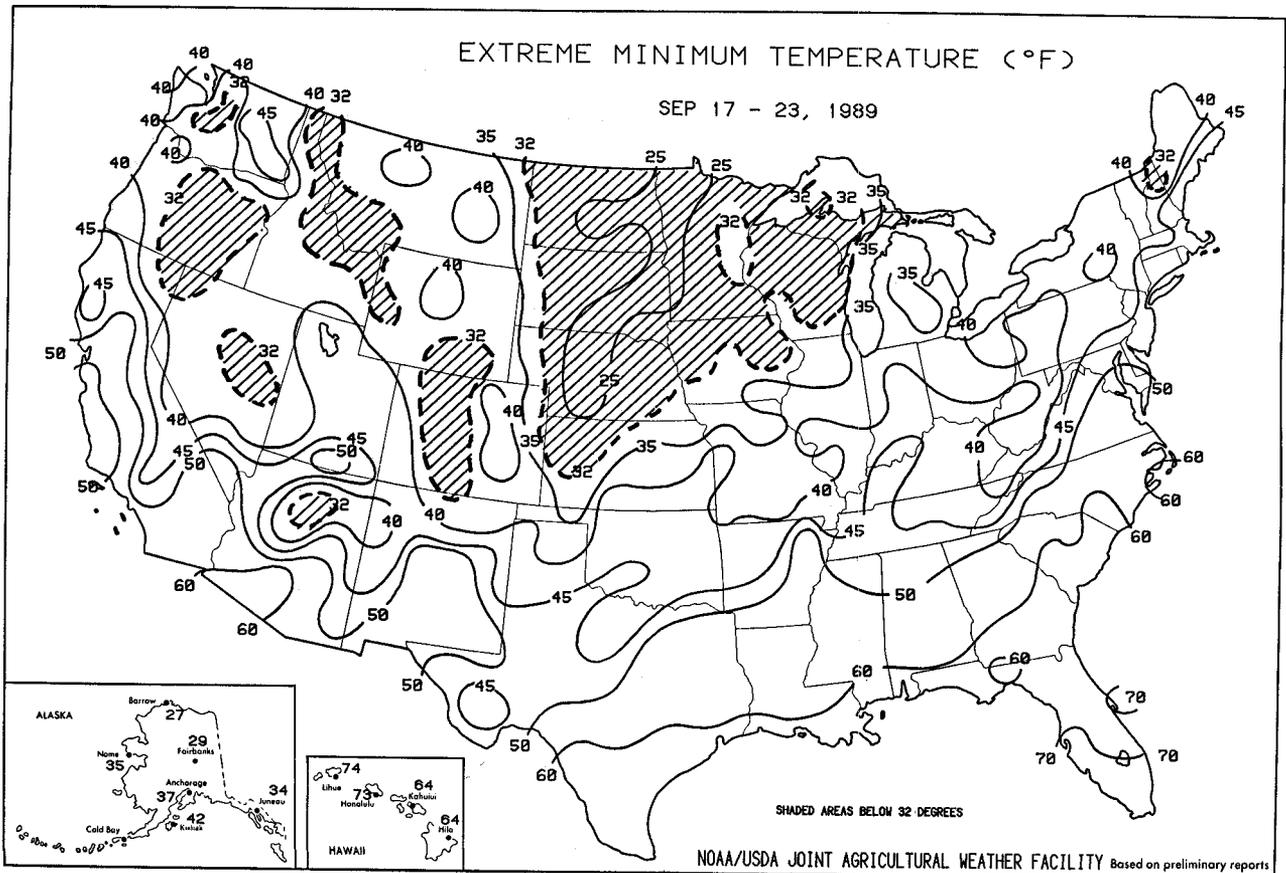
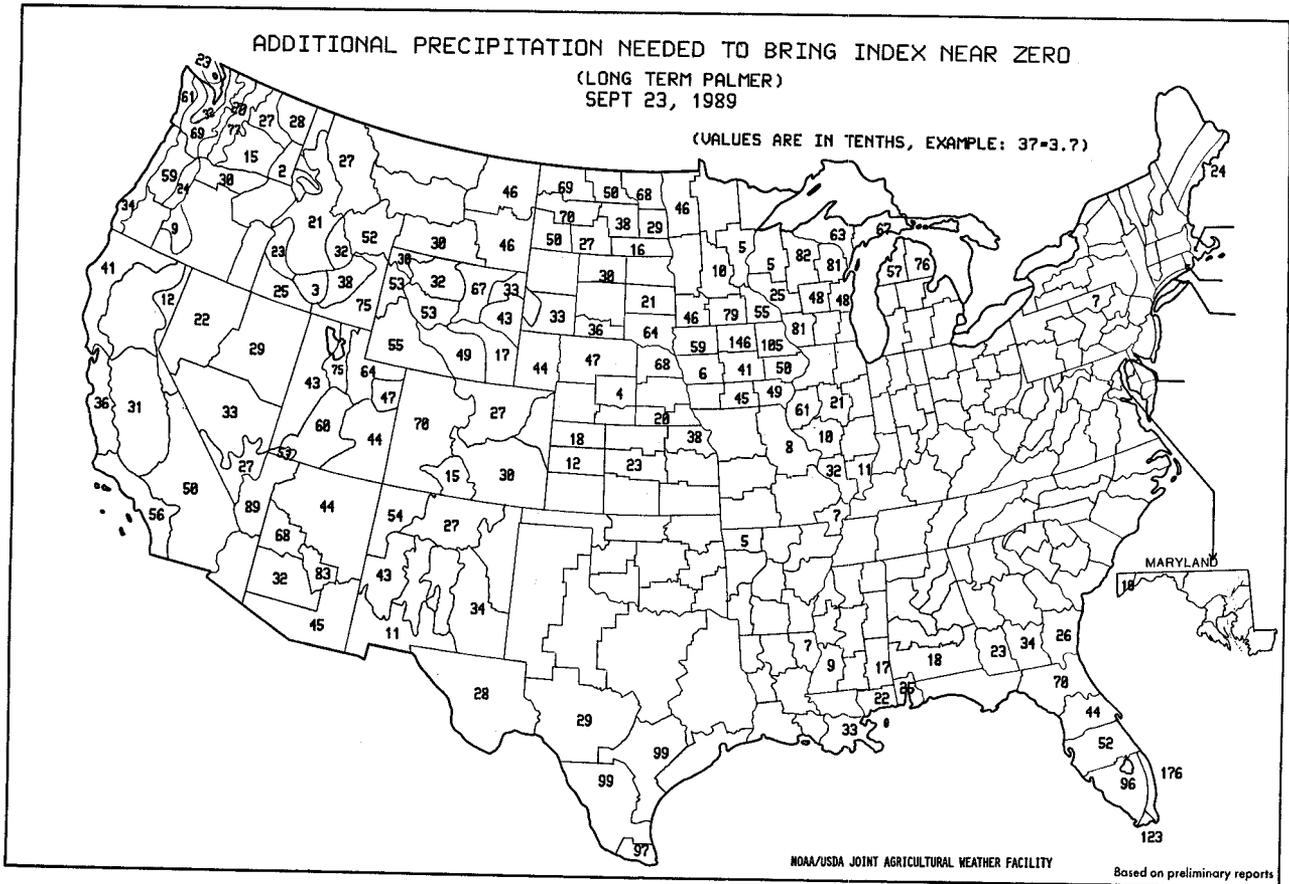
Contents

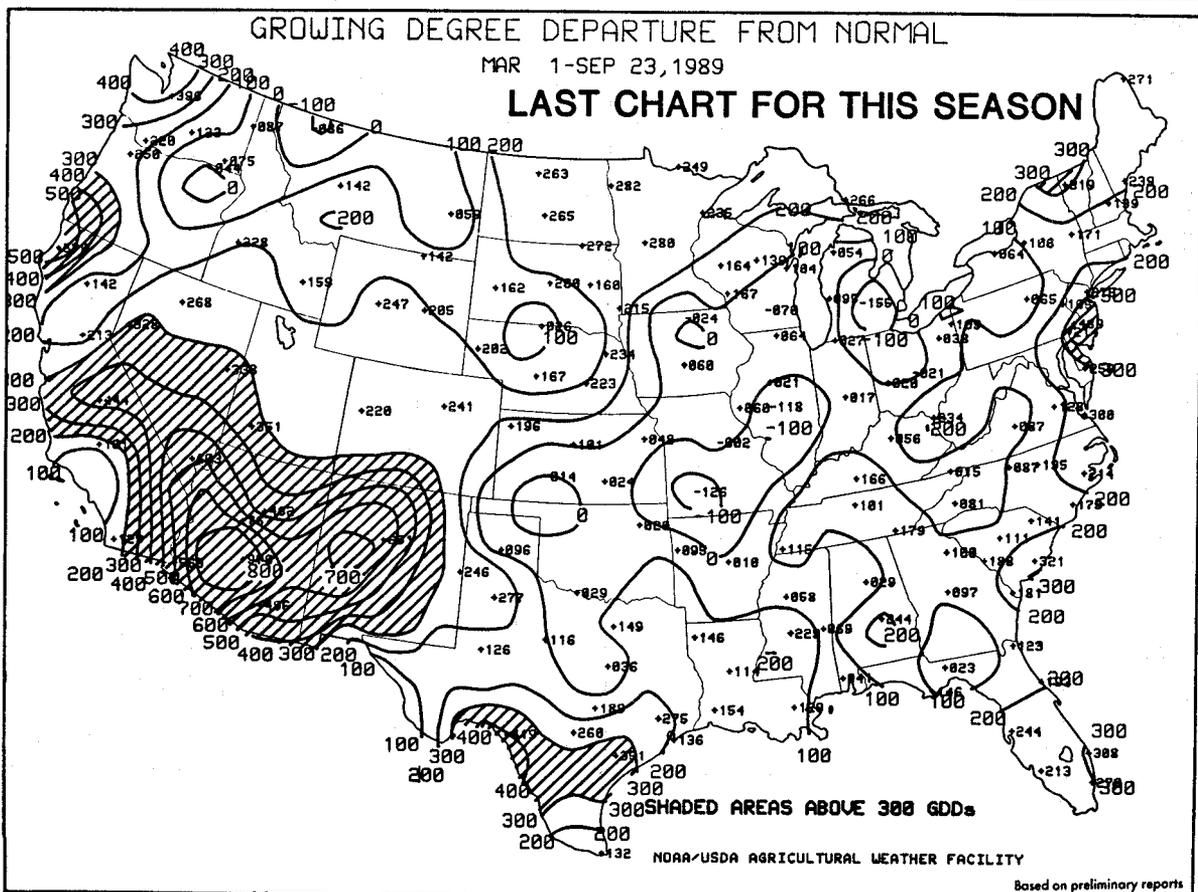
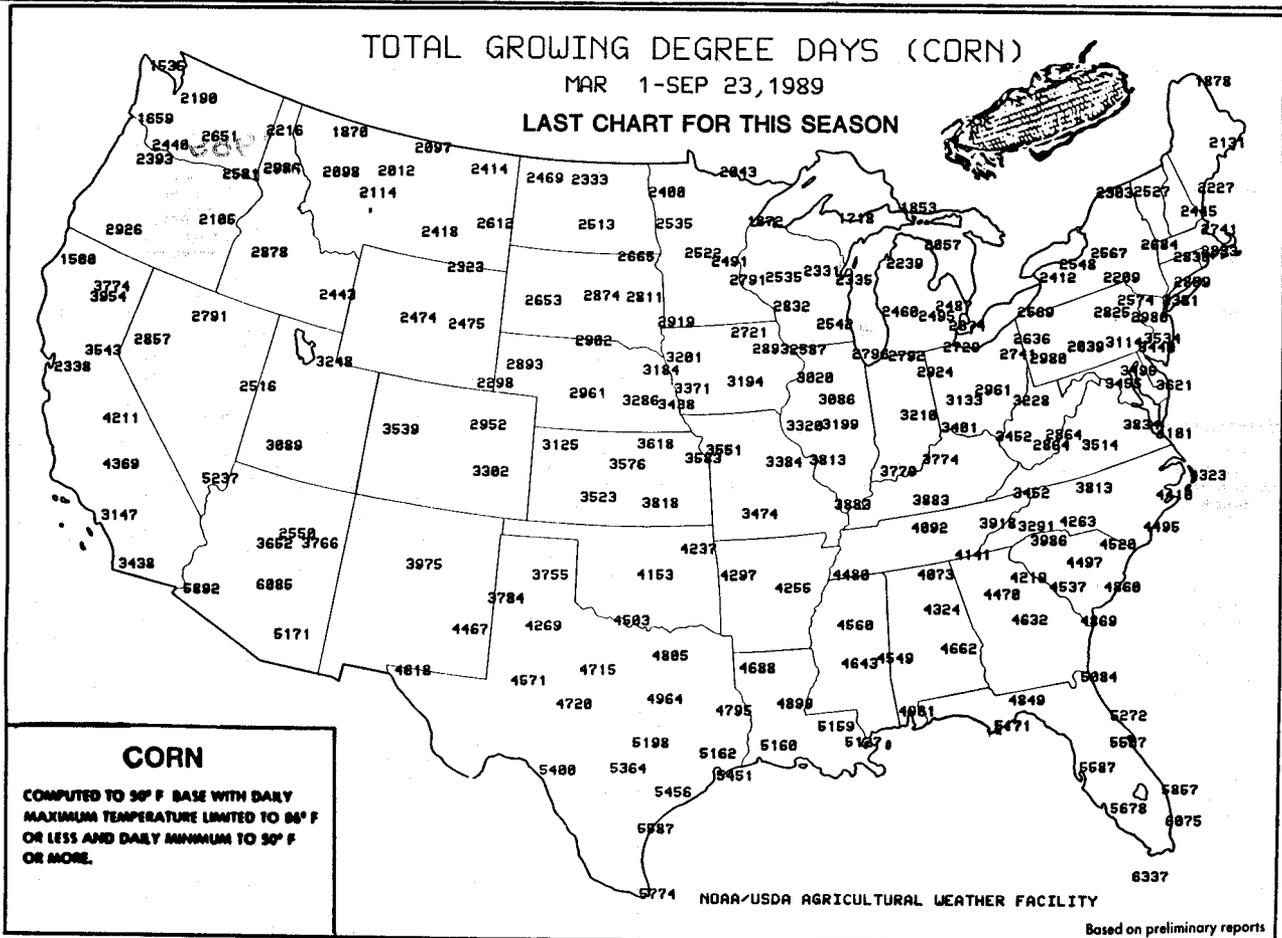
	Page
Highlights & Total Precipitation Map	1
Average Temperature & Departure Maps	2
Crop Moisture Maps	3
Drought Severity Maps	4
Precipitation Needed to End Drought & Extreme Minimum Temperature Map	5
Total Growing Degree Days & Departure	6
National Weather Data for Selected Cities	7
National Agricultural Summary	10
Crop Progress and Condition Tables	11
State Summaries of Weather and Agriculture	13
Streamflow During August 1989	19
International Weather and Crop Summary	20
Subscription and Mailing Permit Information ..	24











National Weather Data for Selected Cities

Weather Data for the Week Ending September 23, 1989

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION						RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE TEMP.	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	81	58	84	49	69	-4	.3	-1.5	.3	2.3	68	47.7	113	97	52	0	0	2	0
MOBILE	86	62	88	62	75	-3	T	-1.5	T	.4	8	40.4	78	92	37	0	0	0	0
MONTGOMERY	86	61	89	58	74	-2	.7	-1.5	.7	3.0	80	53.6	141	98	45	0	0	2	0
AK ANCHORAGE	53	43	57	37	48	2	1.7	1.2	.6	3.3	171	20.9	200	98	73	0	0	7	0
BARROW	32	28	37	27	30	0	0	-1.1	T	.7	144	6.8	198	99	79	0	0	7	0
FAIRBANKS	53	32	61	29	43	0	.1	-1.2	.1	1.1	45	7.2	90	75	34	0	0	4	1
JUNEAU	54	46	58	34	50	2	3.6	2.1	2.2	6.2	130	27.0	80	100	83	0	0	0	0
KODIAK	57	46	61	42	52	2	2.3	.8	.6	4.2	90	34.5	84	99	76	0	0	0	6
NOME	49	40	53	35	44	3	.1	-1.4	.1	1.8	94	17.0	151	79	55	0	0	2	2
AZ PHOENIX	99	72	109	65	86	3	.1	0	.1	.5	94	4.0	83	46	16	7	0	1	0
PRESCOTT	82	49	92	37	66	1	.7	.4	.7	.7	58	8.9	62	65	20	1	0	2	1
TUCSON	98	66	106	57	82	2	T	-1.3	T	T	2	4.4	52	46	15	7	0	0	0
YUMA	95	69	105	60	82	2	T	-1.1	T	T	0	6.8	422	56	23	4	0	0	0
AR FORT SMITH	80	54	84	43	67	-6	0	-1.0	T	3.4	139	45.2	154	98	43	0	0	0	0
LITTLE ROCK	77	57	81	45	67	-6	T	-1.0	T	3.3	101	42.8	117	83	50	0	0	0	0
CA BAKERSFIELD	84	57	101	54	71	-6	.4	.4	.2	.5	500	2.7	69	87	32	2	0	0	3
EUREKA	59	51	64	49	55	-2	.2	-1.1	.2	.2	28	19.5	84	92	80	0	0	0	2
FRESNO	82	57	100	52	70	-3	.9	.9	.6	1.0	289	5.8	82	95	38	2	0	2	1
LOS ANGELES	74	60	84	57	67	-2	.2	.2	.2	.3	289	3.5	41	92	52	0	0	2	0
REDDING	83	52	95	48	68	-8	3.4	3.1	2.6	4.3	561	24.1	93	97	38	3	0	2	2
SACRAMENTO	80	55	91	53	68	-3	.3	.2	.2	2.1	11.2	103	96	46	1	0	2	0	
SAN DIEGO	75	61	82	56	68	-2	.2	.2	.2	.2	733	2.2	33	89	57	0	0	2	0
SAN FRANCISCO	71	53	79	50	62	-2	.2	.2	.1	1.1	8.5	68	96	60	0	0	2	0	
CO DENVER	76	49	89	40	63	1	.1	-1.1	.1	1.5	160	13.7	109	79	32	0	0	1	0
GRAND JUNCTION	80	54	89	45	67	1	.1	-1.1	.1	.3	52	5.3	94	53	21	0	0	2	0
PUEBLO	81	51	93	43	66	2	T	-1.1	T	.9	134	6.6	73	72	23	2	0	1	0
CT BRIDGEPORT	75	64	81	59	69	5	1.5	.8	.8	2.8	110	38.9	131	94	79	0	0	3	2
HARTFORD	74	61	83	48	67	5	1.9	1.0	.5	3.8	125	41.7	132	95	74	0	0	6	1
DC WASHINGTON	80	64	89	49	72	2	1.7	1.0	1.1	5.2	205	38.8	133	95	68	0	0	4	1
FL APALACHICOLA	87	68	90	66	78	-1	.1	-1.8	.1	3.5	51	37.8	86	89	50	1	0	2	0
DAYTONA BEACH	88	71	90	69	79	0	2.6	1.1	1.0	3.7	70	26.8	71	96	63	1	0	5	2
JACKSONVILLE	86	70	89	66	78	0	0	0	0	0	0	0	0	0	0	0	0	2	0
KEY WEST	91	79	93	77	85	2	.3	-1.1	.1	4.0	76	35.7	84	97	62	0	0	3	0
MIAMI	93	74	95	72	84	2	.3	-1.2	.1	1.3	26	18.4	66	88	59	7	0	2	0
ORLANDO	90	72	92	69	81	0	2.4	.5	1.6	5.7	93	38.3	87	94	51	7	0	2	2
TALLAHASSEE	88	62	90	57	75	-3	2.9	1.4	2.4	9.1	179	36.7	89	98	55	5	0	4	1
TAMPA	90	72	92	71	81	1	T	-1.4	T	.3	6	46.8	90	96	42	1	0	1	0
WEST PALM BEACH	91	73	92	70	82	1	1.1	-2	.6	5.0	99	33.8	87	95	52	4	0	3	1
GA ATLANTA	82	63	84	52	72	0	1.2	-1.0	1.1	2.5	35	28.1	84	94	53	7	0	3	1
AUGUSTA	83	64	88	60	74	0	.7	0	.6	1.1	44	42.5	113	90	50	0	0	2	1
MACON	85	63	89	57	74	0	3.0	2.2	2.5	3.1	112	40.5	116	96	56	0	0	2	2
SAVANNAH	82	69	90	66	75	0	T	-1.7	T	T	2	34.9	98	93	44	0	0	1	0
HI HILO	81	67	82	64	74	-2	6.2	3.1	6.0	7.6	181	35.1	84	95	65	1	0	3	1
HONOLULU	89	75	90	73	82	0	1.6	.2	1.1	7.6	150	143.7	162	94	63	0	0	6	1
KAHULUI	87	71	88	64	79	2	T	-1.1	T	.2	38	15.4	106	76	44	2	0	1	0
LIHUE	84	75	85	74	80	1	T	0	T	.1	28	28.8	233	81	49	0	0	1	0
ID BOISE	74	46	87	38	60	-2	T	-1.5	T	.6	41	41.7	151	78	62	0	0	1	0
LEWISTON	77	51	87	47	64	2	.7	.5	.7	.7	151	8.0	99	87	34	0	0	1	1
FOCATTELLO	76	42	83	37	59	1	.1	-1.1	.3	.3	50	11.7	127	72	35	0	0	2	0
IL CHICAGO	74	49	79	37	62	-1	.3	.2	.3	.3	72	7.5	97	90	23	0	0	1	0
MOLINE	75	48	81	34	62	-2	T	-1.9	T	3.9	120	25.3	94	95	45	0	0	0	0
PEORIA	74	48	78	35	61	-3	.1	-1.1	.1	5.4	185	29.2	99	95	43	0	0	1	0
QUINCY	74	49	79	35	62	-4	.1	-1.9	.1	2.2	79	18.5	67	97	51	0	0	0	0
ROCKFORD	74	46	79	34	60	-2	.1	-1.9	.1	2.9	90	15.3	51	90	44	0	0	1	0
SPRINGFIELD	75	51	79	37	63	-3	T	-1.9	T	2.7	95	26.7	93	98	46	0	0	0	0
IN EVANSVILLE	78	55	86	45	66	-2	0	-1.7	0	5.5	221	25.6	96	98	46	0	0	0	0
FORT WAYNE	72	49	77	38	61	-3	.1	-1.5	.1	2.2	103	42.1	133	98	52	0	0	1	0
INDIANAPOLIS	73	52	80	41	63	-3	T	-1.6	T	4.1	207	30.0	114	97	53	0	0	0	0
SOUTH BEND	73	47	78	39	60	-3	.1	-1.6	.1	7.8	365	42.7	143	94	52	0	0	0	0
IA DES MOINES	75	51	80	33	63	0	.1	-1.7	.1	3.7	150	29.2	103	94	48	0	0	1	0
SIOUX CITY	77	52	84	30	64	2	T	-1.7	T	5.4	221	26.1	103	92	46	0	0	1	0
WATERLOO	75	48	80	30	61	1	T	-1.6	T	4.5	224	18.6	86	83	40	0	1	0	0
KS CONCORDIA	78	54	86	34	66	0	T	-1.8	T	3.0	113	15.7	58	95	44	0	1	0	0
DOIDGE CITY	77	52	86	34	65	-3	.1	-1.3	.1	4.2	177	23.2	101	86	40	0	0	1	0
GOODLAND	77	49	89	31	63	0	.1	-1.3	.1	2.3	154	20.0	114	87	33	0	0	1	0
TOPEKA	76	49	82	33	62	-5	.1	-1.1	.1	1.1	93	17.4	125	87	32	0	1	1	0
WICHITA	77	55	84	40	66	-3	T	-1.8	T	8.7	323	34.3	128	97	47	0	0	0	0
KY BOWLING GREEN	78	55	86	44	66	-3	0	-1.8	0	7.4	278	33.9	148	88	45	0	0	1	0
LEXINGTON	75	55	86	42	65	-2	1.1	.3	.8	2.1	83	50.5	136	98	54	0	0	2	1
LOUISVILLE	78	58	86	45	68	0	3.0	2.3	2.3	4.7	178	45.3	127	94	53	0	0	2	2
LA ALEXANDRIA	83	57	87	53	70	-6	.5	-1.3	.3	2.3	89	44.2	134	96	50	0	0	2	0
BATON ROUGE	85	62	88	59	74	-3	T	-1.0	T	.2	6	52.3	132	90	40	0	0	0	0
LAKE CHARLES	85	61	89	60	73	-4	0	-1.0	0	1.8	51	62.6	145	93	47	0	0	0	0
NEW ORLEANS	85	64	87	61	75	-3	0	-1.3	0	.3	7	53.6	135	90	41	0	0	0	0

Based on 1951-80 normals

Weather Data for the Week Ending September 23, 1989

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	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
SHREVEPORT	81	58	85	54	70	-7	T		1.1	43	53.8	164	93	46	0	0	0	0	
ME CARIBOU	70	49	79	42	60	7	.5	-1.3	3.4	124	25.1	96	96	65	0	0	0	0	
PORTLAND	72	57	81	49	64	7	1.2	.5	3.6	149	29.7	101	99	74	0	0	5	0	
MD BALTIMORE	79	63	87	47	71	3	1.4	.7	2.5	93	41.7	133	97	69	0	0	3	1	
SALISBURY	81	66	87	50	74	6	3.0	2.1	4.7	150	40.8	119	96	68	0	0	5	1	
MA BOSTON	72	61	83	50	67	3	1.9	1.1	4.0	152	31.1	101	99	79	0	0	7	1	
CHATHAM	71	61	77	59	66	5	1.2	.3	2.9	99	33.7	103	98	89	0	0	4	1	
MI ALPENA	72	42	80	38	57	1	.1	-1.1	1.9	77	15.9	72	97	47	0	0	1	0	
DETROIT	72	50	79	38	61	-1	T	T	3.0	171	23.7	102	97	58	0	0	0	0	
FLINT	71	46	78	34	59	-1	T	T	4.3	234	25.7	116	98	50	0	0	1	0	
GRAND RAPIDS	72	44	77	33	58	-3	T	T	4.9	196	26.6	107	98	48	0	0	0	0	
HOUGHTON LAKE	72	42	78	36	57	1	T	T	1.0	45	15.9	76	97	46	0	0	1	0	
LANSING	72	45	77	34	59	-1	T	T	3.5	148	24.9	111	98	51	0	0	0	0	
MARQUETTE	69	46	78	25	58	5	.1	-1.8	1.1	35	20.0	72	89	50	0	0	2	0	
MUSKEGON	71	46	76	36	59	-2	T	T	2.4	107	19.5	87	96	51	0	0	0	0	
SAULT ST. MARIE	71	45	80	36	58	5	.6	-1.3	1.0	34	17.4	73	97	51	0	0	2	0	
MN ALEXANDRIA	70	51	85	31	61	5	1.6	1.1	3.5	194	18.8	92	97	55	0	1	2	1	
DULUTH	66	48	81	31	57	4	2.8	2.1	4.4	171	23.6	100	97	62	0	2	3	2	
INT'L FALLS	66	44	83	30	55	4	.7	-1.1	1.9	74	18.2	93	94	49	0	1	1	1	
MINNEAPOLIS	75	53	85	34	64	5	.2	-1.4	1.3	64	21.0	97	94	48	0	0	2	0	
ROCHESTER	73	48	80	28	61	3	.1	-1.7	.6	24	19.8	86	93	48	0	1	2	0	
MS GREENWOOD	79	58	87	51	69	-5	2.6	1.8	2.6	4.2	166	55.9	141	95	53	0	0	1	1
JACKSON	81	57	86	55	69	-6	T	T	2.3	81	38.2	97	81	38	0	0	0	0	
MERIDIAN	84	57	87	54	71	-4	T	T	2.5	89	50.3	123	98	45	0	0	0	0	
MO CAPE GIRARDEAU	77	53	82	41	65	1	0	-1.0	2.3	78	44.9	132	97	47	0	0	0	0	
COLUMBIA	72	50	78	35	61	-6	T	T	1.5	51	32.0	113	93	49	0	0	0	0	
KANSAS CITY	76	53	82	36	65	-4	0	-1.0	8.9	268	34.2	119	88	47	0	0	0	0	
SAINT LOUIS	77	56	81	42	67	-2	T	T	1.7	82	26.4	101	86	42	0	0	0	0	
SPRINGFIELD	72	50	78	35	61	-7	T	T	2.4	74	29.4	98	95	49	0	0	0	0	
MT BILLINGS	74	45	88	39	59	1	.2	-1.1	.6	67	11.4	97	74	30	0	0	2	0	
GLASGOW	71	44	83	37	57	1	.1	-1.1	.2	28	8.9	94	79	30	0	0	1	0	
GREAT FALLS	67	42	80	39	55	-1	.9	.7	.5	151	19.5	156	87	42	0	0	2	0	
HAVRE	65	42	79	35	54	-2	.7	.5	.6	91	9.8	99	71	42	0	0	2	1	
HELENA	69	39	80	36	54	0	1.0	.8	.6	1.2	188	11.0	117	89	33	0	0	2	1
KALISPELL	64	39	71	34	52	-1	.7	.5	.5	1.3	152	15.6	133	96	48	0	0	2	1
MILES CITY	75	48	93	42	62	3	0	-1.3	.1	7	12.5	106	68	25	1	0	0	0	
MISSOULA	69	40	79	35	54	0	.5	.3	.4	.8	94	11.5	115	96	39	0	0	2	0
NE GRAND ISLAND	76	52	81	29	64	2	0	-1.6	6.5	326	20.5	103	87	45	0	1	0	0	
LINCOLN	78	53	85	31	66	2	.1	-1.6	.1	8.3	35.3	97	88	45	0	1	1	0	
NORFOLK	77	52	87	29	64	3	T	T	3.6	219	15.4	75	88	44	0	1	0	0	
NORTH PLATTE	76	46	90	23	61	1	T	T	1.1	85	10.7	80	81	36	1	1	0	0	
OMAHA	76	54	83	32	65	1	T	T	6.2	220	20.6	81	84	51	0	1	1	0	
SCOTTSDUFF	76	45	93	35	61	1	.2	0	1.6	198	8.5	68	89	35	1	0	2	0	
VALENTINE	74	45	96	23	60	0	.2	-1.1	.8	71	10.3	68	78	36	2	2	3	0	
NV ELY	72	35	80	31	53	-2	.4	.3	.4	81	6.2	91	87	23	0	3	2	0	
LAS VEGAS	87	60	96	53	74	-5	T	T	T	0	2.2	73	44	18	3	0	0	0	
RENO	72	43	85	41	58	-1	.7	.6	.5	1.0	539	6.1	122	88	30	0	0	3	0
WINNEMUCCA	75	40	86	35	58	0	.6	.5	.6	.6	222	3.8	69	79	23	0	0	1	1
NH CONCORD	73	58	85	47	66	8	1.4	.7	.4	3.1	130	28.1	109	97	70	0	0	6	0
NJ ATLANTIC CITY	80	64	86	46	72	6	2.9	2.2	2.7	4.5	196	40.1	130	98	71	0	0	3	1
NM ALBUQUERQUE	80	57	87	52	69	0	.3	.1	.3	.3	47	3.7	62	64	23	0	0	1	0
CLOVIS	76	52	82	43	64	-4	T	T	1.4	99	14.0	102	86	40	0	0	1	0	
ROSWELL	86	58	93	52	72	2	T	T	2.1	148	6.1	72	76	30	3	0	1	0	
NY ALBANY	73	57	81	42	65	5	1.4	.7	.7	2.6	106	31.3	121	97	73	0	0	4	1
BINGHAMTON	68	54	76	38	61	3	2.3	1.5	1.2	4.3	168	31.8	118	99	80	0	0	5	2
BUFFALO	72	50	81	41	61	0	1.1	.3	.6	3.9	146	31.0	116	97	55	0	0	3	1
NEW YORK	79	66	85	50	72	5	2.8	2.0	1.7	4.7	173	45.2	145	96	70	0	0	4	2
ROCHESTER	72	51	81	41	62	1	.7	.1	.5	2.8	135	26.0	114	98	58	0	0	3	0
SYRACUSE	73	52	83	43	62	2	3.1	2.4	2.0	6.0	235	27.9	98	97	67	0	0	5	1
NC ASHEVILLE	75	56	78	45	65	0	2.0	1.2	1.6	3.8	129	45.6	136	100	62	0	0	4	1
CHARLOTTE	80	63	88	53	71	0	2.8	2.0	2.1	4.4	156	36.1	109	95	57	0	0	3	2
GREENSBORO	77	62	84	50	70	1	1.5	.7	1.0	3.4	118	36.4	112	96	65	0	0	5	1
HATTERAS	83	72	86	60	77	4	8.5	7.2	4.8	16.3	363	67.0	166	97	78	0	0	6	3
NEW BERN	83	70	88	55	76	3	2.0	.7	1.6	4.8	105	47.3	113	97	63	0	0	5	1
RALEIGH	82	64	88	53	73	3	1.8	1.1	1.1	2.3	87	41.7	129	96	72	0	0	5	1
WILMINGTON	83	69	88	57	76	2	4.4	3.1	1.6	5.7	125	49.3	116	96	69	0	0	5	4
ND BISMARCK	69	43	96	24	56	0	.4	-1.4	.4	1.2	113	10.2	78	89	37	1	2	1	0
FARGO	68	47	89	27	57	1	.7	.3	.6	2.1	141	17.4	107	94	52	0	1	3	1
GRAND FORKS	69	44	90	24	56	2	T	T	.7	45	10.9	71	89	41	1	2	0	0	
WILLISTON	72	40	93	30	56	1	T	T	.5	51	8.9	78	83	31	1	2	1	0	
OH AKRON-CANTON	73	52	81	41	63	0	1.3	.6	1.2	3.4	145	32.3	117	97	58	0	0	3	1
CINCINNATI	76	55	84	43	65	-1	.4	-1.3	.4	3.0	133	41.4	135	96	52	0	0	2	0
CLEVELAND	73	52	79	44	62	-1	1.3	.6	.7	4.6	203	34.1	128	98	59	0	0	3	1
COLUMBUS	76	54	84	38	65	0	.3	-1.3	.3	2.2	98	36.9	127	95	54	0	0	2	0

Weather Data for the Week Ending September 23, 1989

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Sep 1	PCT. NORMAL SINCE Sep 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE		PRECIPITATION	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	74	51	82	38	62	-3	.2	-4	.1	5.7	303	42.3	157	99	56	0	0	2	0
TOLEDO	71	48	76	36	60	-3	T	-5	T	3.3	183	32.9	137	99	53	0	0	1	0
YOUNGSTOWN	74	50	82	36	62	1	1.2	-5	1.0	6.1	254	36.5	129	99	55	0	0	3	1
OK OKLAHOMA CITY	77	56	84	42	66	0	0	-8	0	4.5	172	37.2	151	90	41	0	0	0	0
TULSA	78	57	84	44	67	-5	0	-1	0	3.3	100	26.5	89	90	43	0	0	0	0
OR ASTORIA	73	46	89	39	59	1	T	-8	T	.1	4	35.4	87	94	50	0	0	0	0
BURNS	71	36	82	30	53	-4	.5	-4	.5	.6	164	8.5	130	85	30	0	1	1	0
MEDFORD	82	47	94	44	65	1	1.3	1.1	1.3	1.3	252	12.1	106	95	28	3	0	1	1
PENDLETON	76	47	86	43	62	-1	.1	0	.1	.1	29	10.1	129	75	27	0	0	1	0
PORTLAND	81	48	92	44	65	3	T	-4	T	.4	32	20.2	91	92	27	1	0	1	0
SALEM	81	43	95	37	62	2	T	-4	T	.1	7	17.3	74	89	25	1	0	1	0
PA ALLENTOWN	76	61	84	44	69	5	4.3	3.4	1.7	4.9	155	36.5	111	97	75	0	0	6	2
ERIE	71	52	82	46	62	0	1.8	.9	1.5	3.9	126	32.1	113	94	61	0	0	3	1
HARRISBURG	74	61	82	45	68	2	1.4	.5	1.1	2.0	71	37.4	129	99	73	0	0	6	1
PHILADELPHIA	81	64	88	46	72	2	2.2	1.4	1.7	4.3	159	41.5	134	95	68	0	0	4	1
PITTSBURGH	73	55	85	40	64	1	1.4	.8	1.0	4.5	209	36.3	129	96	62	0	0	3	1
SCRANTON	72	58	78	41	65	3	2.1	1.4	.8	3.4	136	29.1	113	98	77	0	0	6	2
RI PROVIDENCE	76	62	83	49	69	7	1.6	.8	.9	3.7	134	40.4	127	99	78	0	0	7	1
SC CHARLESTON	82	70	87	66	76	1	6.5	5.4	6.3	11.6	283	43.0	102	95	64	0	0	5	1
COLUMBIA	84	66	91	61	75	1	3.2	2.2	2.1	4.7	138	42.0	106	94	53	1	0	3	2
FLORENCE	84	67	90	61	76	2	2.7	1.8	2.5	3.6	111	39.0	110	93	54	1	0	2	1
GREENVILLE	80	60	84	55	70	-1	1.1	0	.8	2.2	60	35.7	91	95	58	0	0	3	1
SD ABERDEEN	70	50	91	27	60	2	2.0	1.6	1.5	2.2	190	17.0	112	91	50	1	1	3	1
HURON	72	48	89	23	60	1	.1	-2	.1	1.6	153	13.0	83	90	49	0	2	3	0
RAPID CITY	71	46	92	33	59	0	1.5	1.3	1.2	3.1	386	10.8	77	82	44	1	0	2	1
SIoux FALLS	73	51	85	27	62	3	.9	.3	.8	3.2	146	14.3	71	91	48	0	1	2	1
TN CHATTANOOGA	78	59	83	48	69	-2	2.2	1.2	2.0	4.9	145	54.5	138	98	59	0	0	3	1
KNOXVILLE	78	58	86	44	68	-3	1.6	.9	1.5	5.8	253	43.7	123	99	60	0	0	3	1
MEMPHIS	79	59	84	49	69	-4	.3	-5	.3	4.2	147	49.0	125	95	47	0	0	1	0
NASHVILLE	77	56	85	44	67	-4	2.1	1.2	1.8	3.6	122	44.8	122	95	50	0	0	2	1
TX ABILENE	81	59	85	44	70	-5	0	-7	0	4.1	175	26.3	146	73	31	0	0	0	0
AMARILLO	77	52	83	39	64	-4	0	-4	0	1.8	130	18.3	113	83	32	0	0	0	0
AUSTIN	90	63	93	59	76	-2	0	-9	0	.3	10	22.3	98	81	31	6	0	0	0
BEAUMONT	87	63	88	61	75	-3	0	-1.2	0	1.2	28	58.7	143	90	39	0	0	0	0
BROWNSVILLE	91	70	94	67	81	0	2.1	.9	1.1	2.5	62	15.4	86	95	48	4	0	3	2
CORPUS CHRISTI	89	70	93	64	80	-1	.7	-9	.7	2.1	39	15.4	64	92	49	2	0	1	1
DEL RIO	87	67	90	60	77	-2	0	-7	0	1.2	60	7.0	54	68	29	2	0	0	0
EL PASO	88	61	95	53	74	0	.1	-2	.1	.5	44	6.9	116	80	33	4	0	1	0
PORT WORTH	83	60	88	55	71	-5	0	-8	0	2.4	93	37.0	158	83	35	0	0	0	0
GALVESTON	84	71	87	64	78	0	0	-1.4	0	1.3	27	36.3	121	83	45	0	0	0	0
HOUSTON	86	62	89	59	74	-1	0	-1.2	0	2.7	67	52.9	156	91	39	0	0	0	0
LUBBOCK	81	53	84	41	64	-3	.1	-4	.1	3.7	238	14.7	103	83	32	0	0	1	0
MIDLAND	82	56	87	48	69	-4	0	-5	0	2.8	173	7.8	73	79	32	0	0	0	0
SAN ANGELO	84	55	88	46	69	-6	0	-7	0	2.8	122	16.5	121	83	32	0	0	0	0
SAN ANTONIO	90	63	93	58	76	-2	0	-9	0	1.5	54	14.0	65	79	28	6	0	0	0
VICTORIA	89	65	91	61	77	-2	0	-1.5	0	2.4	50	18.9	68	84	36	5	0	0	0
WACO	86	57	90	53	71	-7	0	-8	0	.3	11	26.7	117	87	30	1	0	0	0
WICHITA FALLS	81	55	87	42	68	-6	0	-8	0	5.3	206	34.1	166	91	37	0	0	0	0
UT CEDAR CITY	75	43	85	37	59	-3	.2	0	.2	.2	30	5.7	74	86	27	0	0	3	0
SALT LAKE CITY	76	51	89	45	64	0	.4	.2	.3	.4	59	7.9	71	84	30	0	0	3	0
VT BURLINGTON	74	54	82	44	64	7	2.4	1.7	1.6	6.0	239	29.2	118	94	62	0	0	4	1
VA NORFOLK	83	69	88	57	76	5	2.1	1.1	1.4	3.8	112	45.7	132	95	69	0	0	5	1
RICHMOND	80	64	88	51	72	3	2.1	1.3	1.9	3.7	137	39.0	119	98	65	0	0	4	1
ROANOKE	76	59	86	43	68	1	1.4	.7	1.3	7.3	303	42.1	144	98	65	0	0	3	1
WA QUILLAYUTE	72	44	89	36	58	2	T	-1.6	T	T	1	49.9	78	94	43	0	0	1	0
SEATTLE-TACOMA	76	51	91	46	64	4	.2	-3	.2	.3	18	20.5	91	89	36	1	0	1	0
SPOKANE	74	45	85	37	60	2	T	-1	T	.1	13	9.7	90	80	28	0	0	2	0
YAKIMA	78	42	85	35	60	0	T	-1	T	T	0	3.8	77	85	27	0	0	0	0
WV BECKLEY	70	53	79	34	62	0	1.2	.4	.8	.4	85	33.0	101	100	75	0	0	3	1
CHARLESTON	73	56	87	40	65	-2	1.5	.8	1.1	6.8	289	48.7	148	99	68	0	0	3	1
HUNTINGTON	75	56	87	40	66	-2	2.0	1.3	1.3	6.1	254	50.8	160	97	58	0	0	2	2
PARKERSBURG	75	55	87	39	65	-1	2.1	1.5	1.5	6.5	295	45.5	154	99	63	0	0	2	2
WI GREEN BAY	75	45	81	31	60	3	T	-7	T	.6	23	13.8	63	91	39	0	1	0	0
LACROSSE	75	50	81	35	63	2	.4	-4	.4	1.9	70	18.4	75	93	45	0	0	1	0
MADISON	72	44	78	31	58	-1	0	-7	0	.9	37	21.3	87	95	48	0	1	0	0
MILWAUKEE	73	51	78	36	62	1	0	-7	0	3.3	146	25.5	107	92	47	0	0	0	0
WAUSAU	72	46	80	31	59	3	.1	-8	.1	.9	28	17.1	67	94	44	0	1	1	0
WY CASPER	70	44	85	37	57	1	2.2	2.0	2.0	3.2	589	11.9	133	85	32	0	0	3	1
CHEYENNE	70	44	83	36	57	0	T	-2	T	1.6	193	11.5	100	89	40	0	0	1	0
LANDER	70	46	83	40	58	1	1.4	1.2	1.4	2.1	343	13.4	131	80	29	0	0	2	1
SHERIDAN	73	42	94	34	58	2	T	-3	T	.8	95	9.6	80	82	29	1	0	0	0

National Agricultural Summary

September 18-24, 1989

HIGHLIGHTS: Rain and high winds from two hurricane systems in the Pacific and Atlantic coasts damaged crops and delayed fieldwork. In California, remnants of hurricane Octave interrupted harvest of field crops and hay. Hurricane Hugo affected crop condition in many eastern States, most severely in South Carolina and North Carolina. Cold temperatures brought an early frost to portions of the Corn Belt near week's end, but crop damage was minimal. Soil moisture supplies were adequate across much of the country, except in the Rocky Mountain region, northern Great Plains, and a few Southeastern States, where supplies were short to adequate.

Winter wheat planting advanced 15 percentage points during the week to 29 percent (%) complete, 6 points behind normal. Corn harvest was 10% complete, 5 points behind the 5-year average. Corn maturing progressed to 66% but trails the average by 12 points. The corn crop was rated mostly fair to good. Soybeans were rated mostly fair to good. Harvest progress was at 4% complete, 5 points behind normal. The percentage of soybeans dropping leaves, at 48, was 12 points behind the average. Cotton harvest progressed slightly to 9% complete, 5 points behind normal. Bolls were opening on 54% of the acreage, compared with 62% on average. Cotton condition was rated fair to good nationally but deteriorated in several States. Sorghum was rated mostly fair to good. Harvest was running 3 points behind normal as 24% of the crop had been combined.

SMALL GRAINS: Winter wheat planting was 29% complete, 6 points behind normal. The central Great Plains and Pacific Northwest regions continued to lag normal planting progress. Texas, Nebraska, Colorado, South Dakota, and Montana advanced 20 or more points during the week. In Nebraska, some replanting was necessary because of heavy rains in the Panhandle. Many fields in the Texas plains had emerged. California and Arkansas had not begun planting.

CORN: Corn was in mostly fair to good condition with 66% of the crop in the mature stage, but behind the normal 78% mature by this date. Corn harvest progressed to 10% complete, 5 points behind normal. North Carolina harvest progressed 20 points and Kansas progressed 11 points. Harvest in Ohio and Pennsylvania had not yet started as the crop was late maturing in both States. The percentage mature was 30 or more points behind normal in Ohio, Indiana, and Michigan.

SOYBEANS: The soybean crop was rated mostly fair to good. Forty-eight percent of the crop was dropping leaves, 12 points behind normal. The eastern Corn Belt States were behind the most. Harvest advanced slightly to 4% complete, 5 points behind normal. Seven of the nineteen major States had not begun harvest. Illinois and Ohio were 14 and 12 points behind normal harvest progress, respectively. The South Carolina and North Carolina soybean crops suffered damage by high winds and heavy rain from Hurricane Hugo.

COTTON: Cotton was mostly fair to good but deteriorated in South Carolina, North Carolina, Texas, and New Mexico. Hurricane Hugo damaged the crop in the Carolinas, while cool temperatures hampered the Texas crop. Harvest was 9% complete, 5 points behind normal. Mississippi, Arkansas, and Louisiana were 15 or more points behind normal due to late development. Most States were defoliating cotton. Over half the crop had bolls opening, behind normal opening progress by 8 points. Alabama, Arkansas, and Mississippi were 20 or more points behind normal.

SORGHUM: Sorghum was rated mostly fair to good with 47% in the mature stage, 9 points behind normal. Eighty-one percent was coloring, 8 points behind normal. Twenty-four percent of the crop was harvested, 4 points behind the average. In Kansas, coloring and maturing progress was 15 and 20 points

behind normal, respectively. Harvest was most advanced in Louisiana, Texas, and Arkansas. Some frost damage was reported in eastern Nebraska.

OTHER FIELD CROPS: Rice was mostly fair to good. Fifty-two percent of the crop was harvested, 13 points more than a week earlier but 9 points behind normal. Arkansas and Mississippi harvest was in full swing, while Texas and Louisiana harvest was winding down. In California, harvest was delayed as much as 1 week because of heavy rain. In Georgia, peanut harvest advanced rapidly until Hurricane Hugo crossed a portion of the State on Friday. Peanut harvest continued in Texas, Oklahoma, Alabama, Florida, North Carolina, and Virginia. Burley tobacco cutting was active in Kentucky and Tennessee and nearing completion.

FRUIT AND NUTS: Citrus groves in Florida were in good condition. Irrigating was active until weekend rains fell. Citrus harvest picked up as fresh fruit demand was strong. Some early orange varieties were being harvested in the Rio Grande Valley of Texas. In Arizona, lemon and grapefruit harvests continued in the west. Orange, lemon, and grapefruit harvests in California were nearing completion. Oregon and Washington apple and winter pear harvests continued. In New York's Lake Ontario region, 20% of the apple crop was picked. New England apple orchards were 39% picked. Apple harvest in Michigan was in full swing. Southern and central Texas pecan harvest was underway, while Georgia's crop was rated mostly fair to good with minimal hurricane damage. California almond and pistachio harvests continued, with some staining reported, but minimal loss was due to rain.

VEGETABLES: California asparagus and tomato harvests were delayed due to rain. Potato harvest continued in Oregon and Washington. In Idaho, potatoes were 19% harvested, slightly behind normal. Fall vegetable planting was underway in Arizona as well as in the Rio Grande Valley of Texas. In Florida, hot temperatures continued over the major vegetable producing region as fall fieldwork was active. In New England, sweet corn and potato harvests were active.

PASTURES AND LIVESTOCK: Pastures were mostly fair to good across the country. Livestock was rated good. In east Texas, hay was being shipped to drier portions of the State.

Crop Progress

FOR WEEK ENDING SEPTEMBER 24, 1989

COTTON
% BOLLS OPENING

	1989	1988	AVG.
ALA	60	92	83
ARIZ	92	99	94
ARK	56	82	85
CALIF	95	90	96
GA	56	63	70
LA	84	87	89
MISS	64	93	92
MO	74	60	78
N MEX	76	30	68
N C	76	88	91
OKLA	30	50	30
S C	61	63	77
TENN	66	79	84
TEX	34	42	36

14 STATES 54 64 62

THESE 14 STATES PRODUCED 99% OF THE 1988 COTTON CROP.

GRAIN SORGHUM
% HARVESTED

	1989	1988	AVG.
ARK	66	56	71
ILL	7	12	19
KANS	4	15	10
LA	86	77	89
MISS	52	59	73
MO	24	24	30
NEBR	2	12	6
OKLA	15	3	10
S DAK	7	14	6
TENN	52	37	48
TEX	63	65	62

11 STATES 24 30 28

THESE 11 STATES PRODUCED 96% OF THE 1988 GRAIN SORGHUM CROP.

SOYBEANS
% DROPPING LEAVES

	1989	1988	AVG.
ALA	30	20	27
ARK	6	7	13
GA	22	23	36
ILL	57	80	77
IND	37	78	80
IOWA	72	93	80
KANS	35	80	60
KY	30	32	38
LA	38	18	30
MICH	35	55	65
MINN	93	99	81
MISS	29	18	32
MO	33	53	47
NEBR	45	92	59
N C	11	5	10
OHIO	30	60	70
S C	8	6	7
S DAK	90	100	78
TENN	36	28	34

19 STATES 48 65 60

THESE 19 STATES PRODUCED 95% OF THE 1988 SOYBEANS CROP.

COTTON
% HARVESTED

	1989	1988	AVG.
ALA	8	31	18
ARIZ	9	6	4
ARK	2	8	18
CALIF	1	1	1
GA	4	13	12
LA	11	19	28
MISS	1	15	24
MO	4	8	17
N MEX	0	0	0
N C	0	0	0
OKLA	0	0	1
S C	2	3	7
TENN	4	4	15
TEX	15	20	16

14 STATES 9 14 14

THESE 14 STATES PRODUCED 99% OF THE 1988 COTTON CROP.

GRAIN SORGHUM
% MAIURE

	1989	1988	AVG.
ARK	85	80	NA
ILL	69	83	NA
KANS	20	50	40
LA	100	95	98
MISS	83	86	93
MO	60	68	74
NEBR	45	91	64
OKLA	45	25	35
S DAK	80	73	54
TENN	86	75	76
TEX	74	68	72

11 STATES 48 65 NA
EXCL. STATES WITH NA 47 64 56

THESE 11 STATES PRODUCED 96% OF THE 1988 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

SOYBEANS
% HARVESTED

	1989	1988	AVG.
ALA	5	2	4
ARK	0	0	1
GA	0	0	2
ILL	6	17	20
IND	3	7	11
IOWA	8	28	12
KANS	1	10	5
KY	1	1	3
LA	8	3	5
MICH	0	0	1
MINN	5	40	13
MISS	4	2	4
MO	1	5	5
NEBR	1	12	7
N C	0	0	0
OHIO	0	5	12
S C	0	0	0
S DAK	4	17	7
TENN	0	0	0

19 STATES 4 13 9

THESE 19 STATES PRODUCED 95% OF THE 1988 SOYBEANS CROP.

RICE
% HARVESTED

	1989	1988	AVG.
ARK	43	32	52
CALIF	2	10	12
LA	85	83	89
MISS	39	45	66
TEX	99	100	98

5 STATES 52 49 61

THESE 5 STATES PRODUCED 97% OF THE 1988 RICE CROP.

GRAIN SORGHUM
% COLORING

	1989	1988	AVG.
ARK	94	98	NA
ILL	93	92	NA
KANS	65	90	80
LA	100	100	100
MISS	97	97	99
MO	90	94	96
NEBR	90	100	97
OKLA	97	85	95
S DAK	100	93	88
TENN	100	100	100
TEX	88	96	94

11 STATES 81 94 NA
EXCL. STATES WITH NA 81 94 89

THESE 11 STATES PRODUCED 96% OF THE 1988 GRAIN SORGHUM CROP.

NA - NOT AVAILABLE.

WINTER WHEAT
% PLANTED

	1989	1988	AVG.
ARK	0	0	0
CALIF	0	0	0
COLO	51	65	69
GA	1	3	4
IDAHO	28	22	35
ILL	3	5	5
IND	6	11	9
KANS	20	25	35
MICH	20	15	10
MO	5	14	10
MONT	48	44	46
NEBR	65	65	73
N C	3	0	0
OHIO	5	10	8
OKLA	25	25	30
OREG	12	11	17
S DAK	83	61	79
TEX	44	50	40
WASH	48	61	56

19 STATES 29 32 35

THESE 19 STATES PRODUCED 87% OF THE 1989 WINTER WHEAT CROP.

Weekly Weather and Crop Bulletin

	CORN % MATURE		
	1989	1988	AVG.
COLO	50	55	59
GA	100	100	100
ILL	79	94	92
IND	46	78	82
IOWA	93	100	88
KANS	80	90	80
KY	73	73	79
MICH	20	30	50
MINN	63	96	63
MO	88	93	94
NEBR	60	93	74
N C	95	94	97
OHIO	12	40	66
PA	6	13	27
S DAK	84	92	72
TEX	96	98	96
WIS	32	73	58
17 STATES	66	84	78

THESE 17 STATES PRODUCED 94%
OF THE 1988 CORN CROP.

	CORN % HARVESTED		
	1989	1988	AVG.
COLO	4	6	4
GA	81	81	89
ILL	7	19	19
IND	4	7	11
IOWA	10	34	12
KANS	15	50	25
KY	17	22	25
MICH	1	2	4
MINN	3	24	6
MO	19	38	32
NEBR	4	16	7
N C	45	28	46
OHIO	0	1	4
PA	0	1	3
S DAK	7	13	3
TEX	75	86	77
WIS	1	9	3
17 STATES	10	22	15

THESE 17 STATES PRODUCED 94%
OF THE 1988 CORN CROP.

Crop Condition PERCENT

FOR WEEK ENDING SEPTEMBER 24, 1989

RICE

STATE	VP	P	F	G	EX
ARK	0	0	27	49	24
CALIF	0	0	10	70	20
LA	0	0	29	71	0
MISS	0	0	40	60	0
TEX	0	0	13	87	0
5 STATE	0	0	24	63	13
PREV WEEK	0	0	25	67	8
PREV YEAR	0	0	31	63	6

CORN

STATE	VP	P	F	G	EX
COLO	0	3	13	72	12
GA	0	0	13	66	21
ILL	0	3	19	67	11
IND	0	0	11	72	17
IOWA	0	11	36	50	3
KANS	2	1	9	53	35
KY	0	1	4	59	36
MICH	2	6	17	45	30
MINN	1	7	39	47	6
MO	6	15	37	39	3
NEBR	8	8	25	38	21
N C	5	2	12	69	12
OHIO	2	10	33	46	9
PA	2	14	24	39	21
S DAK	7	7	40	38	8
TEX	0	3	3	57	37
WISC	0	1	6	68	25
17 STATE	2	6	25	53	14
PREV WEEK	2	6	24	56	12
PREV YEAR	11	34	36	17	2

GRAIN SORGHUM

STATE	VP	P	F	G	EX
ARK	0	4	38	54	4
ILL	0	0	7	78	15
KANS	0	11	26	38	25
LA	0	13	48	39	0
MISS	0	0	50	50	0
MO	0	2	30	62	6
NEBR	5	19	60	16	0
OKLA	0	0	25	70	5
S DAK	7	32	37	22	2
TENN	2	1	32	64	1
TEX	1	5	26	49	19
11 STATE	1	10	33	41	15
PREV WEEK	1	12	33	38	16
PREV YEAR	3	19	37	34	7

SOYBEANS

STATE	VP	P	F	G	EX
ALA	3	7	39	51	0
ARK	0	5	71	24	0
GA	2	3	36	50	9
ILL	0	0	14	78	8
IND	0	2	16	76	6
IOWA	0	5	37	56	2
KANS	0	1	19	30	50
KY	0	0	27	66	7
LA	2	20	46	32	0
MICH	3	7	20	45	25
MINN	1	2	44	48	5
MISS	5	20	65	10	0
MO	1	10	44	42	3
NEBR	9	13	63	15	0
N C	2	4	10	72	12
OHIO	2	11	38	43	6
S C	11	45	22	22	0
S DAK	4	3	37	50	6
TENN	0	6	71	22	1
19 STATE	1	6	36	51	6
PREV WEEK	2	6	36	50	6
PREV YEAR	5	23	49	22	1

COTTON

STATE	VP	P	F	G	EX
ALA	0	1	33	66	0
ARIZ	0	0	0	70	30
ARK	0	0	74	26	0
CALIF	0	0	5	85	10
GA	0	1	28	71	0
LA	0	9	61	30	0
MISS	0	15	60	25	0
MO	0	0	77	23	0
N MEX	0	0	50	40	10
N C	0	0	35	65	0
OKLA	0	0	75	25	0
S C	54	13	5	28	0
TENN	4	4	76	16	0
TEX	0	21	57	19	3
14 STATE	1	12	49	34	4
PREV WEEK	0	7	54	36	3
PREV YEAR	1	4	35	55	5

VP - VERY POOR P - POOR F - FAIR G - GOOD EX - EXCELLENT

State Summaries of Weather and Agriculture

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

ALABAMA: Rainfall 0.50 in. southern half, over 1.00 in. isolated areas; 1.00 to 2.00 in. northern half, over 3.00 in. local areas. Temperatures 3 to 6° below normal.

Days suitable for fieldwork 6.0. Soil moisture 53% short, 38% adequate, 9% surplus. Mostly dry through mid week allowed good progress all field activities; rains benefitted small grains, soybeans weekend. Corn 62% harvested, 72% 1988, 75% avg. Cotton 60% bolls opened, 92% 1988, 83% avg.; 8% harvested, 31% 1988, 18% avg.; 1% poor, 33% fair, 66% good. Soybeans 95% blooming, 100% 1988, 100% avg.; 90% setting pods, 96% 1988, 99% avg.; 50% turning color, 39% 1988, 50% avg.; 30% dropping leaves, 20% 1988, 27% avg.; 16% mature, 14% 1988, 15% avg.; 5% harvested, 2% 1988, 4% avg.; 3% very poor, 7% poor, 39% fair, 51% good. Peanuts 70% dug, 24% 1988, 38% avg.; 56% combined, 9% 1988, 25% avg.; 57% fair, 43% good. Sorghum 55% harvested, 48% 1988, 56% avg.; 4% poor, 25% fair, 64% good, 7% excellent. Winter wheat 18% seeded, 17% 1988, 10% avg. Livestock, pastures mostly good to fair. Primary activities: Harvesting row crops, hay, sweet potatoes; defoliating, harvesting cotton; preparing land, seeding winter annuals; applying fertilizer, lime; controlling insects on vegetables; routine care of livestock, poultry, catfish.

ALASKA: Snow, rain fell mid week in northern areas of Railbelt, south central portions continued abnormally wet weather. Highs 4° below normal to 4° above normal. Lows 2 to 8° above normal. Precipitation 0.18 in. below normal at fairbanks to 11.44 in. above normal at Anchorage.

Days suitable for harvest 6.0 potato, 2.0 other, Topsoil 12% short, 42% adequate, 46% surplus. Subsoil 8% short, 45% adequate, 47% surplus. 2nd crop hay harvest 60% complete. Barley harvest 95% complete. Commercial potato harvest 75% complete. Small grain deterioration growers concerned for quality in Matanuska Valley.

ARIZONA: Temperatures 5° below to 3° above normal. Extremes 27°; 109°. Cloudy, light showers north, northeast; mostly sunny southwest, central; cooler, drier air early, warming by weekend. Rainfall none to 0.69 in.

Cotton defoliation, harvest continued; pink bollworm, controls applied mostly long staple; insect infestations moderate, weed infestations light. Alfalfa harvest moderately active; light weed, insect infestations; crop good. Hay, roughage mostly adequate, stacking continued; renovation, re-seeding west, southwest. Corn, sorghum fair, harvest underway. Lemon, grapefruit harvest continued west; planting, irrigating fall vegetables. Cantaloupe, honeydew melon harvest continued central; harvest, loading seedless watermelons continued, fall vegetables planting underway. Apple harvest, packing continued east.

ARKANSAS: Temperatures remained cooler. Rainfall light, spotty. Extremes 28°; 87°. Rainfall none to 0.43 in.

Days suitable for fieldwork 7.0. Soil moisture 21% short, 79% adequate. Rice 82% ripe, 80% 1988, 84% avg. Soybeans 99% blooming, 100% 1988, 100% avg.; setting pods 98% 1988, 94% 1988, 96% avg.; yellowing 25%, 28% 1988, 33% avg. Corn 89% harvested, 82% 1988, 88% avg. Main activities: Rice, sorghum, corn harvest; limited cotton,

soybean harvest; draining rice fields; cotton defoliation; cotton insect spraying; pasture fertilization; bush hogging pastures; preparing ground for seeding small grains, fall pastures; cutting, baling hay. Long lines at rice driers, yields better than expected. Disease problems continued in soybeans. Watermelon harvest winding down. Hay, pasture good. Livestock good except for some problems with anaplasmosis.

CALIFORNIA: Over weekend, remnants Hurricane Octave moved northward warm tropical air met cooler air from developing low pressure trough nearing west coast. Produced heavy rainfall, Sacramento, northern San Joaquin Valleys. Thunderstorms, funnel clouds, gusty winds, tornado touch down. Temperatures cooled below normal, slowly rebounded by weekend.

Heavy rain 16th, 17th except southern area interrupted field activities much of week. Rice harvest delayed up to week, wet fields. Sunflower, field corn, dry bean, sugarbeet harvests delayed. Some dry beans, rain on windrows. Windrows turned, little, if any, damage expected. Rain on some cut hay, some quality loss. Cotton defoliation full swing. Some central fields harvested. Southern harvest good progress. Alfalfa, Sudan harvests continued. Harvest in north brought to standstill early in week. Variable damage depending on crop, area. Losses kept minimal due to warm weather that followed. Avocado harvest continued slow. Soft dates increasingly harvested. Raisin harvest continued, Thompson on trays, majority turned, rolled or boxed. Damage to raisin crop Merced, Madera area 5 to 25%, minimal elsewhere. Table, wine grapes harvested. Mold, mildew in Napa valley for Chardonnay, Chenin Blanc, Johannesburg Riesling, Zinfandel. Peaches packed: Carnival, Belmont, Parade, August Gem, Fairtime. Rainfall slowed pear, prune harvests. Almond, pistachio harvests continued, minimal loss due to the rain, some staining. Rain brought down early walnuts, accelerated hull split, harvest of later varieties. Western county grapefruit, valencia harvests nearly complete. Desert lemons picked with good yields, quality. Asparagus cutting stopped two days due to rain. Broccoli moderate supply central coast. Carrot harvest continued. Cauliflower moderate supply, light demand. Heavy supplies celery generally good quality. Head lettuce supplies moderate, variable quality. Potato harvest continued steady Riverside. Sweet potato harvest continued active. Strawberries light supply, poor to fair quality. Harvest market tomatoes, processing tomatoes delayed due to rain. Early desert vegetable plantings showing good growth. Livestock continued good condition moving from summer pastures. Increased movement feed yards. Supplemental feeding continued. Areas receiving rainfall improved pasture range water supplies; otherwise water supplies tight.

COLORADO: Cooler weather with drizzle, rain during beginning of week followed by gradual warming, drier weather during the later part of the week. Precipitation 0.25 to 0.50 in. over State. Temperatures near normal in west, San Luis Valley, 2 to 5° above normal in east.

Days suitable for fieldwork 5.2. Soil moisture 12% very short, 34% short, 50% adequate, 4% surplus. Alfalfa 3rd cutting 55% complete, 4th

cutting 5% complete. Corn silage harvested 56%; grain harvest just beginning. Oats harvested 87%. Dry onions 62% harvested. Dry beans 64% cut with 34% threshed. Summer potatoes 66% harvested. Fall potatoes 23% harvested. Sorghum 40% mature with 5% harvested. Spring wheat 86% harvested. Livestock good, pasture, range fair to good.

FLORIDA: Rain during week; 1.00 to 3.00 in. common with local amounts exceeding 5.00 in. Heaviest rain fell central, northern areas of Peninsula, weekend. Temperatures 3 to 5° below normal, extreme northwest to 1 to 3° above normal, south. Temperatures lows upper 50s Panhandle to highs mid 90s south area.

Soil moisture Panhandle short to adequate; Peninsula mostly adequate. Corn, peanut harvest, hay making active. Cotton farmers prepared for harvest. Sugarcane, soybeans good progress. Sugarcane planting continued active. Land preparation continued, fall seeded crops. Panhandle, northern Peninsula grazing fair to good. Central Peninsula pastures varied widely fair to excellent; southern Peninsula remained good to excellent. Cattle continued good to excellent. Calf marketings active, increasing seasonally. Citrus groves, trees very good. Irrigation used all areas until weekend rains came. Harvest increased; several packing houses packing fruit for both local, export use. Good fresh fruit demand. Caretakers active cutting cover crops, completing fall spraying, fertilizing. Hot temperatures continued over vegetable producing areas. Showers variable, more active early, late week. Field preparation, planting active. Light harvest Zellwood sweet corn underway. Also limited volume cucumbers, eggplant, squash available.

GEORGIA: Temperatures 2 to 5° below normal. Highs mid, upper 70s northeast mountains, 90 along Florida border. Lows mid 40s north, low 60s along Atlantic coast. Rainfall 1.00 to 3.00 in. northern, eastern areas. Savannah River Valley more than 7.00 in. Southwest under 0.50 in.

Days suitable for fieldwork 5.3. Soil moisture 14% very short, 34% short, 41% adequate, 11% surplus. Cotton harvest slow, behind last year, average. Sorghum grain 51% harvested, 44% 1988, 47% avg. Peanuts 79% dug, 29% 1988, 53% avg.; 61% threshed, 14% 1988, 40% avg. Excellent harvest progress until slowed by Hurricane Hugo. Soybeans still needing rain west central, southwest. Wheat 1% emerged, 1% 1988. Rye 5% planted, 10% 1988, 9% avg. Apples 56% harvested, 66% 1988, 77% avg. Pecans 11% poor, 56% fair, 33% good; Hurricane damage light. Pastures, hay fair to mostly good. Cattle, hogs mostly good.

HAWAII: Warm, sunny conditions, beneficial showers continued to benefit agriculture. Temperatures low 60s to high 80s, variable winds up to 20 mph. Rainfall none to 3.10 in.

Days suitable for farm work 7.0. Papaya orchards experiencing fruit gap. Coffee picking underway in most areas. Sugar, pineapple harvesting continuous.

IDAHO: Temperatures mostly above normal. Few northern, southwestern localities above normal. Nearly all areas received precipitation, some up to 1.00 in. Precipitation above normal except in north.

Days suitable for fieldwork 6.0. Statewide showers early in week delayed harvesting operations on dry beans, potatoes, hay. Warm, dry weather remainder of week allowed fields to dry as harvesting operations resumed. Soil moisture 5% very short, 22% short, 73% adequate. Winter wheat 28% seeded, 22% 1988, 35% avg.; 5% emerged. Small

grain harvest wrapping up. Northern area grain harvesting delayed due to excess moisture. Potatoes 19% harvested, 18% 1988, 20% avg. Sugarbeets 6% harvested, 3% 1988, 4% avg. Third cutting alfalfa hay 75% harvested, 77% 1988, 56% avg. Dry beans 67% harvested, 76% 1988. Onions 60% harvested, 65% avg. Grain corn harvest underway. Apples 17% harvested, 19% avg. Hops 94% harvested. Livestock feed adequate. Forage conditions improved with precipitation. Southeast rangeland, pasture remained dry. Livestock good, excellent going into winter.

ILLINOIS: Temperatures 3 to 6° below normal. Rainfall insignificant.

Days suitable for fieldwork 6.00. Soil moisture 15% short, 75% adequate, 10% surplus. Soybeans turning color 91%, 95% 1988, 93% avg. Alfalfa 3rd crop cut 96%, 100% 1988, 100% avg.; 17% fair, 66% good, 17% excellent. Pasture 15% fair, 74% good, 11% excellent.

INDIANA: Temperatures 3 to 7° below normal. Lows upper 20s to low 30s, highs upper 70s to low 80s. Precipitation up to 0.20 in. Days suitable for fieldwork 4.3. Topsoil 73% adequate, 27% surplus. Subsoil 3% short, 71% adequate, 26% surplus. Corn, soybean good; 71% turning yellow, 95% 1988, 96% avg. Silo filling 36% 1989, 79% 1988, 77% avg. Tobacco 73% harvested, 74% 1988, 85% avg. 1990 winter wheat 6% seeded, 11% 1989, 9% avg. Pasture 1% poor, 14% fair, 61% good, 24% excellent. Near freezing temperatures occurred in north, some central regions of the State.

IOWA: Freeze northern two-thirds 23rd, 24th. Extremes 23°; 85°. Rainfall none to 0.70 in., average 0.08 in.

Days suitable for fieldwork 6.6. Topsoil 21% short, 79% adequate. Subsoil 81% short, 19% adequate. Corn mostly good. Corn borers a problem in most areas of State. Soybean leaves turning color 98%, 100% 1988, 96% avg. Winter wheat 40% seeded, 32% 1988, 22% avg. Livestock mostly good. Good weather for green tagging calves. Pasture 13% poor, 43% fair, 39% good, 5% excellent.

KANSAS: Temperatures low 60° northwest to mid 60s in southern areas. Precipitation very light.

Days suitable for fieldwork 4.0. Topsoil 3% short, 84% adequate, 13% surplus. Subsoil 18% short, 74% adequate, 8% surplus. Crops development generally lags behind last year. Wheat seeding modest progress, behind schedule. Corn, sorghum harvest underway. Range, pasture adequate most areas.

KENTUCKY: Cool fall weather arrived 22nd. Remnants hurricane Hugo left 2.00 in. rain central, east, west received very little. Daytime highs mid 70s, 5° below normal. Lows lower 50s, 2° below normal.

Days suitable for fieldwork 4.6. Soil moisture 3% very short, 7% short, 83% adequate, 7% surplus. Burley cutting active, many farmers finished. Statewide, burley 84% cut, 1988 84%, avg. 88%. Late burley grew out well. Late housed tobacco curing well. Houseburn, mostly light to moderate. Dark tobacco 86% cut. Corn good to excellent. Harvest active in west, south. Soybean harvest just beginning, only about half soybeans considered safe from frost. Pastures mostly good to excellent, few areas dry, overgrazed.

LOUISIANA: Temperatures 3 to 5° below normal. Extremes 53°; 91°. Rainfall none to 0.13 in.

Days suitable for fieldwork 6.7. Soil moisture 11% very short, 51% short, 36% adequate, 2% surplus. Corn harvested 100%, 96% 1988, 97% avg.

Cotton open bolls 84%, 87% 1988, 89% avg.; harvested 11%, 19% 1988, 28% avg.; 9% poor, 61% fair, 30% good. Defoliant spraying continued. Hay final cutting 83%, 63% 1988, 79% avg. Rice ripe 97%, 97% 1988, 97% avg.; harvested 85%, 83% 1988, 89% avg.; Sorghum ripe 100%, 95% 1988, 98% avg.; harvested 86%, 77% 1988, 89% avg.; Soybeans setting pods 100%, 99% 1988, 100% avg.; leaves turning 59%, 34% 1988, 55% avg. shedding leaves 38%, 18% 1988, 30% avg.; harvested 8%, 3% 1988, 5% avg.; 2% very poor, 20% poor, 46% fair, 32% good. Stem canker, insects were still causing problems. Sugarcane planted 81%, 47% 1988, 63% avg.; 28% fair, 67% good, 5% excellent. Planted cane needs rain to better stands. Sweet potatoes harvested 48%, 55% 1988, 65% avg.; 6% poor, 41% fair, 53% good. Bruising during harvest continued, due to lack of moisture. Vegetable 2% very poor, 12% poor, 58% fair, 28% good. Pasture 3% poor, 51% fair, 46% good. Livestock 12% fair, 88% good.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 2.35 in. Temperature 71°, normal 67°. Extremes 51°; 89°.

Days suitable for fieldwork 3.0. Topsoil 65% adequate, 35% surplus. Subsoil 5% short, 70% adequate, 25% surplus. Field corn good; 88% dent, 91% 1988, 96% avg.; 57% mature, 65% 1988, 70% avg.; harvested for grain 14%, 21% 1988, 30% avg.; harvested for silage 66%, 82% 1988, 81% avg. Soybeans good; 95% setting pods, 95% 1988, 97% avg.; 35% turned, 33% 1988, 52% avg.; 14% shedding leaves, 11% 1988, 23% avg. Tobacco fair; 85% harvested, 90% 1988, 87% avg. Pasture good. All hay supplies adequate. Barley 14% seeded, 17% 1988, 22% avg. Rye 11% seeded, 17% 1988, 23% avg.

DELAWARE: Precipitation 4.01 in. Temperature 73°, normal 67°. Extremes 59°; 89°.

Days suitable for fieldwork 3.2. Topsoil 57% adequate, 43% surplus. Subsoil 86% adequate, 14% surplus. Field corn good; 67% mature, 67% 1988, 87% avg.; harvested for grain 30%, 27% 1988, 28% avg.; harvested for silage 68%, 92% 1988, 90% avg. Soybeans good; 18% turned, 18% 1988, 46% avg.; 8% shedding leaves, 6% 1988, 18% avg. Pasture good. All hay supplies adequate. Barley 11% seeded, 0% 1988, 4% avg. Rye 9% seeded, 0% 1988, 4% avg.

MICHIGAN: Temperatures 2 below to 5° above normal. Extremes 22°; 82°. Precipitation none to 0.61 in. across the State.

Days suitable for fieldwork 5.5. Soil moisture 15% short, 70% adequate, 15% surplus. Corn 20% mature, 30% 1988, 50% avg.; harvested 1%, 2% 1988, 4% avg.; 2% very poor, 6% poor, 17% fair, 45% good, 30% excellent. Soybeans 35% dropping leaves, 55% 1988, 65% avg.; 0% harvested, 0% 1988, 1% avg.; 3% very poor, 7% poor, 20% fair, 45% good, 25% excellent. Dry Beans 15% harvested, 10% 1988, 20% avg.; 10% poor, 30% fair, 45% good, 15% excellent. Winter wheat 20% planted, 15% 1988, 10% avg. Major activities: Corn silage chopping, hay cutting, potato harvest, wheat planting, preparing equipment for fall harvest. Apple, grape harvest were in full swing. Tomato growers were having difficulty picking because of wet fields. Harvest of other vegetables also continued.

MINNESOTA: Temperatures 1 to 4° above normal. Extremes 21°; 89°. Precipitation 0.23 to 1.81 in. Greatest weekly total 2.78 in.

Days suitable for fieldwork 5.0. Topsoil 3% very short, 21% short, 71% adequate, 5% surplus. Corn 63% mature, 96% 1988, 63% avg.; 3% combined, 24% 1988, 6% avg. Soybeans 93% shedding leaves, 99% 1988, 81% avg.; 38% mature, 91% 1988, 51% avg.; 5% combined, 40% 1988, 15% avg. Sugarbeets 7% harvested, 0% 1988, 8% avg. Dry Beans 51% harvested, 63% 1988, 54% avg. Potatoes 37%

harvested, 50% 1988, 54% avg. Flax 77% harvested, 81% 1988, 70% avg. Sweet corn 92% harvested, 99% 1988, 95% avg. Sunflowers 6% harvested, 39% 1988, 10% avg. Winter Wheat 87% seeded, 92% 1988, 81% avg. Rye 89% seeded, 92% 1988, 81% avg. Field corn 31% cut for silage, 81% 1988, 46% avg. Hay, grain 70% tilled, 72% 1988, 62% avg. Corn 28% moisture, 24% 1988, 25% avg. Soybeans 13% moisture, 13% 1988, 13% avg. Corn 1% very poor, 7% poor, 39% fair, 47% good, 6% excellent. Soybeans 1% very poor, 2% poor, 44% fair, 48% good, 5% excellent.

MISSISSIPPI: Cold, dry. Temperatures 5° below normal. Extremes 45°; 89°. Rainfall 0.69 in., 0.23 below avg. Heavy rains northeast, maximum 6.00 in.

Days suitable 5.4, 5.3 1988, 5.7 avg. Soil moisture 20% short, 65% adequate, 15% surplus. Corn good; 47% harvested, 54% 1988, 70% avg. Cotton fair; 64% open bolls, 93% 1988, 92% avg.; 1% harvested, 15% 1988, 24% avg. Cool weather slowing effectiveness of defoliants. Hay 87% harvested, 86% 1988, 90% avg. Rice good; 39% harvested, 45% 1988, 66% avg. Sorghum fair to good; 52% harvested, 59% 1988, 73% avg. Soybeans fair; 4% harvested, 2% 1988, 4% avg. Sweet potatoes 52% harvested, 49% 1988, 47% avg. Wheat 5% planted, 13% 1988, 9% avg. Livestock, pastures good. Pecans 5% very poor, 25% poor, 45% fair, 25% good. Activities: Harvesting row crops, defoliating cotton, planting wheat.

MISSOURI: Cool, dry. Temperatures 2° to 8° above normal. Freezing temperatures 24th. Precipitation none to 0.12 in.

Days suitable for fieldwork 5.6. Topsoil 7% short, 86% adequate, 7% surplus. Largest shortage south central. Largest surplus west central. Corn harvest 69% southeast. Sorghum 85% mature southeast, 58% or less elsewhere. Soybeans mature 4% southwest to 14% east central. Pasture 3% poor, 27% fair, 52% good, 18% excellent. Considerable late hay cutting being done.

MONTANA: Rain or snow early in week in west, central. Thunderstorms in south central. Few thunderstorms east. Precipitation none to 1.22 in. Temperatures near normal west, central, 2 to 4° above normal east.

Days suitable for fieldwork 5.5. Topsoil 32% short, 62% adequate, 6% surplus. Subsoil 34% short, 61% adequate, 5% surplus. Eastern sections remain dry. Spring wheat harvested 90%, 100% 1988, 96% avg. Barley harvested 88%, 100% 1988, 96% avg. Oats harvested 90%, 100% 1988, 96% avg. Corn silage harvested 66%, 75% 1988, 62% avg. Dry beans harvested 66%, 72% 1988, 60% avg. Second cutting alfalfa hay harvested 89%, 100% 1989, 93% avg. Winter wheat emerged 13%, 3% 1988, 13% avg. Pasture, range feed 2% very poor, 7% poor, 25% fair, 59% good, 7% excellent.

NEBRASKA: Temperatures near normal. Extremes 23°; 92°. Precipitation traces to about 0.50 in.

Days suitable for fieldwork 6.1. Topsoil 11% short, 82% adequate, 7% surplus. Subsoil 77% short, 23% adequate. Soybeans 93% turning color, 99% 1988, 89% avg. Corn 99% dented, 100% 1988, 100% avg. Lighter corn expected, more fields chopped for silage due to frost damage, mainly north, west. Stalk rot southwest. Alfalfa hay 4% very poor, 13% poor, 55% fair, 28% good. 98% third cutting, 100% 1988, 100% avg. Good yields in many areas. Winter wheat 15% emerged, 22% 1988, 42% avg. Replanting in Panhandle as heavy rains caused washouts, erosion. Pasture, range feed 12% very short, 54% short, 34% adequate. Hay, roughage 8% very short, 70% short, 22% adequate. Frost damage to dry edible bean crop

becoming more evident as harvest continued in west. Soybean, Sorghum harvest just underway, east, frost damage. Pastures improved, cool season grasses responded well to recent rains, cool nights have stopped warm season grasses. Cattlemen weaning calves in preparation to moving to market.

NEVADA: Remnants of hurricane Octave combined with Pacific cold front produced showers first half. High pressure returned mid week, remainder of week sunny, mild. Rainfall, cloudiness, temperatures slightly below normal early to slightly above end of period. Extremes 26°; 106°.

Rain early temporarily delayed harvesting potatoes, hay, remaining acreage alfalfa seed northern areas. Livestock mostly all down from high elevation areas.

NEW ENGLAND: Precipitation 2.25 to 2.50 in. northwest Connecticut, 1.25 to 1.50 in. northern, coastal Maine, southern New Hampshire, 1.50 to 1.75 in. remainder. Temperatures upper 50s near Canadian border to mid 60s south coast. Temperatures above normal north, near normal south.

Days suitable for fieldwork 4.0. Fieldwork progress 2.0 days behind. Soil moisture 65% adequate, 35% surplus north; 37% adequate, 63% surplus south. Grazing availability 8% short, 92% adequate north; 25% short, 75% adequate south. Maine potatoes 27% dug, 31% 1988, 30% avg.; good. Rhode Island potatoes 60% harvested, 68% 1988, 61% avg.; fair. Connecticut River Valley potatoes 42% dug, 41% 1988, 44% avg.; fair to good. Maine oats 83% harvested, 95% 1988, 82% avg.; good. Field corn 20% harvested, 38% 1988, 32% avg.; good. Sweet corn 95% picked, 96% 1988, 93% avg.; good. Second crop hay 92% cut, 91% 1988, 93% avg.; good. Third crop hay 53% cut, 70% 1988, 68% avg.; good to excellent. Apples 39% picked, 41% 1988, 34% avg.; good; medium size; color fair to good. Peach, pear harvest progressing; good. Cranberry dry harvest delayed; wet harvest continuing. Major farm activities: Harvesting potatoes, vegetables, haying, post-harvest activities.

NEW JERSEY: Temperatures much above normal. Extremes 32°; 91°. Rainfall 7.01 in. north, 5.10 in. central, 2.91 in. south. Heaviest 24-hour total 5.66 in. on 20th, 21th. Estimated soil moisture percent field capacity 96% north, 93% central, 87% south. Four inch soil temperatures 70° north, 72° central, south.

Fieldwork very limited. Soil moisture excessive many areas. Local flooding occurred. Cold temperatures slowed growth of late crops. Light frost received in coldest areas on morning of 25th. Fall vegetable harvest active. Apple picking advanced. Cranberry harvest began. Corn silage making slowed by wet fields. Very limited harvest of corn for grain began. Soil preparation, planting of grain halted by wet conditions.

NEW MEXICO: Rain fell scattered areas, heaviest over the north central mountains, northeast. Temperatures near to slightly below normal.

Days suitable for fieldwork 6.6. Soil moisture 44% short, 56% adequate. Cotton bolls open 76%, 50% fair, 40% good, 10% excellent. Wheat planted 87%. Cattle 20% fair, 70% good, 10% excellent. Sheep 22% fair, 67% good, 11% excellent. Ranges, pastures 11% poor, 56% fair, 33% good.

NEW YORK: Temperatures, precipitation above normal. Temperatures gradually increased during the week before plunging on the 23rd. Temperature 2 to 8° above normal. Extremes 32°; 85°.

Days suitable for fieldwork 3.6. Soil moisture adequate to surplus. Corn, hay, pastures fair to good. Third cutting of alfalfa was 59% finished, 65% 1988, 60% avg. Corn silage harvest 14% complete, 21% 1988, 16% avg. Only moderate damage to apple crop from hurricane. Lake Ontario region apple crop 20% picked. Peach harvest nearing completion. Bosc pear harvest underway. Vegetable harvest at peak. Summer crop harvesting winding down, fall crop harvest picking up.

NORTH CAROLINA: Temperatures none to 5° above normal across State. Extremes 41°; 90°. Precipitation 0.36 to 7.19 in.

Days suitable for fieldwork 4.3. Soil moisture 2% short, 82% adequate, 16% surplus. Pasture 20% fair, 70% good, 10% excellent. Livestock feed from pasture 84%. Crop condition: Sweet potatoes 4% very poor, 21% fair, 71% good, 4% excellent; apples 11% very poor, 21% poor, 5% fair, 58% good, 5% excellent; peanuts 35% fair, 60% good, 5% excellent; sorghum 3% very poor, 3% poor, 17% fair, 66% good, 11% excellent; hay 2% very poor, 24% fair, 68% good, 6% excellent. Hay second cutting 85% completed, third cutting 58% completed. Hay, roughage 4% short, 80% adequate, 16% surplus. Harvesting completed: Flue-cured tobacco 93%, 83% 1988, 87% avg.; burley tobacco 78%, 74% 1988, 81% avg.; corn silage 75%, 86% 1988, 87% avg.; apples 54%, 52% 1988, 55% avg.; sorghum 23%, 31% 1988, 30% avg.; sweet potatoes 23%, 17% 1988, 20% avg.; peanuts dug 9%, 5% 1988, 15% avg. Plantings completed: wheat 3%; oats 7%; barley 11%; rye 13%, 7% 1988, 5% avg. Major activities: Harvesting tobacco, corn grain; Other activities: Harvesting apples, corn silage, peanuts, sorghum; marketing tobacco; small grain planting; tending livestock; general farm maintenance. Crop damage from winds, rain of Hurricane Hugo was sustained in southern Coastal Plain, southern, western Piedmont, northern Mountain Counties.

NORTH DAKOTA: Temperatures 2 to 4° above normal. Frost most of State. Extremes 20°; 98°. Precipitation 0.01 in. northwest to 0.97 in. southeast.

Days suitable for fieldwork 6.6. Topsoil 13% very short, 55% short, 32% adequate; 5-year average 15% very short, 31% short, 48% adequate, 6% surplus. Subsoil below average, 38% very short, 55% short, 7% adequate; average 24% very short, 27% short, 47% adequate, 2% surplus. Most row crops fair. Sunflower 1% very poor, 20% poor, 61% fair, 18% good; dry edible beans 6%, 41%, 49%, 4%; flax 9%, 29%, 62%; potatoes 72% poor, 28% fair; sugarbeets 76% fair, 22% good, 2% excellent. Most row crop progress near average. Sunflower 61% bracts turned brown or beyond, dry edible beans 53% combined, flax 84% combined, corn for silage 75% cut, potatoes 63% dug, sugarbeets 5% lifted. Pasture 6% very poor, 50% poor, 35% fair, 9% good.

OHIO: First frost of Autumn 1989 in some areas; 2 to 3 weeks ahead of average. Temperatures mostly 50s to 70s until subnormal temperatures on the 23rd, 24th brought average temperatures below normal. Hurricane Hugo brought 1.00 in. east, less than 0.50 in. west.

Days suitable for fieldwork 5.0. Soil moisture 5% short, 81% adequate, 14% surplus. Farm activities: Harvesting crops, planting wheat. Corn fair to good; limited harvest, maturing late, slowly. Soybeans fair to good; few fields harvested. Winter wheat planting underway; fields seeded from air into growing soybeans. Hay, pasture fair to good; good haying conditions most areas.

OKLAHOMA: Temperatures 8° below normal Panhandle to 12° below normal southeast.

Days suitable for fieldwork 4.9. Topsoil 3% short, 72% adequate, 25% surplus. Subsoil 100% adequate. Wheat 25% planted, 25% 1988, 30% avg. 5% emerged, 10% 1988, 5% avg. Cotton 75% fair, 25% good; 30% open bolls, 50% 1988, 30% avg.; 0% harvested, 0% 1988, 1% avg. Warm, dry weather needed for development. Sorghum 25% fair, 70% good, 5% excellent; 97% coloring, 85% 1988, 95% avg.; 45% mature, 25% 1988, 35% avg.; 15% harvested, 3% 1988, 10% avg. Frost damage little. Soybeans 10% harvested, 1% 1988, 5% avg. Peanuts 3% harvested, 1% 1988, 3% avg. Corn 75% harvested, 65% 1988, 70% avg. Pastures good. Cattle good; marketings, prices stable.

OREGON: Heavy rains southwest, southeast, northeast mountains beginning of week, lighter amounts elsewhere. Dry, warm weather rest of week. Temperatures above normal most coastal areas. Willamette Valley 3 to 5° above normal. Southwest 1 to 3° above normal. Columbia Basin had near to above normal temperatures. Central area, southeast, northeast below normal.

Soil moisture 51% short, 49% adequate. Barley 8% planted, 4% 1988, 7% avg. Russian wheat aphid in volunteer growth east. Grain still being harvested eastern mountains. Tall fescue seeding completed, rye grass planting started Willamette Valley. Red clover seed harvest continued. Corn silage harvested. Still cutting hay mainly east. Apple harvest continued Hood River, Umatilla, Gilliam, Wasco, Jackson, Willamette Valley counties. Winter pear harvest continued Hood River, Medford districts. Blackberry harvest mostly finished; day neutral strawberry picking continued; hazelnuts dropping nicely, early harvest underway Willamette Valley. Cranberry harvest began south coast. Potato harvest continued Hermiston, Klamath, Malheur, Willamette areas. Crop now beginning to go into winter storage Hermiston-Boardman district. Onion harvest continued Umatilla, Malheur, western counties. Sweet corn, broccoli, cauliflower, table beets harvested Willamette Valley. Watermelon harvest neared completion Hermiston area. Livestock good. Range, pasture fair, except northeastern mountains have good new grass growth due to recent rains.

PENNSYLVANIA: Fairly wet week across State. Stalled frontal system along east seaboard gave much of eastern part of State a wet week. Hurricane Hugo moved by to south, west of State giving western portions of State rain at weekend. Temperature 64°, 2° below normal. Extremes 27°; 88°. Precipitation 1.69 in., 0.85 in. above normal.

Days suitable for fieldwork 4.0. Soil moisture 15% short, 62% adequate, 23% surplus. Corn 87% dough, 94% 1988, 99% avg.; 44% dent, 64% 1988, 80% avg.; 6% mature, 13% 1988, 27% avg.; none harvested, 1% 1988, 3% avg. Ensilage corn harvested 17% complete, 35% 1988. Corn 2% very poor, 14% poor, 24% fair, 39% good, 21% excellent. Soybean 1% very poor, 8% poor, 27% fair, 45% good, 19% excellent. Wheat planted 26% complete, 25% 1988. Barley planted 31% complete, 32% 1988. Tobacco harvest 90% complete, 87% 1988. Potato harvest 56% complete, 46% 1988. Second cutting alfalfa 95% complete, 100% 1988. Third cutting alfalfa 65% complete, 83% 1988. Fourth cutting alfalfa 30% complete, 35% 1988. Second cutting clover-timothy 86% complete, 95% 1988. Quality of hay made fair to poor. Feed from pastures average. Apple harvest 40% complete, 41% 1988. Peach harvest 93% complete, 100% 1988. Grape harvest 30% complete, 24% 1988. Fall plowing 49% complete, 50% 1988. Activities: Harvesting hay, haylage, potatoes, apples, peaches, grapes,

vegetables, tobacco, corn silage; fall plowing, planting; maintaining machinery, caring for livestock.

PUERTO RICO: NO DATA AVAILABLE.

SOUTH CAROLINA: Precipitation heavy Statewide. Hurricane Hugo influence mostly Midlands, Coast. Temperatures 2 to 4° below normal.

Days suitable for fieldwork 4.3. Soil moisture 22% short, 62% adequate, 16% surplus. Cotton 54% very poor, 13% poor, 5% fair, 28% good, 61% open bolls, 63% 1988, 77% avg.; 2% harvested, 3% 1988, 7% avg. Soybeans 11% very poor, 45% poor, 22% fair, 22% good, 94% setting pods, 95% 1988, 95% avg.; 23% leaves turning, 18% 1988, 22% avg.; 8% shedding leaves, 6% 1988, 7% avg. Tobacco good, 94% harvested, 99% 1988, 99% avg.; 46% stalks destroyed, 40% 1988, 51% avg. Corn fair, 59% harvested, 54% 1988, 73% avg. Sorghum good, 32% harvested, 27% 1988, 34% avg. Peanuts fair to good, 23% harvested, 5% 1988, 12% avg. Hay fair to good. Livestock, pastures good.

SOUTH DAKOTA: Temperatures 2° below to 6° above normal. Extremes 22°; 99°. Growing season precipitation generally 1.00 to 3.00 in. below normal; Black Hills, northeast above normal. Precipitation 1.00 in. to 3.00 in. west, central, northeast; less in northwest, southeast, maximum 3.45 in.

Days suitable for fieldwork 4.5. Topsoil 8% critically short, 23% short, 68% adequate, 1% surplus. Subsoil 29% critically short, 52% short, 19% adequate. Corn fair to good, sorghum fair to poor, soybean good to fair. Major activities: Small grains seeding, silage harvesting, row crop harvest, working, moving cattle, moving hay.

TENNESSEE: Dry, mild first half of week; cool, wet latter half. Remains of hurricane Hugo moved into east 22nd bringing widespread rain, flooding. Cold front weekend brought unseasonably cool weather to State, scattered frost. Temperatures much below normal Statewide. Precipitation near normal west, much above normal middle, east.

Days suitable for fieldwork 4.8. Soil moisture 7% short, 84% adequate, 9% surplus. Corn 92% mature, 82% 1988, 87% avg.; 92% harvested silage, 92% 1988, 85% avg.; 26% harvested grain, 26% 1988, 34% avg. Burley tobacco 88% harvested, 86% 1988, 88% avg. Dark fired 98% harvested, 82% 1988, 85% avg. Dark air-cured 96% harvested, 83% 1988, 86% avg. Rapid tobacco harvest nearly wrapped-up. Wheat, grass seedings active. Corn, sorghum harvests made good progress.

TEXAS: High pressure produced fine, dry weather across State first half week. Moisture limited, showers south Plains. Weak tropical wave produced rains lower coast. Cool air spread behind the front, followed quickly by stronger cold surge. Weekend quite cool, dry, windy. Freezing temperatures Panhandle, northern south Plains 24th morning, full month earlier than normal first freeze. Temperatures below normal Statewide, especially northern areas. Rainfall below normal, precipitation High Plains, Trans-Pecos, Coastal Bend, far southern areas.

Crops: Corn harvest High Plains. Open weather allowed producers make good progress. Most harvest completed Blacklands. Warmer daytime temperatures helped crop maturing Plains. Corn dented 98%, 100% 1988, 100% avg. Grain sorghum harvest good progress Blacklands, wind down many fields. Harvest good progress Hill Country, Cross Timbers. Harvest beginning dryland fields High Plains. Producers still irrigating, hoping late frost. Warmer temperatures midweek helped more fields mature. Cotton fields Plains

trying come back from cooler temperatures two weeks ago. Warmer daytime temperatures allowing bolls to open; late week cold front slowed process again. Low Plains, Cross Timbers defoliate. Harvest good progress Blacklands, central. Fields Trans-Pecos trying recover from recent cold temperatures. Harvest completed along Upper Coast. Fields remained harvest east. Small grain seeding resumed Plains with good moisture, warmer days. Producers active Blacklands. Many fields Plains emerging. Wheat emerged 20%, 25% 1988, 17% avg. Rice harvest first crop winding down along Upper Coast. Cooler temperatures two weeks ago slowed regrowth second crop. Peanut harvest increased dryland fields south, east. Yields affected by dry weather. Irrigated fields still look good. Producers Cross Timbers preparing for harvest. Fields rapidly maturing Low Plains. Soybean harvest active Upper Coast, northeast. High Plains crop rapidly maturing, expect good yields. Other crops: Peanuts harvested 5%, 12% 1988, 12% avg. Pecans 0%, 0% 1988, 1% avg. Soybeans harvested 33%, 32% 1988, 21% avg. Sugarbets 0%, 0% 1988, 2% avg. Sunflowers harvested 13%, 17% 1988, 15% avg. Oats planted 19%, 25% 1988, 23% avg.

Commercial Vegetables: Rio Grande Valley, planting, irrigating operations continued. Growth good on planted fields, despite dry conditions. Harvest some early variety oranges underway. Cooler temperatures two weeks ago, scattered rain, help sizing. San Antonio-Winter Garden, planting continued. Spinach planting just underway. Growth good under steady irrigation. East area, fall planting continued. Sweet potatoes left for harvest. High Plains, harvest activities resumed with open weather. Trans-Pecos, chili, bell pepper harvest continued. Land preparations continued. Pecan harvest underway portions south, central. Shuck split many other areas. Drop drier portions.

Range and Livestock: Warmer days, recent rain improved conditions north, Plains. Producers seeding pastures east. Good rains portions south still help some pastures. Livestock good. Hay shipped from east to drier areas of State.

UTAH: Precipitation heavy northeastern third, moderate middle third, light southwest third. Temperatures 4° below normal southwestern third, normal rest of State. Minimums 3° above normal northeastern third, normal elsewhere.

Days suitable for fieldwork 5.6. Soil moisture 75% short, 25% adequate. Fall planting continued. Winter wheat 65% seeded, 56% 1988, 69% avg. Alfalfa hay third cutting 91% complete, 83% 1988, 71% avg. Field corn in dent stage 85%, 90% 1988, 82% avg.; grain mature 58%, 68% 1988, 56% avg.; silage harvested 50%, 63% 1988, 48% avg. Apples picked 45%, 36% 1988, 31% avg. Onions harvested 57%, 69% 1988, 44% avg. Potatoes harvested 22%, 20% 1988, 23% avg. Cattle moved from summer range 30%, 27% 1988, 17% avg. Sheep moved from summer range 35%, 31% 1988, 19% avg. Range, pasture poor.

VIRGINIA: Temperatures 2° above normal. Above normal precipitation, heavy rains first half of week, remnants of hurricane hugo the second half of the week. Extremes 49°; 91°. Remnants of Hurricane Hugo produced high winds, heavy rainfall mainly the western half of State.

Days suitable for fieldwork 2.3. Topsoil 5% short, 24% adequate, 71% surplus. Soybean 14% fair, 70% good, 16% excellent. Peanut 100% good. Corn 72% mature, 67% 1988, 77% avg.; grain harvest 33% complete, 23% 1988, 34% avg.; silage harvest 49% complete, 60% 1988, 61% avg. Flue-cured tobacco 82% harvested, 68% 1988, 69% avg. Burley tobacco 70% harvested, 47% 1988, 72% avg. Wheat

seeded 6%, 4% avg. Barley seeded 8%, 9% avg. Oats 8% seeded, 9% avg. Pasture 7% fair, 45% good, 48% excellent. Livestock 6% good, 31% excellent.

WASHINGTON: Temperatures normal to 4° below normal, east; 2° above to 5° below normal, west. Precipitation none to 0.32 in., east; none to 0.24 in., west.

Days suitable for fieldwork 7.0. Soil moisture 40% short, 60% adequate. Range, pasture 40% short, 60% adequate. Hay, other roughage 15% short, 74% adequate, 11% surplus. Small grain harvest was completed. Yields mixed by area across State. Farmers busy seeding fall grain crops. Winter wheat planted 48%, 61% 1988, 56% avg.; emerged 26%, 34% 1988, 35% avg. Planting of fall crops completed in some areas, just getting started in other areas. The amount of soil moisture, concentration of Russian wheat aphids were the determining factors. Progress of other crop harvests were: Potatoes 44%, 41% 1988, 39% avg.; dry beans 39%, 60% 1988, 68% avg.; corn silage 50%, 51% 1988, 49% avg.; corn grain 3%, 8% 1988, 9% avg.; third cutting alfalfa hay 90%, 84% 1988, 91% avg. Harvests of apples, pears, carrots, cucumbers, onions, sweet corn, tomatoes, watermelons continued. Fall calving; turning rams out to breed; bringing cattle off ranges; putting cattle on hay land; beginning hay feeding, some livestock activities. Pastures above average in west, varied elsewhere.

WEST VIRGINIA: Temperature 63°, 3° below to 2° above normal. Extremes 28°; 91°. Precipitation 1.33 in.; 0.07 in. below to 1.35 in. above normal. Precipitation well below normal until Hugo raised the average.

Days suitable for fieldwork 3.7. Soil moisture 65% adequate, 35% surplus. Corn excellent to good; dough stage complete, 35% mature, 12% harvested. Tobacco fair; 69% harvested. Hay good to excellent; 2nd cut 88% complete, 3rd cut 42% complete. Apples fair; harvest continues, premature drop from tropical storm Hugo. Farm activities: Tobacco, hay, corn silage harvesting, clipping pastures, marketing cattle.

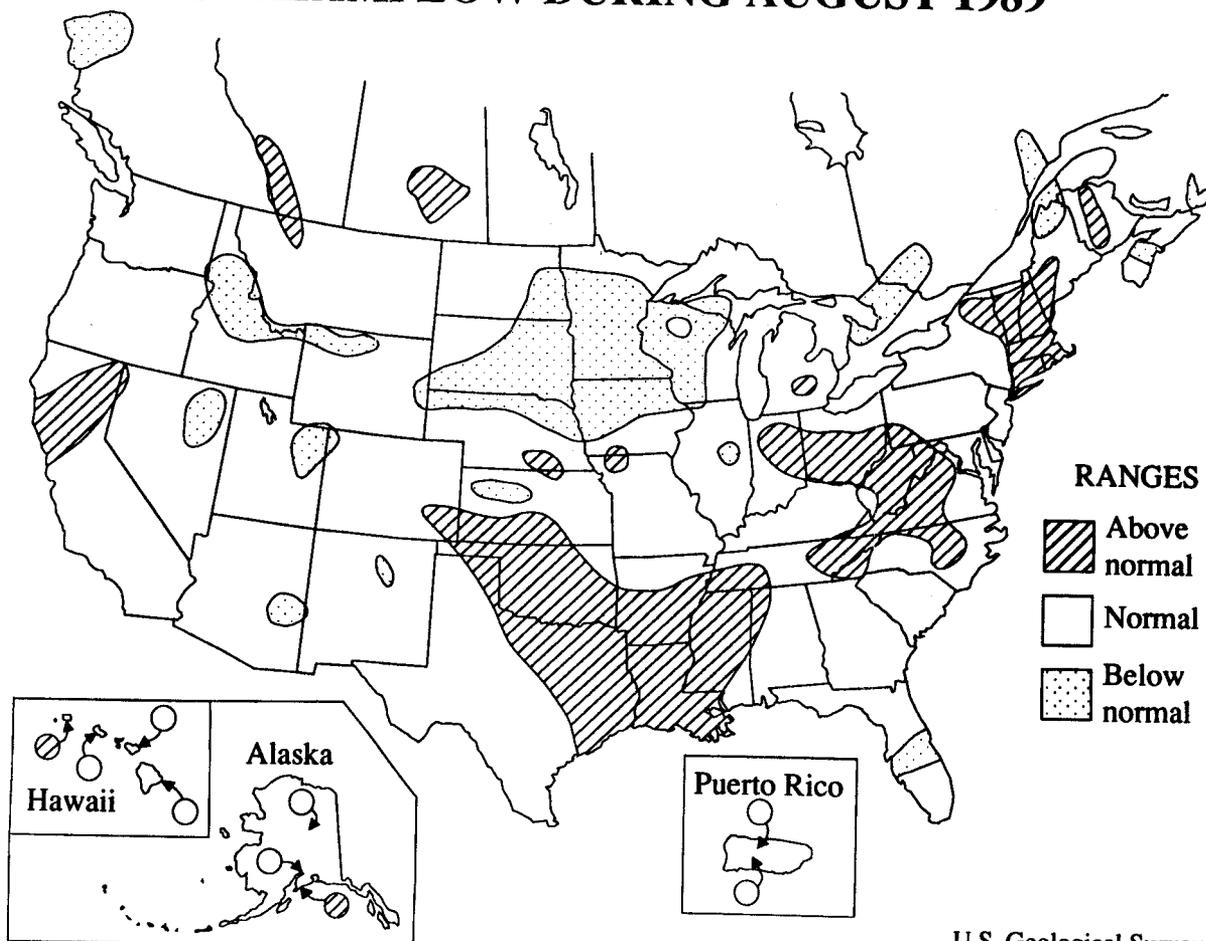
WISCONSIN: Temperature 59°, 1° above normal. Extremes 18°; 86°. Precipitation none to 0.80 in. northwest.

Days suitable for fieldwork 6.7. Soil moisture 38% short, 62% adequate. Pasture 76% of normal, 54% 1988, 80% avg. General condition of crops 3% poor, 10% fair, 76% good, 11% excellent. Corn 1% poor, 6% fair, 68% good, 25% excellent; in dent 88%, 97% 1988, 89% avg.; 32% mature, 73% 1988, 58% avg.; grain 1% harvested, 9% 1988, 3% avg.; silo filling 17% complete, 66% 1988, 36% avg. Many busy haying; 3rd crop hay 72% cut, 79% 1988, 66% avg. Soybean 7% fair, 77% good, 16% excellent; 70% turned, 83% 1988, 80% avg.; 24% shedding leaves, 67% 1988, 45% avg. Fall plowing 9% complete, 14% 1988, 9% avg.

WYOMING: Temperatures above normal. Precipitation mostly above normal.

Days suitable for fieldwork 5.0. Topsoil 43% short, 57% adequate. Subsoil 75% short, 25% adequate. 1990 winter wheat 80% seeded, 65% 1988, 85% avg.; 40% emerged, 35% 1988, 55% avg., mostly good. Oats 95% harvested. Dry beans 70% windrowed, 95% 1988; 40% combined, 70% 1988; 70% avg. Corn 15% dough, 5% 1988, 10% avg.; 50% dented, 30% 1988, 40% avg.; 30% mature, 60% 1988, 45% avg.; 5% harvested, 5% 1988, 5% avg.; silage 70% harvested, 80% 1988, 80% avg. Sugarbeets 5% dug, 10% 1988, 15% avg. Potatoes 60% dug, 30% 1988, 55% avg. Alfalfa third cutting continues. Livestock moved from summer ranges; cattle, calves 40%; sheep, lambs 35%. Hay, roughage 20% very short, 40% short, 35% adequate, 5% surplus. Livestock feed obtained from pastures 90%. Livestock producers culling, marketing livestock.

STREAMFLOW DURING AUGUST 1989



U.S. Geological Survey

Most streamflows in the United States were in the normal or above-normal range in August for the fifth consecutive month, although no record-high or record-low streamflows were recorded. Selected streamflow stations across the Nation showed that 48 reported flows in the above-normal range during August, 91 in the normal range, and 33 in the below-normal range.

The combined flow of the Mississippi, St. Lawrence, and Columbia rivers averaged a normal range of 456 billion gallons per day (bgd), 4 percent below median for August and 38 percent below the average flow for the previous month. These three rivers provide a general picture of streamflow for the Nation.

In the Washington, DC, area, the Potomac River flowed at twice the long-term average in August, making the river's fourth consecutive month of above-normal flow. Average flow in August was about 4.6 bgd, compared with the long-term average of about 2.3 bgd for the month.

International Weather and Crop Summary

September 17-23, 1989

HIGHLIGHTS

USSR ... In Western USSR, abundant sunshine helps summer crop harvests and winter grain planting. In the New Lands, intermittent showers cause some delays in final harvest efforts. In south-central USSR cotton areas, a cooling trend and scattered, light showers slow boll maturation.

EUROPE ... Unseasonably warm and dry weather favors fall fieldwork in the east. Occasional rain causes harvest delays in the west.

SOUTH ASIA ... Showers improve planting conditions in India's southern interior.

EASTERN ASIA ... Typhoon Wayne causes further flooding and rice harvest delays in Japan. Rain slows summer crop harvest in the northeast.

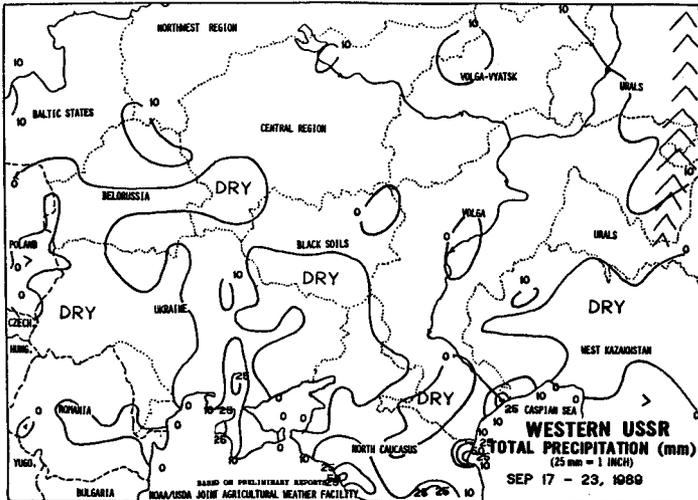
SOUTHEAST ASIA ... Showers bring relief to immature crops across northern Thailand.

SOUTH AMERICA ... Late-week showers soak southern wheat areas of Argentina and Brazil. Dry weather prevails in northern crop areas.

AUSTRALIA ... Moderate to heavy rain favors winter grains in Western Australia. Dryness continues in the east.

CANADA ... Early-week, variable rain causes late harvest delays across the northern and southwestern Prairies.

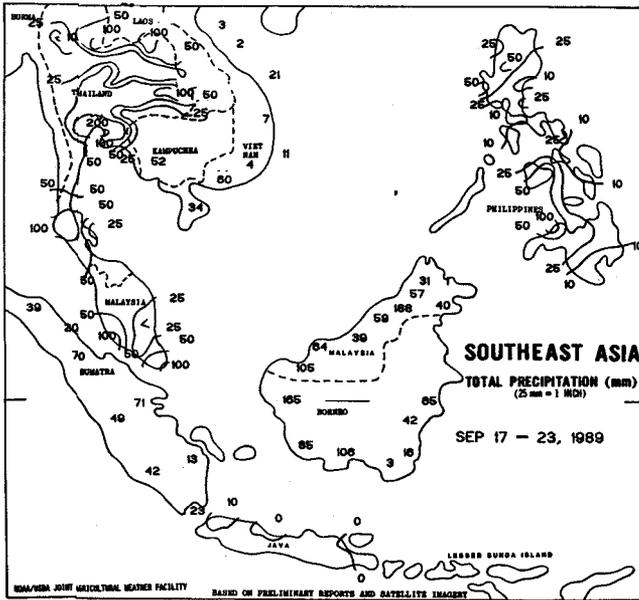
MEXICO ... Dry weather favors harvesting in the north, and locally heavy tropical rain falls in the south.



WESTERN USSR ... In Western USSR, high pressure provided abundant sunshine and generally dry weather. The warm, dry weather helped corn, sugar beet, and sunflower harvests as well as winter grain planting to progress without delay. Adequate topsoil moisture favored winter grain emergence and early plant establishment in most areas. However, continued dry weather in the extreme southwestern portion of the Central Region, the northeastern Black Soils Region, the southern Volga Vyatsk Region and adjacent areas of the Volga Valley has created unfavorable conditions for plant establishment. Winter grains in the extreme north were beginning the hardening process prior to dormancy. Winter grains usually enter dormancy in mid-October in the extreme north and mid-November in the south. Weekly average temperatures were 1-3 degrees Celsius (C) above normal in the south and 2-4 degrees C above normal in the north.

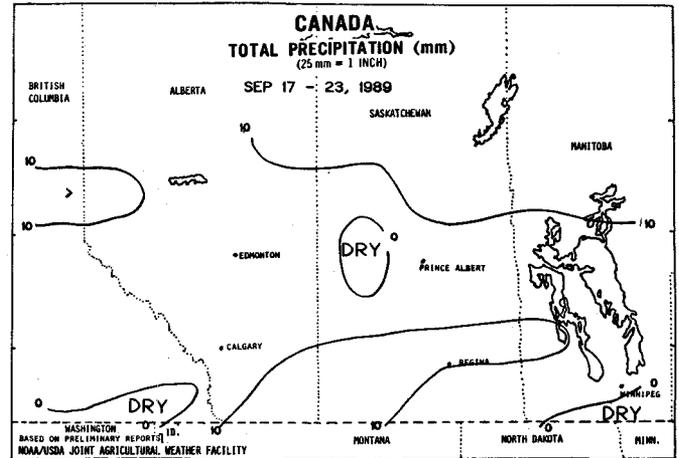


In the New Lands, intermittent showers covered crop areas over most of the region, causing some delays in final harvest efforts. Greatest amounts of precipitation (20-30mm) covered crop areas in the northern Urals, Tselinograd, and Altay Kray. Weekly average temperatures were near normal over most of the region. In south-central USSR cotton areas, a cooling trend was accompanied by widely scattered showers, slowing boll maturation. Greatest amounts of precipitation (10-30mm) covered areas in northwestern Uzbekistan. Lowest weekly temperatures ranged from 4 to 7 degrees C in the west and from 7 to 11 degrees C in the south and east. Warm, dry weather was needed for boll maturation and harvest.

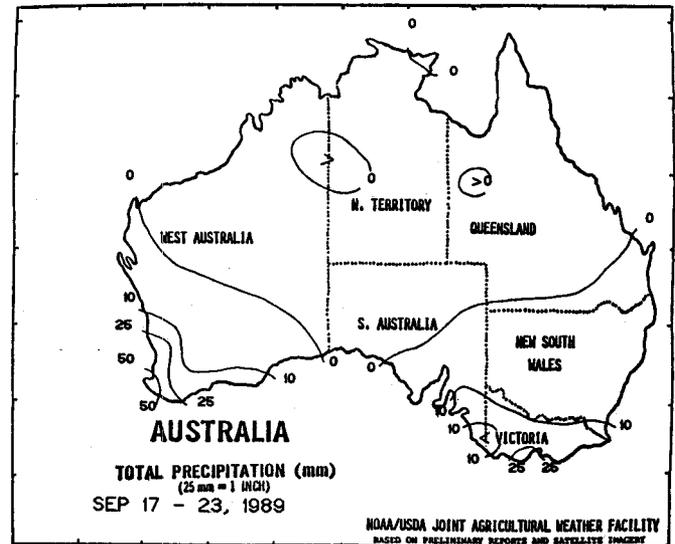


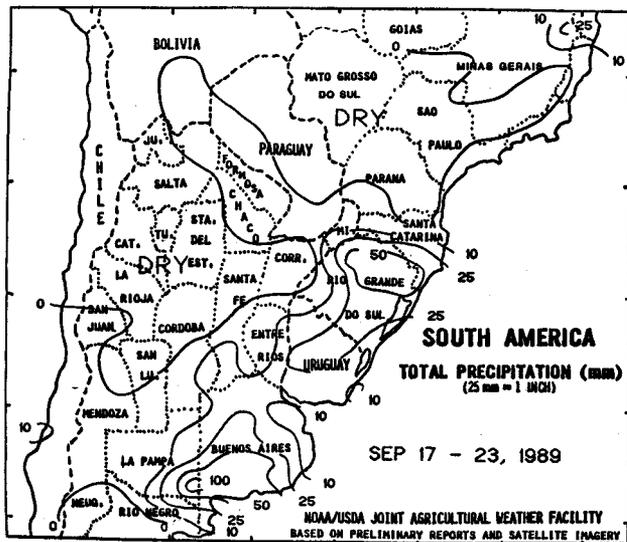
SOUTHEAST ASIA ... Heavy showers (50-100mm or more) benefited immature rainfed crops over much of northern and northeastern Thailand, although pockets of drier weather (10-25mm) continued in the area southwest of Vientiane, Laos. Beneficial rain (50-111mm) covered most of the Khorat Plateau, but dry pockets persisted in the southeast. Excessive rainfall (100-202mm) near Bangkok increased irrigation levels for secondary plantings but caused local flooding. In the Philippines, rainfall tapered off across Luzon, bringing some relief to grain areas and coastal regions that have recently received inundating rains. Rainfall totaled 25-85mm, however, in some coastal areas of western Luzon, adding to the excessive moisture.

AUSTRALIA ... Moderate to heavy rain (10-50mm) fell across crop areas of Western Australia, favoring vegetative winter grains. Light to moderate rain (5-15mm) fell across southeastern South Australia, Victoria, and southern New South Wales. Dryness continued in much of northern New South Wales and Queensland, allowing rapid progress in summer crop planting but causing topsoils to become increasingly dry for winter grains. Winter grains have become or are becoming reproductive in northernmost growing areas of central Queensland. The continuing dryness also favored sugarcane harvest in east coastal Queensland. Mean temperatures were above normal in all but southeastern crop areas, where they continued below normal.

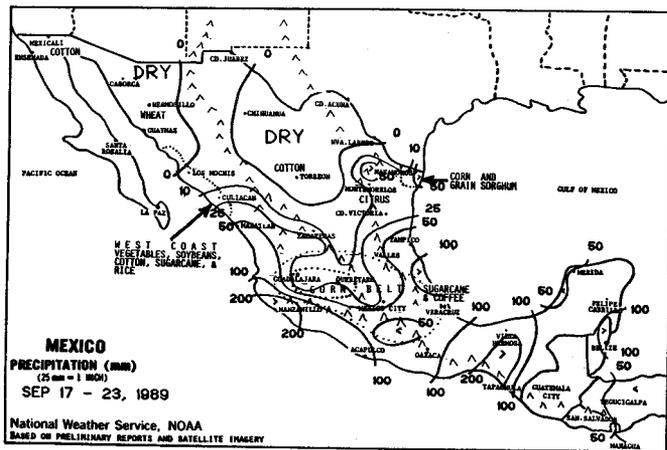


CANADA ... Early-week, light rain (2-10mm) swept across the northern Prairies, causing minor harvest delays from northern Alberta to northwestern Manitoba. Heavier rain (10-23mm) covered southern Alberta and southwestern Saskatchewan, where late harvesting was reportedly still underway, threatening further reductions in crop quality. Total combining in Saskatchewan was reported at about 80 percent complete, compared with about 40 percent for Alberta. Late-week drier weather allowed harvest to resume.





SOUTH AMERICA ... Mostly dry weather prevailed throughout the region until the 21st when showers developed in southern wheat areas of Argentina and spread northeastward through Uruguay and Rio Grande do Sul, Brazil. Locally heavy showers (50-75mm) soaked wheat in southern Buenos Aires, central Uruguay, and northern Rio Grande do Sul. Showers diminished in Argentina's northern wheat and primary corn areas, with weekly amounts totaling less than 10mm in Córdoba and most of Santa Fe. Summer crop planting advanced in northern Argentina and throughout the remainder of south-central Brazil with virtually no rain falling in these areas. Argentina's wheat is in good condition, while drier weather is needed in Brazil's southernmost state.



MEXICO ... Mostly dry weather prevailed in the northwest and north-central regions, favoring crop harvests but limiting moisture for immature crops. Reports indicate that reservoir levels are still low for this time of year throughout the north. The upcoming wheat crop relies heavily on these irrigation supplies. Showers (10-67mm) in the northeast benefited immature grains and vegetables. Rain over the southern half of the west coast farming region also helped agriculture. Locally inundating tropical rain (50-100mm, with scattered amounts of 100-200mm or more) fell over southern Mexico, especially along both coasts. Variable rain over much of the Southern Plateau allowed some corn harvesting, especially in north-central areas.

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(Continued from front cover)

rain. A large dome of cold air settled in behind the front as temperatures dropped below freezing from the **northern Plains** into the **eastern Corn Belt**. Numerous stations reported record lows from the **Great Plains** to the **Ohio Valley**. Cool and dry weather covered much of the **southern and central Plains** and **Corn Belt** throughout the week.

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