

# 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

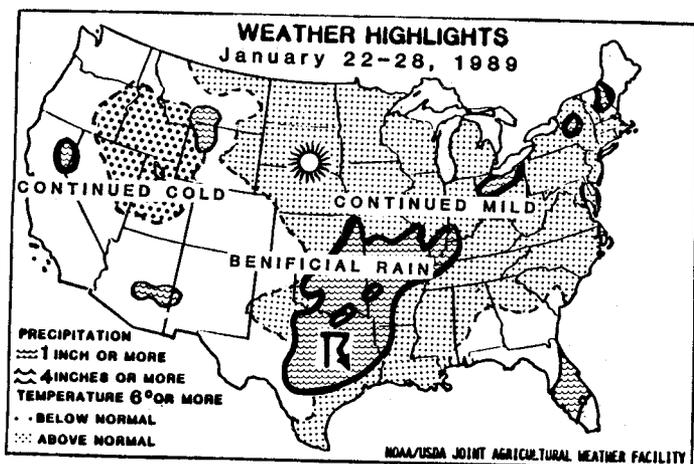
Volume 76, No. 4

Washington, D.C.

Jan. 31, 1989

## National Weather Summary

January 22-28, 1989



**WEDNESDAY:** A developing frontal system brought widespread precipitation from the Great Plains, across the Mississippi and Ohio Valleys, to the Appalachians. Snow, sleet, and freezing rain spread from the northern and central Plains into the Great Lakes. Thunderstorms and showers produced heavy rain from north-central Texas into the middle Mississippi Valley. Cold air settled over the Intermountain Plateau, while the Southeast remained warm.

**THURSDAY:** Sleet, snow, and freezing rain spread into the Northeast. Rain fell along the frontal system extending from the lower Great Lakes and mid-Atlantic coast to the western Gulf coast. Warm weather prevailed along the eastern seaboard, while frigid arctic air remained over Alaska. By evening, another storm system was developing over the Southwest.

**FRIDAY:** A winter storm brought rain and snow showers over much of the southwest region and central Rockies. Evening showers and thunderstorms developed across the central and southern Plains providing much needed moisture for the Hard Red Winter wheat. Snow showers were prominent across upper New York into New England. Fair and mild weather again covered most of the eastern half of the Nation, while bitter cold continued to dominate Alaska.

**SATURDAY:** A frontal system caused widespread rain from the central and southern Plains into the middle and lower Mississippi Valley. Heavy rain fell from central Texas into southern Missouri. Snow spread from the central Rockies into the central High Plains. Nome, AK, measured their lowest temperature on record, 54 degrees below zero.

### Contents

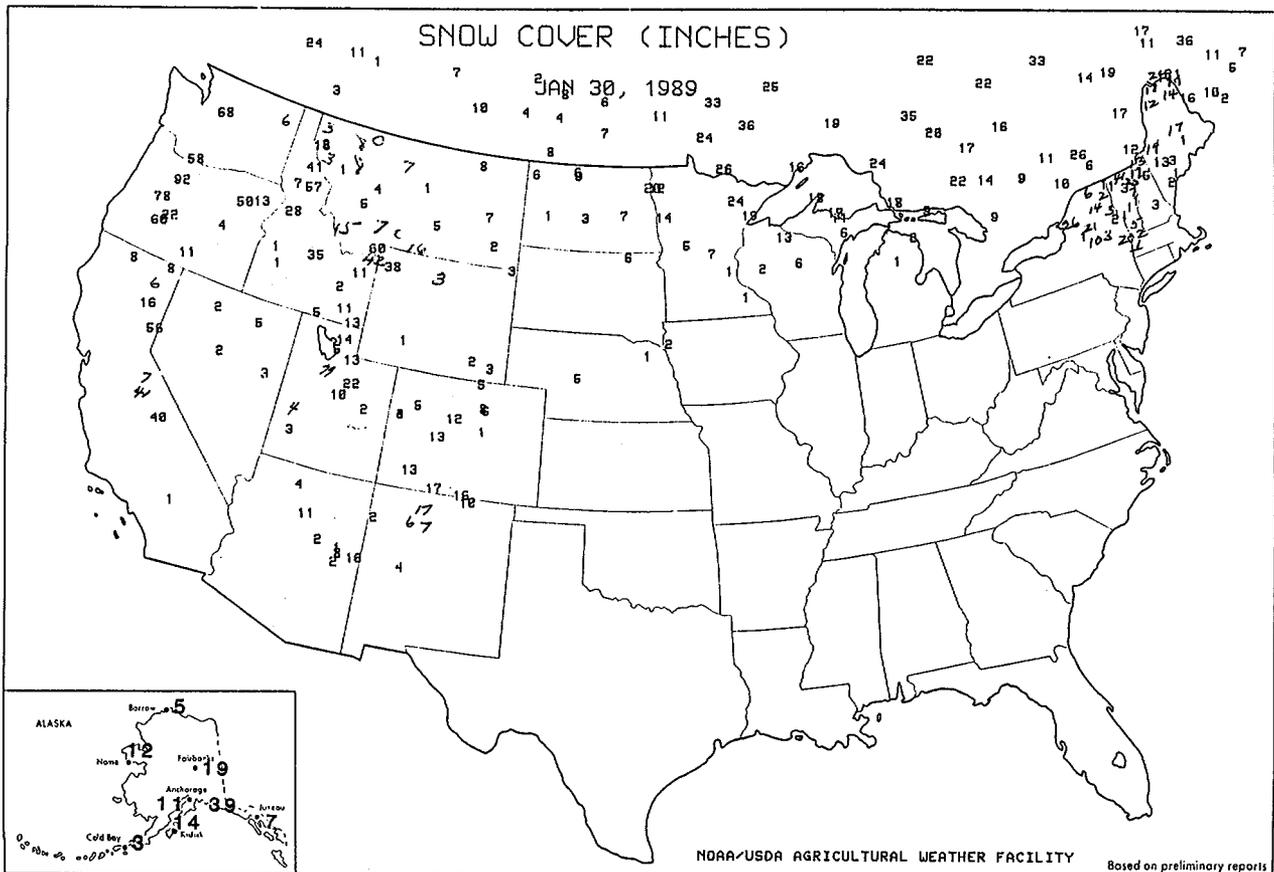
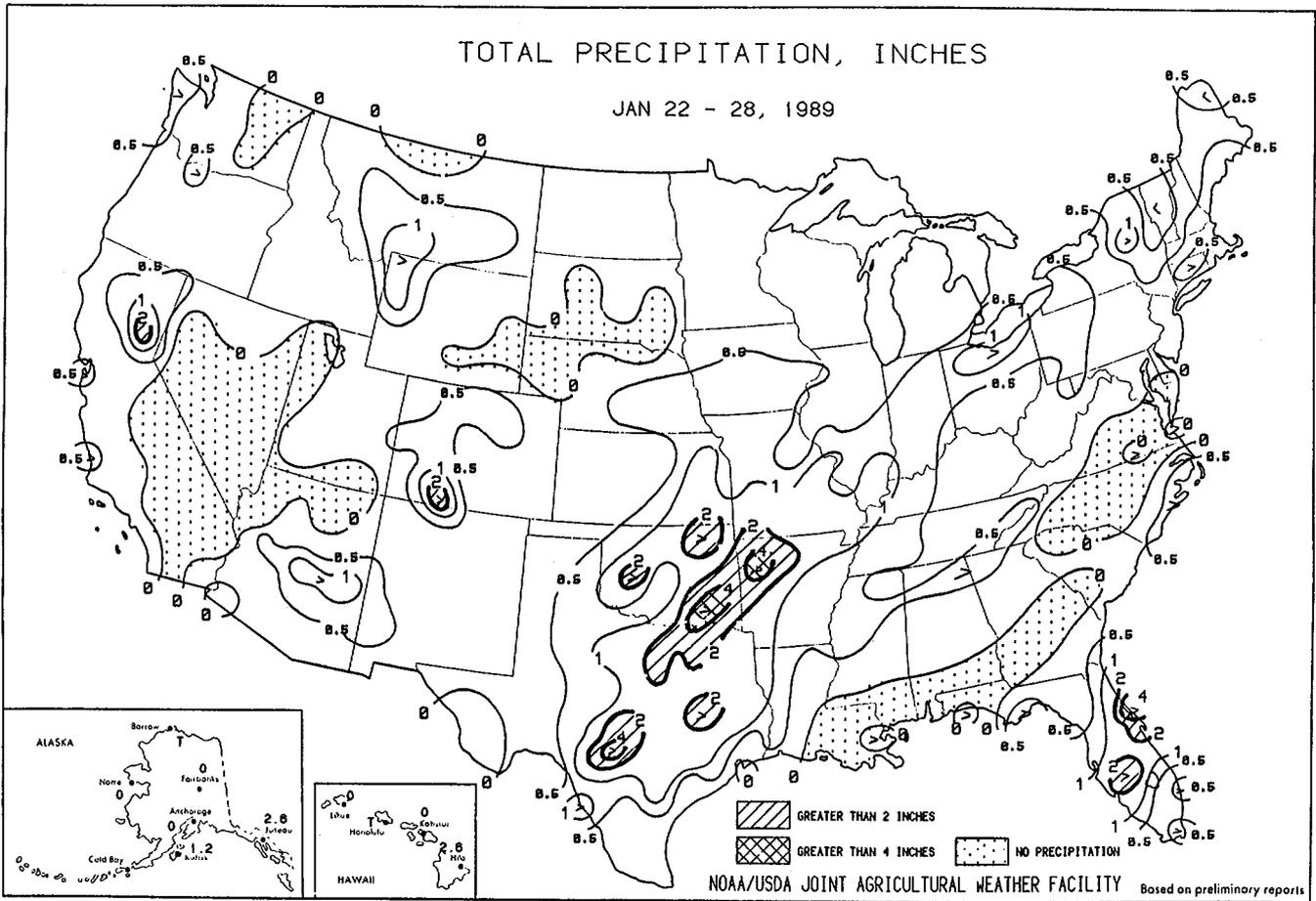
	Page
National Weather Summary . . . . .	1
Total Precipitation & Snow Cover . . . . .	2
Average Temperature & Departure . . . . .	3
National Weather Data for Selected Cities . . . . .	4
Heating Degree Days Summary . . . . .	7
National Agricultural Summary . . . . .	8
State Summaries of Weather and Agriculture . . . . .	9
Streamflow During December 1988 . . . . .	12
International Weather and Crop Summary . . . . .	13
Subscription and Mailing Permit Information & Extreme Minimum Temperature . . . . .	16

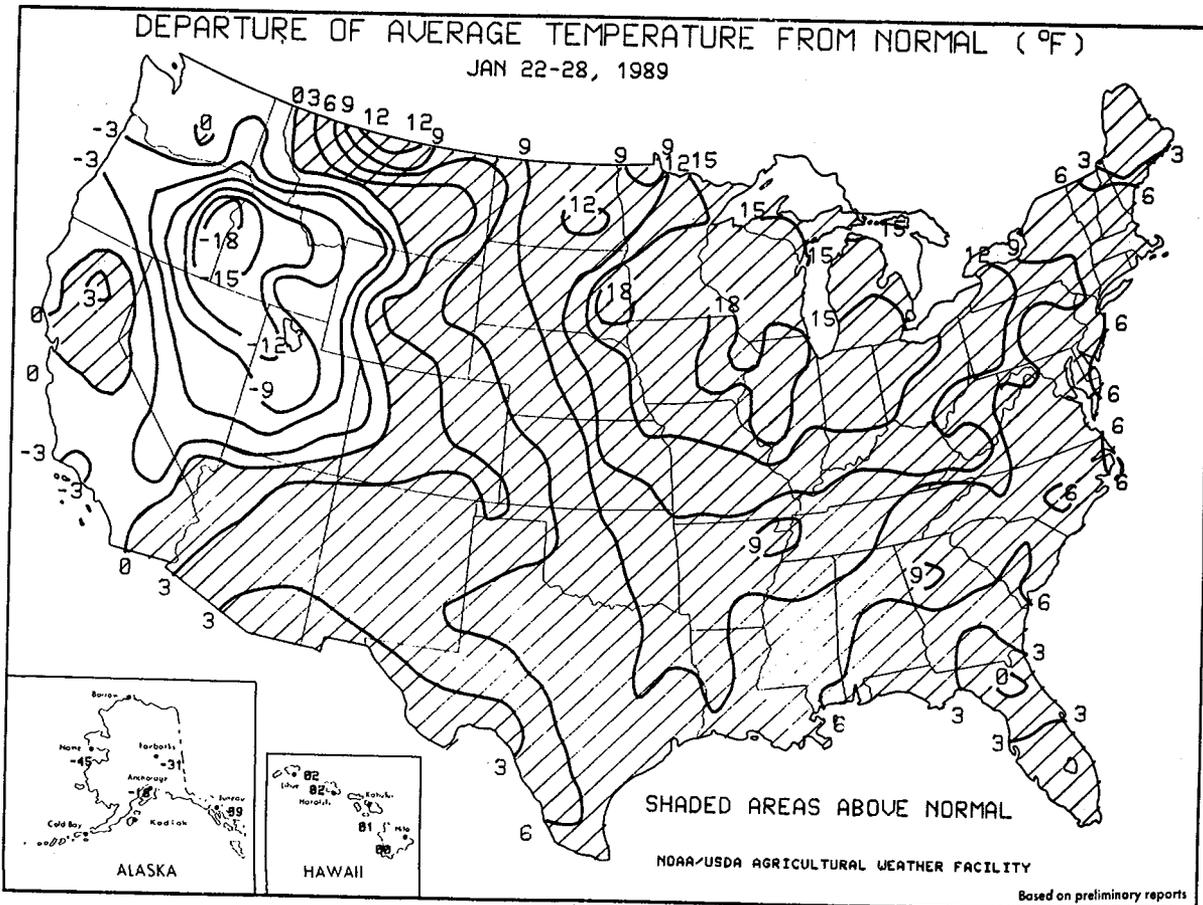
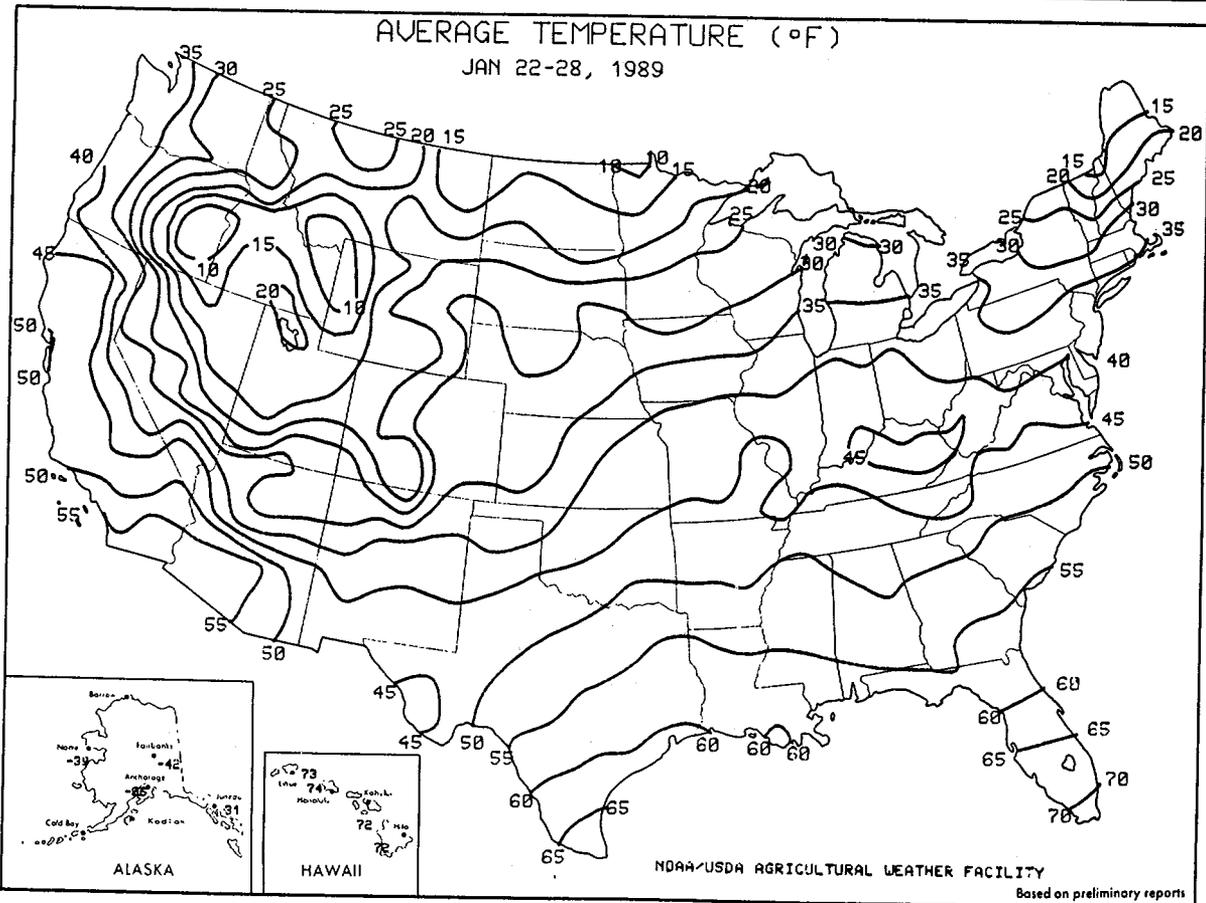
**HIGHLIGHTS:** A couple of frontal systems during the latter half of the week brought much needed moisture into the winter wheat areas of the central and southern Great Plains. Heavy rain reached from south-central Texas into the middle Mississippi Valley. Early in the week, an intense low-pressure system caused drenching rain over much of Florida. Unusually mild weather continued over the Nation, except for the Great Basin and Alaska where all time record low temperatures were broken.

**SUNDAY:** A low pressure system developed over southern Florida and tracked northeastward, spreading rain up the southern Atlantic seaboard. Continued heavy rain soaked central Florida. Rain and snow were widespread over the Pacific Northwest and northern Rockies. Unseasonably mild weather remained in the midsection of the Nation as record high temperatures were set from the central Plains to the Great Lakes.

**MONDAY:** A winter storm spread snow and blowing snow from the northern Rockies into the Dakotas. Light rain fell along the Carolina coast as the intense low-pressure system moved eastward into the Atlantic. Evening showers were scattered across California and the western Gulf Coast States. Warm weather continued in central and southern States.

**TUESDAY:** Freezing drizzle and light snow were widespread over the northern and central Plains. Heavier snow fell in the central Rockies. Thunderstorms developed over southwestern Oklahoma while rain showers were scattered from eastern Texas into the Delta.





# National Weather Data for Selected Cities

## Weather Data for the Week Ending January 28, 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 Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE			
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	65	35	71	27	50	7	.1	-1.1	0	7.7	80	4.3	91	88	28	0	2	2	0
MOBILE	71	42	76	34	57	6	0	-1.0	0	3.8	40	2.0	49	95	44	0	0	0	0
MONTGOMERY	69	35	76	30	52	5	.1	-1.8	0	6.0	70	1.5	40	92	29	0	2	1	0
AK ANCHORAGE	0	-15	13	-25	-7	-21	T	T	T	1.8	101	.3	38	66	43	0	7	1	0
BARRROW	-34	-44	-19	-50	-39	-24	T	T	T	.3	80	T	5	75	60	0	7	0	0
FAIRBANKS	-39	-47	-30	-49	-43	-32	T	T	T	1.0	84	.5	108	71	71	0	7	7	0
JUNEAU	35	27	40	17	31	9	2.9	2.1	1.4	11.5	145	6.7	201	99	70	0	6	7	0
KODIAK	15	1	29	-16	6	-24	1.2	1.1	0.6	13.4	125	2.4	47	87	62	0	4	6	1
NOME	-31	-46	-21	-54	-39	-45	0	0	0	2.2	164	.8	117	71	50	0	7	1	0
AZ PHOENIX	86	49	75	46	58	5	.5	.5	.5	1.3	90	1.2	182	76	36	0	0	2	1
PRESCOTT	50	28	60	20	39	2	.1	-.3	.1	2.0	62	1.4	88	83	40	0	6	2	0
TUCSON	64	40	74	34	52	0	.3	-.1	.2	1.0	60	1.0	132	83	30	0	0	2	0
YUMA	69	49	82	43	59	2	T	T	T	.7	103	.6	179	64	25	0	0	0	0
AR PORT SMITH	57	36	69	23	46	8	3.7	3.3	2.9	6.0	135	4.4	265	93	55	0	3	3	2
LITTLE ROCK	59	41	68	31	50	10	.6	-.3	.3	5.9	76	2.7	77	84	58	0	1	4	0
CA BAKERSFIELD	61	34	73	30	48	-2	T	T	T	1.1	71	.3	29	95	45	0	3	1	0
EUREKA	52	40	60	35	46	-1	.3	-1.2	.3	10.9	87	4.7	74	91	68	0	0	0	0
FRESNO	58	35	65	31	46	0	T	T	T	2.9	85	.5	26	98	52	0	3	0	0
LOS ANGELES	63	46	73	40	55	-1	T	T	T	3.1	72	.6	22	92	45	0	0	1	0
REDDING	60	38	71	28	49	2	.5	-1.4	.5	5.6	38	2.0	25	75	34	0	2	1	1
SACRAMENTO	59	36	61	30	47	1	.1	-.8	.1	3.7	56	.6	18	95	43	0	1	1	0
SAN DIEGO	62	48	72	44	55	0	.1	-.3	.1	2.6	69	.4	22	91	51	0	0	2	0
SAN FRANCISCO	56	44	62	41	50	1	.5	-.5	.5	4.9	63	1.3	30	92	60	0	0	2	1
CO DENVER	46	20	62	9	33	3	.7	.6	.6	2.2	224	1.1	259	86	36	0	7	2	1
GRAND JUNCTION	36	11	43	3	23	-3	.7	.6	.6	1.2	106	1.0	180	95	53	0	7	3	1
PUEBLO	46	21	68	11	34	3	.2	.1	.2	.9	171	.3	123	86	47	0	7	2	0
CT BRIDGEPORT	44	28	58	17	36	7	.3	-.4	.3	2.7	40	1.1	36	69	46	0	6	1	0
HARTFORD	44	21	57	8	32	7	.2	-.6	.2	2.2	29	.8	25	81	35	0	7	1	0
DC WASHINGTON	53	32	63	22	43	7	.1	-.5	.1	3.5	62	2.2	89	83	36	0	4	1	0
FL APALACHICOLA	70	45	77	41	57	4	.5	-.3	.5	2.4	36	1.2	38	95	49	0	0	1	1
DAYTONA BEACH	72	49	78	47	60	3	5.2	4.6	5.2	7.6	177	6.7	317	97	57	0	0	1	1
JACKSONVILLE	70	43	78	36	57	3	.7	0	.7	2.9	57	1.8	67	96	49	0	0	1	1
KEY WEST	77	67	79	62	72	2	T	-.4	T	.6	20	.4	29	85	60	0	0	1	0
MIAMI	79	62	82	54	71	4	.1	-.4	0	.8	22	.7	36	88	52	0	0	2	0
ORLANDO	74	53	78	49	64	3	1.5	1.0	1.5	4.6	121	3.6	190	95	53	0	0	1	1
TALLAHASSEE	72	36	78	31	54	3	.2	-.8	.2	1.4	16	.4	9	94	35	0	1	1	0
TAMPA	74	53	80	46	64	4	.6	.1	.6	3.2	79	1.5	81	94	49	0	0	1	1
WEST PALM BEACH	78	60	82	55	69	3	.2	-.4	.2	2.8	60	.9	39	92	54	0	0	2	0
GA ATLANTA	66	38	73	31	52	10	.2	-.9	.2	3.6	42	2.4	55	67	23	0	2	2	0
AUGUSTA	69	34	76	29	51	6	T	-.9	T	2.8	41	1.5	41	87	25	0	2	0	0
MACON	69	34	74	31	52	5	T	-1.0	T	3.9	49	1.6	41	85	26	0	3	0	0
SAVANNAH	69	41	77	33	55	6	.1	-.6	.1	1.2	22	.2	8	86	32	0	0	2	0
HI HILO	79	64	82	60	72	0	2.6	.4	1.3	39.5	187	26.1	310	94	65	0	0	5	2
HONOLULU	83	65	84	62	74	2	0	-.8	0	8.6	126	1.9	56	87	55	0	0	0	0
KAHULUI	82	62	83	58	72	0	0	-.9	0	10.8	167	.6	15	92	53	0	0	0	0
LIHUE	79	66	81	63	73	2	0	-1.3	0	13.2	118	6.3	111	90	67	0	0	0	0
ID BOISE	24	6	35	0	15	-16	.2	-.2	.2	1.9	69	1.1	75	89	64	0	7	1	0
LEWISTON	36	25	43	18	31	-2	T	-.3	T	1.8	70	1.3	100	86	59	0	7	1	0
POCATELLO	22	4	39	-7	13	-11	.1	-.2	0	1.7	91	.6	56	88	61	0	7	5	0
IL CHICAGO	47	31	50	26	39	19	.2	-.1	.1	3.1	82	.7	47	87	54	0	4	2	0
MOLINE	45	30	53	27	38	18	.5	.2	.3	2.7	78	1.1	74	87	60	0	6	2	0
PEORIA	48	31	52	27	39	18	.5	.2	.4	3.2	91	.9	64	89	54	0	5	2	0
QUINCY	50	33	55	29	41	18	.4	.1	.3	2.3	80	.5	37	82	46	0	3	2	0
ROCKFORD	43	30	48	25	36	18	.3	.1	.2	2.4	75	.6	50	94	62	0	5	2	0
SPRINGFIELD	51	34	57	29	42	19	.5	.1	.2	4.1	116	.9	61	86	53	0	4	3	0
IN EVANSVILLE	56	30	65	21	43	12	.7	0	.5	6.0	97	3.2	120	94	53	0	4	3	0
FORT WAYNE	50	30	53	25	40	17	.7	.3	.4	4.5	103	2.0	104	88	59	0	4	3	0
INDIANAPOLIS	52	32	56	23	42	16	.5	0	.3	4.3	80	1.8	73	83	55	0	5	3	0
SOUTH BEND	49	31	52	25	40	17	.2	-.3	.1	4.3	84	1.4	63	84	53	0	4	2	0
IA DES MOINES	45	29	58	22	37	19	1.0	.7	.8	2.1	112	1.3	147	85	51	0	5	2	1
SIOUX CITY	43	22	62	8	32	16	.2	.1	.1	1.5	114	.9	164	94	61	0	6	3	0
WATERLOO	39	28	47	19	33	19	.1	-.1	.1	1.4	76	.9	122	91	69	0	7	1	0
KS CONCORDIA	49	28	60	19	39	13	.5	.3	.4	1.2	97	.6	104	81	44	0	5	2	0
DODGE CITY	48	25	62	18	37	7	.3	.2	.2	.4	41	.3	70	88	47	0	7	3	0
GOODLAND	46	20	67	14	33	6	.1	0	.1	.7	99	.2	70	89	47	0	7	2	0
TOPEKA	51	31	60	25	41	15	1.1	1.0	.8	2.1	101	1.2	153	85	43	0	4	2	1
WICHITA	50	31	61	22	40	10	.8	.6	.5	1.3	83	.8	132	84	46	0	5	2	0
KY BOWLING GREEN	58	30	67	22	44	10	.5	-.5	.5	11.9	137	5.6	135	98	44	0	4	2	0
LEXINGTON	57	32	70	25	45	13	.3	-.4	.3	7.6	108	3.9	121	76	32	0	4	1	0
LOUISVILLE	59	32	71	20	45	13	.3	-.4	.3	7.0	107	3.5	115	85	36	0	4	2	0
LA ALEXANDRIA	68	49	74	33	58	9	.3	-.7	.2	12.4	139	6.6	164	88	51	0	0	3	0
BATON ROUGE	72	46	78	31	59	8	0	-1.0	0	12.2	133	4.0	96	96	54	0	1	0	0
LAKE CHARLES	70	49	77	32	60	10	T	-.9	T	9.1	98	4.3	102	96	62	0	1	1	0
NEW ORLEANS	71	49	78	38	60	8	.2	-.9	.2	6.3	65	2.3	53	99	57	0	0	1	0

Based on 1951-80 normals

Weather Data for the Week Ending January 28, 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 Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
ME SHREVEPORT	67	45	78	23	56	9	1.2	.3	.8	9.8	129	5.1	138	96	50	0	1	5	1
ME CARIBOU	23	-1	34	-16	11	1	.3	-.2	.3	3.1	59	2.1	100	90	37	0	7	2	0
ME PORTLAND	38	14	48	9	26	5	.3	-.5	.3	2.4	30	1.2	34	87	37	0	7	1	0
MD BALTIMORE	52	28	63	18	40	8	.1	-.6	.1	3.7	61	2.8	101	87	39	0	4	1	0
MD SALISBURY	54	28	61	15	41	6	.2	-.7	.2	2.0	29	1.3	43	85	36	0	5	0	0
MA BOSTON	45	27	51	14	36	7	.2	-.7	.2	1.6	20	.6	15	66	36	0	6	1	0
MA CHATHAM	41	27	49	14	34	4	.3	-.6	.2	2.6	29	1.3	32	90	56	0	6	2	0
MI ALPENA	39	25	49	23	32	14	.3	0	.2	2.6	73	1.3	85	94	58	0	7	2	0
MI DETROIT	46	30	52	26	38	15	.5	-.1	.3	3.1	75	1.2	69	89	52	0	6	3	0
MI FLINT	46	29	54	27	37	16	.2	-.1	.2	2.5	72	1.2	85	82	49	0	7	1	0
MI GRAND RAPIDS	44	30	49	27	37	15	.2	-.2	.2	2.7	61	.8	43	84	57	0	6	1	0
MI HOUGHTON LAKE	36	26	45	24	31	15	.2	-.1	.2	2.9	90	1.0	76	91	63	0	7	4	0
MI LANSING	44	30	52	27	37	17	.2	-.2	.2	2.3	57	1.0	65	83	55	0	7	1	0
MI MARQUETTE	34	21	43	13	27	16	.3	-.3	.2	4.2	98	1.8	99	90	80	0	7	1	0
MI MUSKEGON	41	31	43	29	36	13	.3	-.2	.3	4.3	91	1.5	67	92	80	0	7	1	0
MI SAULT ST. MARIE	33	17	40	6	25	12	.3	-.2	.2	5.8	129	2.2	111	95	59	0	6	7	0
MN ALEXANDRIA	32	11	44	-6	21	16	.1	-.1	.1	.9	61	.5	69	91	68	0	7	1	0
MN DULUTH	31	13	39	2	22	16	.3	0	.3	3.0	127	1.9	173	92	61	0	7	1	0
MN INT'L FALLS	29	5	43	-8	17	17	.1	-.1	.1	2.9	173	2.2	273	92	59	0	7	2	0
MN MINNEAPOLIS	36	21	42	7	29	18	.1	-.1	.1	1.2	75	.5	68	89	61	0	7	1	0
MN ROCHESTER	35	21	40	2	28	18	.2	0	.2	1.5	93	.4	51	90	68	0	7	1	0
MS GREENWOOD	64	41	75	26	53	9	.8	-.3	.5	10.5	103	5.2	110	90	43	0	7	1	0
MS JACKSON	68	40	75	26	54	9	.8	-.3	.5	8.4	85	3.6	80	98	45	0	2	1	0
MS MERIDIAN	69	36	75	28	53	7	.3	-.8	.3	10.6	104	3.1	69	97	31	0	3	3	0
MO CAPE GIRARDEAU	55	33	63	23	44	1	1.2	.6	.6	7.0	109	4.1	155	97	59	0	5	3	1
MO COLUMBIA	53	32	57	27	43	14	.5	.3	.3	4.7	133	1.3	83	84	49	0	3	3	0
MO KANSAS CITY	50	33	59	25	42	14	.9	.6	.6	1.8	72	1.0	90	86	46	0	3	2	0
MO SAINT LOUIS	57	37	63	30	47	18	.8	.4	.4	5.8	155	2.6	164	79	44	0	3	3	0
MO SPRINGFIELD	54	34	66	22	44	12	1.4	1.0	.8	4.6	116	1.5	106	83	46	0	3	3	0
MT BILLINGS	32	15	47	2	24	2	.7	.5	.4	1.7	103	1.1	131	76	52	0	7	2	0
MT GLASGOW	24	3	34	-15	14	5	.1	0	.1	1.0	157	.6	182	92	67	0	7	1	0
MT GREAT FALLS	34	20	43	3	27	7	.2	0	.2	1.9	112	.9	101	84	60	0	7	3	0
MT HAVRE	36	21	45	12	28	16	T	-.1	.2	.6	54	.1	20	82	58	0	7	3	0
MT HELENA	28	8	38	-4	18	-1	.6	.4	.4	1.6	127	1.3	202	96	67	0	7	2	0
MT KALISPELL	31	17	39	9	24	4	T	-.3	T	3.4	113	1.1	76	91	65	0	7	2	0
MT MILES CITY	26	7	33	-4	16	2	.5	.4	.4	1.6	138	1.0	182	80	60	0	7	2	0
MT MISSOULA	31	15	38	8	23	1	T	-.3	T	1.5	60	.7	57	98	68	0	7	3	0
NE GRAND ISLAND	46	22	67	12	34	13	.6	.5	.6	1.0	90	.7	161	88	48	0	7	2	0
NE LINCOLN	47	24	59	12	35	16	.9	.7	.8	1.7	137	1.1	193	91	49	0	6	3	1
NE NORFOLK	45	21	64	9	33	15	.3	.2	.2	2.1	196	1.2	268	91	51	0	7	2	0
NE NORTH PLATTE	46	16	68	6	31	9	.4	.3	.3	.9	129	.6	167	94	42	0	7	3	0
NE OMAHA	45	27	58	14	36	15	.7	.5	.6	1.7	119	.9	135	84	57	0	7	2	0
NE SCOTT'SBLUFF	45	15	63	3	30	6	T	-.1	T	1.7	119	.9	135	84	57	0	7	2	0
NE VALENTINE	43	14	68	2	29	10	T	-.1	T	1.2	85	.4	53	82	48	0	7	0	0
NV ELY	32	1	43	-13	17	-9	T	-.2	T	1.2	43	T	9	77	38	0	7	0	0
NV LAS VEGAS	57	35	60	31	46	1	T	-.1	T	.6	85	.5	123	51	21	0	3	0	0
NV RENO	41	22	49	15	32	-2	.1	-.2	.1	1.0	44	.2	18	86	44	0	6	1	0
NV WINNEMUCCA	34	5	52	-9	19	-12	.1	-.1	.1	.7	43	.2	22	89	48	0	6	2	0
NH CONCORD	41	12	52	3	27	7	.3	-.3	.3	1.8	30	.7	29	89	36	0	6	2	0
NJ ATLANTIC CITY	51	24	63	10	38	6	T	-.7	T	2.5	37	1.8	58	86	34	0	7	1	0
NM ALBUQUERQUE	51	30	59	27	40	4	.1	.1	.1	.4	42	.3	91	86	39	0	5	2	0
NM CLOVIS	53	30	66	28	42	4	.2	.1	.2	1.7	167	.2	54	88	36	0	6	3	0
NM ROSWELL	58	32	71	29	45	6	.3	.2	.3	.8	116	.3	94	79	32	0	3	1	0
NY ALBANY	42	16	52	6	29	8	.3	-.2	.3	1.5	28	.4	20	82	39	0	7	1	0
NY BINGHAMTON	40	23	52	10	32	11	.3	-.3	.3	2.6	51	1.4	62	80	39	0	7	1	0
NY BUFFALO	43	29	49	22	36	13	.6	0	.5	3.8	62	1.6	60	79	47	0	5	3	0
NY NEW YORK	48	33	59	22	40	8	.1	-.5	.1	3.2	50	2.1	73	72	35	0	5	2	0
NY ROCHESTER	44	23	53	11	34	11	.4	-.1	.4	2.1	45	.0	49	83	47	0	7	2	0
NY SYRACUSE	43	18	51	3	30	8	.3	-.3	.2	3.0	54	.0	44	87	44	0	7	2	0
NC ASHEVILLE	61	24	66	17	43	6	T	-.7	T	3.1	51	1.7	57	88	22	0	7	0	0
NC CHARLOTTE	64	37	73	29	51	10	0	0	0	3.2	48	1.6	48	86	25	0	7	0	0
NC GREENSBORO	61	30	68	23	46	8	0	-.8	0	2.1	32	.9	29	69	24	0	1	0	0
NC HATTERAS	59	40	70	35	50	5	.7	-.3	.3	5.0	57	4.3	98	96	55	0	0	3	0
NC NEW BERN	62	38	71	30	50	6	.6	-.3	.4	3.4	47	2.5	68	89	37	0	1	2	0
NC RALEIGH	63	32	71	24	48	8	T	-.8	T	2.3	37	1.3	40	73	26	0	2	0	0
NC WILMINGTON	66	39	73	33	52	7	.6	-.3	.3	2.1	31	1.5	45	94	35	0	0	3	0
ND BISMARCK	31	9	42	-7	20	13	T	-.1	T	1.3	135	.5	123	90	63	0	7	1	0
ND FARGO	27	5	37	-8	16	12	T	-.1	T	2.9	260	1.8	357	91	71	0	7	2	0
ND GRAND FORKS	25	1	35	-10	13	11	T	-.1	T	3.2	253	1.3	198	89	69	0	7	1	0
ND WILLISTON	24	4	34	-9	14	7	.1	0	.1	1.8	188	1.0	223	89	71	0	7	1	0
OH AKRON-CANTON	48	29	54	20	39	14	.5	0	.5	4.0	80	2.2	94	80	48	0	6	2	0
OH CINCINNATI	55	31	64	22	43	14	.4	-.3	.4	5.9	103	3.1	111	90	48	0	6	2	0
OH CLEVELAND	50	30	56	24	40	15	1.0	-.5	.7	4.4	88	1.9	84	83	46	0	5	2	0
OH COLUMBUS	52	28	57	20	40	13	.2	-.4	.1	4.4	88	2.0	79	88	47	0	5	2	1

Weather Data for the Week Ending January 28, 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 Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE				
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
DAYTON	52	31	57	22	42	15	.4	-.1	.3	5.4	111	2.7	116	78	48	0	5	6	2	0
TOLEDO	49	30	53	27	40	16	.5	-.1	.3	3.5	79	1.5	83	83	52	0	5	6	3	0
YOUNGSTOWN	48	28	54	19	38	14	.7	.2	.6	3.8	73	1.8	75	81	47	0	5	6	2	1
OK OKLAHOMA CITY	52	35	64	28	44	7	.5	.6	1.5	2.5	125	1.2	133	86	49	0	3	3	2	0
TULSA	54	37	64	26	46	10	.8	.6	1.9	4.8	158	2.9	239	84	45	0	2	2	2	0
OR ASTORIA	47	31	53	27	39	2	.7	-1.6	.3	14.9	70	7.6	78	97	66	0	5	5	4	0
BURNS	21	-7	34	-17	7	-22	.1	-.3	.1	1.0	35	.3	23	89	61	0	7	1	1	0
MEDFORD	47	26	54	25	37	-2	.3	-.4	.3	3.6	55	2.3	75	96	53	0	7	1	1	0
PENDLETON	36	24	44	17	30	-3	.3	-.2	.2	2.2	68	1.8	116	92	70	0	7	2	0	0
PORTLAND	44	31	50	28	38	-2	.3	-1.0	.2	5.5	45	3.1	55	97	61	0	5	3	3	0
SALEM	43	29	49	24	36	-4	.3	-1.4	.2	6.7	49	3.5	54	99	72	0	7	1	1	0
PA ALLENTOWN	47	25	59	12	36	9	.2	-.5	.2	2.7	39	1.7	55	80	36	0	5	1	1	0
ERIE	47	30	55	22	38	15	1.0	.5	.9	4.5	83	1.9	86	79	42	0	5	5	2	1
HARRISBURG	49	26	59	15	38	8	.2	-.5	.2	3.0	51	2.1	78	83	36	0	5	1	1	0
PHILADELPHIA	50	28	64	20	39	8	.1	-.6	.1	3.1	49	2.1	73	85	36	0	5	1	1	0
PITTSBURGH	50	27	56	18	39	12	.5	-.2	.4	4.1	80	1.9	75	85	42	0	5	1	2	0
SCRANTON	44	25	52	10	34	9	.3	-.2	.3	2.1	46	1.0	49	82	37	0	6	1	1	0
RI PROVIDENCE	46	24	60	12	35	7	.4	-.5	.4	2.1	26	1.1	29	82	39	0	7	1	1	0
SC CHARLESTON	68	42	75	36	55	7	.2	-.6	.1	2.9	48	2.2	74	84	33	0	0	2	0	0
COLUMBIA	69	33	77	31	51	6	.4	-.6	.2	2.9	38	2.1	53	90	25	0	3	2	0	0
FLORENCE	67	39	76	33	53	8	.1	-.7	.1	2.7	43	1.9	60	77	25	0	0	1	0	0
GREENVILLE	64	33	72	24	48	7	T	-1.0	T	3.4	43	1.5	38	75	24	0	3	0	0	0
SD ABERDEEN	28	10	39	-6	19	11	T	-.1	T	1.9	205	.5	123	93	72	0	7	1	1	0
HURON	42	16	62	5	29	17	T	-.1	T	.9	104	.2	60	93	46	0	7	0	0	0
RAPID CITY	43	17	63	6	30	9	T	-.1	T	.5	62	.1	6	85	44	0	7	2	0	0
SIOUX FALLS	42	20	57	8	31	18	.1	0	.1	.6	55	.3	59	92	58	0	7	2	0	0
TN CHATTANOOGA	62	29	70	22	46	7	.2	-1.0	.2	8.6	87	5.0	106	94	27	0	5	1	1	0
KNOXVILLE	61	26	69	20	43	5	.2	-.9	.2	8.4	95	4.4	105	94	29	0	6	1	0	0
MEMPHIS	62	38	71	26	50	10	.6	-.4	.4	13.3	148	7.4	177	93	45	0	2	3	0	0
NASHVILLE	62	34	72	25	48	11	.1	-.9	.1	7.9	91	4.0	98	92	33	0	4	1	0	0
TX ABILENE	61	41	72	32	51	7	.5	.3	.3	1.3	76	.5	61	83	43	0	1	2	0	0
AMARILLO	53	28	69	20	41	5	.2	.1	.1	.3	37	.2	36	82	35	0	5	3	0	0
AUSTIN	67	49	74	33	58	9	1.5	1.1	1.0	4.0	117	2.9	205	97	62	0	0	5	1	0
BEAUMONT	70	51	78	31	61	8	.1	-.8	.1	11.5	134	5.7	154	97	66	0	1	1	0	0
BROWNSVILLE	77	61	82	40	69	9	.1	-.2	.1	1.7	74	1.6	145	95	63	0	0	2	0	0
CORPUS CHRISTI	74	56	81	33	65	10	.2	-.2	.1	2.9	110	2.0	134	96	67	0	0	3	0	0
DEL RIO	62	47	70	33	54	3	.3	.2	.2	1.3	132	.9	204	88	57	0	0	4	0	0
EL PASO	61	35	67	29	48	3	.1	0	.1	.5	77	.1	33	77	29	0	2	1	0	0
FORT WORTH	60	44	71	28	52	8	2.0	1.6	1.2	5.0	153	2.5	164	89	58	0	1	4	2	0
GALVESTON	67	50	73	43	62	8	T	-.6	T	8.3	131	5.4	198	97	71	0	0	0	0	0
HOUSTON	70	57	77	28	60	8	.6	-.2	.3	4.8	69	3.5	112	97	65	0	1	5	0	0
LUBBOCK	60	34	72	31	47	8	.4	.3	.4	1.1	151	.5	152	83	30	0	2	1	0	0
MIDLAND	60	35	72	29	48	4	.2	.1	.2	.7	94	.2	63	91	36	0	1	1	0	0
SAN ANGELO	62	41	76	25	52	6	.6	.4	.5	1.5	124	.7	121	92	46	0	1	3	0	0
SAN ANTONIO	66	49	75	28	58	7	1.4	1.0	.7	2.6	96	1.9	139	97	69	0	1	5	1	0
VICTORIA	71	52	77	33	62	10	.3	-.2	.2	5.2	137	3.0	178	96	66	0	0	4	0	0
WACO	63	45	68	26	54	7	1.1	.7	.5	4.2	126	2.2	150	96	68	0	1	4	1	0
WICHITA FALLS	60	35	68	27	48	7	.8	.6	.4	2.1	103	.9	115	88	50	0	2	3	0	0
UT CEDAR CITY	34	11	44	0	22	-8	T	-.1	T	1.7	136	1.0	173	95	61	0	7	1	0	0
SALT LAKE CITY	33	8	42	2	21	-9	T	-.3	T	1.2	47	.6	45	93	53	0	7	2	0	0
VT BURLINGTON	36	12	46	1	24	8	.1	-.3	.1	1.3	32	.4	25	82	44	0	7	2	0	0
VA NORFOLK	56	35	67	25	46	6	T	-.8	T	3.2	49	2.5	75	83	40	0	3	2	0	0
RICHMOND	58	29	64	17	44	8	T	-.7	T	2.7	42	1.9	64	81	30	0	5	0	0	0
ROANOKE	59	29	67	19	44	7	T	-.6	T	2.7	49	1.4	54	73	25	0	4	1	0	0
WA QUILLAYUTE	45	32	50	23	38	-1	.8	-2.2	.6	26.6	87	14.5	110	99	78	0	3	6	1	0
SEATTLE-TACOMA	44	33	50	25	38	-1	.3	-1.0	.2	6.2	53	2.8	51	96	60	0	4	2	0	0
SPOKANE	31	15	38	6	23	-3	.1	-.5	.1	2.5	53	.8	34	97	75	0	7	1	0	0
YAKIMA	37	20	44	15	29	0	T	-.3	T	.9	34	.2	15	94	58	0	7	1	0	0
WV BECKLEY	57	31	62	24	44	14	.1	-.7	.1	4.9	78	2.7	86	68	25	0	5	1	0	0
CHARLESTON	59	30	67	18	45	12	.1	-.7	.1	5.1	80	2.4	77	82	28	0	5	1	0	0
HUNTINGTON	58	30	66	18	44	11	.1	-.7	.1	6.8	109	3.5	118	81	29	0	5	1	0	0
PARKERSBURG	56	29	61	17	42	11	.3	-.3	.3	5.7	107	3.2	121	96	37	0	5	2	0	0
WI GREEN BAY	37	25	46	19	31	18	.2	-.1	.2	1.2	50	.4	38	96	62	0	7	1	0	0
LACROSSE	38	24	43	9	31	16	.2	0	.2	1.1	58	.3	40	89	55	0	7	1	0	0
MADISON	40	28	46	24	34	18	.1	-.1	.1	2.1	83	.5	50	89	62	0	6	1	0	0
MILWAUKEE	42	31	48	26	37	18	.2	-.1	.2	2.2	63	.8	51	88	59	0	3	1	0	0
WAUSAU	36	20	44	11	28	17	.2	.1	.2	2.2	106	.8	99	94	53	0	7	1	0	0
WY CASPER	40	16	49	5	28	5	T	-.1	T	.7	72	.2	36	72	31	0	6	1	0	0
CHEYENNE	43	16	56	5	29	3	.3	.2	.2	.8	111	.3	82	74	33	0	6	3	0	0
LANDER	38	13	48	5	25	5	T	-.1	T	.8	80	.1	9	76	31	0	7	1	0	0
SHERIDAN	37	13	45	0	25	5	.1	-.1	.1	.5	39	.3	45	91	53	0	7	1	0	0
PR SAN JUAN	84	69	85	67	77	0	.2	-.4	.2	6.1	95	2.6	97	90	64	0	0	2	0	0



## National Agricultural Summary

January 23-29, 1989

**HIGHLIGHTS:** Rain improved winter wheat condition in portions of the central and southern Plains, but additional moisture was still needed. Snow cover was limited in most of the northern Plains and the Corn Belt. Small grains were mostly good in the Delta and Southeast. Florida's citrus groves were good to excellent. Cold weather slowed vegetable harvest in California. Soil moisture remained mostly adequate to surplus in the Delta. Below-normal temperatures stressed livestock in the West.

**SMALL GRAINS:** Rain improved winter wheat condition in portions of the central and southern Plains. Greenbug damage was a continuing problem. In Kansas, rain brought temporary relief from moisture stress in some areas but additional moisture was needed. Rain eased moisture stress for winter wheat in eastern Oklahoma, but additional moisture was needed, especially in the west. In Texas, rain improved small grain condition in the Blacklands and central areas. In the Plains and Cross Timbers areas of Texas, continued lack of moisture stressed small grains. Winter wheat was mostly fair to good in Nebraska but needed snow cover and moisture. Russian wheat aphids were active in the Nebraska Panhandle. Snow cover was needed for winter wheat in central and southern South Dakota. Mild temperatures reduced the amount of snow cover for small grains in North Dakota, but it was still mostly adequate. In Montana, winter wheat was mostly fair to good with adequate snow cover. Snow cover was needed in most of the Corn Belt. In the Delta and Southeast, small grains were mostly good. Producers were applying fertilizer where weather permitted. Small grain seeding continued in California and Arizona.

**OTHER FIELD CROPS:** Tobacco plant bed preparation and seeding continued in the Southeast. In Arizona, cotton stalk shredding and plowdown were virtually complete. Land leveling and pre-irrigation continued. In California, cotton seedbeds were pre-irrigated and fertilized. Sugarcane harvest continued in Florida. Land preparation for planting spring crops was active. Wet soils limited fieldwork in portions of the Delta.

**FRUIT AND NUTS:** Florida's citrus groves were in good to excellent condition. Soil moisture was adequate with ideal weather for moisture retention. Early and midseason orange harvests were active. Grapefruit movement was strong in the east coast areas. Texas' citrus harvest continued. Valencia orange harvest was expected to begin soon. In the east, some peach trees were beginning to bud prematurely. Producers in Alabama, Georgia, Kentucky, and Mississippi were concerned about fruit trees blooming too early. Grapefruit, lemon, orange, and tangerine harvests continued in central and western Arizona. Pecan shipment was active. Normal cultural practices continued in California. Avocados suffered light wind damage in the Ventura area. Harvest continued. Early table grapes reached bud break in Riverside County. Grapefruit, lemon, royal mandarin and navel orange harvests were active.

**VEGETABLES:** Spring crop planting progressed well in Florida. Winter crop harvest continued. Volume leaders were tomatoes, celery, cabbage, peppers, lettuce, and squash. Good supplies of snap beans, carrots, radishes, sweet corn, strawberries, eggplant, and endive were available. Producers began killing winter potato vines in southwest Florida. In Texas, rain slowed vegetable harvest late in the week in the San Antonio-Winter Garden area. Harvest continued at a normal pace in the Rio Grande Valley. Land preparation for spring plantings continued in the High Plains. Vegetable harvest was active in central and western Arizona. Cold weather slowed lettuce harvest in the Coachella Valley of California. Cold weather also slowed asparagus harvest in the Kingsburg-Dinuba area. Frost damage to artichoke fields was evident. Broccoli supplies were moderate to light and of variable quality in the Santa Maria and Salinas-Watsonville areas. Melon planting was underway in the Palo Verde Valley.

**PASTURES AND LIVESTOCK:** Below-normal temperatures stressed livestock in portions of the West. Above-normal temperatures reduced livestock stress in most other areas. Pastures were mostly good to fair in the South.

## 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 mostly under 0.50 in.; over 1.00 in. local areas north. Temperatures 6 to 12° above normal.

Soil moisture adequate. Winter wheat mostly good. Above normal temperatures caused premature blooming fruit trees south; peach producers concerned about reaching necessary chill hours. Primary activities: Providing supplemental feed to livestock; working farm records; applying fertilizer to small grains, as weather permits; routine farm chores.

**ARIZONA:** Sunny skies, mild temperatures 22nd. Low pressure system 23rd. Snow White Mountains 1 to 10 in.; showers, local thunderstorms southern deserts 24th. Snow central basins 1 to 4 in., 10 in. White Mountains 27th. Rainfall few hundredths to 0.75 in. lower elevations; snow showers White Mountains 28th. Temperatures 1° below normal to 5° above.

Cotton plow down virtually complete. Furrowing out, pre-irrigation for 1989 crop. Wheat, barley 99% seedings, 98% stands established. Early plantings boot stage, later plantings pre jointing stage. Alfalfa fields grazed heavily by sheep. Harvest grapefruit, few lemons, oranges, tangerines west, central. Boston, leaf, romaine, head lettuce; broccoli, cauliflower, cabbage, kale, napa, escarole, bok choy, endive, celery, rapini, green onions, parsley, carrots harvested central, west. Pecans shipped statewide.

**ARKANSAS:** Unseasonably warm temperatures. Rain statewide latter part of week, amounts moderate to heavy. Temperature extremes 19°; 76°. Rainfall 0.60 to 3.77 in.

Some farm activity early week halted by rains. Soil moisture adequate to surplus. Wheat grew well. Pastures good. Livestock good, grazing wheat some areas.

**CALIFORNIA:** Light amounts rainfall. Strong high pressure later week resulted in significant warming.

Fieldwork progress good, soils dried. Weed control, fertilization, irrigation active small grains, cotton. Winter grain seeding continued. Some early grain showed low moisture stress. Green-chop cutting continued southern areas. Sheep grazed mature alfalfa. Fruit cultural practices ongoing. Avocado harvest continued. Slight wind damage, Ventura area. Early table grape bud break begun, Riverside County. Picking ongoing for grapefruit, lemons, royal mandarins, navel oranges. Broccoli harvest continued Kingsburg-Dinuba area. Supplies Salinas-Watsonville, Santa Maria moderate, light, variable quality. Lettuce harvest slowed due cold weather Coachella Valley, quality good. Growers Kingsburg-Dinuba area applying fungicides, cultivate fields. Asparagus harvest limited cold weather. Artichokes light supply, frost damage. Melon plantings Palo Verde Valley underway. Also packing cabbage, broccoli, green onions, leaf lettuce. Livestock fair to good. Range, pasture deteriorating, continued dry weather. Supplemental feeding continued most areas. Water levels low to very low.

**COLORADO:** Fast moving system 24th to 25th brought 0.20 to 0.40 in. new moisture to most western valleys, nearly 1.00 in. Grand Junction, up to 15 in. new snow southwestern mountains but only traces to 1 in. east of Continental Divide. On 28th,

stronger system affected south, east; leaving less than 1 in. of moisture most western valley, 4 to 6 in. near eastern foothills, 9 in. Aurora. Eastern Plains mostly between 1 to 2 in. Temperatures 2 to 5° above normal east of Continental Divide, 2 to 4° below normal west of Divide.

Major winter wheat areas only limited amount of moisture, light snow cover but enough to provide some temporary relief to dry topsoils. Quick moving storm caused only temporary discomfort for cattle, sheep.

**FLORIDA:** Warm, dry; temperatures 3 to 7° above normal. Warmest upper 70s to low 80s; coldest mostly 30s north, 40s central, 50s south. Rain under 0.10 in. none many areas.

Soil moisture short most areas except central Peninsula. Warm temperatures caused plant development faster than normal. Peach trees blooming. Working ground for spring sown crops, caring for tobacco beds, harvesting sugarcane continued. Pastures western Panhandle mostly fair; eastward through Panhandle into northwestern Peninsula poor to fair. Additional moisture needed most of Panhandle through Big Bend. Most central, upper eastern Peninsula pastures seasonally good. Dry soils kept many lower southern Peninsula pastures only fair. Cattle generally fair or better Panhandle, fair to good elsewhere. Calving increased. Citrus groves good to excellent. Soil moisture adequate with ideal weather for moisture retention. New growth, bloom forming; some open bloom. Early, mid season orange harvest active. Grapefruit movement strong east coast. Temple harvest increased. Dry, warm weather promoted ground preparation, planting spring crops major vegetable producing areas. Harvest winter crops continued active. Volume leaders: Tomatoes, celery, cabbage, peppers, lettuce, squash. Also available good supplies snap beans, carrots, radishes, sweet corn, strawberries, eggplant, escarole, endive. Killing winter potato vines under way southwest.

**GEORGIA:** Unseasonably warm. Temperatures 8 to 12° above normal. Highs around 70s mountains, 80s southern border. Coolest temperatures upper teens, 20s mountains; around freezing central; mid 30s south. Rain limited northern half. Mostly under 0.20 in., few areas 0.75 in.

Soil moisture short north, south; adequate north central, central. Main activities: Nitrogen application, topdressing small grains, pruning peach trees. Warm temperatures caused low chill peach trees to bloom early south. Onions growing fast. Small grains fair to mostly good, growing fast. Pastures fair. Cattle, hogs mostly fair to good.

**HAWAII:** Generally favorable weather. Fresh trade winds, sunny skies, above normal temperatures, light rainfall helped crops, farmers. Winds 5 to 15 mph. Temperatures above normal mid 60s to mid 80s. Rainfall 0.02 to 3.90 in.

Days suitable for fieldwork 7.0. Pesticide spraying remained heavy. Crops poor to good. Many crops improved growth. Head cabbage output steady, good quality. Chinese cabbage improving, shipments to mainland started. Tomato production light, poor field condition due to earlier rains, diseases. Banana production steady, light. Papaya production down seasonally. Ginger root harvest continued.

**IDAHO:** Temperatures below normal, many sub-zero readings. Precipitation below normal except few northern areas.

Bitter cold limited farm activities to indoor work. Farmers attended farm shows, commodity schools, other meetings, conferences. Shop work, tax preparation continued. Outdoor activities revolved around general livestock care, marketing, shipping farm products. Lambing, calving kept ranchers busy. Livestock good. Hay, roughage mostly adequate; some areas short.

**ILLINOIS:** Temperatures 10 to 20° above normal over State; lows 60s south to highs 40s to 50s north. Precipitation 0.25 to 0.50 in. north, 0.50 to 1.40 in. central, south.

Winter wheat mostly good. Hay mostly adequate. Livestock good to excellent.

**INDIANA:** Temperatures 15 to 20° above normal. Lows 20s, highs mid 40s to mid 50s. Precipitation 0.25 to 0.75 in.

Field activities slowed because of rain, wet soils. Other activities: Hauling manure, spreading fertilizer, plowing, hauling grain, purchasing supplies, tax preparation, attending meetings, farm program sign-up, processing tobacco, repairing equipment, care of livestock. Wheat mostly good, livestock good. Hay short to adequate.

**IOWA:** Temperatures 15 to 18° above normal; extremes 5° 26th Mason City; 62° 27th Sioux City. Precipitation near normal north to much above normal south; 0.08 to 1.05 in., average 0.50 in.

Livestock mostly good. Main activities include feeding livestock, repairing equipment, planning for this year's crops.

**KANSAS:** Temperatures unseasonably warm; mid 30s west, lower 40s east; 10 to 15° above normal central, east; 5 to 10° above normal west. Scattered rain most areas, heaviest southeast, east central, south central 0.50 in. Rest 0.10 to 0.20 in.

Rain brought temporary relief some areas but deficits in topsoil, subsoil moisture still prevalent. Precipitation helped reduce susceptibility of wheat to wind erosion temporarily. Greenbug numbers little affected by weather continued damage stands during mild weather.

**KENTUCKY:** Unseasonably warm, dry. Lows mid 30s, 10° above normal. Highs upper 50s, 15° above normal. Rain scattered, west third near normal; rest 0.25 to 0.75 in.; deficits near 0.50 in.

Mild temperatures generally favorable for agriculture. Winter grains green, some limited growth. Buds swelling early on fruit trees raising freeze concerns. Burley sales 97%, burley quotas expected to be increased sharply for 1989. Hay, other winter feed usage lessened by mild temperatures. Livestock good.

**LOUISIANA:** Temperatures 7 to 9° above normal. Extremes 23°; 80°. Rainfall slightly above normal northwest, well below normal remainder of State; none to 1.38 in.

Main activities: Caring for livestock, routine chores, limited fieldwork.

**MARYLAND & DELAWARE:** MARYLAND: Precipitation 0.10 in. Temperature 39°, normal 32°. Temperature extremes 3°; 65°.

Main farm activities caring for livestock, maintaining machinery.

DELAWARE: Precipitation 0.16 in. Temperature 39°, normal 33°. Temperature extremes 13°; 61°.

Main farm activities caring for livestock, maintaining machinery.

**MICHIGAN:** Temperatures 13 to 17° above normal. Temperature extremes 7°; 54°. Precipitation 0.15 to 0.49 in. Additional precipitation added to snow cover northern counties.

Activities: Marketing veal calves, cattle on feed. Mild weather permitting outdoor grazing. Brisk market for hay, straw; feed good. Normal winter chores, attending meetings, trimming orchards. Good weather to market crops.

**MINNESOTA:** Temperatures 11 to 18° above normal for State. Extremes -19°; 56°. Precipitation near normal to 0.14 in. below normal. Precipitation 0.03 to 0.18 in. Greatest weekly total 0.40 in. Snowfall none to 2 in. Snow depth 13 to 24 in. north, none to 1 in. south.

Another unseasonably warm week helped ease feeding, bedding requirements for livestock farmers. Much more precipitation needed before spring planting.

**MISSISSIPPI:** Fair, warm with below normal rainfall. Rainfall 0.36 in.; 0.80 in. below normal. Temperature 52°; 7° above normal. Extremes 22°; 78°.

Days suitable for fieldwork 3.3, 2.5 1988, 2.5 avg. Soil moisture adequate to surplus. Wheat good to excellent. Livestock good. Pasture good. Hay adequate. Feed grain short to adequate. Many concerned about recent warm weather causing fruit trees to bloom early, winter crops to grow like spring.

**MISSOURI:** Temperatures 8 to 18° above normal. Rain widespread, 1.00 in. northwest, 0.50 in. northeast and southeast, up to 2.00 in. southwest.

Farmers caring for livestock, planning new crop season. Livestock mostly good. Stock water still critically short some northern counties.

**MONTANA:** Temperatures 5° below normal southwest to 18° above normal north central. Precipitation 0.70 to 0.80 in. south central, southwest to no measurable precipitation north central.

Soil moisture reserves low. Most areas snow covered. Winter wheat fair to good. Wind damage light. Grazing mostly closed. Calving started. Hay tight.

**NEBRASKA:** Mild weather with precipitation midweek, weekend. Amounts traces Panhandle to 1.00 in. southeast. Temperatures 3° above normal Panhandle to 14° above east. Extremes -2°; 68°.

Winter wheat 17% poor, 67% fair, 16% good. Concern about low soil moisture, lack of snow cover. Weekend moisture beneficial east, short elsewhere. Russian wheat aphids, some green up Panhandle. Feed grain, hay, forage adequate. Pasture, range feed short to adequate. Cows 3% calved. Lambing also underway. Some wind erosion, concern about more. Main activities: Livestock care, handling grain, book work, equipment maintenance, repairing fences.

**NEVADA:** Weak upper trough west early produced widely scattered snow showers. Amounts generally light, heaviest northwest. Another trough threatened rain south but never materialized. Remainder of week mostly clear skies all areas. Temperatures took nose dive north, east falling well below zero. Slight warming trend end of period.

Cold weather again hard on livestock. Chopping ice for livestock necessary.

**NEW ENGLAND:** Precipitation 0.25 to 0.50 in. across State. Temperatures teens near Canadian

border to upper 30s southern coast. Temperatures near normal north, above normal south.

Major farm activities: Tending livestock, machinery repair.

**NEW JERSEY:** Temperatures much above normal, 38° north, 40° south, 43° coastal. Extremes 16°; 63°. Precipitation below normal, 0.20 in. north, 0.17 in. south, 0.08 in. coastal. Heaviest 24-hour total 0.22 in. on 26th, 27th.

Farmers caring for livestock, tending to normal winter chores.

**NEW MEXICO:** Slightly above normal temperatures over most of State. Some precipitation; highest amounts north central mountains. Temperatures -3 to 73°.

**NEW YORK:** Unseasonably mild, 8 to 14° above normal. Temperatures reached to 50s least once majority of areas. Jamestown apparently warmest 59°. Precipitation generally 0.25 to 0.75 in. Bulk of precipitation 26th mixture of snow, sleet, rain. Lighter precipitation occurred 25th, 27th. First half dry.

Major activities: Caring for livestock, machinery repair, winter chores, attend meetings. Mild weather made activities easier. Lack of snow cover permitted heaving of ground. Some damage alfalfa fields. Lack of snow caused concern about moisture supplies for coming year.

**NORTH CAROLINA:** Temperatures 3 to 7° above normal across State. Temperature extremes 16°; 73°. Precipitation none to 0.78 in.

Days suitable for fieldwork 5.5. Soil moisture 2% very short, 36% short, 60% adequate, 2% surplus. Pasture 2% very poor, 12% poor, 38% fair, 47% good, 1% excellent. Oats 3% poor, 16% fair, 79% good, 2% excellent. Barley 17% fair, 83% good. Rye 4% poor, 15% fair, 80% good, 1% excellent. Wheat 2% poor, 17% fair, 77% good, 4% excellent. Feed grains 5% short, 93% adequate, 2% surplus. Hay, roughage 2% short, 96% adequate, 2% surplus. Major farm activities: Tending livestock; general farm maintenance; preparing, seeding tobacco plantbeds; preparing land for planting, repairing equipment. Other activities: Pruning fruit trees; topdressing small grains, cutting firewood.

**NORTH DAKOTA:** Mild temperatures continued; 9 to 13° above normal. Extremes -18° northeast; 47° central, snowfall across extreme southwest, heaviest 12 in. Statewide precipitation 0.02 in. central, southeast to 0.20 in. southwest.

Soil moisture short to adequate. Snow cover reduced by mild temperatures, remained mostly adequate for winter seedings, alfalfa. Hay, feed mostly adequate. Livestock production sales commenced. Limited activity included grain cleaning, caring for livestock, income tax work.

**OHIO:** Unseasonably mild. Overnight lows in low to upper 30s. Highs upper 40s to upper 50s. Extremes lower 20s, high 60s. Precipitation 0.20 to 0.90 in. Soil temperatures mid 30s to mid 40s, 4 to 10° above normal.

Much of precipitation should go to soil moisture reserves as ground remained generally porous.

**OKLAHOMA:** Temperatures 4° above normal Panhandle to 11° above normal southeast. Precipitation 0.43 in. Panhandle to 4.20 in. east central.

Recent rain, sunny weather boosted small grain, range growth. Additional rain needed to replenish soil moisture supplies, particularly west. Greenbugs infesting western fields. Cattle good; prices down from last week.

**OREGON:** Temperatures below normal throughout State with bitterly cold lows snow covered areas east of Cascades. Southeast, northeast coldest temperatures 20° below normal. Precipitation relatively light; heaviest accumulations southwestern valleys, along north coast.

Soil moisture mostly adequate. Field crop spraying, fertilizing continued Willamette Valley. Winter wheat continued good west of Cascades, Columbia Basin. Dormant sprays applied for disease protection to tree fruit, berries. Pruning activities continued. Livestock mainly fair to good. Ranges, pastures also fair to good except where snow covered.

**PENNSYLVANIA:** Temperatures remained well above normal. Precipitation well below normal. Temperature 36°, 10° above normal. Precipitation 0.35 in., 0.29 in. below normal.

Activities: Hauling manure; caring for livestock; maintaining machinery; fixing fences; grading potatoes; cutting firewood.

**PUERTO RICO:** Island rainfall 0.36 in., 0.27 in. below normal. Highest weekly total 1.41 in. Pico Del Este-Luquillo, 1.40 in. Gurabo AES, 1.31 in. Cidra. Highest 24-hour rainfall 1.10 in. Cidra. Total rainfall since January 1st 2.59 in., 6% below normal. San Juan WSFO temperature 77°, 1° above normal. Total rainfall 0.22 in., 0.39 in. below normal. Divisional temperature 75° on coasts, 68 to 72° interior, station temperature 61° Pico Del Este-Luquillo to 79° Roosevelt Roads. Lowest minimum temperature 46° Adjuntas. Highest maximum temperature 92° Coloso.

**SOUTH CAROLINA:** Temperatures warmer, drier through State. Rainfall less than 0.10 in. eastern part while western half no precipitation.

Main activities: Preparing, planting tobacco seedbeds, caring for livestock, poultry, general farm chores.

**SOUTH DAKOTA:** Temperatures 8 to 23° above normal. Extremes -9°; 70°. Precipitation snowstorm up to 8 in. northwest corner; none elsewhere. Averaged below normal except northern third. Snow cover generally 4 to 8 in. along northern border; none central, south.

Crop conditions unchanged.

**TENNESSEE:** Cold fronts crossed State midweek, late weekend. Moist southerly flow caused some precipitation west early week, otherwise precipitation occurred mainly with frontal systems. Temperatures 9° above normal east and Plateau to 13° above normal west. Lows mainly 30s. Highs lower 60s west, mid 60s rest of State. Precipitation below normal. Greatest deviation less than 1.00 in. Plateau, east. Rainfall exceeded 1.00 in. west, generally light elsewhere.

Winter grains generally good. Feed generally adequate. Cattle good.

**TEXAS:** Large, slow moving storm system west triggered rainy pattern affected most of State. Most significant rains east, southeast, parts coastal Plains. Temperatures dropped slightly Panhandle, parts west, as colder air brushed State, slowly edged southward. South remained generally at or above normal. Only Trans-Pecos, Lower Rio Grande Valley below normal precipitation. Temperatures above normal.

**Crops:** Small grain growth improved late week many parts Blacklands, central. Some greenbug, rust problems existed, treatment slowed with rain. Some early wheat fields Blacklands showing exceptional progress, beginning to joint. Wheat, oats providing increased grazing area. Late week rains Hill Country allowed many poorer fields hold

on. Additional moisture bigger help. Dryland fields Plains, Cross-Timbers missed any good moisture, remained poor. Irrigated fields fair, mainly because mild weather. Grazing next to nothing dryland fields, fair irrigated fields. Some producers thinking about planting oats as replacement, rain still needed.

**Commercial Vegetables:** Rio Grande Valley harvest most winter vegetables continued normal. Warm temperatures hurt some leafy greens. Onions making excellent progress. Melon planting increased. Harvest citrus continued normal pace. Harvest valencias about to begin. San Antonio-Winter Garden harvest winter vegetables slowed by late week rains. Spinach quality affected by virus, white rust. Onions doing well. Land preparations continued High Plains. Peach growers getting concerned about lack of chilling hours needed for good crop. Some trees beginning to bud east, too early.

**Range and Livestock:** Native, small grain pastures showed improvement central, east. Many producers east need drier weather to resume much needed fertilizing. Dryland small grains Plains provided little or no grazing. Rain Hill Country, south helped ranges, small grains hold on, provide some forage. Relatively mild winter allowed livestock to remain mostly good. Lambing beginning Hill Country.

**UTAH:** Precipitation none to light. Temperatures 12° below to 1° above normal.

Snow cover generally good on fall seeded grains. Feed adequate. Major farm activities; livestock chores, hauling manure, equipment maintenance, summarizing tax records, attending farm meetings.

**VIRGINIA:** Warm, continued dry. Temperatures 5 to 8° above normal. Range 13 to 71°. Precipitation, scant statewide.

Days suitable for fieldwork 5.3. Topsoil moisture 8% very short, 15% short, 70% adequate, 7% surplus. Winter grains, grazing crops 27% poor, 37% fair, 27% good, 9% excellent. Main activities: Soil sampling, plowing, attending meetings, tax preparation. Calving, lambing active.

**WASHINGTON:** Temperatures 1° below to 1° above normal west, 7° below to 7° above east. Precipitation 0.34 to 1.19 in. west, none to 1.11 in. east.

Days suitable for fieldwork 2.9. Soil moisture mostly adequate. Limited fieldwork east. Range, pasture mostly short. Hay, other roughage 75% adequate, 25% surplus. Pruning continued. Livestock continued on winter feeding programs.

**WEST VIRGINIA:** Temperature 42°, 9 to 15° above normal. Extremes 6° Greenbank; 70° Williamson. Precipitation 0.45 in.

Days suitable for fieldwork 4.3. Soil moisture 8% very short, 59% short, 33% adequate. Wheat, barley mostly fair. Livestock good to fair. Feed 50% short, 50% adequate. Farm activities: General farm maintenance, livestock care, plowing, hauling manure.

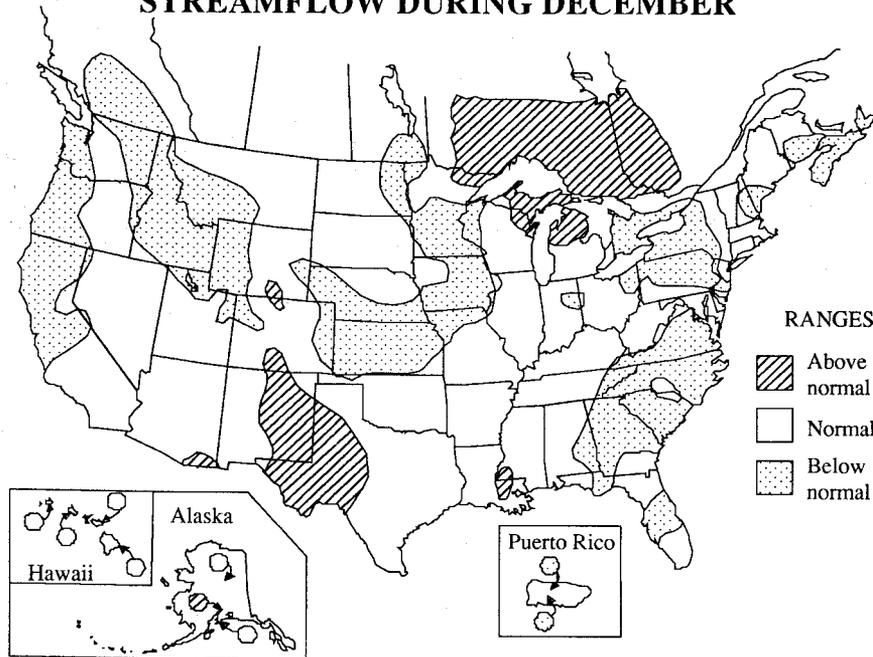
**WISCONSIN:** Temperatures very mild 30°. Extremes 0°; 53°. Precipitation trace to 0.30 in. Snowfall 1 to 3 in. central, north 25th.

Snow cover 3.7 in., normal 10.3. Frost depth 21.5 in., normal 14.0 in. Ice melted south.

**WYOMING:** Temperatures mostly above normal. Precipitation below normal.

Winter wheat fair to good. Livestock fair to good with supplemental feeding most areas. Early lambing, shearing of farm flocks started.

**STREAMFLOW DURING DECEMBER**



Streamflow was in the normal to above-normal range at 60 percent of the reporting index stations in southern Canada, the United States, and Puerto Rico, during December compared with 80 percent in those ranges during last month. This is the lowest percentage of stations with flow in the normal to above-normal range for December in the last 7 years. Total December flow for the 179 reporting index stations in the conterminous United States and southern Canada was 17 percent below median, and the lowest for December in the last 7 years. Below-normal range streamflow occurred in 26 percent of the area of southern Canada and the conterminous United States during December compared with 22 percent during November, and a high of 60 percent during June.

# International Weather and Crop Summary

January 22-28, 1989

## HIGHLIGHTS

**WESTERN USSR** ... The sixth consecutive week of unseasonably warm weather covers most of the region. Winter grains remain dormant.

**EUROPE** ... Unseasonably warm weather continues across much of the north. Beneficial light to moderate rain falls across sections of the south.

**SOUTH ASIA** ... Dry, cool weather continues across northern growing regions, slowing growth rates of vegetative to reproductive wheat.

**EASTERN ASIA** ... Drier weather develops in southeastern crop areas. Moderate to heavy rain covers much of the Korean Peninsula and Japan.

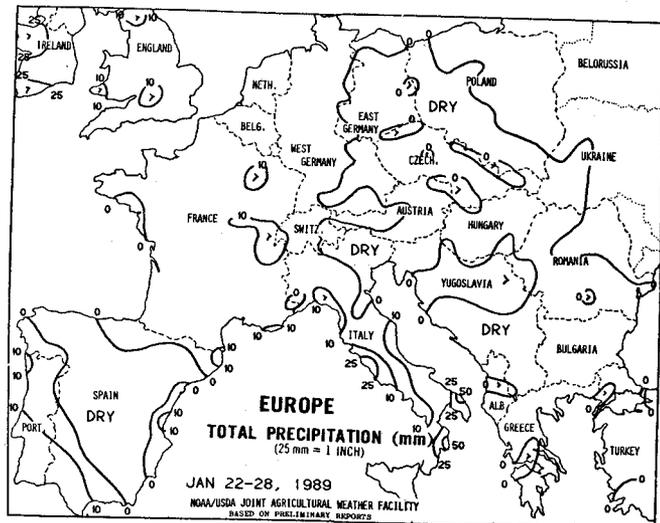
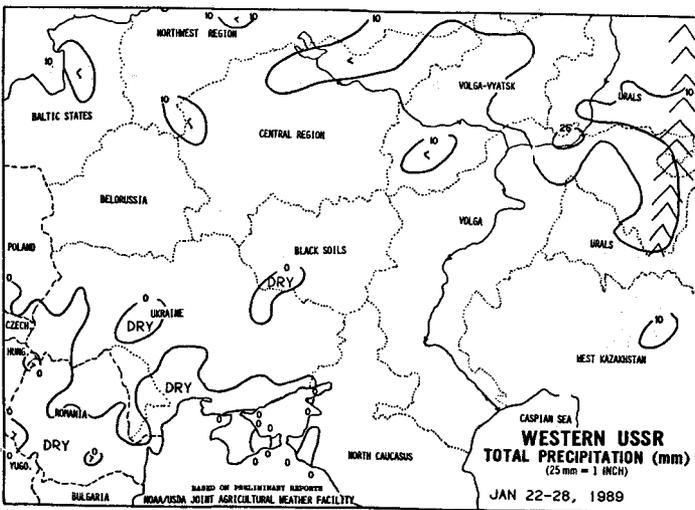
**SOUTHEAST ASIA** ... Locally heavy rain persists over Indonesia, Malaysia, and the east-central Philippines, causing flooding.

**SOUTH AMERICA** ... In Argentina, summer crops continue to suffer from minimal rain and higher than average temperatures. Adequate to abundant moisture prevails in south-central Brazil.

**AUSTRALIA** ... Scattered rain brings limited relief to sections of interior Queensland.

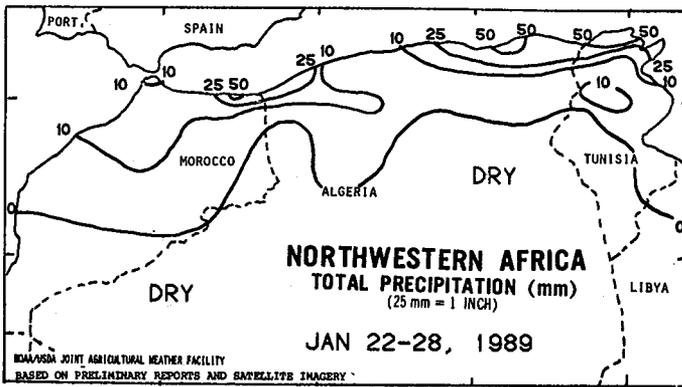
**SOUTH AFRICA** ... Continued variable rain and mild temperatures benefit tasseling and silking corn.

**NORTHWESTERN AFRICA** ... Beneficial showers cover northernmost winter grain areas. Minimal rain continues over southern areas.

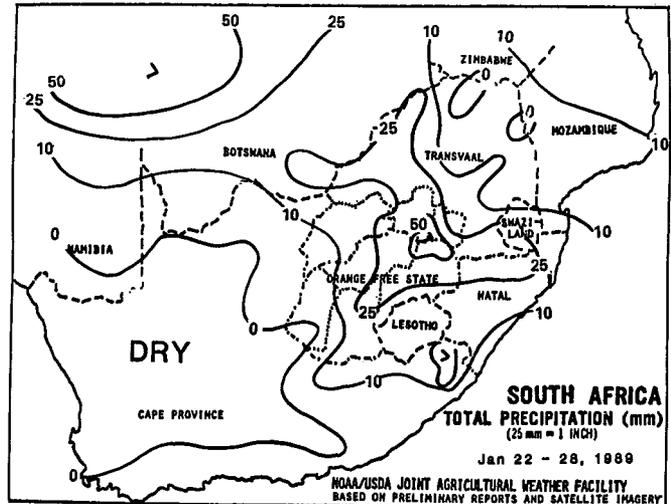


**WESTERN USSR** ... The sixth consecutive week of unseasonably warm weather covered most of the region. Weekly average temperatures, ranging from 1 to 3 degrees Celsius (C) in the west and -2 to -5 degrees C in the east, were low enough to keep winter grains dormant. Extreme cold during the week was confined to winter grain areas in the Volga and the Volga Vyatsk Regions, where minimum temperatures dropped to around -15 degrees C. Mostly dry weather covered winter grains in the southern Ukraine, while precipitation over the remainder of the region was generally less than 10mm. Winter grains areas in the Baltic States, Belorussia, the Ukraine, and the western North Caucasus remained snow free.

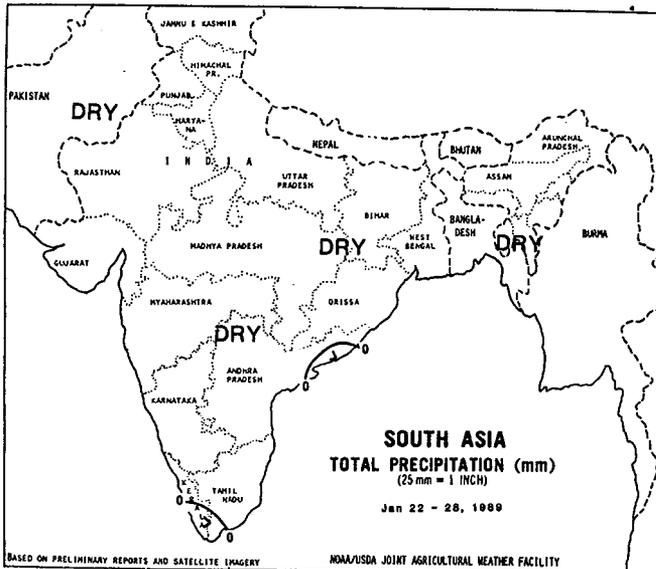
**EUROPE** ... Unseasonably warm weather (temperatures as much as 9 degrees C above normal) continued across much of northern Europe. Scattered, light to moderate rain (5-20mm) covered sections of the northwest, while the northeast remained mostly dry. Mean temperatures in the 5-10 degree C range in sections of Ireland, the United Kingdom, and western France caused vegetative growth of normally semidormant to dormant winter grains. Warmer than normal weather in eastern crop areas of Europe since late December has melted snow cover over much of the region and left dormant winter crops vulnerable to potential winterkill. In the south, light to moderate rain (5-20mm) benefited extreme southern Spain, Portugal, southern France, and all of Italy (except for the northeast section), while the Balkans remained mostly dry. Soil moisture remains unfavorably low in parts of the south, especially northeastern Spain and northern Italy.



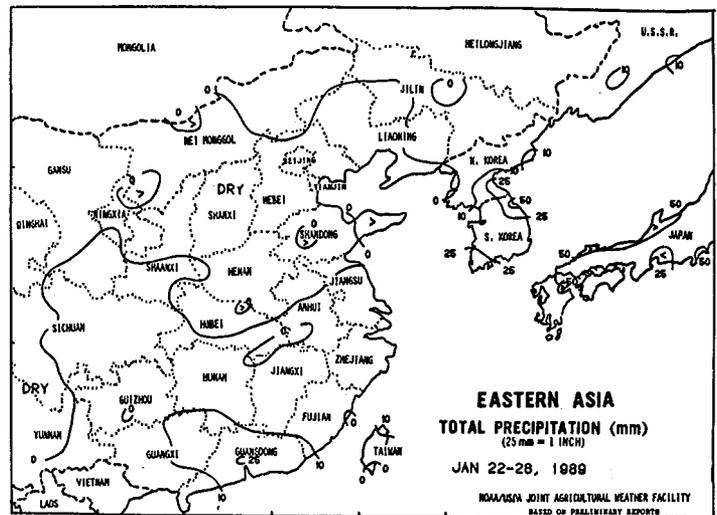
**NORTHWESTERN AFRICA** ... In Morocco, light showers covered northern crop areas, benefiting winter grains in the vegetative stage. Minimal rain continued over southern crop areas where moisture reserves were becoming depleted. Soaking rain (25-50mm) covered northernmost crop areas in eastern Algeria and northern Tunisia, bringing relief to vegetative winter grains. Lesser amounts of precipitation (around 10mm) fell over southern areas. In northwestern Algeria, precipitation increased in western areas where rainfall amounts ranged from 10 to 25mm.



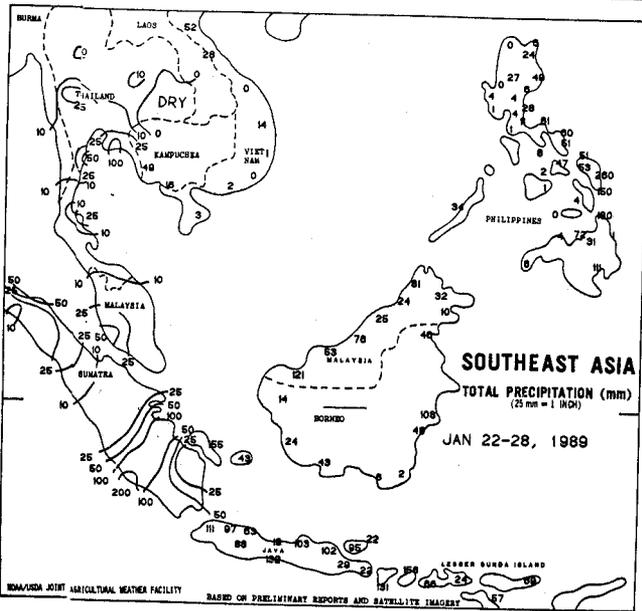
**SOUTH AFRICA** ... Variable showers continued across South Africa, with rainfall ranging from 11 to 62mm over a large portion of the central and eastern maize Triangle. Rainfall averaged less than 10mm over the westernmost and easternmost portions of the Triangle, as well as most growing regions of Natal and the Cape Province. However, temperatures continued seasonably mild, with highs across the primary growing regions ranging from 28 to 32 degrees C. Most corn is in or nearing the moisture and temperature sensitive tasseling and silking stages of development.



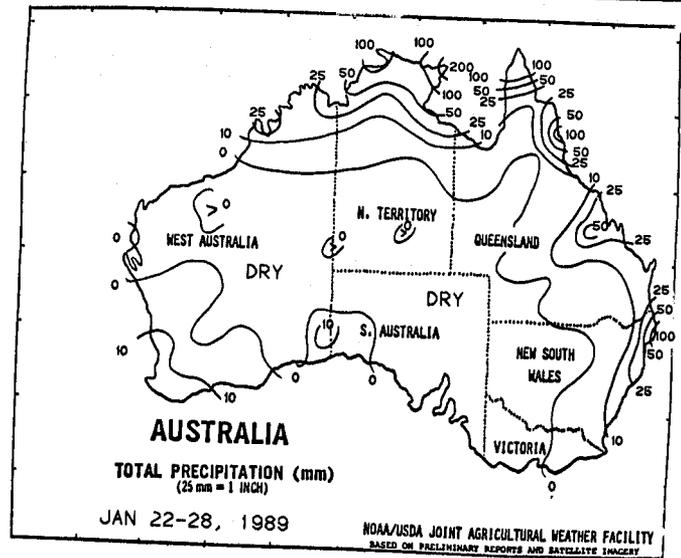
**SOUTH ASIA** ... Dry, cooler-than-normal weather continued across northern India, with temperatures averaging 1-3 degrees C below normal over most winter wheat regions. Temperatures averaged 1-2 degrees C above normal over northern Pakistan, but minimum temperatures dipped below 5 degrees C for the third week. Lowest minimum temperatures ranged from 2-6 degrees C across northern India with local freezing temperatures limited to northern Punjab. Winter wheat is usually in or nearing the heading stage across the north, although recent weeks of cooler than normal weather has slowed crop growth rates.



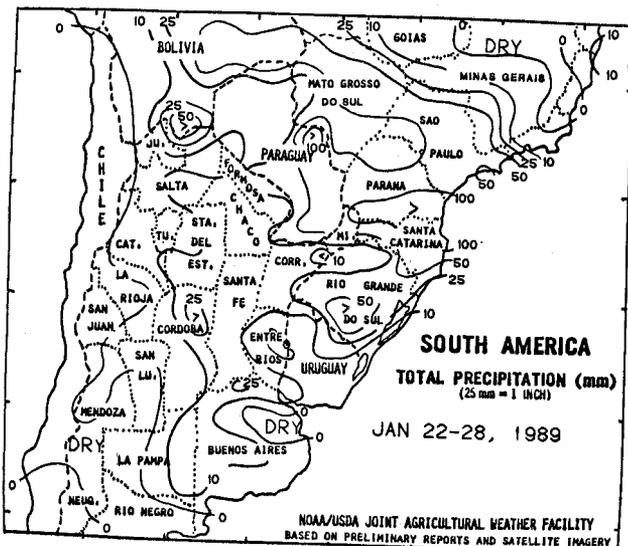
**EASTERN ASIA** ... Light to moderate rain (5-20mm) persisted early in the week across southeastern crop areas, followed by mostly dry weather by week's end. The dryness ended 4 weeks of unseasonably heavy rain over the region, dramatically improving soil and irrigation reservoir levels prior to early rice planting, which normally begins by the end of February. Elsewhere, moderate to heavy rain (15-40mm, with scattered amounts in excess of 50mm) kept soils wet over the Korean Peninsula and much of Japan. Scattered light snow (less than 10mm) fell over Manchuria, while the North China Plain was seasonably dry. Mean temperatures ranged from near to below normal in southwestern crop areas to above normal in the northeast.



**SOUTHEAST ASIA** ... Variable showers continued across Indonesia and Malaysia, with heavy showers (100mm or more) persisting over southern Sumatra and southern portions of eastern Malaysia, worsening flood conditions. Moderate to heavy rain (50-129mm) returned to Java following last week's below normal rainfall. To the north, scattered showers (2-41mm) fell over peninsular Thailand with moderate rain (10-25mm or more) covering a large portion of south-central Thailand just north of Bangkok, boosting irrigation reserves for the second rice crop. Isolated, heavy showers (97-162mm) south of Bangkok likely caused local flooding. In the Philippines, excessive showers (100-200mm or more) from a tropical low worsened flooding over east-central growing areas with light to moderate showers elsewhere over the islands.



**AUSTRALIA** ... Scattered rain (10-50mm, with isolated rainfall greater than 50mm) offered limited relief from dryness across sections of interior Queensland, while other summer crop areas remained mostly dry. However, evapotranspiration loss rates and crop developmental rates were slowed by below normal temperatures. Scattered showers (5-40mm, with scattered amounts in excess of 40mm) benefited vegetative sugarcane in eastern coastal growing areas of Queensland. In the south, a frontal system brought late-week light to moderate rain (5-20mm) to crop areas of Western Australia, while South Australia and Victoria remained mostly dry. Temperatures in the south ranged from much above normal in South Australia to below normal in eastern Victoria.



**SOUTH AMERICA** ... In Argentina, rain fell over most crop areas, producing highly variable weekly totals. In general, weekly rainfall averaged 10-25mm over eastern Cordoba, Santa Fe, northern and western Buenos Aires, and eastern La Pampa. While the showers eased moisture stress, weekly mean temperatures averaged 3-4 degrees C above normal throughout the major growing areas, causing additional heat stress on reproductive crops. Corn has reportedly suffered the most from the persistent heat and dryness during reproduction. Soybeans, ranging from first-crop flowering to second-crop root establishment, have also been adversely affected. In contrast, widespread rain continued to provide adequate to abundant moisture for summer crops throughout south-central Brazil. Heavy rain (100-150mm) fell over southern Parana, likely causing some excess runoff. Mostly light showers fell in northwestern Rio Grande do Sul, which received substantial rain the previous week, and in northern coffee areas of Minas Gerais.

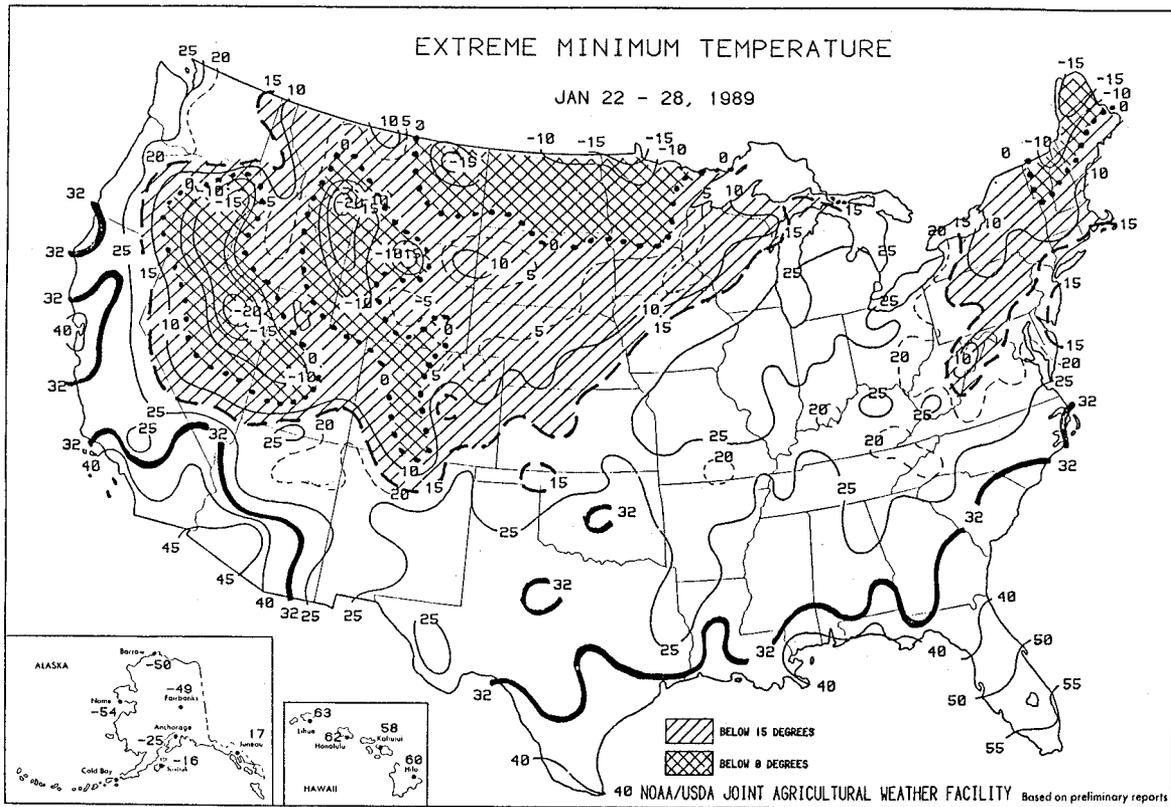
The Weekly Weather and Crop Bulletin (ISSN 0043-1974) is published weekly and jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the Weekly Weather Chronicle. It is issued under general authority of the Act of January 12, 1895 (44-USA 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 \$35, 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, D.C. 20250. Order subscriptions from the office and address listed above. Second class postage paid at Washington, D.C. and additional mailing offices.

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SECOND CLASS MAIL  
 POSTAGE AND FEES PAID  
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ISSN 0043 1974