U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

Climatography of the United States No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: AMERY, WI **COOP ID: 470175**

Climate Division: WI 1 **NWS Call Sign:** **Elevation: 1,070 Feet** **Lat: 45˚18N** **Lon: 92˚22W**

Temperature (˚F)

	Mean (1)			Extremes										Degree Days (1) Base Temp 65		Mean Number of Days (3)					
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Year	Day	Highest Month(1) Mean	Year	Lowest Daily(2)	Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	19.4	-.8	9.3	54	1981	25	22.8	1990	-46	1977	9	-5.2	1977	1729	0	.0	.0	.1	25.9	30.9	16.4
Feb	26.5	5.8	16.2	57	1981	19	31.0	1998	-38+	1996	2	5.3	1979	1368	0	.0	.0	.4	18.1	27.8	10.7
Mar	38.2	19.2	28.7	80	1986	30	38.1	2000	-40	1962	1	19.3	1975	1125	0	.0	.0	4.9	8.9	26.8	3.5
Apr	54.3	32.8	43.6	90	1980	22	50.5	1977	-5	1979	6	36.2	1975	645	1	.0	@	19.2	1.0	14.9	@
May	68.1	45.0	56.6	94+	1969	29	65.2	1977	18	1967	3	49.9	1983	301	40	.0	@	29.9	.0	2.5	.0
Jun	76.3	53.8	65.1	101	1970	30	70.4	1988	32	1964	1	59.1	1982	93	95	.0	1.2	30.0	.0	.0	.0
Jul	80.8	58.7	69.8	101	1988	16	73.9	1988	39	1972	4	64.1	1992	18	165	.1	2.8	31.0	.0	.0	.0
Aug	78.3	56.2	67.3	101	1988	1	72.0	1988	35+	1977	18	61.6	1977	62	132	@	1.6	31.0	.0	.0	.0
Sep	68.9	46.7	57.8	97	1976	8	64.7	1998	23+	1985	27	52.4	1974	239	24	.0	.3	29.4	.0	1.8	.0
Oct	56.5	35.0	45.8	85+	1997	4	51.2	1971	8+	1976	28	39.0	1976	597	0	.0	.0	22.9	.2	12.5	.0
Nov	38.5	22.1	30.3	73	1999	9	39.2	1999	-22	1964	30	23.5	1991	1042	0	.0	.0	5.5	9.2	26.0	1.2
Dec	24.3	6.6	15.5	61	1998	2	25.6	1997	-43	1983	19	-.2	1983	1537	0	.0	.0	.3	22.9	30.8	10.4
Ann	52.5	31.8	42.2	101+	Aug 1988	1	73.9	Jul 1988	-46	Jan 1977	9	-5.2	Jan 1977	8756	457	.1	5.9	204.6	86.2	174.0	42.2

\+ Also occurred on an earlier date(s)

@ Denotes mean number of days greater than 0 but less than .05

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

(3) Derived from 1971-2000 serially complete daily data

Issue Date: February 2004

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

Climatography of the United States No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: AMERY, WI

COOP ID: 470175

Climate Division: WI 1 **NWS Call Sign:** **Elevation: 1,070 Feet** **Lat: 45˚18N** **Lon: 92˚22W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	1.05	.91	1.71	1996	18	2.74	1996	.04	1981
Feb	.74	.56	1.11	1967	15	2.59	1981	.06+	1997
Mar	1.70	1.40	1.73	1965	1	4.24	1977	.44+	1987
Apr	2.61	2.52	3.20	1975	27	6.44	1975	.09	1987
May	3.17	2.93	2.13	1988	9	6.35	1991	.50	1976
Jun	4.79	4.46	4.53	1979	29	9.74	1979	1.82	1987
Jul	3.93	3.74	3.72	1992	2	8.09	1995	1.46	1974
Aug	4.64	4.03	3.75	1960	28	9.65	1978	1.35	1976
Sep	3.69	3.11	4.08	1991	8	9.21	1991	1.33	1998
Oct	2.39	2.21	2.09	1968	9	5.15	1995	.41	1976
Nov	2.09	1.66	2.20	1996	16	5.57	1996	.15	1976
Dec	1.13	1.12	1.51	1982	25	3.07	1982	.25	1974
Ann	31.93	32.24	4.53	Jun 1979	29	9.74	Jun 1979	.04	Jan 1981

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	7.7	3.2	.2	.1
Feb	5.5	2.7	.2	.0
Mar	7.4	4.4	1.1	.2
Apr	8.8	6.0	1.7	.4
May	10.7	6.6	2.0	.7
Jun	12.1	8.0	3.0	1.2
Jul	11.2	7.3	2.6	1.0
Aug	10.0	6.8	2.8	1.3
Sep	10.6	6.3	2.4	1.0
Oct	9.2	5.3	1.6	.3
Nov	7.9	4.4	1.3	.4
Dec	8.0	3.4	.5	.1
Ann	109.1	64.4	19.4	6.7

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.19	.28	.43	.58	.72	.88	1.06	1.28	1.58	2.05	2.50
Feb	.09	.14	.25	.35	.46	.58	.72	.90	1.14	1.54	1.92
Mar	.38	.54	.78	1.01	1.23	1.47	1.74	2.06	2.48	3.16	3.79
Apr	.52	.75	1.14	1.49	1.84	2.22	2.65	3.17	3.86	4.96	6.01
May	1.09	1.39	1.82	2.19	2.55	2.91	3.31	3.77	4.36	5.28	6.12
Jun	1.83	2.27	2.91	3.44	3.94	4.45	5.01	5.65	6.47	7.73	8.88
Jul	1.48	1.84	2.37	2.81	3.22	3.65	4.11	4.65	5.33	6.37	7.33
Aug	1.54	1.98	2.63	3.17	3.70	4.24	4.84	5.53	6.42	7.80	9.07
Sep	1.08	1.43	1.95	2.41	2.85	3.32	3.83	4.43	5.21	6.43	7.57
Oct	.59	.82	1.17	1.48	1.78	2.11	2.47	2.90	3.46	4.34	5.17
Nov	.31	.49	.79	1.08	1.38	1.71	2.09	2.56	3.18	4.20	5.18
Dec	.23	.33	.50	.65	.80	.96	1.15	1.37	1.66	2.13	2.58
Ann	21.55	23.52	26.06	28.00	29.74	31.42	33.17	35.11	37.48	40.93	43.93

\+ Also occurred on an earlier date(s)
\# Denotes amounts of a trace
@ Denotes mean number of days greater than 0 but less than .05
****** Statistics not computed because less than six years out of thirty had measurable precipitation

(1) From the 1971-2000 Monthly Normals
(2) Derived from station's available digital record: 1948-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Services

Climatography of the United States No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: AMERY, WI **COOP ID: 470175**

Climate Division: WI 1 **NWS Call Sign:** **Elevation: 1,070 Feet** **Lat: 45°18N** **Lon: 92°22W**

Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	10.4	9.9	9	10
Feb	6.5	5.0	11	9
Mar	8.9	7.1	5	4
Apr	2.2	.5	#	#
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.5	.0	#	0
Nov	5.0	4.5	1	1
Dec	9.6	8.6	5	4
Ann	43.1	35.6	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	11.4	1982	23	18.3	1975	29+	1982	31	19	1979
Feb	7.0	1990	16	17.5	1971	40	1979	16	30	1979
Mar	14.0	1985	4	32.0	1985	27	1979	7	18	1979
Apr	9.0	1984	30	18.6	1983	12	1983	15	3	1975
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	4.0	1987	22	4.0+	1992	4	1987	22	#+	1997
Nov	14.0	1991	30	14.0	1991	18	1991	30	6	1991
Dec	12.0	1982	28	18.0+	1985	20	1996	31	12	1996
Ann	14.0+	Nov 1991	30	32.0	Mar 1985	40	Feb 1979	16	30	Feb 1979

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	5.8	4.0	1.2	.4	@
Feb	3.7	2.7	.7	.2	.0
Mar	3.0	2.2	1.1	.6	@
Apr	.8	.6	.2	.1	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.3	.2	.1	.0	.0
Nov	2.8	2.3	.8	.3	.1
Dec	5.4	3.8	.9	.4	@
Ann	21.8	15.8	5.0	2.0	.1

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	28.9	28.3	21.1	8.9
Feb	26.3	24.2	20.7	8.6
Mar	15.1	12.7	10.5	3.7
Apr	1.2	.8	.4	@
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.2	.1	.0	.0
Nov	6.3	3.3	1.4	.2
Dec	24.3	19.9	12.1	5.1
Ann	102.3	89.3	66.2	26.5

+ Also occurred on an earlier date(s) #Denotes trace amounts

@ Denotes mean number of days greater than 0 but less than .05

-9/-9.9 represents missing values
Annual statistics for Mean/Median snow depths are not appropriate

(1) Derived from Snow Climatology and 1971-2000 daily data

(2) Derived from 1971-2000 daily data

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

Climatography of the United States No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: AMERY, WI **COOP ID: 470175**

Climate Division: WI 1 **NWS Call Sign:** **Elevation: 1,070 Feet** **Lat: 45˚18N** **Lon: 92˚22W**

Freeze Data

Spring Freeze Dates (Month/Day)

Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/13	6/06	6/02	5/29	5/26	5/22	5/18	5/14	5/08
32	5/26	5/20	5/16	5/13	5/10	5/07	5/03	4/29	4/24
28	5/10	5/05	5/01	4/28	4/25	4/22	4/19	4/15	4/10
24	4/28	4/23	4/20	4/18	4/15	4/12	4/10	4/07	4/02
20	4/20	4/15	4/12	4/10	4/07	4/05	4/02	3/30	3/26
16	4/14	4/09	4/05	4/01	3/29	3/26	3/23	3/19	3/14

Fall Freeze Dates (Month/Day)

Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	8/31	9/05	9/09	9/12	9/15	9/18	9/21	9/25	9/30
32	9/14	9/19	9/22	9/24	9/27	9/29	10/02	10/05	10/09
28	9/22	9/26	9/30	10/02	10/05	10/08	10/11	10/14	10/19
24	10/04	10/10	10/14	10/17	10/20	10/23	10/27	10/31	11/05
20	10/13	10/18	10/22	10/25	10/28	10/31	11/04	11/07	11/13
16	10/21	10/27	10/31	11/04	11/08	11/11	11/15	11/20	11/26

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	136	127	122	117	112	107	102	96	88
32	159	153	148	143	139	135	131	126	119
28	186	178	172	167	163	158	153	147	139
24	210	202	197	192	187	183	178	173	165
20	223	216	211	207	203	199	195	190	183
16	250	241	234	228	223	217	212	205	196

***** Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

Climatography of the United States No. 20 1971-2000

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: AMERY, WI **COOP ID: 470175**

Climate Division: WI 1 **NWS Call Sign:** **Elevation: 1,070 Feet** **Lat: 45˚18N** **Lon: 92˚22W**

Degree Days to Selected Base Temperatures (˚F)

Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1729	1368	1125	645	301	93	18	62	239	597	1042	1537	8756
60	1574	1228	970	500	195	36	2	20	134	446	892	1382	7379
57	1481	1144	877	416	143	18	0	8	86	360	802	1289	6624
55	1419	1088	816	364	113	11	0	4	61	306	742	1227	6151
50	1264	948	670	246	56	2	0	0	20	189	595	1072	5062
32	727	486	232	21	0	0	0	0	0	8	172	553	2199

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	22	42	130	368	762	993	1170	1092	775	434	121	39	5948
55	0	0	0	21	162	313	457	383	145	19	0	0	1500
57	0	0	0	13	130	261	395	326	110	11	0	0	1246
60	0	0	0	6	89	189	304	244	68	4	0	0	904
65	0	0	0	1	40	95	165	132	24	0	0	0	457
70	0	0	0	0	15	34	68	55	6	0	0	0	178

Growing Degree Units (2)

Base	Growing Degree Units (Monthly)												Growing Degree Units (Accumulated Monthly)											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	0	0	26	183	525	761	933	854	548	229	31	0	0	0	26	209	734	1495	2428	3282	3830	4059	4090	4090
45	0	0	11	105	378	611	778	699	401	131	12	0	0	0	11	116	494	1105	1883	2582	2983	3114	3126	3126
50	0	0	3	55	247	461	623	544	271	64	2	0	0	0	3	58	305	766	1389	1933	2204	2268	2270	2270
55	0	0	0	23	143	317	468	392	160	25	0	0	0	0	0	23	166	483	951	1343	1503	1528	1528	1528
60	0	0	0	9	74	192	316	245	79	4	0	0	0	0	0	9	83	275	591	836	915	919	919	919
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	18	121	319	482	616	553	327	140	17	0	0	0	18	139	458	940	1556	2109	2436	2576	2593	2593

(1) Derived from the 1971-2000 Monthly Normals
(2) Derived from 1971-2000 serially complete daily data
Note: For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Notes

a. The monthly means are simple arithmetic averages computed by summing the monthly values for the period 1971-2000 and dividing by thirty. Prior to averaging, the data are adjusted if necessary to compensate for data quality issues, station moves or changes in station reporting practices. Missing months are replaced by estimates based on neighboring stations.

b. The median is defined as the middle value in an ordered set of values. The median is being provided for the snow and precipitation elements because the mean can be a misleading value for precipitation normals.

c. Only observed validated values were used to select the extreme daily values.

d. Extreme monthly temperature/precipitation means were selected from the monthly normals data.
Monthly snow extremes were calculated from daily values quality controlled to be consistent with the Snow Climatology.

e. Degree Days were derived using the same techniques as the 1971-2000 normals.
Compete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

f. Mean "number of days statistics" for temperature and precipitation were calculated from a serially complete daily data set .
Documentation of the serially complete data set is available from the link below:

g. Snowfall and snow depth statistics were derived from the Snow Climatology.
Documentation for the Snow Climatology project is available from the link under references.

Data Sources for Tables

Several different data sources were used to create the Clim20 climate summaries. In some cases the daily extremes appear inconsistent with the monthly extremes and or the mean number of days statistics. For example, a high daily extreme value may not be reflected in the highest monthly value or the mean number of days threshold that is less than and equal to the extreme value. Some of these difference are caused by different periods of record. Daily extremes are derived from the station's entire period of record while the serial data and normals data were are for the 1971-2000 period. Therefore extremes observed before 1971 would not be included in the 1971-2000 normals or the 1971-2000 serial daily data set. Inconsistencies can also occur when monthly values are adjusted to reflect the current observing conditions or were replaced during the 1971-2000 Monthly Normals processing and are not reconciled with the Summary of the Day data.

a. Temperature/ Precipitation Tables
   1. 1971-2000 Monthly Normals
   2. Cooperative Summary of the Day
   3. National Weather Service station records
   4. 1971-2000 serially complete daily data

b. Degree Day Table
   1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
   2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/usnormalsprods.html
Snow Climatology Project Description, www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html
Eischeid, J. K., P. Pasteris, H. F. Diaz, M. Plantico, and N. Lott, 2000: Creating a serially complete, national daily time series of temperature and precipitation for the Western United States. J. Appl. Meteorol., 39, 1580-1591,
www1.ncdc.noaa.gov/pub/data/special/ serialcomplete_jam_0900.pdf