

Climatology of the United States

No. 20

1971-2000

Station: MENOMONIE, WI

COOP ID: 475335

Climate Division: WI 4

NWS Call Sign:

Elevation: 780 Feet Lat: 44° 53N Lon: 91° 56W

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	23.5	3.8	13.7	55	1981	24	25.7	1990	-39	1977	9	1.2	1977	1592	0	.0	.0	.2	22.6	30.8	12.7
Feb	30.4	10.0	20.2	60+	2000	29	33.1	1998	-40	1996	3	10.3	1978	1254	0	.0	.0	1.2	14.5	27.2	8.2
Mar	42.1	21.7	31.9	82+	1986	30	41.0	2000	-34	1962	1	24.5	1996	1027	0	.0	.0	7.8	5.5	25.5	2.4
Apr	58.4	33.8	46.1	90	1980	22	53.0	1977	5	1995	4	39.5	1975	569	3	.0	@	23.2	.3	13.9	.0
May	70.7	45.4	58.1	92	1969	28	66.2	1977	20	1967	3	52.6	1996	259	44	.0	.3	30.8	.0	2.5	.0
Jun	78.3	54.7	66.5	98+	1985	9	71.1	1991	30	1993	1	60.1	1993	67	111	.0	2.3	30.0	.0	@	.0
Jul	82.3	59.7	71.0	100+	1974	14	75.6	1999	41+	1990	6	64.4	1992	25	210	.1	5.1	31.0	.0	.0	.0
Aug	79.6	57.5	68.6	101+	1964	3	74.2	1995	37+	1967	19	64.4	1994	43	153	@	2.8	31.0	.0	.0	.0
Sep	71.0	48.6	59.8	96+	1978	8	66.7	1998	25	1967	29	51.5	1993	194	37	.0	.7	29.8	.0	1.1	.0
Oct	59.5	37.5	48.5	90	1997	4	55.1	1973	12	1988	30	43.5	1976	514	2	.0	@	26.4	.1	10.1	.0
Nov	41.6	24.8	33.2	76+	1999	9	42.0	1999	-13	1985	29	25.7	1996	955	0	.0	.0	8.2	5.6	23.2	.9
Dec	27.7	10.7	19.2	64+	2001	5	28.3	1997	-36	1983	19	6.2	1983	1421	0	.0	.0	.7	18.6	30.1	7.8
Ann	55.4	34.0	44.7	101+	Aug 1964	3	75.6	Jul 1999	-40	Feb 1996	3	1.2	Jan 1977	7920	560	.1	11.2	220.3	67.2	164.4	32.0

+ 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/normal/usnormals.html

Issue Date: February 2004

(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

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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: MENOMONIE, WI

COOP ID: 475335

Climate Division: WI 4

NWS Call Sign:

Elevation: 780 Feet Lat: 44°53N

Lon: 91°56W

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians(1)		Extremes							Daily Precipitation				Monthly/Annual Precipitation vs Probability Levels These values were determined from the incomplete gamma distribution										
Month	Mean	Med-ian	Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year	>= 0.01	>= 0.10	>= 0.50	>= 1.00	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.83	.78	1.14	1967	25	2.05	1998	.02	1981	7.9	3.1	.1	@	.12	.19	.31	.43	.55	.68	.83	1.02	1.27	1.68	2.07
Feb	.65	.46	1.23	1998	27	2.02	1981	.07	1987	5.7	2.0	.2	@	.08	.13	.23	.32	.41	.52	.64	.79	1.00	1.33	1.66
Mar	1.63	1.27	1.86	1998	28	6.01	1998	.26	1994	8.2	4.2	.8	.3	.33	.48	.72	.94	1.16	1.40	1.66	1.99	2.41	3.09	3.74
Apr	2.58	2.52	3.41	1968	23	5.12	1975	.26	1987	9.5	5.7	1.5	.5	.75	.99	1.36	1.68	1.99	2.32	2.67	3.10	3.64	4.50	5.29
May	3.44	2.94	2.47	1963	10	8.12	1991	1.37	1972	10.8	7.3	2.4	.7	1.40	1.72	2.16	2.53	2.87	3.22	3.60	4.03	4.58	5.43	6.19
Jun	4.56	4.36	3.25	1965	1	8.69	1990	1.72	1984	11.7	7.5	3.3	1.3	1.87	2.29	2.88	3.36	3.82	4.28	4.78	5.36	6.09	7.20	8.22
Jul	4.08	4.08	3.79	1959	8	10.22	1997	.89	1998	10.7	6.9	2.6	1.1	1.22	1.61	2.19	2.69	3.18	3.68	4.24	4.89	5.74	7.07	8.30
Aug	4.08	3.74	4.72	1977	31	11.78	1975	1.55	1996	10.2	6.7	2.5	1.2	1.39	1.78	2.34	2.82	3.27	3.74	4.26	4.85	5.62	6.81	7.91
Sep	3.73	3.63	4.39	2000	11	8.41	1986	.99	1974	10.1	6.3	2.7	.9	1.02	1.37	1.91	2.38	2.84	3.32	3.86	4.49	5.32	6.61	7.82
Oct	2.17	1.96	2.58	1992	7	4.49	1979	.43	1976	9.0	4.9	1.1	.3	.47	.67	.99	1.28	1.57	1.87	2.22	2.63	3.17	4.04	4.86
Nov	1.93	1.36	3.41	1991	1	7.28	1991	.00	1976	7.9	3.9	1.2	.3	.16	.37	.68	.96	1.25	1.57	1.94	2.38	2.98	3.95	4.88
Dec	.88	.73	1.39	1959	28	2.38	1972	.21	1989	7.5	2.8	.3	.1	.21	.29	.42	.53	.65	.77	.91	1.07	1.28	1.62	1.94
Ann	30.56	31.32	4.72	Aug 1977	31	11.78	Aug 1975	.00	Nov 1976	109.2	61.3	18.7	6.7	22.17	23.81	25.90	27.48	28.88	30.23	31.62	33.16	35.02	37.71	40.03

+ 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

Climatography of the United States

No. 20 1971-2000

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Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: MENOMONIE, WI

COOP ID: 475335

Climate Division: WI 4

NWS Call Sign:

Elevation: 780 Feet

Lat: 44° 53N

Lon: 91° 56W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (1)					Extremes (2)										Snow Fall >= Thresholds					Snow Depth >= Thresholds			
Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	10.3	8.0	9	8	10.0	1972	24	25.5	1996	30	1979	31	21	1979	5.3	4.3	1.5	.5	.1	29.9	25.3	18.4	6.2
Feb	6.8	6.0	10	7	9.0	1971	5	15.0	1971	40	1971	7	33	1979	3.5	2.9	.8	.1	.0	25.7	21.3	16.1	5.3
Mar	7.2	7.0	4	2	9.0	1989	3	23.4	1989	20	1979	4	16	1971	2.7	2.4	1.1	.6	.0	12.8	9.9	7.2	2.6
Apr	1.1	.0	#	#	9.0	1992	10	9.0	1992	13	1971	1	5	1974	.4	.3	.1	@	.0	1.0	.8	.6	.3
May	#	.0	0	0	#	1994	5	#+	1994	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	#	.0	0	0	#	1974	22	#	1974	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.1	.0	#	0	2.8	1992	20	2.8	1992	#+	1996	31	#+	1996	@	@	.0	.0	.0	.0	.0	.0	.0
Nov	4.1	1.7	1	#	10.0	1983	28	18.3	1991	13	1983	30	4	1978	2.1	1.7	.5	.2	@	5.1	2.8	1.7	.0
Dec	6.0	4.8	5	3	8.0	1985	1	15.4	1983	29	1983	29	21	1985	4.5	3.3	1.2	.3	.0	21.6	14.1	7.2	2.0
Ann	35.6	27.5	N/A	N/A	10.0+	Nov 1983	28	25.5	Jan 1996	40	Feb 1971	7	33	Feb 1979	18.5	14.9	5.2	1.7	.1	96.1	74.2	51.2	16.4

+ 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:

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Station: MENOMONIE, WI

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Climate Division: WI 4

NWS Call Sign:

Elevation: 780 Feet

Lat: 44° 53N

Lon: 91° 56W

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	6/10	6/04	5/31	5/27	5/24	5/21	5/17	5/13	5/07
32	5/26	5/21	5/17	5/14	5/12	5/09	5/06	5/02	4/27
28	5/10	5/05	5/01	4/28	4/25	4/22	4/19	4/16	4/11
24	4/27	4/23	4/20	4/17	4/15	4/12	4/10	4/07	4/03
20	4/18	4/14	4/11	4/08	4/06	4/04	4/01	3/29	3/25
16	4/09	4/04	4/01	3/29	3/26	3/24	3/21	3/17	3/13
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	9/10	9/14	9/16	9/19	9/21	9/23	9/25	9/28	10/01
32	9/17	9/21	9/23	9/26	9/28	9/30	10/03	10/05	10/09
28	9/24	9/29	10/02	10/05	10/08	10/11	10/14	10/17	10/22
24	10/05	10/11	10/15	10/18	10/21	10/24	10/27	10/31	11/05
20	10/18	10/22	10/26	10/28	10/31	11/03	11/06	11/09	11/13
16	10/26	11/01	11/06	11/09	11/13	11/16	11/20	11/24	11/30
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	140	133	128	123	119	115	110	105	98
32	158	151	147	143	139	135	131	126	120
28	183	177	172	169	165	161	158	153	147
24	210	203	197	193	188	184	179	174	166
20	225	219	214	211	207	204	200	196	190
16	254	246	240	235	231	226	221	215	207

* 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:

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Climate Division: WI 4 NWS Call Sign: Elevation: 780 Feet Lat: 44° 53N Lon: 91° 56W

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	1592	1254	1027	569	259	67	25	43	194	514	955	1421	7920
60	1437	1114	872	427	160	21	6	11	101	368	805	1266	6588
57	1344	1030	779	347	112	9	0	3	62	288	715	1173	5862
55	1282	974	717	298	86	5	0	1	42	239	655	1111	5410
50	1127	834	572	190	38	0	0	0	12	137	511	956	4377
32	597	387	161	10	0	0	0	0	0	3	124	452	1734

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	28	57	157	434	808	1034	1208	1133	834	514	160	53	6420
55	0	0	1	32	181	349	495	421	186	37	1	0	1703
57	0	0	0	21	145	293	433	361	146	23	0	0	1422
60	0	0	0	11	100	215	347	276	95	11	0	0	1055
65	0	0	0	3	44	111	210	153	37	2	0	0	560
70	0	0	0	0	16	42	110	68	10	0	0	0	246

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	3	41	243	584	816	988	915	628	310	50	2	0	3	44	287	871	1687	2675	3590	4218	4528	4578	4580
45	0	1	18	142	430	666	833	760	478	192	22	0	0	1	19	161	591	1257	2090	2850	3328	3520	3542	3542
50	0	1	7	78	286	516	678	605	339	99	4	0	0	1	8	86	372	888	1566	2171	2510	2609	2613	2613
55	0	0	0	33	173	371	523	450	215	47	1	0	0	0	0	33	206	577	1100	1550	1765	1812	1813	1813
60	0	0	0	15	87	237	370	299	116	13	0	0	0	0	0	15	102	339	709	1008	1124	1137	1137	1137
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	1	34	172	371	529	660	604	391	192	32	1	0	1	35	207	578	1107	1767	2371	2762	2954	2986	2987

(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.
Complete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normal/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 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.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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