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: BURLINGTON, WI **COOP ID: 471205**

Climate Division: WI 9 **NWS Call Sign:** **Elevation: 751 Feet** **Lat: 42˚39N** **Lon: 88˚15W**

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	26.5	8.7	17.6	60	1967	25	29.3	1989	-27+	1985	21	4.8	1977	1470	0	.0	.0	.6	20.5	30.2	9.0
Feb	31.6	13.5	22.6	66+	2000	26	33.9	1998	-27+	1996	4	12.0	1979	1189	0	.0	.0	1.5	14.3	26.8	5.3
Mar	42.5	23.5	33.0	82	1986	30	40.6	2000	-13	1962	1	26.1	1984	992	0	.0	.0	7.8	5.6	24.5	.6
Apr	55.5	34.3	44.9	90	1980	23	51.5	1977	3	1982	7	39.6	1975	603	0	.0	@	20.3	.4	11.6	.0
May	68.3	44.5	56.4	94	1991	29	64.5	1977	22	1966	10	48.4	1997	297	31	.0	.3	30.2	.0	1.9	.0
Jun	78.0	54.6	66.3	102	1988	26	70.9	1971	32+	1972	11	60.6	1982	69	106	.1	2.6	30.0	.0	@	.0
Jul	82.0	60.0	71.0	105+	1995	15	75.3	1999	39	1972	5	66.5	1992	13	198	.1	4.2	31.0	.0	.0	.0
Aug	79.7	58.1	68.9	102	1988	2	75.0	1995	39	1958	25	63.4	1992	40	161	.1	2.4	31.0	.0	.0	.0
Sep	72.3	48.6	60.5	101	1953	3	66.0	1978	23	1974	23	56.1	1993	166	30	@	.8	30.0	.0	.5	.0
Oct	60.3	37.2	48.8	90	1971	1	57.8	1971	15	1952	29	43.4	1987	506	1	.0	@	26.3	.0	8.6	.0
Nov	45.2	27.1	36.2	76	1974	1	42.5	1975	-9	1976	29	27.9	1996	865	0	.0	.0	10.5	3.5	20.9	.3
Dec	31.9	15.4	23.7	67	2001	6	30.9	1982	-18+	1989	22	12.7	1983	1283	0	.0	.0	1.5	14.8	29.1	4.3
Ann	56.2	35.5	45.8	105+	Jul 1995	15	75.3	Jul 1999	-27+	Feb 1996	4	4.8	Jan 1977	7493	527	.3	10.3	220.7	59.1	154.1	19.5

\+ 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

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: BURLINGTON, WI **COOP ID: 471205**

Climate Division: WI 9 **NWS Call Sign:** **Elevation: 751 Feet** **Lat: 42˚39N** **Lon: 88˚15W**

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	1.58	1.34	1.73	1962	7	4.04	1999	.07	1981
Feb	1.29	1.17	1.75	2001	9	3.63	1994	.00	1987
Mar	2.30	2.04	2.94	1976	5	6.95	1976	.47	1996
Apr	3.69	3.87	2.17	1954	21	7.71	1993	1.18	1989
May	3.14	2.83	2.04	1996	21	7.84	2000	.74	1992
Jun	3.96	3.94	5.09	1950	13	9.46	1999	.86	1987
Jul	3.77	3.44	3.22	1982	22	9.98	1982	1.52	1999
Aug	4.16	3.74	3.72	1957	30	8.01	1972	.85	1973
Sep	3.27	2.88	2.84	1961	14	8.67	1972	.08	1979
Oct	2.31	2.23	2.80	1965	22	6.10	1991	.23	1994
Nov	2.56	2.22	2.15	1952	17	5.95	1985	.41	1976
Dec	1.94	1.76	2.21	1982	3	4.53	1982	.32	1976
Ann	33.97	33.11	5.09	Jun 1950	13	9.98	Jul 1982	.00	Feb 1987

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	8.9	4.3	.7	.2
Feb	7.0	3.6	.5	.2
Mar	9.1	5.4	1.4	.4
Apr	11.8	6.9	2.4	.9
May	11.2	7.2	2.2	.5
Jun	10.5	7.0	2.3	1.3
Jul	10.1	6.1	2.3	1.0
Aug	10.0	6.6	3.0	1.1
Sep	8.9	5.7	2.2	.8
Oct	9.1	5.2	1.3	.5
Nov	10.2	5.8	1.7	.4
Dec	10.0	5.0	1.0	.3
Ann	116.8	68.8	21.0	7.6

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	.29	.43	.66	.87	1.09	1.33	1.60	1.92	2.36	3.05	3.72
Feb	.08	.20	.40	.59	.79	1.01	1.27	1.59	2.02	2.73	3.42
Mar	.49	.70	1.03	1.34	1.65	1.98	2.35	2.80	3.38	4.32	5.21
Apr	1.26	1.61	2.12	2.55	2.96	3.39	3.85	4.40	5.09	6.17	7.17
May	.93	1.23	1.68	2.06	2.44	2.83	3.26	3.76	4.42	5.44	6.39
Jun	.90	1.27	1.85	2.37	2.90	3.45	4.07	4.81	5.78	7.33	8.79
Jul	1.25	1.61	2.13	2.58	3.00	3.44	3.93	4.49	5.22	6.34	7.38
Aug	1.49	1.88	2.44	2.92	3.37	3.84	4.34	4.93	5.68	6.85	7.91
Sep	.49	.76	1.24	1.69	2.16	2.67	3.26	3.99	4.96	6.55	8.07
Oct	.47	.68	1.02	1.33	1.64	1.98	2.36	2.81	3.42	4.38	5.30
Nov	.67	.91	1.28	1.61	1.93	2.27	2.65	3.09	3.68	4.60	5.46
Dec	.47	.65	.94	1.19	1.44	1.70	2.00	2.35	2.81	3.53	4.22
Ann	25.98	27.57	29.58	31.09	32.42	33.70	35.01	36.45	38.18	40.68	42.82

\+ 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: BURLINGTON, WI **COOP ID: 471205**

Climate Division: WI 9 **NWS Call Sign:** **Elevation: 751 Feet** **Lat: 42°39N** **Lon: 88°15W**

Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	10.4	9.0	5	3	14.0	1999	3	35.7	1979	19+	1999	14	15	1982	6.6	4.0	1.3	.3	.1	-9.9	-9.9	-9.9	-9.9
Feb	6.9	6.3	4	3	7.0	1994	26	25.8	1994	24	1979	13	21	1979	4.2	2.5	.9	.3	.0	-9.9	-9.9	-9.9	-9.9
Mar	5.9	5.0	1	#	11.0	1971	19	20.2	1971	16	1979	1	6	1979	2.8	1.7	.5	.3	@	5.2	3.2	1.8	.2
Apr	1.1	.0	#	0	7.0	1982	6	7.6	1982	13	1973	10	1	1973	.7	.2	.1	.1	.0	.5	.3	.2	.0
May	#	.0	0	0	#	1989	6	#	1989	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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.0	.0	0	0	.3	1980	28	.3+	1987	0	0	0	0	0	.1	.0	.0	.0	.0	.0	.0	.0	.0
Nov	1.5	.8	#	0	4.5	1995	28	6.0	1977	5	1995	30	1	1997	1.4	.7	.1	.0	.0	1.0	.3	.0	.0
Dec	6.4	7.7	2	#	11.0	1994	7	14.3	1977	25	2000	31	12	2000	4.9	2.9	.8	.3	@	-9.9	-9.9	-9.9	-9.9
Ann	32.2	28.8	N/A	N/A	14.0	Jan 1999	3	35.7	Jan 1979	25	Dec 2000	31	21	Feb 1979	20.7	12.0	3.7	1.3	.1	-9.9	-9.9	-9.9	-9.9

+ 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: BURLINGTON, WI **COOP ID: 471205**

Climate Division: WI 9 **NWS Call Sign:** **Elevation: 751 Feet** **Lat: 42˚39N** **Lon: 88˚15W**

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	6/04	5/29	5/25	5/21	5/18	5/14	5/11	5/06	4/30
32	5/25	5/19	5/14	5/10	5/07	5/03	4/29	4/25	4/19
28	5/10	5/05	5/01	4/28	4/25	4/22	4/19	4/16	4/11
24	4/28	4/23	4/19	4/16	4/13	4/10	4/06	4/03	3/28
20	4/13	4/08	4/05	4/02	3/31	3/28	3/25	3/22	3/17
16	4/02	3/28	3/24	3/21	3/18	3/16	3/13	3/09	3/04

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	9/18	9/22	9/24	9/27	9/29	10/01	10/04	10/07	10/11
32	9/25	9/29	10/01	10/03	10/06	10/08	10/10	10/12	10/16
28	9/28	10/04	10/08	10/12	10/15	10/19	10/22	10/27	11/02
24	10/14	10/19	10/23	10/26	10/29	11/01	11/05	11/08	11/14
20	10/23	10/29	11/02	11/06	11/09	11/12	11/16	11/20	11/26
16	11/07	11/12	11/16	11/19	11/22	11/24	11/27	12/01	12/06

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	154	147	142	138	134	130	125	121	114
32	171	164	159	155	151	147	143	138	131
28	194	187	181	177	172	168	163	158	151
24	218	212	207	203	199	195	191	186	180
20	245	238	232	227	223	218	214	208	200
16	270	262	257	252	247	243	238	232	224

***** 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: BURLINGTON, WI **COOP ID: 471205**

Climate Division: WI 9 **NWS Call Sign:** **Elevation: 751 Feet** **Lat: 42˚39N** **Lon: 88˚15W**

Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1470	1189	992	603	297	69	13	40	166	506	865	1283	7493
60	1315	1049	837	456	187	23	0	10	75	360	715	1128	6155
57	1222	965	744	371	134	10	0	3	40	280	625	1035	5429
55	1160	909	682	317	104	6	0	1	25	231	566	973	4974
50	1005	769	531	197	48	1	0	0	5	131	424	818	3929
32	490	319	121	6	0	0	0	0	0	3	72	333	1344

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	43	54	152	394	756	1028	1208	1144	854	521	197	73	6424
55	0	0	0	14	147	343	495	431	188	37	1	0	1656
57	0	0	0	8	115	288	433	372	144	23	0	0	1383
60	0	0	0	3	76	211	340	286	89	10	0	0	1015
65	0	0	0	0	31	106	198	161	30	1	0	0	527
70	0	0	0	0	10	38	90	74	6	0	0	0	218

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	4	56	219	534	804	976	913	640	312	78	6	0	4	60	279	813	1617	2593	3506	4146	4458	4536	4542
45	0	0	23	127	384	654	821	758	492	194	35	2	0	0	23	150	534	1188	2009	2767	3259	3453	3488	3490
50	0	0	9	67	248	504	666	603	348	107	15	0	0	0	9	76	324	828	1494	2097	2445	2552	2567	2567
55	0	0	3	34	142	361	512	448	220	50	4	0	0	0	3	37	179	540	1052	1500	1720	1770	1774	1774
60	0	0	0	16	75	232	357	296	120	16	0	0	0	0	0	16	91	323	680	976	1096	1112	1112	1112
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	0	2	38	131	316	513	644	592	392	188	47	3	0	2	40	171	487	1000	1644	2236	2628	2816	2863	2866

(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