

Climatology of the United States

No. 20

1971-2000

Station: OWEN 3 W, WI

COOP ID: 476357

Climate Division: WI 2

NWS Call Sign:

Elevation: 1,242 Feet Lat: 44° 58N

Lon: 90° 36W

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	18.7	-1.0	8.9	52	1981	26	21.5	1990	-42+	1972	15	-5.9	1977	1743	0	.0	.0	@	26.4	31.0	16.2
Feb	25.0	4.6	14.8	54+	2000	27	29.2	1998	-38+	1996	4	4.8	1989	1406	0	.0	.0	.4	19.2	27.7	10.9
Mar	36.3	17.6	27.0	78	1986	30	37.6	2000	-36	1962	1	18.6	1975	1179	0	.0	.0	3.9	10.0	27.3	4.1
Apr	52.1	31.9	42.0	87+	1970	30	47.6	1987	2+	1979	6	34.6	1975	691	0	.0	.0	17.1	1.0	15.9	.0
May	66.1	43.8	55.0	93	1959	3	62.0	1977	13+	1989	6	49.0	1997	337	27	.0	@	29.2	.0	3.2	.0
Jun	74.2	53.0	63.6	94	1988	25	69.1	1991	28	1972	10	57.8	1982	109	67	.0	.7	30.0	.0	.1	.0
Jul	78.3	57.4	67.9	99	1995	14	72.0	1983	35	1966	20	62.6	1992	32	121	.0	1.7	31.0	.0	.0	.0
Aug	76.1	55.0	65.6	101+	1988	2	71.5	1995	28	1950	20	59.8	1977	78	94	@	.9	31.0	.0	.1	.0
Sep	67.1	45.4	56.3	94	1976	8	62.5	1998	21	1967	29	50.8	1993	272	10	.0	.2	29.2	.0	2.3	.0
Oct	54.8	34.5	44.7	88	1953	3	51.7	1971	8+	1976	27	38.8	1988	632	0	.0	.0	21.5	.1	13.8	.0
Nov	38.2	22.1	30.2	76	1950	1	38.1	1999	-18+	1976	29	22.1	1976	1045	0	.0	.0	5.2	9.1	25.8	1.4
Dec	24.0	6.4	15.2	62	2001	6	24.4	1997	-33	1983	19	1.9	1983	1543	0	.0	.0	.3	23.4	30.8	10.6
Ann	50.9	30.9	40.9	101+	Aug 1988	2	72.0	Jul 1983	-42+	Jan 1972	15	-5.9	Jan 1977	9067	319	@	3.5	198.8	89.2	178.0	43.2

+ 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/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: OWEN 3 W, WI

COOP ID: 476357

Climate Division: WI 2

NWS Call Sign:

Elevation: 1,242 Feet Lat: 44°58N

Lon: 90°36W

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	1.05	.93	1.17	1967	25	2.83	1996	.04	1981	8.5	3.7	.3	.0	.16	.25	.40	.55	.70	.86	1.05	1.28	1.58	2.08	2.56
Feb	.87	.79	1.03	1951	26	2.18	1981	.06	1987	6.4	3.1	.3	.0	.16	.24	.36	.48	.60	.74	.88	1.06	1.30	1.69	2.06
Mar	1.85	1.85	1.62	1973	11	3.67	1976	.10	1978	8.6	4.7	1.0	.2	.32	.48	.75	1.00	1.26	1.54	1.86	2.25	2.77	3.61	4.41
Apr	2.52	2.68	2.80	1958	6	4.19	1999	.62	1997	10.6	6.3	1.5	.3	.99	1.22	1.55	1.83	2.09	2.35	2.64	2.97	3.39	4.04	4.63
May	3.55	3.09	2.60	1989	30	8.63	1973	.74	1986	11.3	7.2	2.5	.8	1.12	1.46	1.96	2.39	2.80	3.23	3.70	4.25	4.96	6.07	7.09
Jun	4.42	3.53	3.80	1980	6	12.13	1980	1.17	1983	11.6	7.9	3.1	1.1	1.20	1.62	2.25	2.81	3.36	3.93	4.57	5.33	6.31	7.85	9.29
Jul	4.18	3.98	3.66	1957	8	9.57	1999	.89	1974	11.1	7.5	2.5	1.2	1.15	1.55	2.15	2.68	3.19	3.73	4.33	5.04	5.96	7.40	8.75
Aug	4.49	4.17	3.55	2001	2	8.18	1980	1.52	1996	11.5	7.2	3.1	1.3	1.61	2.03	2.64	3.15	3.64	4.15	4.69	5.33	6.14	7.39	8.54
Sep	4.21	3.73	4.51	1980	21	10.14	1986	.81	1979	11.4	7.4	2.6	1.0	1.17	1.57	2.18	2.71	3.23	3.77	4.37	5.07	5.99	7.44	8.78
Oct	2.52	2.32	2.95	1979	22	7.47	1979	.30	1976	9.8	5.6	1.4	.5	.60	.84	1.21	1.54	1.86	2.21	2.59	3.05	3.66	4.61	5.51
Nov	2.15	1.80	3.50	1975	10	7.00	1991	.12	1976	9.7	4.7	1.4	.3	.33	.52	.83	1.13	1.43	1.77	2.16	2.63	3.26	4.30	5.28
Dec	1.20	1.13	1.21	1965	13	2.94	1982	.07	1997	9.1	4.0	.4	.1	.18	.28	.46	.62	.79	.98	1.20	1.46	1.82	2.40	2.95
Ann	33.01	33.63	4.51	Sep 1980	21	12.13	Jun 1980	.04	Jan 1981	119.6	69.3	20.1	6.8	22.69	24.66	27.20	29.14	30.87	32.55	34.29	36.21	38.56	41.97	44.93

+ 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

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Station: OWEN 3 W, WI

COOP ID: 476357

Climate Division: WI 2

NWS Call Sign:

Elevation: 1,242 Feet

Lat: 44° 58N

Lon: 90° 36W

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	10.7	9.8	11	11	8.0	1996	27	28.5	1982	36	1982	31	23	1979	5.8	4.7	1.5	.6	.0	30.3	27.8	21.8	14.1
Feb	8.6	9.0	13	12	10.0	1983	3	19.0	1975	40	1971	14	32	1971	4.6	3.7	1.0	.2	@	27.5	26.0	24.0	13.8
Mar	8.5	6.8	6	4	10.0	1989	4	26.5	1989	39	1972	11	23	1972	4.2	3.4	1.1	.5	@	20.9	16.2	13.2	5.4
Apr	2.7	2.0	1	#	5.0	1993	1	16.0	1993	10	1975	2	3	1975	1.5	1.3	.4	.1	.0	3.1	1.1	.5	.0
May	.1	.0	#	0	1.0	1996	5	1.0	1996	1	1997	1	#+	1999	.1	@	.0	.0	.0	@	.0	.0	.0
Jun	.0	.0	#	0	.0	0	0	.0	0	#	1997	12	#	1997	.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	#	1985	25	#	1985	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.5	.0	#	0	3.0	1992	20	3.5	1987	3	1992	20	#+	1997	.4	.3	@	.0	.0	.2	@	.0	.0
Nov	5.1	2.9	1	#	8.0	1991	24	20.0	1991	14	1991	27	9	1995	3.6	2.3	.6	.2	.0	7.4	3.2	2.2	.4
Dec	11.4	11.0	6	5	11.0	1985	2	24.0	1971	28	1985	31	26	1985	6.2	4.8	1.0	.2	@	27.5	21.0	15.6	8.2
Ann	47.6	41.5	N/A	N/A	11.0	Dec 1985	2	28.5	Jan 1982	40	Feb 1971	14	32	Feb 1971	26.4	20.5	5.6	1.8	@	116.9	95.3	77.3	41.9

+ 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:

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Lat: 44° 58N

Lon: 90° 36W

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	6/17	6/11	6/07	6/03	5/31	5/27	5/24	5/19	5/14
32	6/05	5/29	5/24	5/20	5/17	5/13	5/09	5/04	4/27
28	5/17	5/11	5/06	5/03	4/29	4/26	4/22	4/18	4/12
24	5/01	4/26	4/23	4/20	4/17	4/14	4/11	4/08	4/03
20	4/22	4/17	4/14	4/11	4/08	4/06	4/03	3/30	3/25
16	4/18	4/12	4/08	4/05	4/02	3/30	3/26	3/22	3/17
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	8/27	9/02	9/06	9/09	9/12	9/15	9/19	9/23	9/28
32	9/06	9/11	9/15	9/19	9/22	9/25	9/28	10/02	10/07
28	9/21	9/26	9/30	10/03	10/05	10/08	10/11	10/15	10/19
24	10/02	10/08	10/12	10/16	10/20	10/23	10/27	10/31	11/06
20	10/13	10/19	10/24	10/27	10/31	11/03	11/07	11/11	11/17
16	10/21	10/27	11/01	11/05	11/09	11/13	11/17	11/21	11/28
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	128	120	114	108	104	99	94	88	79
32	154	145	138	133	127	122	117	110	101
28	182	174	168	163	159	154	149	143	135
24	210	201	195	190	185	180	174	168	160
20	228	220	214	209	205	200	195	189	181
16	249	239	232	226	220	215	209	202	192

* 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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Elevation: 1,242 Feet Lat: 44° 58N Lon: 90° 36W

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	1743	1406	1179	691	337	109	32	78	272	632	1045	1543	9067
60	1588	1266	1024	544	222	44	5	24	154	480	895	1388	7634
57	1495	1182	931	458	165	22	0	10	99	393	805	1295	6855
55	1433	1126	869	403	132	13	0	5	70	337	745	1233	6366
50	1278	986	717	277	67	3	0	0	24	215	598	1078	5243
32	736	512	258	26	0	0	0	0	0	11	171	559	2273

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	16	30	102	326	713	948	1112	1039	728	403	116	39	5572
55	0	0	0	12	132	271	399	331	108	16	0	0	1269
57	0	0	0	7	102	220	337	274	77	9	0	0	1026
60	0	0	0	3	66	152	249	195	42	3	0	0	710
65	0	0	0	0	27	67	121	94	10	0	0	0	319
70	0	0	0	0	9	19	40	31	1	0	0	0	100

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	20	162	480	719	884	813	508	206	29	1	0	0	20	182	662	1381	2265	3078	3586	3792	3821	3822
45	0	0	7	90	335	569	729	658	365	114	10	0	0	0	7	97	432	1001	1730	2388	2753	2867	2877	2877
50	0	0	3	45	215	421	574	503	235	58	2	0	0	0	3	48	263	684	1258	1761	1996	2054	2056	2056
55	0	0	0	19	118	281	419	349	136	23	0	0	0	0	0	19	137	418	837	1186	1322	1345	1345	1345
60	0	0	0	7	61	164	266	206	64	3	0	0	0	0	0	7	68	232	498	704	768	771	771	771
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	14	106	288	449	572	512	308	123	19	0	0	0	14	120	408	857	1429	1941	2249	2372	2391	2391

(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/normal/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