

Climatography of the United States

No. 20

1971-2000

Station: FOXBORO, WI

COOP ID: 472889

Climate Division: WI 1

NWS Call Sign:

Elevation: 932 Feet Lat: 46°29N Lon: 92°17W

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	20.0	-3.3	8.4	54	1973	25	17.9	1987	-45	1972	15	-7.7	1982	1758	0	.0	.0	.1	26.0	30.9	18.3
Feb	27.1	3.3	15.2	59+	1987	7	30.5	1998	-42	1996	2	1.3	1989	1394	0	.0	.0	.7	18.5	27.7	11.8
Mar	37.3	15.6	26.5	75+	1987	7	34.7	2000	-35	1989	2	17.5	1982	1196	0	.0	.0	3.6	9.1	29.2	4.6
Apr	52.1	26.8	39.5	89	1987	20	46.0	1987	-4+	1982	7	33.1	1975	767	0	.0	.0	17.5	.9	22.6	.2
May	65.8	36.1	51.0	94	1969	28	56.5	1977	14	1966	9	45.5	1997	439	3	.0	.3	28.8	.0	10.4	.0
Jun	74.4	45.2	59.8	98	1987	16	63.4	1976	21	1988	9	54.5	1982	178	20	.0	1.2	29.9	.0	1.4	.0
Jul	79.0	52.8	65.9	104	1988	27	71.8	1988	32+	1988	12	60.4	1992	80	108	.2	2.9	31.0	.0	.1	.0
Aug	77.2	51.7	64.5	99	1988	16	69.1	1983	28	1967	22	59.6	1985	91	72	.0	1.5	31.0	.0	.2	.0
Sep	67.7	43.6	55.7	100	1976	7	59.8	1998	18	1965	26	50.4	1993	285	5	@	.2	29.4	.0	3.9	.0
Oct	55.9	32.8	44.4	88	1992	2	50.8	1973	-1	1988	30	38.5	1976	640	0	.0	.0	22.5	.3	14.7	@
Nov	37.6	19.6	28.6	75	1978	3	37.4	1999	-29	1964	30	20.7	1985	1092	0	.0	.0	4.3	9.7	26.6	2.0
Dec	24.2	3.9	14.1	57	1998	3	23.6	1997	-43	1983	19	1.9	1983	1579	0	.0	.0	.2	22.9	30.8	13.0
Ann	51.5	27.3	39.5	104	Jul 1988	27	71.8	Jul 1988	-45	Jan 1972	15	-7.7	Jan 1982	9499	208	.2	6.1	199.0	87.4	198.5	49.9

+ 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: 1963-2001

(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: FOXBORO, WI

COOP ID: 472889

Climate Division: WI 1

NWS Call Sign:

Elevation: 932 Feet Lat: 46°29N

Lon: 92°17W

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	.96	.84	1.15	1997	4	2.56	1975	.10	1981	8.3	3.3	.3	@	.21	.30	.44	.57	.70	.83	.99	1.17	1.41	1.80	2.16
Feb	.70	.63	1.26	2001	28	2.24	1981	.05	1988	6.1	2.3	.2	.0	.10	.16	.26	.36	.46	.57	.70	.85	1.06	1.41	1.74
Mar	1.50	1.26	2.02	1965	18	3.47	1977	.34+	1996	7.9	4.1	.7	.1	.32	.46	.68	.88	1.08	1.29	1.53	1.82	2.20	2.81	3.39
Apr	2.04	1.70	2.21	1994	25	5.35	1986	.20	1997	7.7	4.5	1.2	.3	.28	.45	.74	1.02	1.32	1.64	2.02	2.49	3.12	4.14	5.13
May	3.09	3.04	3.10	1970	21	6.24	1993	.30	1976	9.3	6.3	1.9	.7	.90	1.20	1.64	2.02	2.39	2.78	3.21	3.71	4.36	5.39	6.34
Jun	4.28	4.12	2.54	1996	26	7.24	1984	1.25	1983	11.2	7.5	2.8	1.1	1.68	2.08	2.64	3.11	3.55	4.00	4.48	5.04	5.76	6.85	7.85
Jul	4.47	4.27	3.30	1999	25	10.97	1999	1.52	1975	10.9	7.0	3.1	1.3	1.69	2.11	2.70	3.20	3.67	4.15	4.67	5.28	6.05	7.23	8.31
Aug	4.26	4.16	4.00	1971	18	7.84	1974	1.18	1982	9.9	6.8	2.8	1.1	1.51	1.91	2.49	2.98	3.45	3.93	4.45	5.06	5.84	7.04	8.15
Sep	3.88	3.53	4.75	1990	6	8.35	1986	.87	2000	10.2	6.8	2.5	1.0	1.08	1.44	2.00	2.49	2.97	3.47	4.02	4.68	5.52	6.86	8.10
Oct	2.50	1.93	2.40	1971	27	8.25	1971	.50	1976	8.9	5.2	1.7	.4	.50	.73	1.10	1.43	1.77	2.14	2.55	3.04	3.70	4.75	5.75
Nov	2.12	1.97	2.57	1991	1	5.64	1991	.27	1976	7.9	4.6	1.4	.5	.36	.54	.85	1.14	1.44	1.76	2.14	2.59	3.19	4.17	5.11
Dec	.87	.88	1.15	1982	27	2.77	1982	.03	1999	7.9	3.3	.2	@	.16	.24	.37	.48	.61	.74	.89	1.07	1.30	1.69	2.06
Ann	30.67	31.25	4.75	Sep 1990	6	10.97	Jul 1999	.03	Dec 1999	106.2	61.7	18.8	6.5	20.84	22.71	25.12	26.97	28.62	30.22	31.87	33.71	35.95	39.22	42.06

+ 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: 1963-2001

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

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

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No. 20 1971-2000

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151 Patton Avenue
Asheville, North Carolina 28801
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Station: FOXBORO, WI

COOP ID: 472889

Climate Division: WI 1

NWS Call Sign:

Elevation: 932 Feet

Lat: 46° 29N

Lon: 92° 17W

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	12.5	10.9	7	#	13.2	1997	4	34.2	1996	20	1992	28	19	1992	5.4	4.3	1.9	.4	.2	-9.9	-9.9	-9.9	-9.9
Feb	1.6	-99.9	4	#	7.2	2000	15	7.8	1994	16	1994	12	10	1994	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Mar	2.5	-99.9	1	0	6.8	2000	15	7.6	1993	7	1994	24	4	1993	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Apr	4.4	3.3	#	#	7.2	1994	28	15.5	1996	6	1995	18	1	1992	1.5	1.1	.5	.2	.0	-9.9	-9.9	-9.9	-9.9
May	#	.0	#	0	#	1980	17	#+	1980	#+	1982	31	#+	1982	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	#	0	.0	0	0	.0	0	#	1981	18	#	1981	.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	.6	.0	#	0	4.2	1991	31	4.2	1991	#+	1996	31	#+	1996	.3	.2	.1	.0	.0	.0	.0	.0	.0
Nov	8.5	7.6	1	#	7.4	1993	25	18.7	1993	12	1994	28	3	1993	3.2	2.8	1.2	.4	.0	-9.9	-9.9	-9.9	-9.9
Dec	7.1	-99.9	3	#	7.7	1995	13	35.7	1996	19	1991	21	18	1991	4.7	3.9	1.4	.2	.0	-9.9	-9.9	-9.9	-9.9
Ann	37.2	-9.9	N/A	N/A	13.2	Jan 1997	4	35.7	Dec 1996	20	Jan 1992	28	19	Jan 1992	-9.9	-9.9	-9.9	-9.9	-9.9	-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:

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No. 20 1971-2000

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COOP ID: 472889

Climate Division: **WI 1**

NWS Call Sign:

Elevation: **932 Feet**

Lat: **46°29N**

Lon: **92°17W**

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	7/03	6/28	6/24	6/20	6/17	6/14	6/10	6/06	6/01
32	6/27	6/20	6/15	6/11	6/07	6/03	5/30	5/25	5/18
28	6/11	6/05	6/01	5/28	5/25	5/21	5/18	5/13	5/07
24	5/30	5/23	5/19	5/15	5/11	5/07	5/03	4/28	4/22
20	5/12	5/06	5/01	4/28	4/24	4/21	4/17	4/12	4/06
16	4/23	4/19	4/15	4/12	4/09	4/06	4/03	3/31	3/26
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	8/13	8/19	8/23	8/27	8/30	9/02	9/06	9/10	9/16
32	8/30	9/04	9/07	9/10	9/13	9/15	9/18	9/22	9/27
28	9/15	9/19	9/21	9/23	9/25	9/27	9/30	10/02	10/05
24	9/21	9/27	10/01	10/05	10/08	10/12	10/15	10/20	10/26
20	10/04	10/10	10/14	10/17	10/20	10/24	10/27	10/31	11/06
16	10/17	10/21	10/25	10/28	10/31	11/03	11/06	11/09	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	99	90	84	78	73	68	63	56	48
32	121	113	107	102	97	92	87	81	72
28	143	136	131	127	123	119	115	110	103
24	177	168	161	155	150	144	138	132	122
20	206	197	190	184	179	173	167	161	151
16	225	218	213	208	204	200	195	190	183

* 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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No. 20
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COOP ID: 472889

Climate Division: WI 1 NWS Call Sign: Elevation: 932 Feet Lat: 46° 29N Lon: 92° 17W

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	1758	1394	1196	767	439	178	80	91	285	640	1092	1579	9499
60	1603	1254	1041	617	298	80	25	28	160	487	942	1424	7959
57	1510	1170	948	529	224	41	11	11	101	398	852	1331	7126
55	1448	1114	886	471	180	24	6	5	71	341	792	1269	6607
50	1293	974	731	334	94	4	0	0	22	216	643	1114	5425
32	751	513	255	36	1	0	0	0	0	10	195	586	2347

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	16	43	82	259	588	833	1051	1005	710	394	93	30	5104
55	0	0	0	4	54	167	344	297	91	11	0	0	968
57	0	0	0	2	35	124	287	240	61	6	0	0	755
60	0	0	0	0	17	72	208	164	30	2	0	0	493
65	0	0	0	0	3	20	108	72	5	0	0	0	208
70	0	0	0	0	0	3	40	21	0	0	0	0	64

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	11	101	365	610	818	771	492	196	19	0	0	0	11	112	477	1087	1905	2676	3168	3364	3383	3383
45	0	0	2	46	230	460	663	616	348	106	8	0	0	0	2	48	278	738	1401	2017	2365	2471	2479	2479
50	0	0	0	18	129	315	508	461	217	46	0	0	0	0	0	18	147	462	970	1431	1648	1694	1694	1694
55	0	0	0	6	62	185	355	309	119	18	0	0	0	0	0	6	68	253	608	917	1036	1054	1054	1054
60	0	0	0	0	26	91	213	175	53	3	0	0	0	0	0	0	26	117	330	505	558	561	561	561
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	1	9	103	270	391	518	489	301	132	11	0	0	1	10	113	383	774	1292	1781	2082	2214	2225	2225

(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