

Climatology of the United States

No. 20

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

Station: GENOA DAM 8, WI

1971-2000

COOP ID: 473038

Climate Division: WI 7

NWS Call Sign:

Elevation: 639 Feet

Lat: 43° 34N

Lon: 91° 14W

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	25.1	7.8	16.5	55	1981	25	29.2	1990	-43	1951	30	2.6	1977	1505	0	.0	.0	.3	21.5	30.6	10.0
Feb	31.4	13.8	22.6	63	2000	25	33.3	1998	-38	1996	3	12.0	1978	1187	0	.0	.0	1.4	14.4	26.2	5.8
Mar	43.2	25.6	34.4	81	1986	29	42.2	1973	-31	1962	1	26.1	1975	948	0	.0	.0	8.5	5.0	23.1	1.1
Apr	58.1	38.1	48.1	93	1980	22	54.9	1977	6	1982	6	42.0	1975	510	3	.0	@	23.2	.3	8.2	.0
May	70.5	49.5	60.0	90+	1988	31	67.3	1977	27	1989	6	54.6	1997	205	50	.0	.1	30.8	.0	.4	.0
Jun	78.9	58.9	68.9	101	1987	18	73.9	1971	38	1972	10	63.3	1982	33	150	@	1.8	30.0	.0	.0	.0
Jul	82.5	63.5	73.0	109	1995	13	77.1	1999	46+	1972	5	67.6	1992	7	255	.1	4.0	31.0	.0	.0	.0
Aug	80.1	61.6	70.9	100+	1988	17	76.7	1995	41	1958	25	66.6	1992	20	202	@	2.4	31.0	.0	.0	.0
Sep	71.8	53.0	62.4	95	1955	9	68.0	1998	28	1984	29	57.8	1993	121	43	.0	.5	29.9	.0	.4	.0
Oct	60.2	41.7	51.0	91	1963	6	57.2	1971	15	1988	30	45.5	1988	439	3	.0	.1	26.9	@	5.2	.0
Nov	43.2	28.2	35.7	74+	2000	1	43.4	1999	-9	1977	26	27.9	1991	879	0	.0	.0	8.9	4.6	20.1	.2
Dec	29.7	14.9	22.3	65	1982	2	30.4	1982	-26	2000	25	10.4	1983	1324	0	.0	.0	.7	17.2	29.4	5.0
Ann	56.2	38.1	47.2	109	Jul 1995	13	77.1	Jul 1999	-43	Jan 1951	30	2.6	Jan 1977	7178	706	.1	8.9	222.6	63.0	143.6	22.1

+ 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

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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Station: GENOA DAM 8, WI

COOP ID: 473038

Climate Division: WI 7

NWS Call Sign:

Elevation: 639 Feet Lat: 43°34N

Lon: 91°14W

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	1.01	.88	1.03	1967	25	3.14	1996	.10	1981	8.1	3.1	.4	.0	.18	.27	.42	.56	.70	.85	1.02	1.23	1.51	1.96	2.39
Feb	.84	.67	1.52	1998	27	2.82	1998	.06	1987	6.5	2.4	.2	.1	.09	.16	.28	.39	.52	.66	.82	1.03	1.31	1.76	2.21
Mar	1.82	1.80	1.70	1992	4	4.82	1992	.08	1994	8.7	4.4	1.2	.3	.34	.50	.76	1.01	1.26	1.54	1.85	2.22	2.72	3.52	4.28
Apr	3.56	3.14	3.02	1975	27	6.93	1999	1.06	1997	11.3	6.8	2.5	.7	1.20	1.54	2.03	2.45	2.85	3.26	3.71	4.23	4.91	5.95	6.91
May	3.63	3.41	3.96	2000	18	7.95	1991	.96	1994	11.2	7.4	2.3	.9	1.12	1.46	1.98	2.42	2.84	3.29	3.77	4.35	5.08	6.23	7.30
Jun	4.07	3.26	4.90	2000	1	11.69	2000	1.34	1988	10.5	7.0	2.8	1.1	1.14	1.53	2.12	2.62	3.12	3.64	4.22	4.90	5.78	7.16	8.45
Jul	4.64	3.90	6.13	1951	21	10.50	1987	1.33	1985	10.1	7.0	3.1	1.1	1.38	1.82	2.48	3.05	3.61	4.18	4.82	5.56	6.53	8.04	9.44
Aug	4.60	4.20	4.75	1959	27	11.38	1980	.79	1971	10.3	7.4	3.1	1.3	1.24	1.67	2.34	2.92	3.50	4.10	4.76	5.55	6.59	8.20	9.71
Sep	3.56	3.28	2.96	1969	1	8.95	1985	.70	1975	9.5	6.2	2.4	1.0	.73	1.05	1.57	2.05	2.53	3.05	3.63	4.33	5.26	6.74	8.15
Oct	2.26	2.14	1.77	1972	23	5.48	1984	.44	1987	8.4	4.9	1.6	.4	.65	.87	1.19	1.47	1.75	2.03	2.35	2.72	3.20	3.96	4.66
Nov	2.27	2.12	2.27	1982	12	5.03	1991	.04	1976	9.5	4.6	1.6	.5	.37	.56	.89	1.20	1.53	1.88	2.28	2.77	3.43	4.49	5.51
Dec	1.13	1.03	1.21	1975	14	3.28	1982	.19	1993	8.2	3.3	.5	.1	.26	.37	.53	.68	.83	.99	1.16	1.37	1.64	2.08	2.49
Ann	33.39	34.14	6.13	Jul 1951	21	11.69	Jun 2000	.04	Nov 1976	112.3	64.5	21.7	7.5	24.12	25.93	28.24	29.98	31.53	33.03	34.57	36.28	38.34	41.32	43.90

+ 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: GENOA DAM 8, WI

COOP ID: 473038

Climate Division: WI 7

NWS Call Sign:

Elevation: 639 Feet

Lat: 43°34N

Lon: 91°14W

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	9.5	7.7	6	4	16.0	1971	4	22.5	1979	30	1996	29	17	1971	5.2	3.5	1.1	.3	.1	22.8	18.0	13.8	4.2
Feb	7.0	5.8	6	4	10.0	1971	5	16.0	1971	30	1996	6	22	1979	3.3	2.2	.4	.1	.1	17.2	13.1	10.1	5.1
Mar	5.5	4.0	2	1	12.0	1997	14	15.8	1975	16	1979	2	9	1975	2.0	1.5	.6	.2	@	7.7	5.1	3.1	1.0
Apr	.8	.0	#	0	9.0	1973	9	13.0	1973	13	1973	10	2	1973	.3	.2	.1	@	.0	.4	.2	.2	.1
May	.0	.0	0	0	.0	0	0	.0	0	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	#	1993	29	#	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	3.0	1.1	1	#	6.0	1991	2	15.0	1985	14	1991	28	5	1991	1.4	1.1	.5	.3	.0	3.8	2.8	1.9	.3
Dec	7.3	6.7	3	3	8.0	1985	2	15.9	1977	23	2000	30	16	1985	5.0	3.1	.9	.1	.0	18.4	10.9	5.3	.7
Ann	33.1	25.3	N/A	N/A	16.0	Jan 1971	4	22.5	Jan 1979	30+	Feb 1996	6	22	Feb 1979	17.2	11.6	3.6	1.0	.2	70.3	50.1	34.4	11.4

+ 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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No. 20 1971-2000

Station: GENOA DAM 8, WI

COOP ID: 473038

Climate Division: WI 7

NWS Call Sign:

Elevation: 639 Feet

Lat: 43°34N

Lon: 91°14W

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	5/20	5/15	5/12	5/09	5/06	5/03	4/30	4/26	4/21
32	5/08	5/03	4/29	4/26	4/23	4/20	4/17	4/13	4/08
28	4/26	4/21	4/18	4/15	4/13	4/10	4/07	4/04	3/30
24	4/14	4/11	4/08	4/06	4/03	4/01	3/30	3/27	3/23
20	4/08	4/03	3/30	3/27	3/25	3/22	3/19	3/16	3/11
16	4/04	3/30	3/26	3/22	3/19	3/16	3/12	3/08	3/03
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	9/20	9/24	9/27	9/30	10/02	10/04	10/07	10/10	10/14
32	9/23	9/28	10/02	10/05	10/08	10/11	10/14	10/18	10/23
28	10/07	10/13	10/16	10/20	10/23	10/26	10/29	11/02	11/08
24	10/21	10/25	10/28	10/31	11/03	11/05	11/08	11/11	11/15
20	10/28	11/02	11/06	11/09	11/12	11/15	11/18	11/22	11/27
16	11/05	11/11	11/15	11/18	11/22	11/25	11/29	12/03	12/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	167	160	156	152	149	145	141	137	131
32	189	181	176	171	167	163	158	153	145
28	214	207	201	197	193	188	184	179	171
24	229	224	219	216	212	209	206	201	195
20	255	247	241	236	232	227	223	217	209
16	272	264	257	252	247	242	236	230	221

* 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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Station: GENOA DAM 8, WI

COOP ID: 473038

Climate Division: WI 7 NWS Call Sign: Elevation: 639 Feet Lat: 43° 34N Lon: 91° 14W

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	1505	1187	948	510	205	33	7	20	121	439	879	1324	7178
60	1350	1047	793	370	114	7	0	3	45	298	729	1169	5925
57	1257	963	701	294	74	2	0	0	21	224	640	1076	5252
55	1195	907	640	247	53	1	0	0	10	180	582	1014	4829
50	1040	770	496	148	19	0	0	0	1	94	443	860	3871
32	529	334	115	5	0	0	0	0	0	1	91	374	1449

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	47	71	189	488	867	1107	1271	1205	913	588	202	73	7021
55	0	0	2	40	207	418	558	492	233	54	2	0	2006
57	0	0	0	27	166	359	496	430	183	35	1	0	1697
60	0	0	0	13	113	274	403	340	118	16	0	0	1277
65	0	0	0	3	50	150	255	202	43	3	0	0	706
70	0	0	0	0	16	63	129	99	9	0	0	0	316

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	5	64	275	628	875	1031	971	687	361	70	3	0	5	69	344	972	1847	2878	3849	4536	4897	4967	4970
45	0	1	29	167	473	725	876	816	538	229	30	2	0	1	30	197	670	1395	2271	3087	3625	3854	3884	3886
50	0	1	13	89	324	575	721	661	392	128	8	0	0	1	14	103	427	1002	1723	2384	2776	2904	2912	2912
55	0	0	4	42	194	425	566	506	255	62	2	0	0	0	4	46	240	665	1231	1737	1992	2054	2056	2056
60	0	0	0	18	103	281	412	353	145	19	0	0	0	0	0	18	121	402	814	1167	1312	1331	1331	1331
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	1	36	158	374	574	711	650	421	195	32	1	0	1	37	195	569	1143	1854	2504	2925	3120	3152	3153

(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