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: CHEVIOT, OH **COOP ID: 331515**

Climate Division: OH 8 **NWS Call Sign:** **Elevation: 960 Feet** **Lat: 39˚09N** **Lon: 84˚37W**

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	36.2	17.3	26.8	68+	1999	27	36.9	1998	-23	1994	19	10.9	1977	1186	0	.0	.0	6.6	8.8	26.3	2.3
Feb	41.8	20.8	31.3	76	2000	25	39.6	1976	-9	1996	4	16.2	1978	945	0	.0	.0	9.6	6.1	21.3	.8
Mar	52.3	29.4	40.9	83+	1998	31	48.0	1973	-4	1980	2	32.7	1984	749	0	.0	.0	19.5	.9	15.7	.1
Apr	63.8	39.8	51.8	88+	1990	26	56.8	1981	17	1997	9	47.0	1982	398	3	.0	.1	27.8	.0	4.7	.0
May	74.2	51.1	62.7	93	1988	31	70.4	1991	28	1994	2	57.8	1997	159	87	.0	1.0	30.9	.0	.2	.0
Jun	82.1	59.5	70.8	101	1988	25	74.2	1991	38	1990	5	66.5	1974	17	191	.1	5.5	30.0	.0	.0	.0
Jul	86.6	64.1	75.4	103+	1999	31	79.8	1999	47	1988	1	72.4	1984	0	321	.4	11.1	31.0	.0	.0	.0
Aug	84.6	60.9	72.8	102	1988	16	79.4	1995	45	1989	8	69.3	1992	11	251	.2	8.5	31.0	.0	.0	.0
Sep	77.7	54.2	66.0	96	1999	4	71.9	1998	30	1993	30	60.7	1974	70	99	.0	2.4	30.0	.0	@	.0
Oct	65.8	41.7	53.8	87	1997	8	61.2	1971	22+	1992	19	46.3	1988	365	17	.0	.0	30.0	.0	3.2	.0
Nov	52.8	32.7	42.8	81	1999	1	48.2	1999	11+	1991	26	34.9	1976	669	0	.0	.0	19.0	.4	13.9	.0
Dec	41.3	23.2	32.3	74	1998	6	40.5	1982	-24	1989	22	18.5	1989	1017	0	.0	.0	9.0	5.3	24.4	.8
Ann	63.3	41.2	52.3	103+	Jul 1999	31	79.8	Jul 1999	-24	Dec 1989	22	10.9	Jan 1977	5586	969	.7	28.6	274.4	21.5	109.7	4.0

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1965-2001

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

Issue Date: February 2004

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: CHEVIOT, OH **COOP ID: 331515**

Climate Division: OH 8 **NWS Call Sign:** **Elevation: 960 Feet** **Lat: 39°09N** **Lon: 84°37W**

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	3.09	2.84	2.69	2000	3	7.17	1982	.53	1981
Feb	2.89	2.38	2.75	2000	18	6.06	2000	.32	1978
Mar	3.98	3.73	3.30	1985	30	6.86	1989	1.64	1979
Apr	4.19	3.69	3.02	1998	16	10.23	1998	1.37	1976
May	4.96	4.95	2.79	1982	21	11.15	1995	1.49	1987
Jun	4.26	4.09	2.65	1998	11	10.92	1998	1.18	1983
Jul	4.30	3.72	3.30	1978	2	12.00	1992	1.49	1999
Aug	3.88	4.00	3.20	1990	29	7.01	1995	1.33	1996
Sep	2.95	2.42	4.98	1979	14	8.48	1979	.35	1978
Oct	3.11	2.56	3.40	1985	20	8.50	1983	.87	1982
Nov	3.67	3.13	2.09	1985	27	9.95	1985	.52	1976
Dec	3.47	3.10	2.41	1978	8	7.75	1990	.44	1976
Ann	44.75	43.50	4.98	Sep 1979	14	12.00	Jul 1992	.32	Feb 1978

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	11.1	6.6	2.2	.5
Feb	9.7	6.3	1.6	.6
Mar	11.4	8.3	3.1	.6
Apr	11.7	8.5	2.6	.8
May	11.6	8.4	3.5	1.3
Jun	11.2	7.7	3.1	1.1
Jul	9.6	7.0	3.2	1.2
Aug	8.9	6.0	2.8	1.2
Sep	7.6	5.1	1.9	.7
Oct	8.2	5.8	1.8	.7
Nov	10.1	7.2	2.6	.8
Dec	11.1	7.1	2.4	1.1
Ann	122.2	84.0	30.8	10.6

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	1.02	1.31	1.74	2.11	2.46	2.82	3.22	3.68	4.28	5.21	6.06
Feb	.70	.97	1.39	1.77	2.14	2.53	2.97	3.50	4.19	5.28	6.30
Mar	1.66	2.02	2.53	2.95	3.34	3.74	4.17	4.66	5.29	6.24	7.10
Apr	1.31	1.71	2.30	2.81	3.30	3.81	4.36	5.02	5.86	7.18	8.39
May	1.48	1.95	2.65	3.26	3.86	4.47	5.15	5.95	6.98	8.60	10.10
Jun	1.36	1.76	2.36	2.87	3.36	3.87	4.43	5.09	5.94	7.25	8.46
Jul	1.42	1.83	2.43	2.94	3.42	3.93	4.48	5.13	5.95	7.24	8.43
Aug	1.48	1.84	2.36	2.79	3.20	3.61	4.06	4.59	5.25	6.27	7.21
Sep	.52	.78	1.21	1.61	2.03	2.47	2.98	3.60	4.42	5.75	7.02
Oct	.87	1.16	1.61	2.00	2.38	2.78	3.22	3.74	4.42	5.48	6.47
Nov	1.16	1.51	2.03	2.47	2.89	3.33	3.82	4.38	5.11	6.25	7.30
Dec	1.26	1.59	2.06	2.45	2.82	3.21	3.62	4.11	4.73	5.68	6.56
Ann	33.93	36.08	38.79	40.84	42.64	44.37	46.15	48.10	50.46	53.85	56.75

\+ 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: 1965-2001
(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: CHEVIOT, OH **COOP ID: 331515**

Climate Division: OH 8 **NWS Call Sign:** **Elevation: 960 Feet** **Lat: 39°09N** **Lon: 84°37W**

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	6.5	5.4	1	#	8.2	1996	7	24.2	1978	13	1996	8	8	1977	4.7	2.0	.5	.1	.0	8.2	5.1	3.3	1.4
Feb	5.7	4.1	1	#	8.5	1971	8	18.9	1971	11	1977	2	8	1978	3.8	2.0	.5	.1	.0	7.9	5.3	3.4	.3
Mar	3.3	2.6	#	#	9.6	1996	20	12.5	1971	10	1980	1	1	1999	1.8	1.0	.4	.2	.0	1.5	1.0	.4	@
Apr	.4	.0	#	0	2.1	1996	1	3.6	1977	2	1987	4	#+	2000	.3	.2	.0	.0	.0	.1	.0	.0	.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	.2	.0	#	0	4.5	1993	30	5.7	1993	3	1993	31	#	1993	.1	.1	@	.0	.0	.0	.0	.0	.0
Nov	.6	.0	#	0	3.8	1984	18	3.8	1984	3	1984	18	#+	2000	.6	.2	.1	.0	.0	.4	.1	.0	.0
Dec	2.6	1.6	#	#	7.0	1981	17	11.6	1981	8	1981	21	4	1989	2.3	.9	.2	@	.0	3.2	.8	.3	.0
Ann	19.3	13.7	N/A	N/A	9.6	Mar 1996	20	24.2	Jan 1978	13	Jan 1996	8	8+	Feb 1978	13.6	6.4	1.7	.4	.0	21.3	12.3	7.4	1.7

+ 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: CHEVIOT, OH **COOP ID: 331515**

Climate Division: OH 8 **NWS Call Sign:** **Elevation: 960 Feet** **Lat: 39˚09N** **Lon: 84˚37W**

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	5/15	5/10	5/07	5/04	5/01	4/29	4/26	4/22	4/18
32	5/03	4/28	4/25	4/22	4/19	4/17	4/14	4/11	4/06
28	4/22	4/17	4/13	4/10	4/08	4/05	4/02	3/30	3/25
24	4/13	4/08	4/04	3/31	3/28	3/25	3/21	3/17	3/11
20	4/04	3/28	3/23	3/19	3/15	3/11	3/07	3/02	2/23
16	3/20	3/14	3/09	3/05	3/02	2/27	2/23	2/18	2/12

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	9/26	9/29	10/02	10/04	10/06	10/08	10/11	10/13	10/17
32	10/04	10/08	10/12	10/14	10/17	10/19	10/22	10/25	10/29
28	10/15	10/20	10/24	10/27	10/30	11/01	11/04	11/08	11/13
24	10/24	10/29	11/02	11/05	11/08	11/11	11/15	11/18	11/24
20	11/06	11/12	11/16	11/20	11/23	11/27	11/30	12/05	12/11
16	11/13	11/20	11/25	11/29	12/03	12/07	12/11	12/16	12/23

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	172	167	163	160	157	154	151	148	143
32	198	192	187	183	180	176	172	167	161
28	223	217	212	208	204	200	196	192	185
24	245	238	233	229	225	221	217	212	205
20	279	270	264	258	253	247	242	235	226
16	297	290	284	279	275	271	266	260	253

***** 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: CHEVIOT, OH **COOP ID: 331515**

Climate Division: OH 8 **NWS Call Sign:** **Elevation: 960 Feet** **Lat: 39˚09N** **Lon: 84˚37W**

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	1186	945	749	398	159	17	0	11	70	365	669	1017	5586
60	1031	805	594	259	83	3	0	1	24	241	520	862	4423
57	938	721	507	187	50	1	0	0	10	178	432	769	3793
55	876	668	449	144	34	0	0	0	6	142	376	713	3408
50	733	539	313	63	11	0	0	0	1	73	247	569	2549
32	282	170	39	0	0	0	0	0	0	0	14	173	678

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	119	149	314	595	951	1164	1344	1263	1019	675	335	179	8107
55	0	3	10	49	272	474	631	550	334	104	7	7	2441
57	0	0	7	32	226	415	569	488	279	78	3	0	2097
60	0	0	0	14	165	328	476	395	203	47	1	0	1629
65	0	0	0	3	87	191	321	251	99	17	0	0	969
70	0	0	0	0	36	85	178	131	35	4	0	0	469

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	36	79	210	438	749	975	1123	1077	837	500	204	59	36	115	325	763	1512	2487	3610	4687	5524	6024	6228	6287
45	13	38	126	302	594	825	968	922	687	353	119	30	13	51	177	479	1073	1898	2866	3788	4475	4828	4947	4977
50	2	14	72	188	441	675	813	767	537	226	62	9	2	16	88	276	717	1392	2205	2972	3509	3735	3797	3806
55	0	4	35	107	301	525	658	612	393	123	25	3	0	4	39	146	447	972	1630	2242	2635	2758	2783	2786
60	0	0	13	50	174	376	503	457	257	58	4	0	0	0	13	63	237	613	1116	1573	1830	1888	1892	1892
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	25	50	132	276	475	654	769	737	550	302	121	37	25	75	207	483	958	1612	2381	3118	3668	3970	4091	4128

(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