

Climatology of the United States

No. 20

1971-2000

Station: MARIETTA WWTP, OH

COOP ID: 334927

Climate Division: OH10

NWS Call Sign:

Elevation: 580 Feet

Lat: 39°25N

Lon: 81°26W

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	38.2	20.8	29.5	73	1999	23	38.7	1990	-23	1994	19	15.1	1977	1101	0	.0	.0	6.8	8.8	25.4	1.4
Feb	42.4	22.4	32.4	77	2000	27	40.1	1998	-10	1977	8	19.1	1978	912	0	.0	.0	9.5	5.5	21.8	.9
Mar	53.0	30.1	41.6	85	1986	31	49.2	1973	0+	1980	3	35.3	1996	727	0	.0	.0	19.4	1.1	17.1	.1
Apr	64.0	39.2	51.6	91	1990	27	57.2	1985	19+	1982	7	46.8	1975	405	2	.0	.1	27.1	.0	6.0	.0
May	73.5	50.4	62.0	93+	1991	29	70.5	1991	26	1966	10	56.2	1997	163	69	.0	.6	31.0	.0	.6	.0
Jun	81.1	59.3	70.2	99	1988	25	73.7	1991	37+	1977	8	65.0	1972	21	177	.0	3.4	30.0	.0	.0	.0
Jul	84.7	63.9	74.3	102	1988	16	78.3	1999	44+	1988	1	71.0	1976	1	290	.1	7.6	31.0	.0	.0	.0
Aug	83.3	61.9	72.6	100	1988	17	77.8	1995	38	1986	29	69.0	1976	7	243	@	5.3	31.0	.0	.0	.0
Sep	77.0	54.8	65.9	96+	1973	3	69.4	1998	33+	1995	24	62.1	1974	59	86	.0	1.3	30.0	.0	.0	.0
Oct	65.8	42.0	53.9	87	1967	3	60.7	1971	20	1976	28	47.5	1988	357	13	.0	.0	29.8	.0	3.6	.0
Nov	53.6	33.5	43.6	81+	1987	2	49.4	1985	10+	1976	30	35.2	1976	644	0	.0	.0	19.4	.2	13.9	.0
Dec	43.1	25.9	34.5	78	1982	3	42.2	1984	-11	1989	23	21.0	1989	946	0	.0	.0	9.9	4.7	22.0	.3
Ann	63.3	42.0	52.7	102	Jul 1988	16	78.3	Jul 1999	-23	Jan 1994	19	15.1	Jan 1977	5343	880	.1	18.3	274.9	20.3	110.4	2.7

+ 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

049-A

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: MARIETTA WWTP, OH

COOP ID: 334927

Climate Division: OH10

NWS Call Sign:

Elevation: 580 Feet Lat: 39°25N

Lon: 81°26W

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	3.14	2.93	1.57	1998	8	6.57	1994	.52	1981	14.4	7.7	1.9	.4	1.02	1.32	1.76	2.13	2.49	2.86	3.27	3.75	4.36	5.31	6.19
Feb	2.89	2.53	2.83	2000	19	6.58	2000	.65	1978	12.4	6.7	1.7	.4	.88	1.16	1.57	1.92	2.26	2.61	3.00	3.46	4.05	4.97	5.83
Mar	3.71	3.33	3.17	1963	4	8.93	1997	1.01	1971	13.7	8.2	2.5	.6	1.42	1.76	2.26	2.67	3.06	3.45	3.89	4.38	5.02	6.00	6.89
Apr	3.10	2.76	2.12	1994	10	5.73	1983	1.09	1976	13.7	7.6	1.8	.5	1.14	1.43	1.85	2.20	2.54	2.88	3.25	3.68	4.22	5.07	5.84
May	4.18	3.69	2.66	1968	24	8.40	1996	1.54	1988	12.7	8.8	3.0	.7	1.57	1.96	2.52	2.99	3.43	3.88	4.37	4.94	5.66	6.77	7.79
Jun	4.41	4.19	4.00	1998	28	11.76	1998	.34	1984	12.0	7.8	3.0	1.2	1.02	1.43	2.08	2.66	3.24	3.85	4.53	5.35	6.42	8.13	9.73
Jul	4.33	4.18	2.70	1985	15	6.97	1985	1.39	1995	10.8	7.5	2.8	1.3	1.66	2.06	2.63	3.11	3.57	4.03	4.53	5.11	5.85	6.98	8.02
Aug	4.08	3.58	4.78	1989	5	10.68	1989	.88	1998	10.2	7.2	2.7	1.0	1.20	1.59	2.17	2.67	3.16	3.67	4.23	4.89	5.75	7.09	8.34
Sep	3.36	3.22	2.74	1971	13	6.63	1989	.84	1985	9.8	5.8	2.3	.9	1.09	1.41	1.88	2.28	2.67	3.06	3.50	4.01	4.66	5.68	6.62
Oct	2.70	2.65	1.93	1999	10	5.97	1983	.41	1982	10.2	5.9	1.8	.5	.69	.94	1.33	1.68	2.02	2.38	2.78	3.26	3.88	4.86	5.78
Nov	3.12	2.81	1.99	1999	26	7.65	1985	.71	1976	12.9	7.0	2.0	.4	1.17	1.46	1.88	2.23	2.56	2.90	3.27	3.69	4.24	5.07	5.84
Dec	3.33	2.85	2.25	1991	2	7.94	1990	1.68	1973	14.3	7.6	2.1	.4	1.44	1.74	2.16	2.50	2.82	3.14	3.49	3.89	4.39	5.15	5.84
Ann	42.35	42.06	4.78	Aug 1989	5	11.76	Jun 1998	.34	Jun 1984	147.1	87.8	27.6	8.3	31.70	33.80	36.47	38.48	40.25	41.96	43.72	45.65	47.98	51.35	54.24

+ 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:
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Station: MARIETTA WWTP, OH

COOP ID: 334927

Climate Division: OH10

NWS Call Sign:

Elevation: 580 Feet

Lat: 39°25N

Lon: 81°26W

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	7.4	5.6	2	1	17.0	1994	17	33.3	1994	19	1994	19	8	1978	5.4	2.7	.7	.2	.1	7.3	4.1	1.9	.7
Feb	4.1	2.5	1	#	7.0	1983	11	17.1	1985	13	1985	4	6	1985	3.7	1.6	.4	.2	.0	3.5	1.7	1.0	.4
Mar	3.2	2.4	#	#	19.5	1993	13	19.6	1993	20	1993	14	2	1993	1.8	.9	.2	.1	@	1.0	.5	.2	.1
Apr	.6	.0	#	0	10.0	1987	4	14.0	1987	10	1987	4	1	1987	.2	.1	.1	@	@	.2	.2	@	@
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	#	2000	9	#+	2000	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.6	.0	#	0	2.9	1987	10	3.8	1995	2	1995	15	#+	2000	.7	.3	.0	.0	.0	.2	.0	.0	.0
Dec	2.6	1.6	#	#	4.5	1989	15	10.6	1989	5	1993	29	2	1989	3.3	.9	.2	.0	.0	2.3	.8	.1	.0
Ann	18.5	12.1	N/A	N/A	19.5	Mar 1993	13	33.3	Jan 1994	20	Mar 1993	14	8	Jan 1978	15.1	6.5	1.6	.5	.1	14.5	7.3	3.2	1.2

+ 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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Climate Division: OH10

NWS Call Sign:

Elevation: 580 Feet

Lat: 39°25N

Lon: 81°26W

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	5/16	5/12	5/09	5/06	5/04	5/01	4/29	4/26	4/22
32	5/10	5/05	5/01	4/28	4/26	4/23	4/20	4/16	4/12
28	4/21	4/17	4/14	4/11	4/09	4/07	4/04	4/01	3/28
24	4/11	4/06	4/03	3/31	3/28	3/25	3/23	3/19	3/14
20	4/03	3/27	3/22	3/17	3/13	3/09	3/05	2/27	2/20
16	3/20	3/14	3/09	3/05	3/01	2/25	2/21	2/17	2/10
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	9/25	9/30	10/03	10/06	10/09	10/11	10/14	10/18	10/22
32	10/05	10/10	10/14	10/17	10/20	10/23	10/26	10/30	11/04
28	10/16	10/21	10/25	10/28	10/31	11/03	11/06	11/10	11/15
24	10/29	11/03	11/07	11/10	11/13	11/16	11/19	11/23	11/28
20	11/07	11/14	11/19	11/24	11/28	12/02	12/06	12/11	12/18
16	11/22	11/28	12/03	12/07	12/11	12/15	12/19	12/23	12/30
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	175	169	164	161	157	154	150	146	140
32	198	191	185	181	177	172	168	163	155
28	225	218	213	208	204	200	196	191	184
24	251	243	238	233	229	225	220	215	207
20	284	275	269	264	259	254	249	243	234
16	310	301	295	289	284	279	273	266	257

* 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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Climate Division: OH10 NWS Call Sign: Elevation: 580 Feet Lat: 39°25N Lon: 81°26W

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	1101	912	727	405	163	21	1	7	59	357	644	946	5343
60	946	772	572	265	82	4	0	0	17	231	495	791	4175
57	853	688	482	192	49	1	0	0	6	168	408	701	3548
55	791	632	425	149	32	0	0	0	3	132	354	644	3162
50	647	503	288	67	9	0	0	0	0	65	227	500	2306
32	216	136	27	0	0	0	0	0	0	0	11	129	519

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	139	148	323	588	929	1146	1312	1259	1017	679	358	207	8105
55	0	0	8	47	248	456	599	546	330	98	10	9	2351
57	0	0	3	30	202	397	537	484	274	72	5	3	2007
60	0	0	0	13	143	310	444	391	194	42	1	0	1538
65	0	0	0	2	69	177	290	243	86	13	0	0	880
70	0	0	0	0	25	77	151	120	24	2	0	0	399

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	39	61	188	402	704	933	1088	1048	805	475	203	72	39	100	288	690	1394	2327	3415	4463	5268	5743	5946	6018
45	18	25	107	273	550	783	933	893	655	329	117	36	18	43	150	423	973	1756	2689	3582	4237	4566	4683	4719
50	1	8	56	163	401	633	778	738	506	200	58	10	1	9	65	228	629	1262	2040	2778	3284	3484	3542	3552
55	0	0	25	87	264	483	623	583	359	103	25	1	0	0	25	112	376	859	1482	2065	2424	2527	2552	2553
60	0	0	5	38	148	336	468	428	224	44	7	0	0	0	5	43	191	527	995	1423	1647	1691	1698	1698
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	30	44	127	254	440	625	751	710	520	292	123	41	30	74	201	455	895	1520	2271	2981	3501	3793	3916	3957

(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