

Climatology of the United States

No. 20

1971-2000

Station: CIRCLEVILLE, OH

COOP ID: 331592

Climate Division: OH 5

NWS Call Sign:

Elevation: 673 Feet

Lat: 39° 37N

Lon: 82° 57W

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	36.1	20.8	28.5	77	1950	26	39.3	1990	-22	1994	20	13.1	1977	1133	0	.0	.0	5.2	11.3	26.2	2.5
Feb	41.1	23.8	32.5	76	2000	27	41.2	1998	-15	1977	8	16.0	1978	911	0	.0	.0	7.7	7.1	21.6	1.6
Mar	51.9	32.1	42.0	85	1945	25	49.9	1973	-5	1978	5	32.6	1984	714	0	.0	.0	17.7	1.6	18.0	.2
Apr	63.3	40.4	51.9	90+	1986	28	57.1	1985	17+	1995	6	47.0	1975	397	3	.0	@	26.8	.0	6.8	.0
May	73.3	50.2	61.8	94+	1962	18	69.6	1991	25	1966	10	55.8	1997	173	73	.0	.5	30.9	.0	.4	.0
Jun	81.5	59.4	70.5	100+	1988	26	73.9	1999	35+	1972	11	66.1	1972	20	183	@	3.7	30.0	.0	.0	.0
Jul	85.0	63.2	74.1	103	1954	14	78.4	1999	42	1988	1	71.2	2000	0	281	.1	7.1	31.0	.0	.0	.0
Aug	83.5	61.5	72.5	102	1953	31	77.7	1995	38	1965	29	68.8	1992	9	240	.1	4.8	31.0	.0	.0	.0
Sep	77.3	54.2	65.8	103+	1953	2	70.5	1998	29	1963	30	62.1	1975	67	89	.0	1.3	30.0	.0	@	.0
Oct	65.9	43.0	54.5	91+	1951	5	61.1	1971	17	1952	21	47.5	1988	341	14	.0	.0	29.6	.0	4.2	.0
Nov	52.8	34.5	43.7	81+	1982	2	49.1	1985	-6	1958	30	35.9	1976	641	0	.0	.0	17.4	.6	14.1	.0
Dec	41.1	26.0	33.6	79	1982	3	42.1	1982	-19	1989	22	18.7	1989	976	0	.0	.0	7.7	6.3	22.4	.6
Ann	62.7	42.4	52.6	103+	Jul 1954	14	78.4	Jul 1999	-22	Jan 1994	20	13.1	Jan 1977	5382	883	.2	17.4	265.0	26.9	113.7	4.9

+ 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/normals/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1942-2001

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

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No. 20 1971-2000

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

Station: CIRCLEVILLE, OH

COOP ID: 331592

Climate Division: OH 5

NWS Call Sign:

Elevation: 673 Feet Lat: 39°37N

Lon: 82°57W

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	2.38	2.16	2.90	1950	6	4.36	1995	.42	1981	11.7	6.1	1.3	.3	.74	.96	1.30	1.59	1.87	2.16	2.48	2.85	3.34	4.09	4.79
Feb	2.21	2.10	2.18	1975	24	4.31	1975	.50	1987	9.2	5.3	1.0	.3	.60	.80	1.12	1.40	1.68	1.96	2.28	2.66	3.15	3.92	4.64
Mar	2.75	2.60	3.57	1964	10	5.55	1997	.87	1979	11.0	6.5	1.7	.4	1.04	1.30	1.67	1.97	2.26	2.56	2.88	3.25	3.73	4.46	5.12
Apr	3.41	3.22	2.60	1947	21	6.02	1989	.59	1971	12.4	7.7	2.2	.6	1.19	1.52	1.98	2.38	2.76	3.14	3.56	4.06	4.69	5.66	6.55
May	4.64	4.45	4.80	1968	24	10.46	1990	.96	1999	12.3	8.0	3.6	1.1	1.33	1.77	2.43	3.01	3.57	4.16	4.81	5.58	6.57	8.13	9.57
Jun	3.82	3.89	4.12	1998	29	9.66	1998	.62	1999	10.9	7.2	2.3	.9	1.12	1.48	2.03	2.50	2.96	3.44	3.96	4.59	5.39	6.65	7.82
Jul	3.87	3.61	5.28	1947	14	8.24	1992	.74	1982	10.5	7.2	2.7	.9	1.09	1.45	2.01	2.49	2.97	3.46	4.01	4.66	5.50	6.82	8.04
Aug	3.91	3.35	4.02	1968	9	9.33	1980	1.10	1981	9.4	6.4	2.9	1.0	1.22	1.59	2.14	2.61	3.07	3.55	4.07	4.69	5.48	6.71	7.86
Sep	3.03	2.63	4.35	1979	14	7.76	1979	.45	1985	8.8	5.3	1.8	.8	.72	1.00	1.44	1.84	2.23	2.65	3.11	3.67	4.40	5.55	6.63
Oct	2.64	2.42	2.62	1993	20	5.66	1983	.52	1982	9.5	5.7	1.6	.5	.76	1.01	1.39	1.71	2.04	2.37	2.74	3.17	3.74	4.62	5.44
Nov	3.03	2.54	1.70	1985	16	10.36	1985	.71	1991	10.9	6.5	2.0	.7	.75	1.03	1.48	1.87	2.26	2.67	3.12	3.67	4.38	5.50	6.56
Dec	2.71	2.64	2.73	2000	17	7.58	1990	.68	1976	11.4	6.3	1.8	.3	.92	1.18	1.56	1.87	2.18	2.49	2.83	3.23	3.74	4.54	5.27
Ann	38.40	38.00	5.28	Jul 1947	14	10.46	May 1990	.42	Jan 1981	128.0	78.2	24.9	7.8	28.05	30.08	32.66	34.62	36.35	38.01	39.73	41.63	43.92	47.24	50.09

+ 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: 1942-2001

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

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Station: CIRCLEVILLE, OH

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Climate Division: OH 5

NWS Call Sign:

Elevation: 673 Feet

Lat: 39°37N

Lon: 82°57W

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	5.9	3.0	1	#	6.5	1978	18	19.4	1977	18	1978	22	8	1977	3.8	2.6	.8	.1	.0	6.9	3.0	2.1	1.2
Feb	4.0	3.3	1	#	8.0	1971	9	12.8	1971	12	1977	9	8	1978	2.8	1.5	.5	@	.0	5.9	3.6	2.6	.4
Mar	1.7	.8	#	#	4.5	1974	24	6.3	1999	8	1978	3	3	1978	1.3	.8	.1	.0	.0	1.8	.7	.4	.0
Apr	.2	.0	#	0	7.0	1987	5	7.0	1987	10	1987	5	1	1987	.2	.1	@	@	.0	.1	.0	.0	.0
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	.1	.0	#	0	3.0	1974	20	3.0	1974	3	1974	20	#	1974	@	@	@	.0	.0	@	@	.0	.0
Nov	.6	.0	#	0	2.8	1996	21	3.8	1976	3+	1996	21	#+	1996	.5	.3	.0	.0	.0	.4	.1	.0	.0
Dec	1.5	.8	#	#	6.0	1984	6	6.0	1984	7	1989	28	3	1989	2.0	.8	.2	@	.0	2.8	.3	.1	.0
Ann	14.0	7.9	N/A	N/A	8.0	Feb 1971	9	19.4	Jan 1977	18	Jan 1978	22	8+	Feb 1978	10.6	6.1	1.6	.1	.0	17.9	7.7	5.2	1.6

+ 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/normal/usnormals.html

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NWS Call Sign:

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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	5/19	5/15	5/11	5/08	5/06	5/03	4/30	4/26	4/22
32	5/06	5/02	4/28	4/26	4/23	4/21	4/18	4/15	4/11
28	4/21	4/17	4/14	4/12	4/09	4/07	4/05	4/02	3/29
24	4/12	4/07	4/04	4/01	3/30	3/27	3/24	3/21	3/17
20	4/05	3/29	3/25	3/21	3/18	3/14	3/10	3/06	2/28
16	3/18	3/12	3/08	3/04	3/01	2/25	2/22	2/17	2/11
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	9/29	10/01	10/03	10/06	10/08	10/10	10/12	10/16
32	10/02	10/08	10/12	10/15	10/19	10/22	10/25	10/29	11/04
28	10/13	10/19	10/23	10/27	10/31	11/03	11/07	11/11	11/18
24	10/23	10/29	11/03	11/06	11/10	11/13	11/17	11/22	11/28
20	11/05	11/12	11/17	11/21	11/25	11/29	12/03	12/08	12/15
16	11/18	11/25	11/30	12/04	12/08	12/12	12/16	12/21	12/27
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	170	164	160	156	152	149	145	140	134
32	200	192	187	182	178	173	168	163	155
28	225	218	212	208	203	199	194	189	182
24	248	240	234	229	225	220	215	209	201
20	279	270	263	257	252	246	241	234	224
16	309	299	292	287	281	276	270	263	254

* 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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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	1133	911	714	397	173	20	0	9	67	341	641	976	5382
60	978	771	564	260	92	4	0	0	21	216	492	821	4219
57	885	690	477	187	56	1	0	0	8	155	405	734	3598
55	826	639	420	146	39	1	0	0	4	120	351	676	3222
50	684	509	292	66	13	0	0	0	0	56	225	533	2378
32	254	157	37	0	0	0	0	0	0	0	12	157	617

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	143	170	346	596	923	1153	1304	1254	1012	696	362	204	8163
55	3	8	16	52	248	464	591	541	326	103	10	11	2373
57	0	3	11	33	204	405	529	479	270	76	4	7	2021
60	0	0	5	16	146	318	436	386	193	44	1	0	1545
65	0	0	0	3	73	183	281	240	89	14	0	0	883
70	0	0	0	0	28	80	138	119	28	3	0	0	396

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	58	178	384	698	934	1080	1027	797	468	192	67	36	94	272	656	1354	2288	3368	4395	5192	5660	5852	5919
45	13	27	108	256	545	784	925	872	647	326	112	34	13	40	148	404	949	1733	2658	3530	4177	4503	4615	4649
50	2	7	59	157	393	634	770	717	497	205	60	11	2	9	68	225	618	1252	2022	2739	3236	3441	3501	3512
55	0	2	30	82	256	484	615	562	354	110	25	3	0	2	32	114	370	854	1469	2031	2385	2495	2520	2523
60	0	0	11	35	146	338	460	407	220	54	8	0	0	0	11	46	192	530	990	1397	1617	1671	1679	1679
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	18	36	116	242	436	623	738	698	516	291	110	37	18	54	170	412	848	1471	2209	2907	3423	3714	3824	3861

(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.

- 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/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