### 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

**COOP ID: 331072** 

Station: BUCYRUS, OH

**Climate Division: OH 2** 

**NWS Call Sign:** 

Elevation: 955 Feet Lat: 40°49N Lon: 82°58W

	Onth Max         Daily Max         Daily Min         Mean         Highest Daily(2)         Year         Day Month(1) Mean         Year Daily(2)         Year Daily(2)         Year Mean         Heating Mean         Cooling Solid																				
	Mea	<b>n</b> (1)						Extr	emes						•		Mean	Numb	er of D	Days (3)	
Month			Mean	-	Year	Day	Month(1)	Year		Year	Day	Month(1)	Year	Heating	Cooling	>=	>=	>=	<=	<=	Min <= 0
Jan	31.6	16.3	24.0	71	1950	25	33.8	1990	-26+	1994	20	9.5	1977	1273	0	.0	.0	2.4	15.9	28.5	4.2
Feb	35.1	18.2	26.7	71	2000	27	36.5	1998	-18+	1985	5	11.9	1978	1074	0	.0	.0	3.7	12.2	24.9	3.0
Mar	46.1	26.9	36.5	82	1938	22	44.5	1973	-16	1948	12	27.1	1984	883	0	.0	.0	11.7	4.1	22.4	.4
Apr	58.5	36.2	47.4	89	1942	30	53.0	1985	10+	1982	7	40.9	1975	530	1	.0	.0	22.7	.3	10.6	.0
May	70.0	47.4	58.7	93+	1962	19	66.8	1991	25	1966	10	52.5	1997	247	50	.0	.3	30.4	.0	.8	.0
Jun	79.0	57.0	68.0	102	1988	26	71.4	1999	36	1945	6	62.8	1972	42	132	@	2.3	30.0	.0	.0	.0
Jul	82.8	61.2	72.0	105+	1936	14	76.6	1999	42+	1946	27	69.0	2000	4	222	@	4.5	31.0	.0	.0	.0
Aug	80.8	59.0	69.9	101+	1936	22	75.2	1995	33	1946	30	65.9	1976	22	175	.0	2.0	31.0	.0	.0	.0
Sep	74.3	51.5	62.9	100	1953	3	67.3	1978	25	1956	21	58.1	1975	109	47	.0	.7	30.0	.0	.1	.0
Oct	62.0	40.7	51.4	90	1953	3	58.7	1971	13	1952	21	45.0	1988	430	6	.0	.0	27.2	.0	5.7	.0
Nov	48.5	31.7	40.1	79+	1950	1	45.6	1975	-8	1958	30	32.9	1976	747	0	.0	.0	13.5	1.9	17.1	.0
Dec	36.6	22.4	29.5	72	1982	4	38.6	1982	-19	1958	10	16.2	1989	1102	0	.0	.0	4.2	10.3	26.2	1.3
Ann	58.8	39.0	48.9	105+	Jul 1936	14	76.6	Jul 1999	-26+	Jan 1994	20	9.5	Jan 1977	6463	633	.0	9.8	237.8	44.7	136.3	8.9

<sup>+</sup> Also occurred on an earlier date(s)

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

Issue Date: February 2004 008-A

- (1) From the 1971-2000 Monthly Normals
- (2) Derived from station's available digital record: 1936-2001
- (3) Derived from 1971-2000 serially complete daily data

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

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Station: BUCYRUS, OH COOP ID: 331072

Climate Division: OH 2 NWS Call Sign: Elevation: 955 Feet Lat: 40°49N Lon: 82°58W

										Pı	recipi	tation	(incl	nes)										
			P	recip	itatio	n Total	s			M	ean N	lumbo ays (3	_	Proba	ability th		nonthly/	annual j	precipita ated am	ount	ll be equ		less tha	n the
	Mea Medi					Extremes	S			D	aily Pre	cipitatio	n		Th		-		-		bility Leve te gamma		on	
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	2.28	1.78	2.50	1959	22	4.47	1978	.85	1981	12.9	6.2	1.0	.3	.77	.98	1.30	1.57	1.82	2.09	2.37	2.71	3.14	3.82	4.43
Feb	1.95	1.82	2.99	1959	10	4.00	1990	.18	1987	10.3	4.9	1.1	.2	.46	.64	.92	1.18	1.43	1.70	2.00	2.36	2.84	3.59	4.29
Mar	2.67	2.55	2.30	1940	3	4.67	1982	1.15	1990	11.5	7.2	1.5	.3	1.14	1.38	1.72	1.99	2.25	2.52	2.80	3.12	3.53	4.16	4.72
Apr	3.44	3.39	2.60	1979	14	6.28	1972	1.14	1971	13.0	7.9	2.3	.5	1.45	1.76	2.20	2.56	2.90	3.24	3.61	4.03	4.56	5.38	6.12
May	4.01	3.84	2.82	1971	6	6.93	1997	.86	1988	12.3	7.7	2.9	.9	1.51	1.88	2.42	2.87	3.29	3.72	4.19	4.74	5.43	6.50	7.48
Jun	4.35	4.49	7.51	1937	21	9.32	1981	.76	1988	10.5	7.5	3.0	1.1	1.33	1.74	2.36	2.89	3.40	3.94	4.52	5.21	6.10	7.50	8.79
Jul	4.37	3.88	3.42	1987	2	10.02	1992	1.99	1978	10.3	7.4	3.2	1.3	1.85	2.25	2.80	3.25	3.68	4.11	4.58	5.11	5.79	6.81	7.75
Aug	3.95	3.47	6.49	1981	31	8.54	1981	.58	1971	9.8	6.6	2.6	1.1	.86	1.23	1.81	2.33	2.86	3.42	4.05	4.80	5.80	7.38	8.88
Sep	3.11	3.02	3.58	1991	4	6.22+	1986	.73	1995	9.7	5.8	2.1	.8	.84	1.13	1.58	1.97	2.36	2.77	3.22	3.75	4.45	5.54	6.57
Oct	2.34	2.05	2.51	1983	6	7.90	1983	.33	1982	9.9	6.0	1.2	.3	.58	.80	1.14	1.45	1.75	2.06	2.42	2.83	3.38	4.25	5.06
Nov	3.08	2.53	2.09	1955	16	8.74	1985	.38	1976	11.7	7.2	2.1	.6	.73	1.02	1.47	1.87	2.27	2.69	3.17	3.73	4.47	5.64	6.74
Dec	2.75	2.64	1.79	1990	30	8.05	1990	.82	1976	12.8	6.5	1.7	.3	.98	1.24	1.62	1.93	2.23	2.54	2.88	3.27	3.77	4.54	5.25
Ann	38.30	38.44	7.51	Jun 1937	21	10.02	Jul 1992	.18	Feb 1987	134.7	80.9	24.7	7.7	28.42	30.36	32.84	34.70	36.35	37.94	39.58	41.38	43.55	46.69	49.39

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1936-2001

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**COOP ID: 331072** 

**Station: BUCYRUS, OH** 

Climate Division: OH 2 NWS Call Sign:

Elevation: 955 Feet Lat: 40°49N Lon: 82°58W

										Snov	w (incl	hes)											
		Median         Mean         Median         Snow Fall         Snow Fall         Snow Depth         Snow Depth															Mea	n Nu	mber	of Day	<b>ys</b> (1)		
	Mean	s/Medi	ians (1)	)							ow Fa				Snow Depth >= Thresholds								
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	7.2	8.0	2	2	5.5	1982	31	16.9	1999	19	1978	21	8	1978	7.4	3.0	.6	.1	.0	13.8	8.4	5.4	1.1
Feb	6.0	5.7	2	1	8.4	1985	13	15.5	1979	14	1977	10	13	1977	5.2	1.8	.4	.2	.0	9.0	5.0	3.3	.7
Mar	3.9	2.6	1	#	6.4	1984	9	12.2	1984	10	1984	13	5	1984	2.6	1.3	.2	.1	.0	2.9	1.3	.7	.1
Apr	.8	.0	#	0	5.3	1982	6	9.2	1982	8	1982	9	1	1982	.6	.4	.1	@	.0	.5	.2	.1	.0
May	.1	.0	#	0	2.0	1989	7	2.0	1989	2	1989	7	#	1989	@	@	.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	1.0	1989	19	1.0	1989	1	1989	19	#+	1993	.1	@	.0	.0	.0	@	.0	.0	.0
Nov	1.0	.4	#	#	2.8	1980	18	4.7	1980	2	1983	12	#+	2000	1.2	.4	.0	.0	.0	.5	.0	.0	.0
Dec	4.1	2.9	1	#	5.4	1977	9	13.6	1977	11	1977	10	5	1977	4.7	1.6	.2	.1	.0	4.8	1.2	.3	.0
Ann	23.2	19.6	N/A	N/A	8.4	Feb 1985	13	16.9	Jan 1999	19	Jan 1978	21	13	Feb 1977	21.8	8.5	1.5	.5	.0	31.5	16.1	9.8	1.9

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**COOP ID: 331072** 

**Station: BUCYRUS, OH** 

Climate Division: OH 2 NWS Call Sign:

**Elevation: 955 Feet** 

Lat: 40°49N Lon: 82°58W

				Freez	e Data				
			Spri	ng Freeze Da	ates (Month/	Day)			
Temp (F)		P	robability of	later date in	n spring (thr	u Jul 31) tha	n indicated(	(*)	
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/21	5/17	5/14	5/11	5/09	5/06	5/03	4/30	4/26
32	5/12	5/07	5/04	5/01	4/29	4/26	4/24	4/21	4/16
28	4/26	4/22	4/19	4/17	4/15	4/13	4/11	4/08	4/04
24	4/18	4/13	4/10	4/07	4/05	4/02	3/30	3/27	3/22
20	4/08	4/04	4/01	3/29	3/27	3/24	3/22	3/19	3/14
16	4/02	3/27	3/22	3/19	3/15	3/11	3/07	3/03	2/24
		•	Fal	l Freeze Dat	tes (Month/D	ay)	•	•	
Town (F)		Pro	bability of ea	arlier date in	ı fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/22	9/25	9/28	9/30	10/02	10/04	10/07	10/09	10/13
32	10/01	10/05	10/08	10/11	10/14	10/16	10/19	10/22	10/26
28	10/10	10/16	10/20	10/24	10/27	10/30	11/03	11/07	11/13
24	10/22	10/28	11/01	11/05	11/08	11/12	11/15	11/19	11/25
20	11/01	11/08	11/13	11/17	11/22	11/26	11/30	12/05	12/13
16	11/15	11/22	11/26	11/30	12/04	12/08	12/11	12/16	12/22
				Freeze F	ree Period		•		
Tomas (E)			Probability	of longer tha	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	163	157	153	149	146	143	139	135	129
32	182	177	173	170	167	164	161	157	152
28	217	209	204	199	194	190	185	179	171
24	241	233	227	222	217	212	207	201	193
20	262	254	249	244	239	234	230	224	216
16	288	280	273	268	263	258	253	247	238

<sup>\*</sup> 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.

Complete documentation available from:

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**COOP ID: 331072** 

**Station: BUCYRUS, OH** 

Climate Division: OH 2 NWS Call Sign: Elevation: 955 Feet Lat: 40°49N Lon: 82°58W

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				-
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1273	1074	883	530	247	42	4	22	109	430	747	1102	6463
60	1118	934	728	384	149	11	0	4	40	293	597	947	5205
57	1025	850	635	300	103	5	0	0	18	221	508	854	4519
55	963	794	580	249	77	2	0	0	10	179	450	792	4096
50	808	658	437	138	32	0	0	0	2	96	313	647	3131
32	320	239	91	2	0	0	0	0	0	1	29	215	897

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	70	89	231	462	827	1080	1240	1175	927	600	273	136	7110
55	0	0	7	19	191	393	527	462	247	65	3	0	1914
57	0	0	0	10	154	335	465	400	195	45	1	0	1605
60	0	0	0	4	107	252	372	311	127	24	0	0	1197
65	0	0	0	1	50	132	222	175	47	6	0	0	633
70	0	0	0	0	19	50	96	78	10	0	0	0	253

										Gro	wing 1	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	Ionthly)								Growi	ng Degre	ee Units (	Accumu	lated Mo	onthly)			
	Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         D           40         13         21         99         273         585         850         1004         936         693         368         129													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40													13	34	133	406	991	1841	2845	3781	4474	4842	4971	5004
45												13	3	9	61	228	662	1362	2211	2992	3535	3776	3843	3856
50												3	0	1	29	123	424	975	1669	2295	2692	2829	2859	2862
55	0	0	7	50	182	404	539	471	263	67	11	0	0	0	7	57	239	643	1182	1653	1916	1983	1994	1994
60	0	0	2	20	96	268	385	318	154	28	1	0	0	0	2	22	118	386	771	1089	1243	1271	1272	1272
Base	Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)			
50/86	<b>50/86</b> 2 12 62 169 356 551 673 623 439 219 69 1												2	14	76	245	601	1152	1825	2448	2887	3106	3175	3189

(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

### 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

- c. Snow Tables
  - 1. Snow Climatology
  - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

### 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