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: DANVILLE 2 W, OH 1971-2000 COOP ID: 332044

Climate Division: OH 6 NWS Call Sign: Elevation: 970 Feet Lat: 40°26N Lon: 82°18W

									r	Гетр	eratur	re (°F)											
	Mea	n (1)						Extr	emes					Degree Base To	Days (1) emp 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	33.0	14.6	23.8	67+	1999	23	33.7	1998	-35	1994	19	8.5	1977	1277	0	.0	.0	3.0	13.6	28.3	4.7		
Feb	37.4	16.6	27.0	74	2000	27	37.2	1998	-22+	1985	4	11.7	1978	1064	0	.0	.0	5.5	9.3	24.5	3.2		
Mar	48.4	25.1	36.8	83	1986	30	44.8	1973	-18	1984	9	27.2	1984	877	0	.0	.0	14.8	2.5	22.1	.4		
Apr	59.8	33.3	46.6	89	1986	27	51.7	1985	2	1964	1	41.5	1975	553	0	.0	.0	25.1	.1	13.7	.0		
May	70.7	44.4	57.6	94	1987	30	65.5	1991	20	1966	10	51.5	1997	264	32	.0	.3	30.8	.0	3.1	.0		
Jun	79.3	53.9	66.6	102	1988	26	69.4	1971	27	1972	11	62.3	1992	53	100	@	2.0	30.0	.0	@	.0		
Jul	83.4	58.2	70.8	102	1988	17	73.9	1999	35+	1988	1	67.4	2000	5	184	.1	5.2	31.0	.0	.0	.0		
Aug	81.7	56.0	68.9	98+	1988	18	74.1	1995	32	1986	29	64.7	1992	29	149	.0	2.6	31.0	.0	@	.0		
Sep	75.1	48.3	61.7	96	1985	7	65.7+	1978	25+	1963	30	57.8	1975	135	36	.0	1.0	30.0	.0	1.2	.0		
Oct	63.2	36.3	49.8	86	1963	8	56.2	1971	15+	1988	31	43.7	1988	474	2	.0	.0	28.8	.0	11.0	.0		
Nov	50.1	28.8	39.5	78	1987	4	45.0	1985	-2	1976	30	30.5	1976	767	0	.0	.0	16.1	1.2	19.1	@		
Dec	38.3	20.6	29.5	74	1982	3	37.1	1982	-22	1989	24	16.2	1989	1102	0	.0	.0	6.0	8.0	25.9	2.0		
Ann	60.0	36.3	48.2	102+	Jul 1988	17	74.1	Aug 1995	-35	Jan 1994	19	8.5	Jan 1977	6600	503	.1	11.1	252.1	34.7	148.9	10.3		

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 025-A

[@] Denotes mean number of days greater than 0 but less than .05

⁽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

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Climate Division: OH 6 NWS Call Sign: Elevation: 970 Feet Lat: 40°26N Lon: 82°18W

										Pı	recipi	tation	(incl	nes)													
	Mea	ans/	P	recip	itatio	on Total					ean N of D	ays (3	5)	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													
	Medi	ans(1)				Latreme	,				uny 110	стриши	••	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	2.67	2.40	2.65	2000	4	5.70	1995	.65	1981	13.0	6.4	1.5	.4	.82	1.07	1.45	1.78	2.09	2.42	2.77	3.20	3.74	4.59	5.37			
Feb	2.44	2.19	2.36	1975	23	5.28	1988	.46	1987	11.3	5.8	1.3	.2	.68	.92	1.27	1.57	1.87	2.18	2.53	2.94	3.47	4.30	5.07			
Mar	3.14	2.99	2.80	1964	5	5.31	1980	.98	1990	13.4	7.9	2.0	.3	1.42	1.70	2.08	2.40	2.69	2.98	3.30	3.66	4.11	4.79	5.41			
Apr	3.68	3.78	2.25	1977	2	6.48	1996	1.05	1985	14.0	8.3	2.4	.7	1.33	1.68	2.18	2.60	3.00	3.40	3.85	4.37	5.03	6.05	6.98			
May	4.24	4.19	2.40	1971	6	8.70	1990	1.40	1977	13.3	8.7	3.0	.8	1.68	2.07	2.62	3.08	3.52	3.96	4.44	4.99	5.69	6.76	7.73			
Jun	4.74	4.34	3.20	1998	27	14.93	1998	.57	1988	11.6	8.2	3.2	1.2	1.11	1.55	2.25	2.87	3.49	4.14	4.87	5.75	6.90	8.72	10.43			
Jul	4.26	3.75	3.96	1999	2	10.30	1992	1.38	1974	10.4	7.4	2.6	1.1	1.35	1.76	2.36	2.87	3.37	3.88	4.44	5.10	5.95	7.27	8.50			
Aug	3.84	3.64	5.12	1980	11	9.93	1980	1.01	1993	10.2	6.4	2.7	.9	1.16	1.52	2.07	2.54	2.99	3.47	3.99	4.60	5.39	6.63	7.78			
Sep	3.32	3.07	5.22	1979	14	7.26	1979	.88	1998	10.2	5.6	2.0	.9	1.14	1.46	1.92	2.30	2.67	3.05	3.47	3.95	4.58	5.54	6.42			
Oct	2.64	2.07	2.87	1990	10	6.84	1990	.65	1994	10.9	5.9	1.5	.4	.86	1.11	1.48	1.79	2.09	2.41	2.75	3.15	3.67	4.47	5.21			
Nov	3.33	3.14	2.00	1981	20	10.23	1985	.54	1976	12.8	7.1	2.1	.6	.98	1.30	1.77	2.18	2.58	3.00	3.46	4.00	4.70	5.79	6.80			
Dec	3.13	2.84	2.30	2000	17	8.11	1990	.97	1976	13.7	7.0	2.0	.7	1.29	1.58	1.98	2.31	2.62	2.94	3.28	3.67	4.17	4.93	5.62			
Ann	41.43	41.51	5.22	Sep 1979	14	14.93	Jun 1998	.46	Feb 1987	144.8	84.7	26.3	8.2	31.20	33.23	35.80	37.73	39.44	41.08	42.77	44.62	46.86	50.08	52.86			

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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

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COOP ID: 332044

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Climate Division: OH 6 NWS Call Sign: Elevation: 970 Feet Lat: 40°26N Lon: 82°18W

										Snov	w (incl	nes)													
						Sno	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ans (1))					Extre	mes (2)							ow Fa		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	12.4	9.7	2	2	9.0	1996	8	39.8	1978	22	1996	12	9	1977	7.8	5.2	1.2	.5	.0	14.7	7.8	5.0	1.6		
Feb	8.3	8.5	2	1	10.0	1984	28	19.0	1985	15	1985	13	11	1978	5.7	3.3	.7	.1	.1	11.2	5.7	4.1	1.5		
Mar	4.4	3.5	#	#	5.5	1999	9	14.0	1988	13	1978	5	5	1978	2.9	2.0	.5	.1	.0	4.2	1.7	.9	.2		
Apr	1.3	.0	#	0	14.0	1987	5	19.2	1987	5	1987	5	1	1987	.7	.4	.1	.1	@	.5	.1	.1	.0		
May	.0	.0	#	0	1.0	1989	7	1.0	1989	1	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	.0	.0	#	0	.5	1989	19	.5	1989	1	1989	19	#+	1989	@	.0	.0	.0	.0	@	.0	.0	.0		
Nov	1.9	1.0	#	#	4.0	1980	17	7.0	1995	4	1980	17	#+	2000	1.7	1.2	.1	.0	.0	1.6	.1	.0	.0		
Dec	7.1	7.1	1	#	12.0	1974	1	18.0	1974	12	1974	1	4	1974	5.5	3.3	.7	.1	@	8.1	3.2	1.3	.1		
Ann	35.4	29.8	N/A	N/A	14.0	Apr 1987	5	39.8	Jan 1978	22	Jan 1996	12	11	Feb 1978	24.3	15.4	3.3	.9	.1	40.3	18.6	11.4	3.4		

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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

[@] 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

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1971-2000

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COOP ID: 332044

Lon: 82°18W

Lat: 40°26N

Elevation: 970 Feet

Station: DANVILLE 2 W, OH

Climate Division: OH 6 NWS Call Sign:

Freeze Data Spring Freeze Dates (Month/Day) Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 6/13 6/07 6/02 5/29 5/25 5/22 5/18 5/13 5/06 32 5/27 5/22 5/18 5/15 5/12 5/09 5/05 5/02 4/26 28 5/18 5/13 5/08 5/05 5/01 4/28 4/24 4/20 4/14 4/06 24 4/30 4/26 4/23 4/20 4/18 4/16 4/13 4/10 20 4/22 4/17 4/13 4/10 4/08 4/05 4/02 3/29 3/24 4/04 3/26 3/23 16 4/10 3/30 3/19 3/16 3/11 3/05 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 36 9/04 9/08 9/12 9/14 9/17 9/19 9/22 9/25 9/30 32 9/14 9/18 9/21 9/24 9/27 9/29 10/02 10/05 10/09 28 9/27 10/02 10/05 10/08 10/11 10/14 10/17 10/20 10/25 24 10/09 10/14 10/18 10/21 10/24 10/27 10/30 11/03 11/08 20 10/22 10/27 10/30 11/03 11/06 11/08 11/12 11/15 11/20 11/04 11/17 11/21 11/24 11/27 16 11/10 11/14 12/01 12/07 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 136 128 123 118 114 109 104 99 36 91 32 156 149 145 141 137 134 130 125 119 28 181 174 170 162 154 149 143 166 158 24 208 201 196 192 188 184 180 175 168 227 20 236 221 216 211 206 201 195 187

247

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

252

Derived from 1971-2000 serially complete daily data

259

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16

Complete documentation available from:

232

225

217

242

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^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1277	1064	877	553	264	53	5	29	135	474	767	1102	6600		
60	1122	924	722	405	157	14	0	5	54	330	617	947	5297		
57	1029	840	629	319	107	6	0	1	27	253	527	854	4592		
55	967	784	570	265	79	3	0	0	15	206	469	792	4150		
50	813	649	427	147	31	0	0	0	3	112	330	648	3160		
32	335	235	79	1	0	0	0	0	0	1	32	216	899		

Base	Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	81	95	225	438	791	1038	1202	1143	891	552	255	137	6848		
55	0	0	4	12	157	350	489	430	216	45	2	0	1705		
57	0	0	0	6	123	293	427	368	168	29	0	0	1414		
60	0	0	0	2	80	212	334	280	105	13	0	0	1026		
65	0	0	0	0	32	100	184	149	36	2	0	0	503		
70	0	0	0	0	10	30	69	60	6	0	0	0	175		

	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	19	27	118	278	579	826	975	925	683	353	132	39	19	46	164	442	1021	1847	2822	3747	4430	4783	4915	4954				
45	4	12	67	169	426	676	820	770	533	225	72	15	4	16	83	252	678	1354	2174	2944	3477	3702	3774	3789				
50	0	0	35	94	285	526	665	615	389	123	33	4	0	0	35	129	414	940	1605	2220	2609	2732	2765	2769				
55	0	0	11	43	171	379	510	460	255	56	11	0	0	0	11	54	225	604	1114	1574	1829	1885	1896	1896				
60	0	0	2	14	87	240	357	309	143	19	0	0	0	0	2	16	103	343	700	1009	1152	1171	1171	1171				
Base		•	•	Gro	wing De	gree Unit	s for Co	rn (Mont	hly)		•			•	Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)						
50/86	5	23	92	198	371	542	653	616	445	244	87	21	5	28	120	318	689	1231	1884	2500	2945	3189	3276	3297				

(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