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: 330256

Lon: 82°21W

Station: ASHLAND 2 SW, OH

Climate Division: OH 6 NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 32.3 15.1 23.7 71 1950 25 33.0 1998 -23+ 1994 20 10.3 1977 1281 0 .0 .0 2.8 15.8 28.9 4.5 Jan 36.0 17.4 26.7 73 2000 27 36.4 1998 -16 1975 10 13.1 1978 1073 0 .0 .0 4.5 11.4 25.2 2.9 Feb Mar 46.5 25.5 36.0 82 1938 22 44.6 1973 -15 1984 26.1 1984 900 0 .0 .0 12.7 4.0 23.1 .5 52.5 7 1975 12.2 Apr 58.6 35.0 46.8 88 1948 26 1985 6 1982 41.2 547 0 .0 .0 23.3 .3 0. May 69.8 46.4 58.1 92 1936 10 66.8 1991 25+ 1983 10 52.3 1997 259 45 .0 .3 30.4 .0 1.4 .0 71.1 31 62.2 @ 2.0 .0 78.6 55.7 67.2 100 1988 26 1999 1972 11 1982 55 120 30.0 .0 @ Jun Jul 82.7 59.6 71.2 103 14 75.3 1999 39 1988 67.2 1979 197 4.3 31.0 .0 1936 6 .0 .0 .0 1982 80.7 57.3 69.0 100 1936 19 74.6 1995 34 1964 64.4 30 154 .0 2.4 31.0 .0 .0 .0 Aug 3 27 Sep 74.0 50.3 62.2 100 1953 67.3 1978 1942 29 58.2 1975 126 41 .0 .9 30.0 .0 .6 .0 57.1 24 44.3 27.5 Oct 61.8 39.3 50.6 88+ 1953 3 1971 19 1969 1988 451 4 .0 .0 .0 7.1 .0 48.5 30.6 79 1950 1 44.7 1975 -2 1958 30 30.8 1976 764 0 .0 .0 14.0 @ Nov 39.6 2.0 18.6

37.8

21.0

29.1

48.4

Dec

Ann

37.1

58.9

74

103

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

4

14

36.4

75.3

1982

Jul

1999

-18

-23+

1989

Jan

1994

22

20

16.0

10.3

1989

Jan

1977

1114

6606

0

561

Issue Date: February 2004 003-A

1982

Jul

1936

(1) From the 1971-2000 Monthly Normals

.0

(a)

Elevation: 1,265 Feet Lat: 40°50N

(2) Derived from station's available digital record: 1936-2001

4.9

242.1

10.3

43.8

26.9

144.0

1.4

9.3

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

.0

9.9

⁺ Also occurred on an earlier date(s)

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

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COOP ID: 330256

Station: ASHLAND 2 SW, OH

Climate Division: OH 6

Elevation: 1,265 Feet Lat: 40°50N Lon: 82°21W

										Pı	recipit	tation	(incl	nes)											
		Precipitation Totals Means/ Medians(1) Extremes									Mean Number of Days (3) Daily Precipitation				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	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	2.40	2.33	3.31	1959	21	4.71	1978	.80	1981	13.1	6.3	1.1	.3	.82	1.04	1.37	1.65	1.92	2.20	2.50	2.85	3.31	4.01	4.65	
Feb	2.14	1.88	1.82	1956	25	4.27	1975	.19	1978	11.2	5.5	1.2	.3	.56	.76	1.07	1.34	1.61	1.90	2.21	2.59	3.07	3.85	4.57	
Mar	2.82	2.77	2.40	1939	12	4.89	1974	1.08	1990	12.9	7.0	1.7	.4	1.27	1.52	1.87	2.15	2.41	2.67	2.95	3.28	3.68	4.30	4.85	
Apr	3.54	3.79	2.04	1964	21	6.30	1996	.78	1971	13.5	7.8	2.4	.6	1.44	1.77	2.23	2.60	2.96	3.32	3.71	4.16	4.73	5.61	6.40	
May	4.08	3.76	2.66	1950	25	7.50	1990	1.69	1988	12.6	8.8	2.5	1.1	1.64	2.01	2.54	2.98	3.40	3.82	4.27	4.80	5.47	6.49	7.42	
Jun	4.02	3.84	2.35	1986	5	8.25	1981	.51	1988	11.0	7.6	2.7	1.0	1.11	1.49	2.07	2.58	3.07	3.59	4.16	4.84	5.73	7.11	8.41	
Jul	4.10	3.44	8.06	1969	5	11.09	1992	1.31	1974	10.3	6.9	2.6	1.1	1.47	1.86	2.42	2.88	3.33	3.79	4.28	4.86	5.60	6.74	7.79	
Aug	4.25	3.97	3.47	2000	24	7.84	1990	.43	1993	10.6	6.6	3.1	1.3	1.22	1.63	2.24	2.76	3.28	3.82	4.41	5.11	6.02	7.44	8.76	
Sep	3.30	2.89	3.39	1957	20	9.12	1972	.82	1995	9.9	5.8	2.1	.8	.93	1.24	1.72	2.13	2.53	2.96	3.42	3.97	4.69	5.81	6.86	
Oct	2.52	2.32	2.42	1995	6	4.89	1990	.45	1982	10.5	6.2	1.5	.4	.77	1.01	1.37	1.67	1.97	2.28	2.62	3.02	3.54	4.34	5.09	
Nov	3.13	2.65	2.75	1993	15	10.46	1985	.29	1976	12.7	7.2	2.0	.5	.69	.98	1.44	1.85	2.27	2.71	3.20	3.80	4.58	5.83	7.00	
Dec	2.67	2.49	1.65	1968	28	6.06	1990	.72	1976	13.8	6.9	1.6	.3	1.03	1.28	1.64	1.93	2.21	2.49	2.80	3.15	3.60	4.30	4.93	
Ann	38.97	38.94	8.06	Jul 1969	5	11.09	Jul 1992	.19	Feb 1978	142.1	82.6	24.5	8.1	29.44	31.33	33.72	35.53	37.12	38.65	40.22	41.94	44.03	47.03	49.60	

⁺ Also occurred on an earlier date(s)

NWS Call Sign:

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

⁽²⁾ Derived from station's available digital record: 1936-2001

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

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COOP ID: 330256

Station: ASHLAND 2 SW, OH

Climate Division: OH 6 NWS Call Sign: Elevation: 1,265 Feet Lat: 40°50N Lon: 82°21W

										Snov	w (incl	hes)												
						Sno	ow To	tals							Mean Number of Days (1)									
	Mean	s/Medi	ans (1))	Extremes (2)												Snow Fall >= Thresholds						ı İs	
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	8.3	6.8	3	2	6.0	1995	21	18.3	1976	16+	1996	9	9	1977	7.9	3.8	.9	.3	.0	14.1	8.2	4.9	1.1	
Feb	8.6	9.0	3	2	9.0	1985	13	16.3	1985	21	1978	1	13	1978	5.6	2.6	.8	.1	.0	10.9	5.7	3.7	1.4	
Mar	5.4	4.0	1	#	8.0	1988	4	16.1	1993	17	1984	1	6	1984	3.8	1.7	.6	.2	.0	4.6	1.8	.9	.0	
Apr	1.6	.5	#	#	7.0	1987	5	11.0	1987	12	1987	5	1	1987	.9	.5	.2	.1	.0	.6	.2	.2	.0	
May	.0	.0	#	0	.7	1989	7	.7	1989	1	1989	7	#	1989	@	.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	1.5	1989	19	1.5	1989	2	1989	19	#+	1993	.1	.1	.0	.0	.0	@	.0	.0	.0	
Nov	2.2	2.2	#	#	4.5	2000	30	6.8	1980	4	1980	18	1	1980	2.0	1.0	.1	.0	.0	1.6	.1	.0	.0	
Dec	6.8	6.5	1	1	9.5	1995	20	17.4	1974	14	1974	3	4	1995	5.6	2.5	.7	.4	.0	8.2	2.9	1.3	.2	
Ann	33.0	29.0	N/A	N/A	9.5	Dec 1995	20	18.3	Jan 1976	21	Feb 1978	1	13	Feb 1978	25.9	12.2	3.3	1.1	.0	40.0	18.9	11.0	2.7	

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

- (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

[@] 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

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COOP ID: 330256

Station: ASHLAND 2 SW, OH

Climate Division: OH 6 NWS Call Sign:

Elevation: 1,265 Feet Lat: 40°50N Lon: 82°21W

				Freez	ze Data									
			Spri	ng Freeze D	ates (Month/	(Day)								
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated((*)						
icmp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	6/02	5/27	5/24	5/20	5/17	5/14	5/11	5/07	5/02					
32	5/19	5/14	5/10	5/07	5/04	5/02	4/28	4/25	4/20					
28	5/07	5/03	4/30	4/27	4/24	4/22	4/19	4/16	4/11					
24	4/23	4/19	4/16	4/13	4/10	4/08	4/05	4/02	3/28					
20	4/14	4/09	4/06	4/03	3/31	3/29	3/26	3/23	3/18					
16	4/07	4/01	3/28	3/24	3/21	3/17	3/13	3/09	3/03					
			Fal	ll Freeze Da	tes (Month/D	Oay)								
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)													
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80						
36	9/12	9/16	9/19	9/22	9/25	9/28	9/30	10/04	10/08					
32	9/22	9/27	10/01	10/04	10/07	10/10	10/13	10/17	10/22					
28	10/06	10/11	10/15	10/18	10/21	10/24	10/27	10/31	11/05					
24	10/21	10/26	10/30	11/02	11/05	11/08	11/11	11/15	11/20					
20	11/02	11/07	11/11	11/14	11/17	11/20	11/23	11/27	12/02					
16	11/13	11/19	11/23	11/27	11/30	12/04	12/07	12/12	12/18					
				Freeze F	ree Period			•						
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)							
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90					
36	147	141	137	133	130	127	123	119	113					
32	173	167	162	158	155	151	147	143	137					
28	195	190	186	182	179	176	172	168	163					
24	231	223	217	213	208	204	199	193	185					
20	254	246	240	235	230	225	220	214	206					
16	278	270	264	259	254	249	244	238	230					

^{*} 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: 330256

Station: ASHLAND 2 SW, OH

Climate Division: OH 6 NWS Call Sign: Elevation: 1,265 Feet Lat: 40°50N Lon: 82°21W

	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	1281	1073	900	547	259	55	6	30	126	451	764	1114	6606		
60	1126	933	745	400	158	17	0	5	49	310	614	959	5316		
57	1033	849	652	315	110	7	0	1	24	235	525	866	4617		
55	971	793	594	263	83	4	0	0	13	191	466	804	4182		
50	816	656	450	150	35	1	0	0	2	103	329	658	3200		
32	329	235	93	2	0	0	0	0	0	1	34	219	913		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	70	86	216	446	810	1055	1214	1148	905	576	260	128	6914
55	0	0	4	17	180	369	501	435	228	54	3	0	1791
57	0	0	0	9	144	312	439	374	179	36	1	0	1494
60	0	0	0	4	99	232	346	285	114	18	0	0	1098
65	0	0	0	0	45	120	197	154	41	4	0	0	561
70	0	0	0	0	16	45	79	65	8	0	0	0	213

	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	14	29	105	267	577	829	979	918	682	357	127	33	14	43	148	415	992	1821	2800	3718	4400	4757	4884	4917
45	3	7	58	166	427	679	824	763	534	228	68	11	3	10	68	234	661	1340	2164	2927	3461	3689	3757	3768
50	0	2	28	92	290	530	669	608	388	127	30	5	0	2	30	122	412	942	1611	2219	2607	2734	2764	2769
55	0	0	10	43	175	385	514	453	253	59	11	0	0	0	10	53	228	613	1127	1580	1833	1892	1903	1903
60	0	0	3	20	92	251	359	303	147	22	1	0	0	0	3	23	115	366	725	1028	1175	1197	1198	1198
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	thly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	3	14	71	173	352	538	657	607	427	215	72	15	3	17	88	261	613	1151	1808	2415	2842	3057	3129	3144

(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