

# Climatography of the United States

No. 20

1971-2000

Station: BERA COLLEGE, KY

COOP ID: 150619

Climate Division: KY 3

NWS Call Sign:

Elevation: 1,070 Feet Lat: 37° 34N

Lon: 84° 18W

## 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	43.7	25.6	34.7	77	1952	1	43.9	1974	-21	1994	19	19.8	1977	941	0	.0	.0	10.5	5.7	21.9	1.0
Feb	49.4	28.7	39.1	80	1996	23	47.3	1976	-10	1951	3	23.8	1978	727	0	.0	.0	14.4	3.3	17.1	.2
Mar	59.0	36.3	47.7	85	1986	31	55.2	1973	-3	1980	3	41.4	1996	540	1	.0	.0	24.2	.4	12.3	@
Apr	68.9	44.5	56.7	90	1986	27	62.8	1981	21+	1982	7	52.1	1982	264	14	.0	@	28.7	@	3.1	.0
May	76.5	53.4	65.0	92+	1954	31	71.5	1991	27	1966	10	60.9	1997	108	106	.0	.2	31.0	.0	.1	.0
Jun	83.6	61.2	72.4	98+	1960	16	76.3	1984	39	1966	1	68.5	1974	8	230	@	3.2	30.0	.0	.0	.0
Jul	87.0	64.6	75.8	104	1952	26	79.2	1986	47+	1972	7	72.6	1976	0	334	.2	8.8	31.0	.0	.0	.0
Aug	85.9	62.7	74.3	102	1953	31	79.5	1995	42	1986	29	69.6	1992	4	292	@	7.4	31.0	.0	.0	.0
Sep	79.8	56.6	68.2	104	1953	1	74.1	1998	31	1989	24	63.8	1974	46	142	.0	2.4	30.0	.0	@	.0
Oct	68.9	46.1	57.5	93	1959	5	64.3	1984	22+	1976	28	50.9	1976	262	29	.0	.0	30.4	.0	2.2	.0
Nov	57.3	38.2	47.8	82	1961	2	55.2	1985	-3	1950	25	39.3	1976	518	2	.0	.0	21.7	.2	9.8	.0
Dec	47.9	29.6	38.8	78+	1982	4	47.6	1984	-17	1989	22	26.1	1989	813	0	.0	.0	14.5	3.1	18.6	.3
Ann	67.3	45.6	56.5	104+	Sep 1953	1	79.5	Aug 1995	-21	Jan 1994	19	19.8	Jan 1977	4231	1150	.2	22.0	297.4	12.7	85.1	1.5

+ 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](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

Issue Date: February 2004

008-A

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1948-2001

(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: BERE A COLLEGE, KY**

**COOP ID: 150619**

**Climate Division: KY 3**

**NWS Call Sign:**

**Elevation: 1,070 Feet Lat: 37°34N**

**Lon: 84°18W**

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	3.23	3.06	3.00	1974	10	8.00	1974	.53	1981	10.6	6.1	1.7	.7	.95	1.26	1.72	2.12	2.51	2.91	3.35	3.88	4.55	5.61	6.59
Feb	3.15	2.83	2.70	1949	14	6.47	1972	1.04	1978	10.7	6.4	1.6	.6	.91	1.21	1.66	2.05	2.43	2.83	3.27	3.79	4.46	5.51	6.48
Mar	4.41	4.19	3.29	1952	22	10.56	1975	1.21	1988	12.4	8.4	2.9	.7	1.42	1.84	2.46	2.98	3.49	4.02	4.59	5.27	6.14	7.49	8.74
Apr	3.84	3.24	3.82	1957	29	10.84	1972	.94	1976	11.2	7.5	2.7	.7	1.16	1.53	2.07	2.54	2.99	3.47	3.99	4.60	5.39	6.62	7.77
May	5.27	4.95	2.68	1961	7	9.94	1995	1.11	1977	12.0	8.0	3.9	1.4	2.08	2.56	3.26	3.83	4.37	4.93	5.52	6.21	7.09	8.43	9.66
Jun	4.45	4.20	2.70	1960	23	9.56	1997	.72	1988	10.8	7.8	3.0	1.0	1.39	1.81	2.44	2.98	3.50	4.04	4.63	5.33	6.22	7.62	8.91
Jul	4.08	4.11	4.10	1996	15	8.95	1981	1.05	1997	10.0	6.9	2.7	.9	1.64	2.01	2.54	2.98	3.40	3.82	4.28	4.80	5.47	6.49	7.42
Aug	4.09	3.90	3.00	1961	21	9.44	1974	1.13	1972	9.6	6.6	2.8	1.1	1.31	1.70	2.27	2.76	3.23	3.72	4.26	4.88	5.69	6.94	8.10
Sep	3.87	3.26	4.18	1979	21	9.99	1975	.91	1983	8.9	6.2	2.7	1.3	.93	1.29	1.86	2.36	2.86	3.39	3.98	4.69	5.61	7.08	8.45
Oct	3.10	2.83	2.88	1989	17	7.21	1995	.54	1987	8.7	5.6	2.1	.8	.87	1.17	1.61	2.00	2.38	2.77	3.21	3.73	4.40	5.45	6.43
Nov	3.72	3.44	3.16	1957	18	8.92	1986	.76	1976	9.9	6.7	2.4	.8	1.20	1.55	2.07	2.52	2.95	3.39	3.87	4.44	5.17	6.31	7.35
Dec	4.12	3.41	5.08	1978	8	12.93	1978	1.29	1985	10.8	6.8	2.4	.9	1.17	1.56	2.15	2.67	3.17	3.69	4.27	4.96	5.85	7.24	8.53
Ann	47.33	47.21	5.08	Dec 1978	8	12.93	Dec 1978	.53	Jan 1981	125.6	83.0	30.9	10.9	34.14	36.70	39.98	42.47	44.67	46.80	48.99	51.42	54.35	58.60	62.27

+ 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: 1948-2001

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

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**Climate Division: KY 3**

**NWS Call Sign:**

**Elevation: 1,070 Feet**

**Lat: 37°34N**

**Lon: 84°18W**

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	6.0	5.9	1	#	13.0	1996	7	16.5	1979	13	1996	9	4	1978	3.4	2.0	.7	.2	.1	5.6	3.1	1.4	.2
Feb	3.6	2.0	1	#	18.5	1998	4	18.5	1979	10	1979	9	7	1985	2.0	1.0	.4	.2	@	4.0	2.3	.9	.1
Mar	1.1	.0	#	0	4.0	1971	3	7.7	1978	4	1980	2	1	1978	.6	.4	.2	.0	.0	.5	.2	.0	.0
Apr	.1	.0	#	0	3.0	1987	5	3.0	1987	#	1973	10	#	1973	@	@	@	.0	.0	.0	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.3	.0	#	0	2.6	1977	27	2.9	1976	2	1977	27	#+	1979	.3	.1	.0	.0	.0	.1	.0	.0	.0
Dec	2.1	.5	#	#	5.0	1999	24	7.0	1973	5	1999	24	#+	1999	1.2	.4	.2	.1	.0	.6	.2	.1	.0
Ann	13.2	8.4	N/A	N/A	18.5	Feb 1998	4	18.5	Feb 1979	13	Jan 1996	9	7	Feb 1985	7.5	3.9	1.5	.5	.1	10.8	5.8	2.4	.3

+ 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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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	5/12	5/07	5/04	5/01	4/28	4/25	4/23	4/19	4/15
32	4/29	4/23	4/19	4/16	4/13	4/10	4/07	4/03	3/29
28	4/16	4/12	4/09	4/07	4/04	4/02	3/30	3/27	3/23
24	4/06	4/01	3/28	3/25	3/22	3/19	3/16	3/12	3/07
20	3/22	3/16	3/12	3/08	3/05	3/02	2/26	2/22	2/16
16	3/10	3/04	2/27	2/23	2/20	2/16	2/12	2/08	2/02
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	9/29	10/04	10/08	10/11	10/14	10/17	10/20	10/23	10/28
32	10/06	10/12	10/17	10/21	10/24	10/28	11/01	11/06	11/12
28	10/16	10/22	10/26	10/30	11/03	11/06	11/10	11/14	11/20
24	11/04	11/10	11/13	11/17	11/20	11/23	11/27	12/01	12/06
20	11/10	11/17	11/22	11/26	11/30	12/04	12/08	12/13	12/20
16	11/14	11/24	12/01	12/08	12/14	12/19	12/26	1/02	1/13
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	190	182	177	172	168	163	159	153	146
32	219	210	204	198	193	188	183	177	168
28	233	226	220	216	212	207	203	198	190
24	263	256	251	247	242	238	234	229	221
20	297	287	281	275	269	264	258	251	242
16	322	311	304	298	293	288	283	276	267

\* 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	941	727	540	264	108	8	0	4	46	262	518	813	4231
60	794	591	397	148	46	1	0	0	12	155	379	666	3189
57	706	513	316	96	23	0	0	0	5	105	300	577	2641
55	648	461	266	68	14	0	0	0	2	78	252	520	2309
50	509	340	165	22	3	0	0	0	0	31	153	386	1609
32	153	62	8	0	0	0	0	0	0	0	6	77	306

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	236	260	493	741	1022	1212	1357	1311	1086	790	479	286	9273
55	17	14	38	118	323	522	644	598	399	155	35	17	2880
57	13	10	25	86	270	462	582	536	341	120	23	12	2480
60	8	4	13	49	199	373	489	443	259	77	12	7	1933
65	0	0	1	14	106	230	334	292	142	29	2	0	1150
70	0	0	0	2	44	110	185	158	60	8	0	0	567

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	80	140	301	525	800	998	1143	1101	881	571	289	126	80	220	521	1046	1846	2844	3987	5088	5969	6540	6829	6955
45	37	76	192	386	645	848	988	946	731	420	186	64	37	113	305	691	1336	2184	3172	4118	4849	5269	5455	5519
50	15	38	113	258	491	698	833	791	581	287	113	29	15	53	166	424	915	1613	2446	3237	3818	4105	4218	4247
55	2	15	58	157	342	548	678	636	434	170	55	10	2	17	75	232	574	1122	1800	2436	2870	3040	3095	3105
60	0	3	26	83	212	398	523	481	295	82	17	1	0	3	29	112	324	722	1245	1726	2021	2103	2120	2121
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	43	86	189	330	516	682	796	758	585	345	160	62	43	129	318	648	1164	1846	2642	3400	3985	4330	4490	4552

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)