

# Climatology of the United States

No. 20

1971-2000

Station: GLASGOW, KY

COOP ID: 153246

Climate Division: KY 2

NWS Call Sign:

Elevation: 770 Feet Lat: 37°00N Lon: 85°54W

## 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	45.9	26.3	36.1	73+	1997	3	44.9	1998	-25	1963	24	21.3	1977	897	0	.0	.0	10.7	6.0	21.6	1.0
Feb	51.9	29.7	40.8	81	1996	23	48.9	1990	-9	1965	2	26.8	1978	677	0	.0	.0	14.7	3.6	17.4	.3
Mar	61.9	37.5	49.7	85	1967	13	56.2	1973	-2	1960	5	44.4	1971	479	5	.0	.0	25.2	.4	11.2	@
Apr	71.8	45.1	58.5	91+	1989	28	64.2	1981	20	1992	3	53.4	1983	218	21	.0	.1	29.1	.0	3.6	.0
May	79.8	54.2	67.0	94	1987	29	73.0	1987	27	1963	1	62.4	1976	79	141	.0	.9	31.0	.0	.1	.0
Jun	87.3	62.6	75.0	103+	1988	26	78.2	1987	38	1966	1	70.1	1974	3	300	.2	8.9	30.0	.0	.0	.0
Jul	90.5	66.7	78.6	105	1988	9	82.5	1993	48	1972	7	74.4	1971	0	421	.5	15.5	31.0	.0	.0	.0
Aug	89.4	64.8	77.1	103+	1988	18	82.5	1983	41	1986	29	72.2	1992	1	375	.3	11.7	31.0	.0	.0	.0
Sep	83.3	58.1	70.7	103	1954	5	75.8	1998	33	2001	26	66.0	1975	28	199	.1	3.9	30.0	.0	.0	.0
Oct	72.4	46.3	59.4	95	1953	2	65.7	1984	22	1981	24	52.9	1988	221	45	.0	.0	30.5	.0	2.7	.0
Nov	59.7	37.9	48.8	84	2000	1	56.6	1985	5	1976	30	39.3	1976	488	2	.0	.0	22.1	.1	10.2	.0
Dec	50.0	30.3	40.2	76+	1982	3	48.8	1984	-15	1989	22	28.3	1989	771	0	.0	.0	14.4	3.2	18.3	.2
Ann	70.3	46.6	58.5	105	Jul 1988	9	82.5+	Jul 1993	-25	Jan 1963	24	21.3	Jan 1977	3862	1509	1.1	41.0	299.7	13.3	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

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1953-2001

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

020-A

# 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: GLASGOW, KY**

**COOP ID: 153246**

**Climate Division: KY 2**

**NWS Call Sign:**

**Elevation: 770 Feet Lat: 37°00N**

**Lon: 85°54W**

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	4.29	4.26	3.44	1974	10	10.15	1972	.67	1986	11.8	7.7	2.7	1.2	1.26	1.67	2.28	2.81	3.32	3.86	4.45	5.15	6.05	7.46	8.77
Feb	4.32	3.77	3.78	1962	27	10.74	1989	1.07	1978	10.5	7.3	3.0	1.2	1.50	1.91	2.50	3.00	3.48	3.97	4.51	5.13	5.93	7.17	8.31
Mar	5.12	4.32	5.83	1975	12	13.94	1975	2.09	1983	13.0	9.1	3.3	1.5	1.69	2.18	2.89	3.50	4.08	4.68	5.34	6.11	7.10	8.64	10.05
Apr	4.37	3.86	4.32	1968	4	9.80	1998	.95	1976	11.3	7.7	2.8	1.2	1.22	1.64	2.27	2.81	3.35	3.91	4.52	5.25	6.20	7.69	9.07
May	5.30	4.88	5.41	1984	7	12.75	1983	1.83	1987	12.1	8.3	3.6	1.4	1.86	2.36	3.08	3.69	4.28	4.88	5.53	6.29	7.27	8.77	10.16
Jun	4.89	4.15	4.51	1981	10	12.52	1998	.89	1984	11.0	7.5	3.1	1.1	1.21	1.67	2.39	3.02	3.64	4.31	5.04	5.92	7.06	8.88	10.57
Jul	4.78	4.85	3.37	1985	26	12.20	1971	.50	1999	9.9	6.8	3.2	1.7	1.31	1.76	2.45	3.05	3.64	4.26	4.94	5.75	6.81	8.47	10.01
Aug	3.96	2.89	3.29	1982	25	12.04	1974	1.07	1998	8.5	6.0	2.9	1.2	.90	1.27	1.85	2.37	2.89	3.45	4.07	4.81	5.78	7.33	8.79
Sep	3.98	3.40	4.94	1974	3	11.23	1979	.89	1983	9.0	5.9	2.6	1.1	.92	1.30	1.88	2.40	2.92	3.47	4.09	4.83	5.80	7.33	8.78
Oct	3.17	2.53	3.21	1995	5	7.90	1975	.25	1987	8.4	5.3	2.3	1.0	.68	.97	1.43	1.85	2.28	2.73	3.24	3.85	4.66	5.94	7.16
Nov	4.49	4.21	4.68	1973	27	9.89	1973	.80	1976	10.8	7.6	3.1	1.1	1.49	1.91	2.54	3.07	3.58	4.11	4.69	5.36	6.23	7.57	8.81
Dec	5.14	4.92	3.83	1978	8	14.45	1978	1.69	1985	12.3	8.1	3.4	1.5	1.59	2.08	2.80	3.43	4.03	4.66	5.35	6.16	7.20	8.83	10.34
Ann	53.81	55.66	5.83	Mar 1975	12	14.45	Dec 1978	.25	Oct 1987	128.6	87.3	36.0	15.2	40.28	42.96	46.35	48.90	51.16	53.33	55.56	58.02	60.98	65.25	68.93

+ 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: 1953-2001

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**Climate Division: KY 2**

**NWS Call Sign:**

**Elevation: 770 Feet**

**Lat: 37°00N**

**Lon: 85°54W**

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	4.5	3.3	1	#	4.9	1996	7	20.5	1978	11	1978	21	4	1978	2.8	1.8	.7	.0	.0	4.9	2.5	.9	.1
Feb	4.3	2.0	#	#	8.0	1979	7	20.8	1979	11	1986	14	2	1986	2.1	1.5	.5	.2	.0	3.1	1.2	.7	.1
Mar	1.2	.1	#	0	4.0	1996	19	7.1	1996	6	1996	20	1	1996	.8	.4	.2	.0	.0	.4	.2	@	.0
Apr	.1	.0	0	0	3.0	1983	18	3.0	1983	0	0	0	0	0	.1	@	@	.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	.4	.0	#	0	4.5	1977	27	4.5	1977	4	1977	27	#+	1997	.2	.1	@	.0	.0	.2	@	.0	.0
Dec	1.2	.5	#	#	3.0	1973	20	5.9	2000	3+	1997	31	1+	2000	1.5	.6	.1	.0	.0	1.0	.1	.0	.0
Ann	11.7	5.9	N/A	N/A	8.0	Feb 1979	7	20.8	Feb 1979	11+	Feb 1986	14	4	Jan 1978	7.5	4.4	1.5	.2	.0	9.6	4.0	1.6	.2

+ 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

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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	5/16	5/10	5/06	5/02	4/29	4/26	4/22	4/18	4/12
32	4/28	4/24	4/21	4/18	4/16	4/14	4/11	4/08	4/04
28	4/18	4/13	4/10	4/07	4/04	4/02	3/30	3/27	3/22
24	4/09	4/04	3/31	3/28	3/25	3/22	3/19	3/15	3/10
20	3/24	3/17	3/11	3/07	3/03	2/27	2/22	2/17	2/10
16	3/14	3/06	2/28	2/24	2/19	2/15	2/10	2/05	1/28
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	9/28	10/02	10/04	10/07	10/09	10/11	10/13	10/16	10/20
32	10/06	10/12	10/15	10/18	10/21	10/24	10/27	10/31	11/05
28	10/15	10/19	10/22	10/24	10/27	10/29	11/01	11/04	11/08
24	10/27	11/02	11/06	11/10	11/13	11/16	11/20	11/24	11/30
20	11/08	11/14	11/19	11/23	11/27	12/01	12/05	12/10	12/16
16	11/18	11/26	12/01	12/06	12/10	12/14	12/19	12/24	1/01
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	181	175	170	166	162	158	154	149	143
32	206	200	195	191	188	184	180	175	169
28	217	213	210	207	205	202	199	196	192
24	253	246	241	236	232	228	224	219	212
20	293	284	278	273	268	264	258	253	244
16	322	312	305	298	293	287	281	274	264

\* 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	897	677	479	218	79	3	0	1	28	221	488	771	3862
60	751	544	338	114	30	0	0	0	7	124	349	625	2882
57	663	465	263	68	14	0	0	0	2	81	272	538	2366
55	606	415	218	45	8	0	0	0	1	59	226	482	2060
50	470	298	128	13	1	0	0	0	0	21	132	352	1415
32	129	45	4	0	0	0	0	0	0	0	3	64	245

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	256	292	553	794	1085	1287	1444	1397	1161	847	508	316	9940
55	19	17	54	149	380	597	731	684	472	193	40	21	3357
57	14	12	36	112	324	537	669	622	413	154	26	15	2934
60	9	7	19	67	246	447	576	529	328	103	13	9	2353
65	0	0	5	21	141	300	421	375	199	45	2	0	1509
70	0	0	0	4	65	165	270	231	99	14	0	0	848

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	85	143	316	540	822	1036	1182	1133	899	571	279	128	85	228	544	1084	1906	2942	4124	5257	6156	6727	7006	7134
45	39	81	206	398	667	886	1027	978	749	422	178	70	39	120	326	724	1391	2277	3304	4282	5031	5453	5631	5701
50	23	44	124	268	513	736	872	823	599	288	102	33	23	67	191	459	972	1708	2580	3403	4002	4290	4392	4425
55	4	15	61	163	359	586	717	668	452	174	54	10	4	19	80	243	602	1188	1905	2573	3025	3199	3253	3263
60	0	3	29	86	226	436	562	513	310	87	16	2	0	3	32	118	344	780	1342	1855	2165	2252	2268	2270
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	46	89	197	343	537	706	812	775	596	362	160	69	46	135	332	675	1212	1918	2730	3505	4101	4463	4623	4692

(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> |
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## 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)