U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: MOUNT STERLING, KY **COOP ID: 155640**

Climate Division: KY 3 **NWS Call Sign:** **Elevation: 960 Feet** **Lat: 38˚04N** **Lon: 83˚56W**

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	40.1	22.0	31.1	76	1950	25	41.6	1990	-20	1963	24	16.9	1977	1053	0	.0	.0	8.0	7.7	24.4	1.2
Feb	46.0	24.5	35.3	80	1996	24	43.8	1976	-12	1951	3	21.3	1978	833	0	.0	.0	12.0	4.3	20.3	.5
Mar	55.7	32.9	44.3	83	1973	14	52.0	1973	-1+	1980	3	38.1	1984	642	0	.0	.0	22.0	.6	14.4	@
Apr	66.1	41.1	53.6	90	1955	18	59.5	1981	18	1982	7	47.1	1997	349	7	.0	.0	27.8	.0	4.9	.0
May	75.0	52.5	63.8	93+	1962	18	70.4	1991	26	1966	10	56.4	1997	126	88	.0	.2	31.0	.0	.2	.0
Jun	82.4	61.3	71.9	102	1988	26	76.2	1994	40	1988	10	67.3	1997	13	217	@	3.0	30.0	.0	.0	.0
Jul	85.8	65.6	75.7	106	1954	14	80.5	1993	48+	1972	7	72.7+	2000	0	332	.2	8.5	31.0	.0	.0	.0
Aug	84.4	63.4	73.9	102	1953	31	81.1	1995	44	1965	29	69.9	1992	9	284	@	5.6	31.0	.0	.0	.0
Sep	78.5	56.0	67.3	104+	1954	6	71.6	1998	34+	1993	30	62.9	1974	49	116	.0	1.6	30.0	.0	.0	.0
Oct	67.5	43.7	55.6	94	1951	5	62.0	1971	19	1962	27	49.4	1976	309	19	.0	.0	30.2	.0	2.8	.0
Nov	55.7	35.0	45.4	82	1977	5	50.9	1994	2	1950	25	37.7	1976	591	0	.0	.0	20.7	.2	12.3	.0
Dec	44.9	26.6	35.8	78+	1982	3	44.5	1971	-20	1989	22	23.5	1989	906	0	.0	.0	11.9	4.2	20.9	.3
Ann	65.2	43.7	54.5	106	Jul 1954	14	81.1	Aug 1995	-20+	Dec 1989	22	16.9	Jan 1977	4880	1063	.2	18.9	285.6	17.0	100.2	2.0

\+ 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/normals/usnormals.html

(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

Issue Date: February 2004

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: MOUNT STERLING, KY **COOP ID: 155640**

Climate Division: KY 3 **NWS Call Sign:** **Elevation: 960 Feet** **Lat: 38˚04N** **Lon: 83˚56W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	3.56	3.63	3.30	1974	10	6.93	1999	.53	1981
Feb	3.39	3.17	2.90	1989	14	10.89	1989	.78	1978
Mar	4.07	3.72	3.92	1967	6	12.38	1997	.72	1995
Apr	3.66	3.53	2.21	1970	1	9.04	1972	.65	1976
May	4.80	4.70	2.40	1971	6	9.47	1983	1.19	1999
Jun	4.39	4.11	3.75	1998	29	10.00	1998	.83	1988
Jul	5.11	4.49	4.01	1991	9	9.73	1979	1.10	1993
Aug	4.00	3.76	3.77	1966	14	12.54	1974	.84	1998
Sep	3.63	3.08	3.28	1975	23	9.79	1975	.66	1998
Oct	2.83	2.93	2.40	1977	1	7.06	1995	.35	1992
Nov	3.38	3.04	3.93	1988	20	9.12	1988	.54	1981
Dec	3.82	3.69	6.00	1978	8	11.36	1978	.65	1995
Ann	46.64	45.32	6.00	Dec 1978	8	12.54	Aug 1974	.35	Oct 1992

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	11.3	7.5	2.2	.7
Feb	10.5	6.5	2.3	.7
Mar	10.8	7.9	2.6	.8
Apr	11.4	7.5	2.2	.7
May	11.9	8.5	3.3	.9
Jun	11.4	8.1	3.0	.9
Jul	8.2	6.2	2.6	1.6
Aug	9.0	5.9	2.5	1.1
Sep	9.0	5.7	2.2	.9
Oct	8.4	5.6	1.9	.5
Nov	10.3	6.9	2.2	.7
Dec	10.9	7.2	2.3	.8
Ann	123.1	83.5	29.3	10.3

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	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	1.01	1.35	1.86	2.30	2.74	3.19	3.69	4.28	5.05	6.26	7.38
Feb	1.11	1.43	1.91	2.31	2.70	3.10	3.54	4.05	4.71	5.74	6.69
Mar	1.23	1.62	2.19	2.69	3.18	3.68	4.23	4.88	5.72	7.03	8.24
Apr	1.14	1.49	2.00	2.45	2.88	3.32	3.81	4.39	5.13	6.28	7.35
May	1.51	1.97	2.64	3.22	3.78	4.36	4.99	5.74	6.70	8.19	9.58
Jun	1.54	1.95	2.55	3.06	3.54	4.04	4.58	5.21	6.02	7.27	8.42
Jul	2.06	2.53	3.20	3.75	4.26	4.79	5.36	6.01	6.84	8.11	9.26
Aug	1.18	1.56	2.13	2.62	3.10	3.60	4.15	4.80	5.64	6.95	8.17
Sep	.80	1.14	1.67	2.15	2.63	3.14	3.72	4.41	5.32	6.76	8.13
Oct	.74	1.01	1.42	1.78	2.14	2.51	2.93	3.42	4.06	5.07	6.01
Nov	1.00	1.32	1.80	2.22	2.62	3.04	3.51	4.06	4.76	5.87	6.90
Dec	1.11	1.47	2.02	2.49	2.96	3.44	3.97	4.59	5.40	6.67	7.85
Ann	34.75	37.10	40.08	42.33	44.31	46.22	48.19	50.35	52.96	56.73	59.97

\+ 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

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Services

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: MOUNT STERLING, KY **COOP ID: 155640**

Climate Division: KY 3 **NWS Call Sign:** **Elevation: 960 Feet** **Lat: 38°04N** **Lon: 83°56W**

Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	3.1	2.0	1	#
Feb	3.4	2.9	1	#
Mar	2.2	.5	#	#
Apr	.1	.0	#	0
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	#	.0	0	0
Nov	.2	.0	#	0
Dec	.7	.1	#	#
Ann	9.7	5.5	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	5.0	1971	30	20.0	1977	28	1978	27	12	1978
Feb	9.0	1971	8	11.1	1971	17	1977	2	16	1977
Mar	4.0	1971	3	8.3	1971	8	1980	2	1	1980
Apr	2.0	1977	6	2.0	1977	2	1977	6	#+	1982
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	#	1974	19	#+	1974	0	0	0	0	0
Nov	2.0	1971	24	2.0	1971	4	1977	28	#+	1995
Dec	2.3	1998	30	3.3	1977	8	1974	2	1+	2000
Ann	9.0	Feb 1971	8	20.0	Jan 1977	28	Jan 1978	27	16	Feb 1977

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	1.4	.9	.2	.1	.0
Feb	1.3	.8	.3	.1	.0
Mar	.9	.6	.2	.0	.0
Apr	.1	.1	.0	.0	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.0	.0	.0	.0	.0
Nov	.2	.1	.0	.0	.0
Dec	.8	.4	.0	.0	.0
Ann	4.7	2.9	.7	.2	.0

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	1.5	.2	.2	.0
Feb	1.5	1.1	.9	.2
Mar	.8	.3	.1	.0
Apr	.1	.0	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.0	.0	.0	.0
Nov	.1	.0	.0	.0
Dec	.3	.1	.0	.0
Ann	4.3	1.7	1.2	.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

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: MOUNT STERLING, KY **COOP ID: 155640**

Climate Division: KY 3 **NWS Call Sign:** **Elevation: 960 Feet** **Lat: 38˚04N** **Lon: 83˚56W**

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	5/14	5/09	5/05	5/02	4/30	4/27	4/24	4/21	4/16
32	5/05	4/30	4/26	4/23	4/20	4/17	4/14	4/10	4/05
28	4/20	4/15	4/11	4/08	4/05	4/02	3/30	3/26	3/21
24	4/09	4/03	3/31	3/27	3/24	3/21	3/18	3/14	3/09
20	4/03	3/27	3/21	3/17	3/13	3/08	3/04	2/27	2/19
16	3/17	3/10	3/06	3/02	2/26	2/22	2/18	2/14	2/07

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	9/26	10/01	10/04	10/07	10/10	10/13	10/17	10/20	10/25
32	10/09	10/14	10/17	10/20	10/23	10/26	10/29	11/02	11/07
28	10/16	10/22	10/26	10/30	11/03	11/06	11/10	11/14	11/20
24	10/24	10/30	11/04	11/07	11/11	11/15	11/19	11/23	11/30
20	11/05	11/11	11/16	11/20	11/23	11/27	12/01	12/05	12/12
16	11/19	11/26	11/30	12/04	12/08	12/11	12/15	12/20	12/26

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	186	178	172	168	163	159	154	148	140
32	209	201	195	190	186	181	176	170	162
28	234	226	220	215	211	206	201	196	188
24	254	246	241	236	231	227	222	216	208
20	281	272	266	260	255	250	244	238	228
16	307	299	293	288	284	279	275	269	261

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: MOUNT STERLING, KY **COOP ID: 155640**

Climate Division: KY 3 **NWS Call Sign:** **Elevation: 960 Feet** **Lat: 38˚04N** **Lon: 83˚56W**

Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1053	833	642	349	126	13	0	9	49	309	591	906	4880
60	898	693	493	221	57	2	0	0	13	191	443	751	3762
57	806	609	407	157	31	0	0	0	5	135	361	667	3178
55	752	557	352	121	19	0	0	0	2	103	307	608	2821
50	606	428	231	53	5	0	0	0	0	46	190	468	2027
32	200	95	17	0	0	0	0	0	0	0	8	117	437

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	170	186	398	649	984	1195	1355	1299	1057	732	407	234	8666
55	8	4	20	79	291	505	642	586	369	123	16	12	2655
57	1	1	13	55	240	445	580	524	312	92	10	9	2282
60	0	0	6	29	174	357	487	431	230	56	3	0	1773
65	0	0	0	7	88	217	332	284	116	19	0	0	1063
70	0	0	0	1	33	106	190	158	42	4	0	0	534

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	56	101	248	454	756	974	1124	1069	842	525	250	99	56	157	405	859	1615	2589	3713	4782	5624	6149	6399	6498
45	28	50	155	321	601	824	969	914	692	377	155	49	28	78	233	554	1155	1979	2948	3862	4554	4931	5086	5135
50	6	21	89	204	449	674	814	759	542	244	85	24	6	27	116	320	769	1443	2257	3016	3558	3802	3887	3911
55	0	5	42	123	303	524	659	604	399	142	41	5	0	5	47	170	473	997	1656	2260	2659	2801	2842	2847
60	0	0	19	62	181	375	504	449	267	64	10	0	0	0	19	81	262	637	1141	1590	1857	1921	1931	1931
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	30	65	155	283	481	662	782	735	552	322	143	53	30	95	250	533	1014	1676	2458	3193	3745	4067	4210	4263

(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

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

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

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   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