

Climatography of the United States

No. 20

1971-2000

Station: STEARNS 2 S, KY

COOP ID: 157677

Climate Division: KY 4

NWS Call Sign:

Elevation: 1,220 Feet Lat: 36°40N

Lon: 84°29W

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	44.3	22.8	33.6	71	1962	27	44.3	1974	-24	1985	21	20.3	1977	976	0	.0	.0	9.9	5.4	25.3	1.6
Feb	48.6	24.8	36.7	78	1962	14	43.6	1976	-17+	1996	5	25.4	1978	792	0	.0	.0	13.2	3.5	22.8	.6
Mar	58.9	32.5	45.7	84	1989	29	52.1	1973	-3+	1993	16	41.1	1993	597	0	.0	.0	23.7	.6	17.5	.1
Apr	68.2	38.9	53.6	92	1986	28	58.6	1981	18+	1992	3	45.9	1997	348	5	.0	@	28.3	@	8.3	.0
May	75.7	47.8	61.8	91+	1996	25	67.4	1996	27	1997	5	56.3	1992	172	72	.0	.1	30.9	.0	1.2	.0
Jun	82.7	57.2	70.0	99	1988	27	75.9	1991	35	1992	22	63.3	1992	28	175	.0	2.3	30.0	.0	.0	.0
Jul	86.3	61.7	74.0	101	1988	10	78.3	1993	45	1968	16	70.6	1992	1	280	.1	7.2	31.0	.0	.0	.0
Aug	85.2	60.2	72.7	101	1980	11	77.9	1995	40	1986	30	68.3	1992	9	247	.1	5.0	31.0	.0	.0	.0
Sep	79.1	53.0	66.1	96	1983	10	70.0	1973	30+	1991	29	61.2	1994	68	99	.0	1.5	30.0	.0	.2	.0
Oct	68.8	40.6	54.7	87+	1986	1	62.9	1971	17	1987	23	47.3	1988	340	21	.0	.0	30.2	.0	7.2	.0
Nov	58.0	33.3	45.7	82	1984	1	53.9	1985	9	1969	15	38.2	1995	581	1	.0	.0	22.9	.2	15.7	.0
Dec	47.5	26.0	36.8	77	1982	4	45.5	1971	-18	1989	24	26.4	1989	876	0	.0	.0	14.1	3.1	23.5	.5
Ann	66.9	41.6	54.3	101+	Jul 1988	10	78.3	Jul 1993	-24	Jan 1985	21	20.3	Jan 1977	4788	900	.2	16.1	295.2	12.8	121.7	2.8

+ 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

Issue Date: February 2004

(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

053-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: STEARNS 2 S, KY

COOP ID: 157677

Climate Division: KY 4

NWS Call Sign:

Elevation: 1,220 Feet Lat: 36°40N

Lon: 84°29W

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	4.30	4.29	3.54	1957	29	7.12	1982	1.14	1986	12.7	8.4	3.1	1.0	1.66	2.06	2.63	3.10	3.55	4.01	4.50	5.08	5.81	6.93	7.95
Feb	3.90	3.97	2.82	1962	27	6.91	1989	1.02	1978	11.8	7.6	2.9	1.0	1.71	2.06	2.54	2.94	3.31	3.68	4.08	4.54	5.13	6.01	6.80
Mar	4.67	3.98	3.15	1963	12	12.78	1975	.00	1999	11.5	8.5	3.4	1.3	1.19	1.86	2.62	3.22	3.78	4.34	4.96	5.67	6.58	7.98	9.27
Apr	3.65	2.80	3.00	1958	21	8.83	1998	.64	1976	10.2	7.3	2.8	.9	1.07	1.42	1.94	2.39	2.83	3.28	3.79	4.38	5.15	6.36	7.48
May	5.35	4.96	4.00	1984	7	10.21	1983	2.85	1985	11.9	8.2	3.3	1.3	2.55	3.01	3.64	4.16	4.63	5.10	5.61	6.19	6.91	8.00	8.98
Jun	4.55	3.95	5.78	1991	30	9.92	1989	.58	1988	10.5	7.8	2.6	1.1	1.13	1.56	2.22	2.81	3.39	4.01	4.69	5.51	6.57	8.25	9.83
Jul	4.34	4.43	2.60	1967	6	7.33	1971	1.15	1995	11.1	7.4	2.2	.7	1.91	2.30	2.84	3.28	3.69	4.11	4.55	5.06	5.71	6.69	7.57
Aug	3.71	3.34	3.05	1994	29	7.00	1985	1.65	1983	9.3	6.4	2.1	.7	1.62	1.96	2.42	2.80	3.15	3.51	3.89	4.33	4.88	5.72	6.48
Sep	3.93	3.24	3.96	1982	2	10.98	1989	1.06	1984	8.7	5.9	2.5	1.0	.97	1.34	1.91	2.42	2.92	3.46	4.05	4.76	5.68	7.15	8.52
Oct	3.28	2.92	2.55	1999	10	6.64	1984	.03	1987	7.7	5.1	2.4	1.0	.46	.73	1.20	1.66	2.14	2.66	3.26	4.00	5.00	6.63	8.21
Nov	4.33	4.42	3.28	1986	9	7.67	1986	1.75	1976	9.6	7.6	2.9	1.0	2.01	2.39	2.91	3.34	3.73	4.12	4.55	5.03	5.63	6.55	7.37
Dec	4.96	4.38	4.03	1990	23	14.49	1991	1.37	1985	11.9	8.1	3.3	1.3	1.47	1.95	2.65	3.26	3.85	4.47	5.15	5.95	6.99	8.61	10.11
Ann	50.97	50.88	5.78	Jun 1991	30	14.49	Dec 1991	.00	Mar 1999	126.9	88.3	33.5	12.3	38.94	41.33	44.37	46.64	48.65	50.57	52.55	54.72	57.34	61.10	64.33

+ 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

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: STEARNS 2 S, KY

COOP ID: 157677

Climate Division: KY 4

NWS Call Sign:

Elevation: 1,220 Feet

Lat: 36° 40N

Lon: 84° 29W

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	3.8	.2	1	#	7.5	1985	20	10.0	1984	15	1996	5	2	1985	1.7	1.2	.4	.2	.0	3.2	1.4	.7	.0
Feb	4.5	1.0	1	#	18.0	1998	4	23.0	1998	23	1998	7	5	1998	1.4	1.1	.4	.3	.1	2.1	1.2	.9	.4
Mar	.4	.0	#	0	5.3	1995	9	5.3	1995	11	1993	14	1	1993	.3	.2	.1	.1	.0	.3	.1	.1	.0
Apr	.4	.0	#	0	3.0	1987	4	5.0	1987	5	1987	5	#+	1987	.2	.2	.1	.0	.0	.2	.1	.1	.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	#	1989	20	#	1989	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.1	.0	#	0	1.0	1995	28	1.0	1995	2	1996	10	#+	1996	.1	.1	.0	.0	.0	.1	.0	.0	.0
Dec	.7	.0	#	#	4.8	1982	12	4.8	1982	6	2000	3	1+	2000	.4	.4	.2	.0	.0	.8	.3	.1	.0
Ann	9.9	1.2	N/A	N/A	18.0	Feb 1998	4	23.0	Feb 1998	23	Feb 1998	7	5	Feb 1998	4.1	3.2	1.2	.6	.1	6.7	3.1	1.9	.4

+ 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/normal/usnormals.html

Climatography of the United States

No. 20 1971-2000

Station: STEARNS 2 S, KY

COOP ID: 157677

Climate Division: KY 4

NWS Call Sign:

Elevation: 1,220 Feet

Lat: 36° 40N

Lon: 84° 29W

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	5/31	5/24	5/20	5/15	5/11	5/08	5/03	4/28	4/22
32	5/12	5/07	5/04	5/02	4/29	4/27	4/24	4/21	4/17
28	4/27	4/21	4/18	4/14	4/11	4/08	4/05	4/01	3/27
24	4/18	4/12	4/07	4/03	3/30	3/27	3/23	3/18	3/11
20	4/05	3/30	3/25	3/21	3/17	3/13	3/09	3/04	2/25
16	3/15	3/09	3/05	3/01	2/25	2/22	2/18	2/14	2/08
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	9/24	9/27	9/30	10/02	10/04	10/06	10/09	10/11	10/15
32	9/29	10/04	10/07	10/10	10/13	10/16	10/19	10/22	10/27
28	10/07	10/13	10/17	10/21	10/25	10/28	11/01	11/05	11/11
24	10/17	10/24	10/28	11/02	11/05	11/09	11/13	11/18	11/24
20	11/02	11/08	11/13	11/17	11/21	11/25	11/29	12/04	12/10
16	11/17	11/24	11/28	12/02	12/06	12/09	12/13	12/18	12/24
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	166	159	154	149	145	141	137	131	124
32	186	179	174	170	166	162	158	153	146
28	219	211	205	200	196	191	186	180	172
24	245	236	230	224	219	214	209	203	194
20	272	264	258	253	248	244	239	233	225
16	304	296	291	287	283	278	274	269	262

* 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/normal/usnormals.html

**Climatography
of the United States
No. 20
1971-2000**

Station: STEARNS 2 S, KY

COOP ID: 157677

Climate Division: KY 4

NWS Call Sign:

Elevation: 1,220 Feet Lat: 36°40N

Lon: 84°29W

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	976	792	597	348	172	28	1	9	68	340	581	876	4788
60	821	652	446	217	91	7	0	0	22	220	436	721	3633
57	735	568	361	151	55	2	0	0	10	162	354	630	3028
55	677	513	306	114	37	1	0	0	5	129	302	574	2658
50	534	384	188	45	12	0	0	0	1	64	189	432	1849
32	157	63	7	0	0	0	0	0	0	0	7	87	321

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	204	195	433	647	923	1138	1302	1261	1021	705	417	234	8480
55	11	1	18	70	247	449	589	548	336	120	22	9	2420
57	7	0	11	47	203	390	527	486	281	92	14	3	2061
60	0	0	4	23	146	304	434	393	204	57	6	0	1571
65	0	0	0	5	72	175	280	247	99	21	1	0	900
70	0	0	0	1	27	79	141	124	34	6	0	0	412

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	59	81	229	417	692	913	1076	1016	791	460	224	88	59	140	369	786	1478	2391	3467	4483	5274	5734	5958	6046
45	27	40	137	286	538	763	921	861	641	315	130	44	27	67	204	490	1028	1791	2712	3573	4214	4529	4659	4703
50	6	20	66	172	388	613	766	706	493	191	68	18	6	26	92	264	652	1265	2031	2737	3230	3421	3489	3507
55	0	1	27	91	247	463	611	551	351	98	23	3	0	1	28	119	366	829	1440	1991	2342	2440	2463	2466
60	0	0	5	34	130	316	456	396	217	41	3	0	0	0	5	39	169	485	941	1337	1554	1595	1598	1598
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	35	69	171	288	450	608	737	688	517	313	155	58	35	104	275	563	1013	1621	2358	3046	3563	3876	4031	4089

(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.
Complete documentation for the 1971-2000 Normals is available on the internet from:
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">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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