

# Climatography of the United States

No. 20

1971-2000

Station: HODGENVILLE-LINCOLN NP, KY

COOP ID: 153929

Climate Division: KY 2

NWS Call Sign:

Elevation: 788 Feet

Lat: 37° 32N

Lon: 85° 44W

## 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	43.1	24.7	33.9	72	1975	29	43.1	1990	-25	1984	21	18.9	1977	964	0	.0	.0	9.5	6.1	22.7	1.6
Feb	49.5	28.3	38.9	77+	1996	23	48.4	1990	-8	1971	9	24.8	1978	731	0	.0	.0	14.5	3.2	18.5	.6
Mar	59.5	36.3	47.9	85	1981	31	55.7	1973	-3	1980	3	42.4	1996	531	0	.0	.0	24.3	.3	13.0	.1
Apr	69.1	44.0	56.6	87+	1986	28	62.2	1981	20	1983	16	51.8	1983	265	12	.0	.0	29.0	.0	4.2	.0
May	76.5	52.7	64.6	91+	1977	31	70.2	1991	29	1976	4	59.4	1997	111	99	.0	.1	31.0	.0	.1	.0
Jun	83.7	60.8	72.3	99	1988	25	75.5	1991	40	1972	1	68.3	1974	6	224	.0	3.9	30.0	.0	.0	.0
Jul	87.3	64.9	76.1	107	1983	23	79.4+	1983	47+	1972	7	73.4	1971	0	344	.4	10.4	31.0	.0	.0	.0
Aug	86.4	63.3	74.9	104	1983	21	80.9	1983	43	1986	29	70.6	1992	2	306	.2	8.2	31.0	.0	.0	.0
Sep	80.7	56.6	68.7	99	1983	11	74.6	1998	34	1967	29	64.2	1974	44	153	.0	3.4	30.0	.0	.0	.0
Oct	70.3	45.2	57.8	90	1998	1	64.1	1971	21	1981	24	50.7	1988	256	32	.0	@	30.7	.0	3.0	.0
Nov	57.8	37.0	47.4	82+	1987	2	54.6	1985	3	1976	30	38.9	1976	529	1	.0	.0	22.3	.1	10.6	.0
Dec	47.2	28.6	37.9	78	1982	4	46.4	1984	-19	1989	22	24.7	1989	841	0	.0	.0	13.4	3.6	19.5	.5
Ann	67.6	45.2	56.4	107	Jul 1983	23	80.9	Aug 1983	-25	Jan 1984	21	18.9	Jan 1977	4280	1171	.6	26.0	296.7	13.3	91.6	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/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/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

026-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: HODGENVILLE-LINCOLN NP, KY**

**COOP ID: 153929**

**Climate Division: KY 2**

**NWS Call Sign:**

**Elevation: 788 Feet Lat: 37°32N**

**Lon: 85°44W**

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	3.73	3.80	2.83	1951	14	7.70	1978	.51	1981	8.6	6.7	2.6	.9	.88	1.23	1.78	2.26	2.75	3.26	3.83	4.51	5.41	6.83	8.17
Feb	4.20	3.88	4.35	1975	23	14.18	1989	.87	1978	7.5	6.3	2.8	1.0	1.07	1.47	2.08	2.62	3.15	3.71	4.33	5.07	6.04	7.56	8.99
Mar	4.67	4.06	5.20	1997	1	13.65	1997	1.72	1971	9.5	8.2	2.6	1.1	1.60	2.04	2.69	3.23	3.75	4.29	4.87	5.55	6.43	7.78	9.03
Apr	4.34	3.85	4.65	1970	28	10.35	1983	.88	1976	8.3	7.0	3.1	.8	1.28	1.69	2.31	2.84	3.36	3.91	4.50	5.21	6.12	7.54	8.86
May	5.36	4.54	4.62	1984	7	12.39	1983	2.40	1975	9.7	8.1	3.9	1.7	2.11	2.61	3.31	3.89	4.44	5.01	5.61	6.31	7.20	8.57	9.82
Jun	4.43	4.58	3.27	2000	18	9.67	1997	1.21	1972	8.6	7.2	3.3	1.2	1.43	1.85	2.47	3.00	3.51	4.03	4.61	5.29	6.16	7.52	8.77
Jul	4.48	4.01	3.60+	1984	4	9.64	1992	.99	1991	8.4	6.7	3.0	1.3	1.23	1.66	2.30	2.86	3.42	4.00	4.64	5.39	6.38	7.93	9.37
Aug	3.78	3.26	4.68	1978	26	9.17	1982	.24	1998	6.9	5.9	2.3	1.0	.71	1.04	1.60	2.11	2.63	3.19	3.83	4.60	5.63	7.28	8.85
Sep	4.06	3.16	4.97	1979	14	11.24	1979	.57	1983	7.3	6.2	2.9	.9	.81	1.18	1.77	2.32	2.87	3.46	4.14	4.94	6.01	7.73	9.36
Oct	3.33	3.14	3.30	1995	5	7.78	1995	.44	1987	6.4	5.4	2.4	.9	.66	.96	1.45	1.90	2.35	2.84	3.39	4.06	4.94	6.36	7.70
Nov	4.43	4.01	5.72	1948	5	8.94	1988	.50	1976	8.1	7.0	3.2	1.1	1.20	1.62	2.26	2.82	3.37	3.95	4.59	5.34	6.33	7.87	9.32
Dec	4.73	4.35	4.65	1978	8	13.56	1978	.46	1989	8.0	6.7	3.1	1.3	1.10	1.54	2.23	2.85	3.47	4.12	4.86	5.73	6.88	8.70	10.42
Ann	51.54	49.09	5.72	Nov 1948	5	14.18	Feb 1989	.24	Aug 1998	97.3	81.4	35.2	13.2	38.41	41.00	44.29	46.76	48.95	51.06	53.23	55.61	58.49	62.64	66.22

+ 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

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Climate Division: KY 2

NWS Call Sign:

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Lat: 37°32N

Lon: 85°44W

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	1.3	.0	1	#	5.5	1984	18	10.1	1980	16	1978	22	6	1994	1.2	1.0	.4	@	.0	.7	.1	.0	.0
Feb	2.6	2.0	1	#	9.0	1971	8	13.0	1971	11	1978	3	7	1978	1.1	.9	.3	.1	.0	1.2	.4	.2	.0
Mar	.8	.0	#	0	5.0	1980	1	5.0	1980	5	1996	20	1	1980	.4	.3	.1	@	.0	.3	.1	.1	.0
Apr	#	.0	#	0	#	1987	5	#+	1987	1	1982	8	#+	1982	.0	.0	.0	.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	5.0	1977	27	5.0	1977	5	1977	27	#+	1997	.2	.2	@	@	.0	.2	@	@	.0
Dec	.7	.0	#	#	3.0	1993	28	4.2	1974	6	1984	7	1	1989	.6	.4	@	.0	.0	1.0	.4	.0	.0
Ann	5.8	2.0	N/A	N/A	9.0	Feb 1971	8	13.0	Feb 1971	16	Jan 1978	22	7	Feb 1978	3.5	2.8	.8	.1	.0	3.4	1.0	.3	.0

+ 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	5/20	5/14	5/09	5/05	5/02	4/28	4/24	4/19	4/13
32	5/02	4/27	4/23	4/20	4/18	4/15	4/12	4/08	4/03
28	4/18	4/14	4/11	4/08	4/06	4/03	4/01	3/29	3/24
24	4/11	4/05	4/01	3/28	3/25	3/22	3/18	3/14	3/09
20	3/30	3/24	3/19	3/15	3/12	3/08	3/04	2/27	2/21
16	3/17	3/11	3/06	3/02	2/27	2/23	2/19	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	9/26	9/30	10/03	10/06	10/09	10/11	10/14	10/17	10/21
32	10/06	10/10	10/14	10/17	10/20	10/22	10/25	10/29	11/03
28	10/13	10/19	10/23	10/26	10/29	11/01	11/05	11/09	11/14
24	10/30	11/05	11/09	11/12	11/15	11/19	11/22	11/26	12/02
20	11/06	11/12	11/17	11/21	11/24	11/28	12/02	12/06	12/13
16	11/15	11/22	11/27	12/01	12/05	12/09	12/13	12/19	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	182	174	169	164	159	155	150	145	137
32	204	197	193	188	184	181	176	171	165
28	224	218	213	209	206	202	198	193	187
24	258	250	244	239	235	230	225	219	212
20	280	272	266	261	257	253	248	242	234
16	306	297	291	286	281	276	270	264	256

\* 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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**Lat: 37°32N**

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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	964	731	531	265	111	6	0	2	44	256	529	841	4280
60	809	594	387	148	48	1	0	0	12	150	387	690	3226
57	726	517	305	95	24	0	0	0	5	101	307	604	2684
55	668	465	255	66	15	0	0	0	2	75	257	546	2349
50	527	343	153	20	3	0	0	0	0	29	155	410	1640
32	161	63	6	0	0	0	0	0	0	0	5	88	323

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	220	256	498	737	1011	1208	1367	1327	1099	799	467	271	9260
55	14	14	34	113	313	518	654	614	412	161	29	15	2891
57	11	10	22	81	260	458	592	552	354	125	19	11	2495
60	0	3	11	45	190	369	499	459	272	81	9	4	1942
65	0	0	0	12	99	224	344	306	153	32	1	0	1171
70	0	0	0	2	39	103	196	168	68	9	0	0	585

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	71	130	295	508	781	987	1144	1103	881	574	275	114	71	201	496	1004	1785	2772	3916	5019	5900	6474	6749	6863
45	34	68	190	368	626	837	989	948	731	426	178	56	34	102	292	660	1286	2123	3112	4060	4791	5217	5395	5451
50	13	31	108	247	471	687	834	793	581	288	100	27	13	44	152	399	870	1557	2391	3184	3765	4053	4153	4180
55	0	12	55	142	322	537	679	638	433	169	49	5	0	12	67	209	531	1068	1747	2385	2818	2987	3036	3041
60	0	0	23	71	197	390	524	483	296	87	13	0	0	0	23	94	291	681	1205	1688	1984	2071	2084	2084
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	41	84	188	326	502	674	790	758	579	362	160	59	41	125	313	639	1141	1815	2605	3363	3942	4304	4464	4523

(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)