

Climatology of the United States

No. 20

1971-2000

Station: MOUNT VERNON, KY

COOP ID: 155648

Climate Division: KY 4

NWS Call Sign:

Elevation: 1,160 Feet Lat: 37° 21N

Lon: 84° 20W

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	41.7	23.9	32.8	76	1999	23	41.9	1990	-24	1994	19	18.9	1977	999	0	.0	.0	9.3	6.9	23.6	1.5
Feb	47.1	26.8	37.0	79	1996	24	45.4	1976	-11	1996	4	23.6	1978	785	0	.0	.0	13.0	3.9	19.6	.7
Mar	56.7	34.7	45.7	84	1973	14	53.7	1973	-8	1960	6	38.5	1996	597	0	.0	.0	23.1	.9	14.2	@
Apr	66.3	42.9	54.6	91	1970	29	61.4	1981	17	1982	7	49.0	1997	321	9	.0	.0	27.5	.0	5.4	.0
May	74.8	52.6	63.7	91	1959	5	70.1	1991	27	1966	10	58.6	1997	128	87	.0	.0	30.9	.0	.4	.0
Jun	82.1	61.4	71.8	97+	1988	24	75.3	1984	36	1966	1	67.1	1972	9	211	.0	2.4	30.0	.0	.0	.0
Jul	85.8	65.7	75.8	102	1980	16	80.1	1980	45	1972	7	72.9	1996	0	333	.1	7.4	31.0	.0	.0	.0
Aug	85.0	63.7	74.4	102	1983	22	79.3	1980	38	1986	29	69.9	1992	5	295	.1	6.6	31.0	.0	.0	.0
Sep	79.2	56.8	68.0	97	1964	9	73.1	1998	33	1983	24	64.3	1974	51	141	.0	2.6	30.0	.0	.0	.0
Oct	68.4	44.3	56.4	89	1959	5	63.2	1984	19+	1976	28	49.7	1988	292	25	.0	.0	30.2	.0	4.9	.0
Nov	56.6	36.6	46.6	82	1987	3	54.6	1985	6	1976	30	38.6	1976	553	1	.0	.0	21.1	.3	12.6	.0
Dec	46.2	28.4	37.3	78	1982	3	46.6	1971	-16+	1989	23	25.2	1989	859	0	.0	.0	13.5	4.0	20.6	.4
Ann	65.8	44.8	55.3	102+	Aug 1983	22	80.1	Jul 1980	-24	Jan 1994	19	18.9	Jan 1977	4599	1102	.2	19.0	290.6	16.0	101.3	2.6

+ 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: 1956-2001

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

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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 VERNON, KY

COOP ID: 155648

Climate Division: KY 4

NWS Call Sign:

Elevation: 1,160 Feet Lat: 37°21N

Lon: 84°20W

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	4.32	3.89	5.18	1974	10	12.21	1974	1.00	1981	12.2	8.1	2.7	1.0	1.21	1.62	2.24	2.78	3.31	3.86	4.48	5.20	6.14	7.62	9.00
Feb	3.84	3.62	2.33	1989	21	9.49	1989	.95	1978	10.7	7.2	2.7	.8	1.27	1.64	2.17	2.62	3.06	3.51	4.01	4.58	5.32	6.48	7.54
Mar	5.05	4.05	3.64	1975	12	13.19	1975	1.91	1971	13.1	9.2	3.8	1.0	1.87	2.34	3.02	3.59	4.13	4.68	5.28	5.97	6.86	8.23	9.48
Apr	4.18	3.93	3.00	1970	28	8.90	1972	1.47	1997	11.9	8.4	2.8	.9	1.59	1.98	2.53	3.00	3.44	3.89	4.38	4.94	5.66	6.77	7.78
May	5.56	5.22	3.07	1982	19	11.28	1983	1.91	1987	12.4	9.4	3.9	1.4	2.35	2.85	3.56	4.14	4.69	5.24	5.83	6.51	7.37	8.68	9.87
Jun	4.77	4.49	3.32	1960	23	9.76	1998	1.43	1988	11.1	8.3	3.5	1.3	1.71	2.16	2.81	3.35	3.87	4.41	4.98	5.66	6.52	7.84	9.06
Jul	4.64	4.07	3.35	1996	15	8.77	1971	1.19	1975	9.8	7.5	3.3	1.4	1.74	2.17	2.79	3.31	3.81	4.31	4.85	5.49	6.29	7.54	8.67
Aug	3.94	3.71	3.04	1975	4	8.03	1974	1.14	1998	8.7	6.6	2.5	1.2	1.24	1.62	2.17	2.64	3.10	3.58	4.10	4.71	5.50	6.73	7.87
Sep	3.79	3.46	3.19	1982	14	8.77	1975	.82	1985	8.4	6.0	2.4	1.1	.99	1.34	1.89	2.38	2.86	3.36	3.92	4.58	5.44	6.81	8.08
Oct	3.30	3.00	3.40	1989	17	7.37	1984	.34	1987	8.4	6.3	2.3	.8	.89	1.20	1.68	2.10	2.51	2.94	3.41	3.98	4.72	5.87	6.95
Nov	4.22	4.21	2.93	1988	20	8.68	1986	1.13	1976	11.1	7.9	3.1	.9	1.57	1.96	2.53	3.00	3.45	3.91	4.41	4.99	5.73	6.87	7.91
Dec	4.82	4.10	4.66	1978	8	14.56	1990	1.44	1995	12.5	8.4	3.1	1.4	1.45	1.91	2.59	3.18	3.76	4.35	5.01	5.78	6.78	8.34	9.78
Ann	52.43	53.52	5.18	Jan 1974	10	14.56	Dec 1990	.34	Oct 1987	130.3	93.3	36.1	13.2	38.89	41.55	44.95	47.50	49.76	51.94	54.18	56.65	59.63	63.93	67.64

+ 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: 1956-2001

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

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Station: MOUNT VERNON, KY

COOP ID: 155648

Climate Division: KY 4

NWS Call Sign:

Elevation: 1,160 Feet

Lat: 37°21N

Lon: 84°20W

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	6.5	3.0	1	#	10.5	1996	7	29.8	1978	19	1996	8	5	1978	3.3	2.3	.7	.2	@	4.8	2.2	1.2	.3
Feb	5.9	3.3	1	#	10.0	1979	7	22.5	1979	15	1998	6	4	1985	2.6	2.0	.5	.3	@	4.5	2.4	1.5	.3
Mar	1.5	.9	#	#	4.0	1980	1	7.0	1996	10	1993	14	1	1996	1.0	.6	.2	.0	.0	.9	.3	.0	.0
Apr	.2	.0	#	0	5.0	1987	5	5.0	1987	5	1987	5	#+	1997	.1	.1	@	@	.0	@	@	@	.0
May	#	.0	#	0	#	1989	7	#	1989	#	1989	7	#	1989	.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	1.0	1993	31	1.0	1993	1	1993	31	#	1993	@	@	.0	.0	.0	@	.0	.0	.0
Nov	.5	.0	#	0	3.0	1977	27	3.0	1977	3	1977	27	#+	2000	.2	.2	@	.0	.0	.2	@	.0	.0
Dec	1.9	1.2	#	#	4.0	2000	3	10.0	1989	4	2000	3	1+	2000	1.6	1.0	@	.0	.0	1.9	.1	.0	.0
Ann	16.5	8.4	N/A	N/A	10.5	Jan 1996	7	29.8	Jan 1978	19	Jan 1996	8	5	Jan 1978	8.8	6.2	1.4	.5	@	12.3	5.0	2.7	.6

+ 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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Climate Division: KY 4

NWS Call Sign:

Elevation: 1,160 Feet

Lat: 37°21N

Lon: 84°20W

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	5/19	5/13	5/10	5/06	5/03	4/30	4/27	4/23	4/18
32	5/10	5/04	4/30	4/27	4/24	4/21	4/17	4/13	4/08
28	4/21	4/17	4/13	4/11	4/08	4/05	4/03	3/30	3/26
24	4/13	4/07	4/04	3/31	3/28	3/25	3/22	3/18	3/13
20	3/31	3/25	3/20	3/15	3/12	3/08	3/03	2/27	2/20
16	3/16	3/10	3/05	3/01	2/26	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	9/26	9/29	10/02	10/04	10/07	10/09	10/11	10/14	10/18
32	10/03	10/07	10/09	10/12	10/14	10/16	10/18	10/21	10/25
28	10/13	10/18	10/22	10/26	10/29	11/01	11/05	11/09	11/14
24	10/26	11/01	11/06	11/10	11/13	11/17	11/21	11/25	12/02
20	11/02	11/09	11/13	11/17	11/21	11/25	11/28	12/03	12/09
16	11/17	11/24	11/28	12/03	12/06	12/10	12/14	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	176	169	164	160	156	152	147	143	136
32	190	184	179	176	172	169	165	161	155
28	226	218	212	208	203	199	194	188	180
24	253	245	239	234	229	225	220	214	206
20	277	269	263	258	254	249	244	238	230
16	308	299	293	288	283	278	273	267	258

* 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	999	785	597	321	128	9	0	5	51	292	553	859	4599
60	844	645	450	196	59	1	0	0	16	179	411	707	3508
57	755	562	366	136	32	0	0	0	6	125	330	621	2933
55	699	512	313	102	20	0	0	0	3	95	279	563	2586
50	555	382	199	41	5	0	0	0	0	41	174	426	1823
32	169	71	11	0	0	0	0	0	0	0	8	96	355

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	193	210	437	678	982	1192	1356	1313	1080	755	446	261	8903
55	10	7	25	90	290	502	643	600	393	138	27	15	2740
57	4	1	17	63	240	442	581	538	337	105	18	11	2357
60	0	0	8	34	173	353	488	445	256	66	9	3	1835
65	0	0	0	9	87	211	333	295	141	25	1	0	1102
70	0	0	0	1	33	95	185	161	62	6	0	0	543

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	69	109	264	466	746	957	1108	1068	843	520	256	108	69	178	442	908	1654	2611	3719	4787	5630	6150	6406	6514
45	31	61	170	332	592	807	953	913	693	376	165	58	31	92	262	594	1186	1993	2946	3859	4552	4928	5093	5151
50	16	27	95	216	440	657	798	758	543	246	93	26	16	43	138	354	794	1451	2249	3007	3550	3796	3889	3915
55	0	8	50	129	298	507	643	603	398	143	43	9	0	8	58	187	485	992	1635	2238	2636	2779	2822	2831
60	0	0	22	65	177	360	488	448	268	65	12	1	0	0	22	87	264	624	1112	1560	1828	1893	1905	1906
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	40	74	170	298	479	652	770	731	555	336	155	64	40	114	284	582	1061	1713	2483	3214	3769	4105	4260	4324

(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