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

COOP ID: 150450

Station: BAXTER, KY

Climate Division: KY 4

NWS Call Sign:

Elevation: 1,164 Feet Lat: 36°51N Lon: 83°20W

									ŗ	Гетр	eratu	re (°F)									
	Mea	n (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	Days (3)	
Month	Daily Max Min Mean Highest Daily(2) Year Day Highest Month(1) Mean 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	44.0	23.8	33.9	74	1999	23	46.1	1974	-19	1985	21	19.2	1977	964	0	.0	.0	10.5	4.9	24.0	1.4
Feb	48.6	26.2	37.4	79	1977	27	44.2	1990	-14	1966	1	26.4	1978	772	0	.0	.0	14.0	3.3	20.1	.6
Mar	58.2	33.1	45.7	84	1973	15	53.2	1973	-4	1980	4	39.9	1996	601	0	.0	.0	23.6	.5	16.5	.1
Apr	67.9	40.3	54.1	90	1976	20	59.0	1981	19	1969	1	48.6	1997	331	4	.0	@	28.0	.1	6.5	.0
May	75.6	50.2	62.9	92+	1970	22	68.3	1991	25+	1977	11	57.2	1997	140	75	.0	.1	30.9	.0	.4	.0
Jun	82.4	59.3	70.9	96+	1988	27	74.6	1981	34	1966	1	66.8	1992	12	188	.0	2.6	30.0	.0	.0	.0
Jul	85.9	64.1	75.0	100	1952	28	78.5	1977	46	1988	2	71.7	1976	0	310	.0	7.6	31.0	.0	.0	.0
Aug	84.9	62.8	73.9	101	1983	22	78.2	1983	42+	1987	31	68.9	1992	3	277	.1	5.7	31.0	.0	.0	.0
Sep	78.8	56.2	67.5	99	1954	6	72.3	1973	36+	1989	24	63.5	1976	50	126	.0	1.1	30.0	.0	.0	.0
Oct	68.5	43.3	55.9	92	1953	1	63.9	1971	18	1962	27	48.8	1988	307	25	.0	.0	30.5	.0	3.9	.0
Nov	57.9	33.9	45.9	81	1987	2	54.1	1985	4	1976	30	36.8	1976	574	0	.0	.0	22.4	.2	14.8	.0
Dec	48.0	27.2	37.6	78	1982	4	46.7	1971	-10+	1962	14	26.6	1989	850	0	.0	.0	14.6	2.8	21.7	.6
Ann	66.7	43.4	55.1	101	Aug 1983	22	78.5	Jul 1977	-19	Jan 1985	21	19.2	Jan 1977	4604	1005	.1	17.1	296.5	11.8	107.9	2.7

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 006-A

- (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

[@] Denotes mean number of days greater than 0 but less than .05

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Climate Division: KY 4 NWS Call Sign: Elevation: 1,164 Feet Lat: 36°51N Lon: 83°20W

										Pı	ecipi	tation	(incl	nes)										
	Mea	ans/	P	recipi	itatio	n Total						ays (3)	Proba	bility th		nonthly/	annual j	precipita ated am	ount	ies (1)		less tha	n the
	Medi	ans(1)				Extremes	8			D	aily Pre	cipitatio	n		Th	ese value	s were det	ermined	from the i	incomplet	te gamma	distributi	on	ļ
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	4.48	4.03	2.87	1954	16	10.35	1972	1.03	1981	12.1	8.6	3.1	1.0	1.43	1.86	2.49	3.03	3.54	4.08	4.67	5.36	6.25	7.63	8.91
Feb	4.00	3.82	2.44	1951	1	9.54	1994	1.13	1978	11.1	8.0	2.8	1.1	1.56	1.93	2.46	2.90	3.31	3.73	4.19	4.71	5.38	6.41	7.34
Mar	4.88	4.20	4.20	1963	12	12.32	1975	1.54	1988	12.1	9.6	3.3	1.1	1.70	2.16	2.83	3.40	3.94	4.49	5.10	5.81	6.71	8.11	9.39
Apr	4.18	3.76	3.82	1977	5	11.04	1998	.98	1976	10.9	8.1	3.0	.9	1.43	1.82	2.40	2.89	3.35	3.83	4.36	4.97	5.76	6.98	8.10
May	5.28	4.82	3.00	1963	16	10.22	1984	1.42	1977	11.6	9.2	3.9	1.5	2.21	2.69	3.37	3.92	4.44	4.96	5.53	6.18	7.01	8.26	9.40
Jun	4.51	4.28	3.18	1970	4	10.22	1989	.87	1988	10.6	8.1	3.1	1.3	1.63	2.05	2.66	3.18	3.67	4.17	4.72	5.35	6.16	7.41	8.56
Jul	4.62	4.55	3.26	1977	26	8.92	1979	1.61	1975	10.6	8.7	3.3	.9	2.03	2.44	3.01	3.48	3.92	4.37	4.84	5.39	6.07	7.12	8.06
Aug	4.36	4.55	3.53	1956	20	8.13	1978	1.19	1984	9.9	7.5	3.0	1.4	1.80	2.19	2.76	3.22	3.66	4.10	4.57	5.12	5.82	6.88	7.84
Sep	3.22	3.18	3.20	1960	11	6.32	1989	.37	1978	8.5	6.2	2.3	.8	.76	1.06	1.53	1.95	2.37	2.81	3.30	3.90	4.67	5.90	7.06
Oct	3.18	2.79	5.03	1977	2	9.22	1977	.62	2000	8.0	6.1	2.2	.8	.90	1.20	1.65	2.05	2.44	2.85	3.30	3.83	4.52	5.60	6.61
Nov	4.12	3.69	3.47	1973	28	8.60	1973	1.29	1976	10.4	7.8	2.7	1.0	1.36	1.75	2.33	2.81	3.28	3.77	4.30	4.91	5.71	6.94	8.08
Dec	4.35	3.53	2.84	1993	5	10.96	1991	1.46	1985	11.5	8.2	2.9	1.0	1.39	1.80	2.41	2.93	3.44	3.96	4.53	5.20	6.06	7.40	8.64
Ann	51.18	51.49	5.03	Oct 1977	2	12.32	Mar 1975	.37	Sep 1978	127.3	96.1	35.6	12.8	38.28	40.83	44.06	46.50	48.65	50.72	52.85	55.19	58.02	62.09	65.60

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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

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Climate Division: KY 4 NWS Call Sign:

Elevation: 1,164 Feet Lat: 36°51N Lon: 83°20W

										Snov	v (incl	nes)											
						Sno	ow To	tals									Mea	ın Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ans (1))					Extre	mes (2)							ow Fa					Depth esholo	
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	4.7	4.0	1	#	9.0	1994	18	12.9	1979	9	1994	18	9	1994	2.0	1.6	.4	.1	.0	1.9	.8	.1	.0
Feb	4.8	4.0	#	#	12.0	1986	15	17.0	1985	8	1979	19	3	1979	1.5	1.3	.4	.1	.1	1.8	1.1	.3	.0
Mar	1.6	.0	#	#	10.0	1993	14	16.0	1993	16	1993	14	2	1993	.6	.4	.2	.1	@	.4	.2	@	.0
Apr	.7	.0	#	0	10.0	1987	4	18.0	1987	2	1987	3	#+	2000	.3	.2	.1	@	@	.1	.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	#	1980	26	#	1980	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.4	.0	#	0	7.0	1977	28	8.0	1977	7	1977	28	#+	1998	.3	.1	@	@	.0	.1	@	@	.0
Dec	1.0	.6	#	#	3.0	1982	12	5.0	1985	4+	1997	31	1+	2000	.6	.3	.1	.0	.0	.4	.1	.0	.0
Ann	13.2	8.6	N/A	N/A	12.0	Feb 1986	15	18.0	Apr 1987	16	Mar 1993	14	9	Jan 1994	5.3	3.9	1.2	.3	.1	4.7	2.2	.4	.0

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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[@] 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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COOP ID: 150450

Lon: 83°20W

Lat: 36°51N

Station: BAXTER, KY Climate Division: KY 4

NWS Call Sign:

ign: Elevation: 1,164 Feet

				Freez	ze Data								
			Spri	ng Freeze D	ates (Month/	(Day)							
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 5/09 5/05 5/02 4/28 4/24 4/20 4/14 32 5/06 5/01 4/27 4/24 4/21 4/19 4/16 4/12 4/07 28 4/23 4/18 4/14 4/11 4/07 4/04 4/01 3/28 3/22 24 4/10 4/03 3/29 3/24 3/20 3/16 3/12 3/06 2/27 20 3/25 3/18 3/14 3/09 3/06 3/02 2/26 2/21 2/15 16 3/13 3/05 2/28 2/24 2/20 2/16 2/11 2/06 1/30 Temp (F)													
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	5/19	5/13	5/09	5/05	5/02	4/28	4/24	4/20	4/14				
32	5/06	5/01	4/27	4/24	4/21	4/19	4/16	4/12	4/07				
28	4/23	4/18	4/14	4/11	4/07	4/04	4/01	3/28	3/22				
24	4/10	4/03	3/29	3/24	3/20	3/16	3/12	3/06	2/27				
20	3/25	3/18	3/14	3/09	3/06	3/02	2/26	2/21	2/15				
16	3/13	3/05	2/28	2/24	2/20	2/16	2/11	2/06	1/30				
		1	Fal	l Freeze Da	tes (Month/D	ay)		1	11				
T (E)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	ed(*)					
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	10/01	10/06	10/09	10/12	10/15	10/18	10/21	10/24	10/29				
32	10/09	10/14	10/17	10/20	10/23	10/25	10/28	11/01	11/05				
28	10/23	10/28	10/31	11/03	11/06	11/09	11/12	11/15	11/20				
24	10/27	11/03	11/07	11/11	11/15	11/19	11/22	11/27	12/03				
20	11/09	11/16	11/21	11/25	11/29	12/03	12/08	12/13	12/19				
16	11/24	12/02	12/08	12/13	12/18	12/22	12/27	1/02	1/10				
				Freeze F	ree Period				I				
Town (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)						
remb (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	187	179	174	170	165	161	157	151	144				
32	203	197	192	188	184	180	176	171	164				
28	234	226	221	216	212	208	203	198	190				
24	265	256	250	244	239	234	228	221	212				
20	290	283	277	272	268	263	259	253	245				
16	330	318	310	304	298	292	286	279	269				

^{*} 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.

Complete documentation available from:

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Climate Division: KY 4 NWS Call Sign: Elevation: 1,164 Feet Lat: 36°51N Lon: 83°20W

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	964	772	601	331	140	12	0	3	50	307	574	850	4604
60	809	632	450	199	65	2	0	0	15	193	429	695	3489
57	726	548	364	133	36	0	0	0	6	138	348	610	2909
55	667	495	309	97	22	0	0	0	3	107	296	551	2547
50	526	366	191	35	6	0	0	0	0	50	183	410	1767
32	158	56	8	0	0	0	0	0	0	0	7	79	308

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	218	209	430	663	958	1166	1333	1298	1066	742	423	252	8758
55	14	3	19	71	267	476	620	585	379	136	22	10	2602
57	10	0	11	47	218	416	558	523	322	105	14	7	2231
60	0	0	4	22	155	327	465	430	240	66	5	0	1714
65	0	0	0	4	75	188	310	277	126	25	0	0	1005
70	0	0	0	0	26	78	163	142	48	7	0	0	464

										Gro	wing 1	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (N	(Ionthly)								Growi	ng Degre	e Units (Accumu	lated Mo	onthly)			
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov D													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	64	95	233	437	717	931	1091	1052	829	504	232	103	64	159	392	829	1546	2477	3568	4620	5449	5953	6185	6288
45	27	46	137	304	563	781	936	897	679	356	138	50	27	73	210	514	1077	1858	2794	3691	4370	4726	4864	4914
50												23	5	22	88	275	687	1318	2099	2841	3370	3594	3663	3686
55	0	1	31	101	266	481	626	587	384	119	26	3	0	1	32	133	399	880	1506	2093	2477	2596	2622	2625
60	0	0	3	40	149	336	471	432	247	51	5	0	0	0	3	43	192	528	999	1431	1678	1729	1734	1734
Base	Base Growing Degree Units for Corn (Monthly)													•	Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)	•	
50/86	37	72	162	291	459	624	749	723	539	50/86 37 72 162 291 459 624 749 723 539 315 151 6												3971	4122	4182

(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

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

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

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