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: 152791

Station: FARMERS 2 S, KY

Climate Division: KY 4

NWS Call Sign:

Elevation: 680 Feet Lat: 38°07N Lon: 83°33W

									r	Гетр	eratui	re (°F)									
	Mea	n (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	Days (3)	
Month	Daily Max	Daily Min	Mean	n " Vear Day Month(1) Vear		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	41.4	22.0	31.7	80	1943	24	41.1	1998	-28	1963	28	16.6	1977	1033	0	.0	.0	8.1	7.6	25.0	2.0
Feb	46.7	24.2	35.5	81	1932	10	42.8	1976	-19	1934	27	20.3	1978	829	0	.0	.0	11.8	4.6	20.8	1.3
Mar	56.9	31.9	44.4	89	1998	31	52.1	1973	-9	1960	6	37.8	1978	639	0	.0	.0	21.8	.8	16.9	.1
Apr	67.4	40.3	53.9	93	1942	30	60.0	1981	16	1964	1	49.2	1997	343	8	.0	.2	27.8	@	6.9	.0
May	76.3	49.9	63.1	95+	1996	20	69.8	1991	25	1966	10	58.2	1989	144	85	.0	.8	30.9	.0	.8	.0
Jun	84.0	58.8	71.4	104	1936	29	75.3	1994	35	1966	1	67.2	1972	16	207	.1	5.7	30.0	.0	.0	.0
Jul	87.8	63.3	75.6	105+	1999	31	80.9	1999	43+	1947	24	72.2	1979	0	328	.4	10.8	31.0	.0	.0	.0
Aug	86.7	61.7	74.2	106	1936	19	80.2	1995	35	1986	30	69.3	1992	6	290	.2	9.6	31.0	.0	.0	.0
Sep	80.4	54.5	67.5	103	1932	1	72.7	1998	29+	1942	29	63.1	1974	48	121	.0	3.3	30.0	.0	.1	.0
Oct	69.3	42.4	55.9	94	1953	1	62.3+	1984	13	1962	27	48.5	1988	309	25	.0	@	30.2	.0	5.2	.0
Nov	57.4	34.5	46.0	85	1948	5	53.1	1985	0	1950	25	38.5	1976	573	0	.0	.0	20.7	.2	13.3	.0
Dec	46.5	26.6	36.6	79	1982	4	45.1	1971	-24+	1989	24	21.2	1989	881	0	.0	.0	12.4	4.0	21.6	.5
Ann	66.7	42.5	54.7	106	Aug 1936	19	80.9	Jul 1999	-28	Jan 1963	28	16.6	Jan 1977	4821	1064	.7	30.4	285.7	17.2	110.6	3.9

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 017-A

- (1) From the 1971-2000 Monthly Normals
- (2) Derived from station's available digital record: 1932-2001
- (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: 680 Feet Lat: 38°07N Lon: 83°33W

										Pı	recipi	tation	(incl	hes)										
	Me	ans/	P	recip	itatio	on Total						ays (3	3)	Proba	ability th		nonthly/	annual j	precipita ated an	babilit ation will nount vs Probal	ll be equ		less tha	an the
	Medi	ans(1)				Extremes	3			ь	aily Pre	сіріtатіо	n		Th	ese value	s were de	termined	from the	incomplet	e gamma	distributi	ion	
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	3.40	3.02	2.95	1945	1	6.77	1995	.62	1981	13.2	7.5	2.3	.6	1.00	1.33	1.81	2.23	2.64	3.06	3.53	4.08	4.79	5.91	6.94
Feb	3.27	3.15	2.73	1989	14	9.71	1989	.62	1977	11.9	6.4	2.2	.7	1.12	1.43	1.88	2.26	2.63	3.01	3.42	3.90	4.51	5.46	6.33
Mar	4.07	3.59	3.11	1997	2	11.12	1997	1.09	1983	12.8	8.4	2.7	.9	1.30	1.69	2.26	2.75	3.22	3.71	4.24	4.87	5.67	6.93	8.09
Apr	3.91	3.91	2.95	1972	22	8.74	1972	1.25	1985	12.4	8.2	2.6	.7	1.52	1.88	2.39	2.82	3.23	3.64	4.09	4.61	5.27	6.28	7.20
May	4.86	4.49	3.60	1996	6	12.49	1996	2.12	1977	12.8	8.9	3.5	1.1	1.83	2.29	2.94	3.48	3.99	4.52	5.09	5.75	6.59	7.89	9.07
Jun	4.55	4.39	3.25	2000	18	8.40	1998	.81	1988	11.4	8.1	3.3	1.0	1.56	1.99	2.62	3.15	3.66	4.18	4.75	5.42	6.28	7.60	8.82
Jul	5.60	5.48	3.80	1965	23	10.74	2000	1.90	1999	10.8	8.4	4.1	1.8	2.44	2.94	3.65	4.22	4.75	5.29	5.87	6.53	7.37	8.64	9.79
Aug	3.78	3.60	4.18	1972	4	9.02	1974	1.13	1971	8.6	6.2	2.7	1.0	1.10	1.46	2.00	2.47	2.93	3.40	3.92	4.54	5.34	6.59	7.76
Sep	3.23	2.95	2.99	1996	17	7.61	1975	.19	1998	8.6	5.2	2.0	1.0	.72	1.01	1.49	1.91	2.34	2.80	3.31	3.92	4.73	6.01	7.22
Oct	3.16	2.71	3.89	1977	2	7.30	1984	.54	1992	9.5	6.1	2.2	.8	.94	1.24	1.69	2.08	2.46	2.85	3.28	3.80	4.46	5.49	6.45
Nov	3.47	3.23	3.36	1988	20	8.03	1988	.50+	1981	11.1	7.1	2.2	.7	.87	1.20	1.70	2.15	2.59	3.06	3.58	4.19	5.00	6.27	7.46
Dec	4.03	3.46	3.87	1978	9	11.41	1978	1.53	1985	13.4	7.6	2.5	.8	1.37	1.75	2.31	2.78	3.23	3.70	4.21	4.80	5.56	6.74	7.83
Ann	47.33	47.04	4.18	Aug 1972	4	12.49	May 1996	.19	Sep 1998	136.5	88.1	32.3	11.1	35.39	37.75	40.74	43.00	44.99	46.91	48.88	51.05	53.67	57.45	60.70

⁺ 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: 1932-2001

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

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Station: FARMERS 2 S, KY

Climate Division: KY 4 NWS Call Sign: Elevation: 680 Feet Lat: 38°07N Lon: 83°33W

			Snow Fall Snow Depth Median Median Snow Fall Snow Depth Snow Dep																				
		Snow Fall Median Snow Depth Median Med															Mea	n Nui	mber	of Day	VS (1)		
	Mean	s/Medi	ians (1)	ı					Extre	mes (2)							ow Fa				Snow : = Thre	_	
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	3.9	2.0	1	#	7.0	1980	31	16.0	1980	12	1996	8	5	1977	2.0	1.0	.3	.1	.0	2.7	.5	.1	.0
Feb	2.1	1.5	1	#	6.0	1971	9	8.5	1971	12	1998	6	5	1985	1.5	.5	.1	.1	.0	1.0	.3	.2	.0
Mar	.7	.0	#	#	6.0	1980	2	6.0	1980	10	1993	14	1	1993	.4	.3	.2	.1	.0	.4	.3	.1	@
Apr	#	.0	#	0	#	1974	9	#+	1974	#+	1974	9	#+	1974	.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	1	1993	31	#	1993	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.1	.0	#	0	2.0	1976	29	2.0	1976	2	1976	29	#+	1997	.1	@	.0	.0	.0	@	.0	.0	.0
Dec	1.0	.0	#	#	3.5	1992	1	3.6	1997	5	1989	27	2	1989	1.7	.8	.1	.0	.0	.8	.1	.0	.0
Ann	7.8	3.5	N/A	N/A	7.0	Jan 1980	31	16.0	Jan 1980	12+	Feb 1998	6	5+	Feb 1985	5.7	2.6	.7	.3	.0	4.9	1.2	.4	@

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

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

[@] 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: 152791

Lon: 83°33W

Lat: 38°07N

Station: FARMERS 2 S, KY

Climate Division: KY 4 NWS Call Sign:

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	Day)			
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated((*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/20	5/15	5/12	5/09	5/06	5/04	5/01	4/27	4/22
32	5/10	5/05	5/01	4/27	4/24	4/21	4/17	4/13	4/08
28	4/28	4/23	4/19	4/16	4/13	4/10	4/07	4/03	3/29
24	4/16	4/10	4/06	4/02	3/30	3/26	3/23	3/18	3/12
20	4/08	3/31	3/25	3/21	3/16	3/12	3/07	3/02	2/22
16	3/19	3/13	3/08	3/03	2/27	2/24	2/19	2/14	2/08
•			Fal	l Freeze Da	tes (Month/D	ay)		•	1
Toman (E)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/19	9/24	9/28	10/01	10/04	10/07	10/10	10/14	10/19
32	9/30	10/06	10/09	10/13	10/16	10/19	10/22	10/25	10/31
28	10/08	10/15	10/20	10/24	10/28	11/01	11/05	11/10	11/17
24	10/20	10/27	11/01	11/05	11/09	11/13	11/18	11/23	11/30
20	11/01	11/08	11/13	11/18	11/22	11/26	12/01	12/06	12/14
16	11/09	11/19	11/27	12/03	12/09	12/15	12/21	12/29	1/08
<u>.</u>				Freeze F	ree Period				
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	1	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	171	164	158	154	150	146	141	136	129
32	199	191	184	179	174	169	163	157	148
28	221	213	207	202	197	192	187	181	173
24	251	242	235	229	224	219	213	206	197
20	278	268	261	255	250	245	239	232	222
16	312	300	293	286	281	275	269	262	252

^{*} 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.

Elevation: 680 Feet

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				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	1033	829	639	343	144	16	0	6	48	309	573	881	4821
60	878	689	492	216	70	3	0	0	13	195	427	731	3714
57	790	611	406	153	40	1	0	0	5	140	345	645	3136
55	733	559	352	117	26	0	0	0	3	109	292	587	2778
50	589	431	234	51	8	0	0	0	0	51	180	449	1993
32	194	109	21	0	0	0	0	0	0	0	7	113	444

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	184	204	405	655	964	1181	1351	1307	1063	740	424	254	8732
55	10	10	24	82	278	491	638	594	376	136	20	15	2674
57	5	7	16	58	230	432	576	532	318	105	12	11	2302
60	0	0	9	31	167	344	483	439	236	66	4	5	1784
65	0	0	0	8	85	207	328	290	121	25	0	0	1064
70	0	0	0	1	33	98	182	158	45	7	0	0	524

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	Ionthly)								Growi	ng Degre	ee Units (Accumu	lated Mo	onthly)			
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov De													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	56	91	225	435	723	945	1105	1065	828	503	236	99	56	147	372	807	1530	2475	3580	4645	5473	5976	6212	6311
45												50	26	72	210	514	1082	1877	2827	3737	4415	4774	4923	4973
50												24	7	24	96	290	708	1353	2148	2903	3431	3665	3748	3772
55	1	3	37	111	276	495	640	600	383	132	40	8	1	4	41	152	428	923	1563	2163	2546	2678	2718	2726
60	0	0	14	53	164	351	485	445	251	62	11	0	0	0	14	67	231	582	1067	1512	1763	1825	1836	1836
Base	se Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)			
50/86	50/86 39 66 163 287 466 629 751 717 544 327 151 59											59	39	105	268	555	1021	1650	2401	3118	3662	3989	4140	4199

(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