U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: ROCHESTER FERRY, KY **COOP ID: 156882**

Climate Division: KY 1 **NWS Call Sign:** **Elevation: 410 Feet** **Lat: 37˚13N** **Lon: 86˚54W**

Temperature (˚F)

Month	Mean (1) Daily Max	Mean (1) Daily Min	Mean (1) Mean	Extremes Highest Daily(2)	Extremes Year	Extremes Day	Extremes Highest Month(1) Mean	Extremes Year	Extremes Lowest Daily(2)	Extremes Year	Extremes Day	Extremes Lowest Month(1) Mean	Extremes Year	Degree Days (1) Base Temp 65 Heating	Degree Days (1) Base Temp 65 Cooling	Mean Number of Days (3) Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	42.1	25.4	33.8	74	1972	25	43.1	1990	-16	1985	21	18.0	1977	969	0	.0	.0	8.7	6.7	25.2	1.4
Feb	47.8	27.8	37.8	80	1996	24	46.8	1990	-10	1979	8	23.7	1978	762	0	.0	.0	12.6	3.8	20.0	.6
Mar	57.9	36.1	47.0	86	1998	30	52.7	1973	2	1980	3	40.5	1996	559	1	.0	.0	23.2	.4	13.7	.0
Apr	68.4	44.4	56.4	92	1989	28	61.6	1985	20	1987	5	51.1	1997	272	15	.0	.2	28.4	.0	3.9	.0
May	77.1	54.0	65.6	94+	1996	25	72.0	1987	31	1976	4	60.8	1976	98	114	.0	.9	31.0	.0	@	.0
Jun	84.9	63.6	74.3	101+	1988	26	77.1	1984	39	1966	1	69.7	1974	4	281	.1	7.3	30.0	.0	.0	.0
Jul	88.8	68.3	78.6	104	1988	9	82.4	1986	47	1988	2	75.4+	1976	0	419	.5	15.3	31.0	.0	.0	.0
Aug	87.4	66.6	77.0	101+	1988	18	82.2	1995	41	1986	30	72.9	1976	1	373	.2	11.4	31.0	.0	.0	.0
Sep	81.1	59.3	70.2	99	1990	7	75.5	1998	33+	1991	28	64.9	1974	30	185	.0	4.4	30.0	.0	.0	.0
Oct	70.0	47.1	58.6	91	1998	1	65.0	1971	22+	1987	23	52.6	1976	238	38	.0	@	30.5	.0	4.0	.0
Nov	57.9	38.5	48.2	82+	1987	3	55.5	1985	6	1976	30	38.9	1976	507	3	.0	.0	22.1	.2	12.6	.0
Dec	46.9	30.2	38.6	74	1998	7	47.2	1971	-15+	1989	23	25.3	1989	820	0	.0	.0	12.9	3.0	21.5	.4
Ann	67.5	46.8	57.2	104	Jul 1988	9	82.4	Jul 1986	-16	Jan 1985	21	18.0	Jan 1977	4260	1429	.8	39.5	291.4	14.1	100.9	2.4

\+ 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

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1954-2001

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

Issue Date: February 2004

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	3.49	3.31	3.17	1966	2	6.91	1982	.80	1986
Feb	3.88	3.54	5.30	1989	14	9.21	1990	1.15	1980
Mar	4.41	3.92	3.00	1997	1	10.72	1997	1.40	1995
Apr	4.16	3.62	3.61	1979	2	11.08	1979	.69	1976
May	4.84	4.03	3.65	1984	7	11.99	1984	1.65	1975
Jun	3.83	3.42	7.83	1969	23	11.86	1998	.67	1984
Jul	4.15	3.75	4.00	1991	9	8.04	1996	1.04	1999
Aug	3.27	3.36	5.35	1963	29	5.97	1989	.00	1999
Sep	3.68	3.35	6.81	1979	14	12.83	1979	.02	1998
Oct	3.21	3.34	2.30+	2001	14	6.72	1991	.60	2000
Nov	4.51	3.85	4.00	1988	20	9.84	1973	.81	1976
Dec	4.64	4.47	3.56	1978	8	14.11	1978	.56	1976
Ann	48.07	48.03	7.83	Jun 1969	23	14.11	Dec 1978	.00	Aug 1999

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	9.9	6.4	2.3	.9
Feb	9.4	6.4	2.6	1.0
Mar	10.9	7.4	3.0	1.2
Apr	10.3	7.2	3.2	1.0
May	10.4	8.0	3.4	1.3
Jun	9.3	6.8	2.4	1.1
Jul	8.9	6.4	3.0	1.4
Aug	7.1	5.0	2.4	1.0
Sep	6.8	5.0	2.1	1.0
Oct	7.6	5.6	2.3	.8
Nov	9.6	7.2	3.1	1.2
Dec	10.2	6.8	3.0	1.4
Ann	110.4	78.2	32.8	13.3

Precipitation Probabilities (1)

Probability that the monthly/annual precipitation will be equal to or less than the indicated amount

Monthly/Annual Precipitation vs Probability Levels
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	1.01	1.34	1.84	2.28	2.70	3.14	3.62	4.20	4.94	6.10	7.18
Feb	1.34	1.71	2.24	2.69	3.13	3.57	4.06	4.62	5.35	6.47	7.50
Mar	1.53	1.95	2.56	3.07	3.55	4.05	4.60	5.24	6.06	7.32	8.48
Apr	1.12	1.52	2.12	2.65	3.16	3.71	4.31	5.02	5.95	7.40	8.77
May	1.89	2.34	2.98	3.51	4.01	4.52	5.07	5.71	6.52	7.77	8.90
Jun	.96	1.32	1.88	2.37	2.86	3.37	3.95	4.63	5.52	6.92	8.24
Jul	1.44	1.83	2.40	2.88	3.34	3.82	4.34	4.94	5.71	6.90	8.00
Aug	1.16	1.62	2.11	2.48	2.81	3.15	3.50	3.90	4.41	5.17	5.86
Sep	.39	.67	1.17	1.69	2.24	2.86	3.59	4.50	5.73	7.79	9.79
Oct	.92	1.23	1.69	2.08	2.47	2.88	3.33	3.85	4.54	5.61	6.61
Nov	1.46	1.89	2.52	3.06	3.58	4.12	4.70	5.39	6.28	7.65	8.93
Dec	1.12	1.56	2.23	2.84	3.43	4.07	4.77	5.62	6.72	8.47	10.11
Ann	35.64	38.09	41.20	43.55	45.63	47.63	49.69	51.95	54.69	58.65	62.05

\+ 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: 1954-2001
(3) Derived from 1971-2000 serially complete daily data

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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	.3	.0	#	#
Feb	.3	#	1	#
Mar	.3	.0	#	0
Apr	#	.0	#	0
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.0	.0	0	0
Nov	.5	.0	#	0
Dec	.4	.0	#	0
Ann	1.8	#	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	1.0	1971	31	1.0+	1976	9	1978	20	4	1978
Feb	1.0	1972	3	1.0	1972	10	1985	2	4	1978
Mar	2.0	1975	10	2.0	1975	2	1975	10	#+	1984
Apr	#	1983	18	#	1983	#	1983	18	#	1983
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	.0	0	0	.0	0	0	0	0	0	0
Nov	5.0	1977	27	5.0	1977	5	1977	27	#+	1977
Dec	2.5	1984	6	2.5	1984	2	1998	31	#+	1998
Ann	5.0	Nov 1977	27	5.0	Nov 1977	10	Feb 1985	2	4+	Feb 1978

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	-9.9	-9.9	-9.9	-9.9	-9.9
Feb	-9.9	-9.9	-9.9	-9.9	-9.9
Mar	.2	.2	.0	.0	.0
Apr	.0	.0	.0	.0	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.0	.0	.0	.0	.0
Nov	.2	.2	.1	.1	.0
Dec	.3	.1	.0	.0	.0
Ann	-9.9	-9.9	-9.9	-9.9	-9.9

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	.3	.0	.0	.0
Feb	.1	.0	.0	.0
Mar	.1	.0	.0	.0
Apr	.0	.0	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.0	.0	.0	.0
Nov	.2	@	@	.0
Dec	.1	.0	.0	.0
Ann	.8	@	@	.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	5/09	5/03	4/29	4/26	4/22	4/19	4/16	4/12	4/06
32	4/24	4/20	4/17	4/14	4/11	4/09	4/06	4/03	3/30
28	4/14	4/08	4/04	4/01	3/28	3/25	3/21	3/17	3/11
24	4/02	3/26	3/21	3/16	3/12	3/08	3/04	2/27	2/19
20	3/24	3/17	3/11	3/07	3/02	2/26	2/22	2/16	2/09
16	3/09	3/02	2/24	2/19	2/15	2/11	2/06	2/01	1/24

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	9/27	10/02	10/05	10/08	10/11	10/14	10/17	10/20	10/25
32	10/05	10/11	10/15	10/18	10/22	10/25	10/28	11/01	11/07
28	10/19	10/25	10/30	11/03	11/06	11/09	11/13	11/18	11/24
24	10/29	11/05	11/10	11/15	11/19	11/23	11/28	12/03	12/10
20	11/07	11/15	11/20	11/25	11/29	12/04	12/09	12/14	12/22
16	11/19	11/29	12/06	12/12	12/17	12/23	12/29	1/05	1/15

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	192	185	180	175	171	167	162	157	150
32	211	205	200	196	193	189	185	180	174
28	247	238	232	227	222	217	212	206	197
24	280	270	263	257	251	246	239	232	222
20	300	290	283	277	271	265	259	252	243
16	338	324	316	309	302	296	289	281	270

***** 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

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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	969	762	559	272	98	4	0	1	30	238	507	820	4260
60	814	623	415	156	40	0	0	0	7	137	368	671	3231
57	729	546	332	103	20	0	0	0	2	92	291	584	2699
55	670	493	282	74	12	0	0	0	1	68	245	527	2372
50	528	369	176	26	3	0	0	0	0	26	149	393	1670
32	156	74	10	0	0	0	0	0	0	0	6	81	327

Base — Cooling Degree Days (1)

Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	210	236	474	733	1040	1267	1442	1395	1145	823	492	284	9541
55	12	12	33	116	339	577	729	682	456	177	41	18	3192
57	9	8	22	85	285	517	667	620	398	140	27	13	2791
60	0	1	11	49	212	428	574	527	312	92	14	6	2226
65	0	0	1	15	114	281	419	373	185	38	3	0	1429
70	0	0	0	3	48	149	266	228	88	11	0	0	793

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	55	106	259	491	780	1008	1169	1112	870	538	258	96	55	161	420	911	1691	2699	3868	4980	5850	6388	6646	6742
45	29	54	158	352	625	858	1014	957	720	393	161	50	29	83	241	593	1218	2076	3090	4047	4767	5160	5321	5371
50	11	21	84	229	470	708	859	802	570	258	89	24	11	32	116	345	815	1523	2382	3184	3754	4012	4101	4125
55	0	4	40	133	322	558	704	647	422	151	43	4	0	4	44	177	499	1057	1761	2408	2830	2981	3024	3028
60	0	0	13	65	192	408	549	492	285	71	12	0	0	0	13	78	270	678	1227	1719	2004	2075	2087	2087
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	35	69	165	306	496	679	799	755	570	347	158	59	35	104	269	575	1071	1750	2549	3304	3874	4221	4379	4438

(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:
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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

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

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   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