

Climatology of the United States

No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: MAYFIELD RADIO WNGO, KY

1971-2000

COOP ID: 155233

Climate Division: KY 1

NWS Call Sign:

Elevation: 380 Feet Lat: 36°47N Lon: 88°38W

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	43.9	26.3	35.1	74	1972	24	44.8	1990	-18	1982	17	22.2	1977	926	0	.0	.0	10.8	5.2	22.0	.8
Feb	50.7	30.1	40.4	79	1972	29	48.3	1976	-4	1996	4	26.2	1978	689	0	.0	.0	15.8	2.5	17.4	.3
Mar	60.9	38.4	49.7	85	1982	18	55.9	1976	5	1978	5	43.4	1996	480	3	.0	.0	26.2	.2	11.1	.0
Apr	70.8	46.4	58.6	90+	1987	21	64.8	1981	21	1973	11	51.3	1983	217	24	.0	.1	29.4	.0	3.3	.0
May	78.4	55.6	67.0	93+	1978	28	72.2	1987	31	1976	4	63.1	1973	69	130	.0	1.0	31.0	.0	@	.0
Jun	85.9	64.0	75.0	102	1969	30	78.3	1971	41	1972	1	70.9	1974	2	300	.1	8.9	30.0	.0	.0	.0
Jul	89.2	68.1	78.7	103	1980	15	83.1	1980	48	1970	6	74.9	1971	0	423	.4	16.7	31.0	.0	.0	.0
Aug	88.2	66.0	77.1	101+	1988	17	82.0	1980	44	1986	29	72.9	1976	1	375	.4	13.3	31.0	.0	.0	.0
Sep	82.2	58.8	70.5	100	1980	9	75.5	1998	33+	1983	24	64.9	1974	27	191	.1	5.1	30.0	.0	.0	.0
Oct	72.3	47.0	59.7	91	1971	1	64.9	1971	22+	1976	29	53.7	1988	202	35	.0	@	30.8	.0	2.5	.0
Nov	58.8	38.7	48.8	83	1987	1	55.3	1999	11+	1976	30	39.6	1976	491	3	.0	.0	23.3	@	10.0	.0
Dec	47.9	30.1	39.0	78	1982	2	47.1	1984	-12	1989	22	28.8	2000	806	0	.0	.0	14.8	2.8	18.7	.3
Ann	69.1	47.5	58.3	103	Jul 1980	15	83.1	Jul 1980	-18	Jan 1982	17	22.2	Jan 1977	3910	1484	1.0	45.1	304.1	10.7	85.0	1.4

+ 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/normal/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1967-2001

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

038-A

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NWS Call Sign:

Elevation: 380 Feet Lat: 36°47N

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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	3.76	3.89	3.00+	1999	22	7.57	1989	.60	1986	10.4	6.6	2.8	1.0	1.17	1.53	2.06	2.51	2.95	3.41	3.91	4.50	5.26	6.45	7.55
Feb	4.48	3.89	4.35	1990	15	13.41	1989	1.28	1980	9.0	6.7	2.8	1.3	1.17	1.60	2.25	2.82	3.38	3.97	4.63	5.41	6.43	8.03	9.53
Mar	4.93	4.22	5.70	1997	1	14.70	1975	1.95	1995	11.3	8.3	3.4	.9	1.89	2.34	3.00	3.54	4.06	4.59	5.16	5.82	6.66	7.95	9.13
Apr	4.77	4.48	2.73	1993	9	10.00	1979	1.84	1976	10.5	7.6	3.4	1.6	2.00	2.43	3.04	3.54	4.01	4.49	5.00	5.59	6.34	7.47	8.50
May	5.05	4.45	3.28	1984	7	9.97	1983	.94	1989	10.5	7.5	3.3	1.3	1.61	2.09	2.80	3.41	3.99	4.60	5.26	6.04	7.05	8.61	10.06
Jun	4.12	3.57	3.18	1969	15	10.60	1998	.29	1988	8.6	6.1	3.0	1.3	.83	1.21	1.81	2.36	2.92	3.52	4.20	5.01	6.09	7.81	9.44
Jul	4.32	3.39	5.37	1975	20	11.46	1972	1.12	1991	8.0	5.7	3.0	1.2	1.11	1.52	2.15	2.70	3.25	3.82	4.46	5.21	6.20	7.76	9.22
Aug	3.23	2.67	3.35	1982	24	8.36	1971	.00	1998	6.6	4.8	2.3	1.1	.12	.37	.83	1.30	1.81	2.39	3.09	3.96	5.16	7.16	9.13
Sep	3.62	3.18	5.45	1979	21	8.88	1979	.41	1998	7.7	5.3	2.5	1.1	.83	1.16	1.69	2.17	2.64	3.15	3.72	4.39	5.28	6.69	8.03
Oct	3.65	3.05	3.24	1984	6	9.08	1984	1.05	1982	7.1	5.1	2.7	.9	1.11	1.46	1.98	2.42	2.86	3.31	3.80	4.38	5.13	6.30	7.39
Nov	4.96	4.37	4.61	1988	19	13.83	1988	1.20	1994	9.6	7.3	3.6	1.7	1.35	1.82	2.53	3.16	3.77	4.42	5.13	5.97	7.07	8.80	10.41
Dec	4.89	4.19	4.94	1978	3	13.66	1978	.80	1976	10.0	6.7	3.2	1.2	1.14	1.60	2.31	2.95	3.59	4.27	5.02	5.93	7.11	8.99	10.76
Ann	51.78	50.57	5.70	Mar 1997	1	14.70	Mar 1975	.00	Aug 1998	109.3	77.7	36.0	14.6	38.37	41.00	44.36	46.89	49.13	51.29	53.51	55.95	58.90	63.17	66.84

+ 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: 1967-2001

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

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Station: MAYFIELD RADIO WNGO, KY

COOP ID: 155233

Climate Division: KY 1

NWS Call Sign:

Elevation: 380 Feet

Lat: 36°47N

Lon: 88°38W

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	2.9	.6	#	0	6.3	1978	16	20.0	1978	8	1994	16	4	1985	1.2	.9	.4	.1	.0	-9.9	-9.9	-9.9	-9.9
Feb	3.7	3.5	#	0	8.0	1989	27	9.1	1971	6	1971	12	4	1985	1.1	1.0	.5	.1	.0	-9.9	-9.9	-9.9	-9.9
Mar	1.0	.0	#	0	5.3	1980	1	5.6	1980	5	1980	1	#+	1998	.4	.3	.1	@	.0	.1	.1	.1	.0
Apr	#	.0	0	0	#	1980	14	#	1980	0	0	0	0	0	.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	.1	.0	0	0	3.0	1993	30	3.0	1993	0	0	0	0	0	@	@	@	.0	.0	.0	.0	.0	.0
Nov	.1	.0	#	0	2.5	1976	11	2.5	1976	#	1995	15	#	1995	@	@	.0	.0	.0	.0	.0	.0	.0
Dec	.3	.0	#	0	3.0	1990	27	3.0	1990	2	1984	6	#	1984	.4	.2	.1	.0	.0	-9.9	-9.9	-9.9	-9.9
Ann	8.1	4.1	N/A	N/A	8.0	Feb 1989	27	20.0	Jan 1978	8	Jan 1994	16	4+	Feb 1985	3.1	2.4	1.1	.2	.0	-9.9	-9.9	-9.9	-9.9

+ 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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NWS Call Sign:

Elevation: 380 Feet

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Lon: 88° 38W

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	5/12	5/06	5/02	4/28	4/24	4/21	4/17	4/13	4/06
32	4/25	4/21	4/18	4/16	4/13	4/11	4/08	4/05	4/01
28	4/14	4/10	4/07	4/04	4/02	3/30	3/27	3/24	3/20
24	4/08	4/02	3/29	3/26	3/23	3/19	3/16	3/12	3/07
20	3/22	3/15	3/10	3/06	3/03	2/27	2/23	2/18	2/11
16	3/10	3/02	2/25	2/20	2/16	2/12	2/08	2/02	1/26
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	9/29	10/03	10/06	10/09	10/11	10/13	10/16	10/19	10/23
32	10/07	10/12	10/16	10/19	10/21	10/24	10/27	10/31	11/04
28	10/22	10/27	10/31	11/03	11/06	11/08	11/11	11/15	11/20
24	10/30	11/05	11/09	11/13	11/17	11/20	11/24	11/28	12/04
20	11/09	11/16	11/21	11/26	11/30	12/04	12/08	12/13	12/21
16	11/19	11/26	12/02	12/07	12/11	12/16	12/21	12/26	1/03
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	184	178	173	169	164	160	154	146
32	207	201	197	194	191	187	184	180	174
28	234	228	224	220	217	214	211	206	201
24	261	253	248	243	238	234	229	223	215
20	297	288	282	277	272	267	261	255	247
16	327	317	310	303	297	291	285	278	267

* 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	926	689	480	217	69	2	0	1	27	202	491	806	3910
60	773	557	339	115	23	0	0	0	6	105	354	652	2924
57	688	478	263	71	10	0	0	0	2	65	278	567	2422
55	630	427	218	48	5	0	0	0	0	44	232	509	2113
50	489	310	126	14	0	0	0	0	0	13	139	372	1463
32	132	52	4	0	0	0	0	0	0	0	5	62	255

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	228	286	550	797	1085	1288	1446	1398	1154	856	507	280	9875
55	13	18	51	155	377	598	733	685	465	188	44	13	3340
57	10	13	34	118	320	538	671	623	406	146	29	9	2917
60	2	7	17	73	239	448	578	530	320	93	15	2	2324
65	0	0	3	24	130	300	423	375	191	35	3	0	1484
70	0	0	0	5	55	163	272	230	93	9	0	0	827

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	79	149	331	559	840	1056	1205	1161	928	619	300	120	79	228	559	1118	1958	3014	4219	5380	6308	6927	7227	7347
45	35	85	214	414	685	906	1050	1006	778	467	192	60	35	120	334	748	1433	2339	3389	4395	5173	5640	5832	5892
50	19	41	123	283	530	756	895	851	628	327	113	27	19	60	183	466	996	1752	2647	3498	4126	4453	4566	4593
55	2	13	61	174	378	606	740	696	478	203	57	7	2	15	76	250	628	1234	1974	2670	3148	3351	3408	3415
60	0	2	27	89	239	457	585	541	338	106	20	0	0	2	29	118	357	814	1399	1940	2278	2384	2404	2404
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	50	98	215	357	549	722	831	797	618	403	179	70	50	148	363	720	1269	1991	2822	3619	4237	4640	4819	4889

(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