

Climatology of the United States

No. 20

1971-2000

Station: DIX DAM, KY

COOP ID: 152214

Climate Division: KY 3

NWS Call Sign:

Elevation: 870 Feet Lat: 37°48N Lon: 84°43W

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	43.0	25.8	34.4	73	1999	22	43.3	1990	-18+	1985	21	19.7	1977	950	0	.0	.0	10.1	6.1	22.2	.9
Feb	48.5	28.6	38.6	80	1996	23	47.4	1976	-7+	1996	4	24.3	1978	740	0	.0	.0	13.8	3.9	18.2	.3
Mar	58.3	36.4	47.4	83+	1998	30	54.7	1973	-2	1960	5	41.3	1988	550	1	.0	.0	23.6	.5	12.1	.0
Apr	68.2	44.7	56.5	89+	1987	22	61.2	1981	15	2001	17	51.5	1982	270	14	.0	.0	28.7	@	3.2	.0
May	76.3	54.0	65.2	94	1954	31	72.0	1991	28	1963	1	60.1	1989	111	115	.0	.2	30.9	.0	@	.0
Jun	83.8	62.7	73.3	101+	1988	26	76.3	1994	41	1966	1	69.8	1982	4	251	.1	3.9	30.0	.0	.0	.0
Jul	87.4	66.8	77.1	104+	1999	30	81.6	1999	47	1972	7	73.6	1984	0	375	.3	10.0	31.0	.0	.0	.0
Aug	86.4	65.2	75.8	102+	1983	22	80.7	1983	44+	1986	30	71.4	1992	1	337	.1	9.0	31.0	.0	.0	.0
Sep	80.6	58.7	69.7	105	1954	5	75.4	1998	35	1983	24	65.0	1974	33	172	.0	3.0	30.0	.0	.0	.0
Oct	70.0	47.1	58.6	91	1959	4	65.0	1971	23+	1976	28	50.8	1988	240	40	.0	.0	30.4	.0	1.5	.0
Nov	58.0	38.8	48.4	84	1971	1	54.4	1985	7+	1976	30	40.9	1976	499	1	.0	.0	22.0	.1	8.9	.0
Dec	47.4	30.3	38.9	76+	1982	4	47.1	1971	-17+	1989	23	26.7	1989	810	0	.0	.0	13.5	3.4	18.4	.3
Ann	67.3	46.6	57.0	105	Sep 1954	5	81.6	Jul 1999	-18+	Jan 1985	21	19.7	Jan 1977	4208	1306	.5	26.1	295.0	14.0	84.5	1.5

+ 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: 1953-2001

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

016-A

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: DIX DAM, KY

COOP ID: 152214

Climate Division: KY 3

NWS Call Sign:

Elevation: 870 Feet Lat: 37°48N

Lon: 84°43W

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	3.36	3.64	2.78	1999	9	6.35	1974	.43	1981	9.7	6.4	2.2	.9	.90	1.22	1.71	2.13	2.55	2.99	3.47	4.05	4.80	5.97	7.07
Feb	3.52	3.33	3.93	1989	14	11.99	1989	.97	1978	8.9	5.8	2.5	1.0	.93	1.26	1.77	2.22	2.66	3.12	3.64	4.25	5.05	6.30	7.47
Mar	4.28	3.97	4.17	1997	2	11.98	1997	1.49	1983	11.0	8.0	2.8	1.0	1.57	1.97	2.55	3.03	3.49	3.96	4.48	5.07	5.83	7.00	8.07
Apr	3.81	3.93	3.66	1972	12	13.07	1972	1.15	1986	11.3	7.6	2.5	.7	1.05	1.41	1.96	2.44	2.91	3.40	3.94	4.59	5.42	6.74	7.96
May	4.68	4.56	2.95	1984	7	10.57	1983	.95	1987	11.6	8.0	3.7	1.3	1.43	1.87	2.54	3.11	3.66	4.24	4.87	5.61	6.57	8.07	9.46
Jun	4.29	4.03	2.84	1997	1	11.66	1997	.67	1988	10.5	7.7	3.0	.9	1.28	1.69	2.30	2.82	3.33	3.87	4.45	5.14	6.03	7.43	8.72
Jul	4.56	4.55	5.55	1978	31	10.05	1973	.63	1999	9.8	6.6	3.0	1.2	1.14	1.56	2.23	2.82	3.40	4.02	4.70	5.52	6.59	8.28	9.86
Aug	3.85	4.01	3.50	1955	10	11.13	1974	.90	1972	8.4	6.0	2.3	1.2	.83	1.19	1.75	2.26	2.78	3.32	3.94	4.67	5.64	7.19	8.66
Sep	3.09	2.75	3.70	1979	22	9.61	1979	.57	1983	7.8	5.3	1.8	.9	.63	.91	1.37	1.78	2.20	2.64	3.15	3.75	4.55	5.83	7.05
Oct	2.95	3.09	3.03	1983	13	7.13	1983	.41	2000	8.6	6.0	2.0	.7	.63	.90	1.34	1.73	2.12	2.54	3.02	3.58	4.33	5.52	6.65
Nov	3.45	3.18	4.01	1986	9	11.28	1986	.49	1976	9.9	7.0	2.2	.7	.86	1.18	1.69	2.13	2.57	3.04	3.56	4.18	4.99	6.27	7.46
Dec	3.89	3.54	3.65	1978	9	11.73	1978	1.15	1985	10.1	6.7	2.6	.8	1.14	1.51	2.06	2.55	3.01	3.50	4.04	4.67	5.49	6.77	7.96
Ann	45.73	46.48	5.55	Jul 1978	31	13.07	Apr 1972	.41	Oct 2000	117.6	81.1	30.6	11.3	32.49	35.05	38.33	40.82	43.04	45.18	47.39	49.83	52.79	57.09	60.80

+ 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: 1953-2001

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

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Station: DIX DAM, KY

COOP ID: 152214

Climate Division: KY 3

NWS Call Sign:

Elevation: 870 Feet

Lat: 37°48N

Lon: 84°43W

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	4.9	3.0	1	#	10.0	1978	17	21.5	1978	18	1978	22	6	1978	1.8	1.6	.4	.1	.1	3.3	1.5	.8	.4
Feb	4.4	2.4	1	#	4.8	1998	6	11.3	1998	12	1998	9	9	1985	1.0	.8	.4	.0	.0	3.9	2.5	1.1	.0
Mar	.9	.0	#	0	6.0	1972	3	6.0	1972	3+	1987	31	#+	1994	.1	.1	.1	.1	.0	.1	@	.0	.0
Apr	#	.0	0	0	#	1973	11	#	1973	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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.1	.0	#	0	1.5	1976	29	1.5	1976	2	1976	30	#+	1977	.1	.1	.0	.0	.0	.1	.0	.0	.0
Dec	.7	.0	#	0	3.5	1976	29	3.8	1976	4	1976	29	#+	1997	.4	.1	.1	.0	.0	.4	.1	.0	.0
Ann	11.0	5.4	N/A	N/A	10.0	Jan 1978	17	21.5	Jan 1978	18	Jan 1978	22	9	Feb 1985	3.4	2.7	1.0	.2	.1	7.8	4.1	1.9	.4

+ 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 3

NWS Call Sign:

Elevation: 870 Feet

Lat: 37° 48N

Lon: 84° 43W

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	5/13	5/07	5/02	4/29	4/25	4/22	4/18	4/14	4/08
32	4/25	4/20	4/17	4/14	4/11	4/09	4/06	4/03	3/29
28	4/16	4/11	4/08	4/05	4/03	3/31	3/28	3/25	3/21
24	4/03	3/28	3/24	3/20	3/17	3/14	3/10	3/06	2/28
20	3/25	3/17	3/12	3/08	3/03	2/27	2/23	2/17	2/10
16	3/10	3/03	2/26	2/22	2/18	2/14	2/09	2/04	1/28
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	9/30	10/04	10/07	10/10	10/13	10/15	10/18	10/21	10/25
32	10/12	10/17	10/22	10/25	10/28	10/31	11/04	11/08	11/14
28	10/24	10/29	11/02	11/05	11/08	11/10	11/13	11/17	11/22
24	11/03	11/09	11/13	11/16	11/20	11/23	11/26	11/30	12/06
20	11/11	11/18	11/24	11/28	12/02	12/06	12/10	12/15	12/22
16	11/29	12/05	12/10	12/14	12/18	12/21	12/25	12/30	1/06
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	179	174	169	165	160	154	147
32	221	214	208	203	199	195	190	185	177
28	236	230	226	222	218	214	211	206	200
24	270	262	256	251	247	242	237	232	224
20	296	288	282	277	273	268	263	258	250
16	331	321	314	308	302	296	290	283	274

* 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	950	740	550	270	111	4	0	1	33	240	499	810	4208
60	796	605	407	153	49	0	0	0	8	139	358	664	3179
57	713	527	326	99	26	0	0	0	3	93	278	576	2641
55	654	475	276	71	17	0	0	0	2	69	230	519	2313
50	514	353	174	23	4	0	0	0	0	26	131	386	1611
32	153	70	10	0	0	0	0	0	0	0	3	80	316

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	226	254	485	734	1027	1237	1398	1359	1129	823	495	292	9459
55	15	15	38	114	331	547	685	646	441	179	32	19	3062
57	11	11	25	83	279	487	623	584	382	141	20	14	2660
60	2	5	13	47	209	398	530	491	298	94	9	8	2104
65	0	0	1	14	115	251	375	337	172	40	1	0	1306
70	0	0	0	2	50	122	225	195	79	13	0	0	686

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	74	126	284	502	786	1008	1158	1118	897	589	290	123	74	200	484	986	1772	2780	3938	5056	5953	6542	6832	6955
45	35	67	178	361	631	858	1003	963	747	437	184	67	35	102	280	641	1272	2130	3133	4096	4843	5280	5464	5531
50	13	30	101	237	478	708	848	808	597	299	105	30	13	43	144	381	859	1567	2415	3223	3820	4119	4224	4254
55	1	11	49	138	331	558	693	653	447	179	52	9	1	12	61	199	530	1088	1781	2434	2881	3060	3112	3121
60	0	0	20	70	203	408	538	498	308	91	16	0	0	0	20	90	293	701	1239	1737	2045	2136	2152	2152
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	38	79	177	311	504	689	809	772	594	359	162	64	38	117	294	605	1109	1798	2607	3379	3973	4332	4494	4558

(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