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: LEXINGTON BLUE GRASS AP, KY **COOP ID: 154746**

Climate Division: KY 3 **NWS Call Sign: LEX** **Elevation: 965 Feet** **Lat: 38˚02N** **Lon: 84˚36W**

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	39.9	24.1	32.0	76	1950	25	41.6	1998	-21	1963	24	17.3	1977	1026	0	.0	.0	7.8	8.9	23.9	1.3
Feb	45.2	27.7	36.4	80	1996	23	43.5	1976	-15	1951	2	21.3	1978	816	0	.0	.0	10.8	5.7	18.9	.5
Mar	55.3	35.9	45.6	82+	1986	31	53.6	1973	-2+	1960	6	39.7	1984	616	3	.0	.0	20.4	.9	13.0	.1
Apr	65.1	44.1	54.6	88	1962	30	59.6	1981	18	1982	7	50.0	1997	332	16	.0	.0	27.8	.0	3.6	.0
May	74.0	53.6	63.8	92+	1987	29	70.5	1991	26	1966	10	58.2	1997	119	80	.0	.2	31.0	.0	.1	.0
Jun	82.3	62.2	72.2	101+	1988	25	76.0	1984	39	1966	1	67.0	1974	13	228	@	3.0	30.0	.0	.0	.0
Jul	85.9	66.4	76.1	103+	1999	30	80.1	1993	47	1972	7	72.7	1976	1	350	.2	8.1	31.0	.0	.0	.0
Aug	84.6	64.9	74.8	103	1983	20	80.5	1983	42	1965	29	70.8	1976	2	307	.1	6.4	31.0	.0	.0	.0
Sep	78.1	57.9	68.0	103	1954	5	74.3	1998	34	1993	30	62.0	1974	53	147	.0	2.0	30.0	.0	.0	.0
Oct	66.9	46.4	56.6	91+	1959	4	64.1	1971	20	1976	28	49.1	1976	284	21	.0	.0	29.8	.0	2.1	.0
Nov	54.5	37.3	45.9	83	1987	1	53.0	1985	-3	1950	25	36.5	1976	574	2	.0	.0	19.2	.3	10.9	.0
Dec	44.3	28.4	36.3	75+	1982	3	45.4	1984	-19	1989	22	23.0	1989	877	0	.0	.0	10.6	5.1	19.9	.4
Ann	64.7	45.7	55.2	103+	Jul 1999	30	80.5	Aug 1983	-21	Jan 1963	24	17.3	Jan 1977	4713	1154	.3	19.7	279.4	20.9	92.4	2.3

\+ 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: 1948-2001

(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	3.34	3.61	2.67	1974	10	6.39	1974	.37	1981
Feb	3.27	2.99	3.10	1989	13	10.12	1989	.67	1978
Mar	4.41	3.85	5.56	1997	1	13.82	1997	1.48	1983
Apr	3.67	3.24	2.76	1970	23	8.75	1972	1.24	1976
May	4.78	4.51	3.03	1983	1	10.84	1983	1.31	1999
Jun	4.58	4.11	5.04	1998	29	10.81	1998	.61	1988
Jul	4.81	4.76	4.38	1998	20	10.27	1992	1.26	1995
Aug	3.77	3.86	3.56	1968	14	11.18	1974	.29	1998
Sep	3.11	2.74	4.13	1979	21	9.69	1979	.61	1998
Oct	2.70	2.55	2.67	1983	22	6.13	1983	.52	1971
Nov	3.44	3.32	2.57	1957	18	6.58	1973	.45	1976
Dec	4.03	3.54	3.32	1991	2	10.17	1990	1.13	1985
Ann	45.91	45.13	5.56	Mar 1997	1	13.82	Mar 1997	.29	Aug 1998

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	12.3	6.7	2.1	.8
Feb	11.3	6.2	2.0	.7
Mar	12.8	8.6	3.1	.9
Apr	12.1	7.4	2.6	.7
May	12.2	8.4	3.6	1.0
Jun	10.5	7.6	3.1	.9
Jul	10.6	7.5	3.3	1.6
Aug	8.9	6.3	2.5	1.1
Sep	8.8	5.4	2.1	.7
Oct	8.3	5.1	1.9	.6
Nov	10.9	6.5	2.3	.9
Dec	12.1	7.0	2.8	.8
Ann	130.8	82.7	31.4	10.7

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	.86	1.18	1.66	2.09	2.51	2.95	3.44	4.03	4.79	5.99	7.11
Feb	.88	1.19	1.67	2.08	2.49	2.91	3.38	3.94	4.67	5.82	6.88
Mar	1.46	1.88	2.49	3.01	3.51	4.03	4.60	5.26	6.11	7.43	8.64
Apr	1.37	1.71	2.21	2.62	3.01	3.41	3.84	4.34	4.98	5.96	6.86
May	1.51	1.96	2.64	3.21	3.77	4.34	4.98	5.72	6.67	8.16	9.54
Jun	1.18	1.61	2.28	2.87	3.44	4.05	4.73	5.53	6.58	8.24	9.78
Jul	2.00	2.44	3.06	3.56	4.04	4.52	5.04	5.63	6.39	7.54	8.58
Aug	.70	1.04	1.59	2.11	2.63	3.19	3.83	4.60	5.62	7.27	8.84
Sep	.74	1.03	1.48	1.89	2.29	2.72	3.20	3.76	4.51	5.69	6.81
Oct	.71	.97	1.36	1.70	2.04	2.39	2.79	3.26	3.87	4.83	5.72
Nov	1.16	1.48	1.96	2.36	2.75	3.15	3.59	4.10	4.76	5.78	6.72
Dec	1.28	1.66	2.23	2.71	3.18	3.67	4.20	4.83	5.63	6.88	8.04
Ann	32.57	35.15	38.45	40.97	43.20	45.35	47.58	50.05	53.03	57.37	61.12

\+ 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: 1948-2001
(3) Derived from 1971-2000 serially complete daily data

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Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	5.1	2.8	1	0	10.0	1994	17	18.5	1977	14+	1978	22	5	1978	5.1	1.5	.5	.2	@	6.1	3.0	1.8	.5
Feb	4.6	3.7	1	0	7.3	1971	8	11.6	1979	9+	1985	4	3	1978	4.1	1.4	.5	.2	.0	6.0	2.5	1.2	.0
Mar	2.0	1.0	#	0	6.5	1993	13	7.1	1993	7	1993	14	1+	1993	2.1	.6	.2	.1	.0	1.4	.5	@	.0
Apr	.2	.0	#	0	1.5	1996	1	1.5	1996	1	1982	8	#	1982	.3	.0	.0	.0	.0	@	.0	.0	.0
May	#	.0	#	0	#	1989	7	#	1989	0	0	0	#	1996	.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	.2	1972	19	.2	1972	#+	1989	20	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.6	.1	#	0	1.7	1977	27	2.9	1976	2+	1976	30	#	1992	1.0	.2	.0	.0	.0	.2	.0	.0	.0
Dec	1.9	.9	#	0	4.9	1984	5	9.3	1989	5+	1984	7	2	1989	2.6	.5	.2	.0	.0	2.1	.9	.1	.0
Ann	14.4	8.5	N/A	N/A	10.0	Jan 1994	17	18.5	Jan 1977	14+	Jan 1978	22	5	Jan 1978	15.2	4.2	1.4	.5	@	15.8	6.9	3.1	.5

+ 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	5/10	5/06	5/03	4/30	4/28	4/25	4/22	4/19	4/15
32	4/28	4/23	4/20	4/17	4/15	4/12	4/09	4/06	4/02
28	4/18	4/13	4/10	4/06	4/03	3/31	3/28	3/24	3/19
24	4/12	4/05	3/31	3/27	3/24	3/20	3/16	3/11	3/05
20	3/29	3/23	3/18	3/14	3/11	3/07	3/03	2/27	2/21
16	3/12	3/06	3/02	2/26	2/22	2/19	2/15	2/11	2/04

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	10/12	10/14	10/17	10/20	10/24
32	10/10	10/15	10/19	10/22	10/25	10/28	10/31	11/04	11/09
28	10/19	10/24	10/28	11/01	11/04	11/07	11/10	11/14	11/20
24	11/02	11/07	11/11	11/14	11/17	11/20	11/24	11/28	12/03
20	11/06	11/13	11/18	11/23	11/27	12/01	12/06	12/11	12/18
16	11/22	11/28	12/03	12/07	12/10	12/14	12/18	12/23	12/29

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	182	177	173	170	167	164	161	157	152
32	211	205	200	196	192	189	185	180	173
28	235	228	223	218	214	209	205	200	192
24	264	255	249	243	238	233	227	221	212
20	285	277	271	265	261	256	251	245	236
16	316	307	301	295	290	285	280	274	265

***** 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)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1026	816	616	332	119	13	1	2	53	284	574	877	4713
60	868	661	454	192	68	2	0	0	18	176	429	738	3606
57	785	584	367	130	39	0	0	0	8	123	348	652	3036
55	726	531	313	95	26	0	0	0	4	94	296	594	2679
50	584	403	198	35	8	0	0	0	0	41	185	456	1910
32	197	92	12	0	0	0	0	0	0	0	9	116	426

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	147	208	430	673	987	1207	1370	1327	1082	764	424	221	8840
55	3	6	37	109	291	517	657	614	396	139	36	8	2813
57	1	3	26	82	240	457	595	552	341	105	25	5	2432
60	0	1	14	50	171	369	502	459	262	65	13	2	1908
65	0	0	3	16	80	228	350	307	147	21	2	0	1154
70	0	0	0	1	26	112	199	163	64	4	0	0	569

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	56	102	241	445	747	976	1130	1088	851	526	237	96	56	158	399	844	1591	2567	3697	4785	5636	6162	6399	6495
45	30	52	145	312	592	826	975	933	701	381	145	50	30	82	227	539	1131	1957	2932	3865	4566	4947	5092	5142
50	6	22	82	201	439	676	820	778	552	248	84	23	6	28	110	311	750	1426	2246	3024	3576	3824	3908	3931
55	0	3	41	113	298	526	665	623	406	143	40	4	0	3	44	157	455	981	1646	2269	2675	2818	2858	2862
60	0	0	15	54	177	380	510	468	268	68	12	0	0	0	15	69	246	626	1136	1604	1872	1940	1952	1952
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	32	57	144	265	469	663	790	751	557	315	128	52	32	89	233	498	967	1630	2420	3171	3728	4043	4171	4223

(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