

Climatology of the United States

No. 20

1971-2000

Station: LINCOLN, VA

COOP ID: 444909

Climate Division: VA 4

NWS Call Sign:

Elevation: 500 Feet Lat: 39°05N Lon: 77°42W

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	42.2	20.8	31.5	78+	1950	26	40.0	1990	-11	1935	28	21.8	1977	1039	0	.0	.0	8.3	4.3	26.0	.5
Feb	46.1	22.3	34.2	81+	1985	24	43.4	1976	-8	1996	5	23.5	1979	862	0	.0	.0	11.6	2.1	21.8	.2
Mar	55.2	30.5	42.9	89+	1948	21	48.4	1973	7+	1993	19	36.2	1984	687	0	.0	.0	22.7	.3	16.1	.0
Apr	65.1	38.7	51.9	94+	1985	22	57.7	1994	20+	1982	7	47.2	1975	394	1	.0	.4	29.2	.0	4.3	.0
May	74.4	49.2	61.8	99	1941	28	68.6	1991	29	1966	10	58.0	1994	149	50	.0	1.5	31.0	.0	.1	.0
Jun	82.3	58.3	70.3	107	1934	29	77.5	1994	39	1986	3	66.5	1972	20	179	.0	6.2	30.0	.0	.0	.0
Jul	87.1	63.3	75.2	109	1936	10	79.0	1988	46+	2000	8	71.6	2000	1	318	.6	12.8	31.0	.0	.0	.0
Aug	85.6	61.5	73.6	108	1932	31	76.6+	1993	41	1986	30	70.1	1992	3	267	.3	9.4	31.0	.0	.0	.0
Sep	78.8	53.9	66.4	108	1932	1	69.9	1998	32+	1963	23	63.6	1975	47	86	@	2.8	30.0	.0	.0	.0
Oct	68.5	41.7	55.1	98	1941	5	61.0	1984	21	1976	29	50.8	1999	317	10	.0	.1	30.8	.0	2.9	.0
Nov	56.9	32.7	44.8	86	1950	1	50.6	1994	8	1930	29	39.8	1976	606	0	.0	.0	23.8	.0	12.7	.0
Dec	46.6	25.0	35.8	79	1984	29	43.6	1984	-5+	1960	24	24.1	1989	906	0	.0	.0	12.2	2.1	22.5	.1
Ann	65.7	41.5	53.6	109	Jul 1936	10	79.0	Jul 1988	-11	Jan 1935	28	21.8	Jan 1977	5031	911	.9	33.2	291.6	8.8	106.4	.8

+ 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: 1930-2001

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

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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: LINCOLN, VA

COOP ID: 444909

Climate Division: VA 4

NWS Call Sign:

Elevation: 500 Feet Lat: 39°05N

Lon: 77°42W

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	3.29	2.86	2.18	1976	1	7.83	1979	.45	1981	8.1	6.8	2.4	.7	.99	1.30	1.77	2.17	2.56	2.97	3.41	3.94	4.62	5.68	6.67
Feb	2.47	2.12	2.27	1984	13	4.90	1979	.42	1977	7.2	5.4	1.4	.5	.61	.84	1.20	1.52	1.84	2.17	2.55	2.99	3.57	4.48	5.34
Mar	3.64	3.48	2.45	1993	4	7.07	1984	.47	1995	7.6	6.4	2.7	.7	1.24	1.59	2.09	2.51	2.92	3.34	3.80	4.33	5.02	6.08	7.05
Apr	3.48	3.58	2.43	1983	10	9.14	1983	.42	1985	7.3	6.2	2.4	.7	.96	1.29	1.79	2.22	2.65	3.10	3.60	4.19	4.96	6.16	7.28
May	4.45	4.52	2.54	1946	27	9.76	1989	.18	1997	9.0	7.7	3.4	1.3	.90	1.30	1.96	2.55	3.16	3.80	4.53	5.41	6.57	8.44	10.20
Jun	4.21	3.89	8.26	1972	21	15.07	1972	.42	1986	7.9	6.4	2.7	1.2	.90	1.29	1.91	2.47	3.03	3.63	4.31	5.12	6.19	7.89	9.50
Jul	3.68	3.87	4.55	1964	13	9.02	1996	.62	1998	8.2	6.3	2.6	.9	1.01	1.36	1.89	2.35	2.81	3.28	3.81	4.43	5.24	6.51	7.70
Aug	3.82	3.48	5.11	1984	11	12.02	1984	.56	1989	7.5	6.0	2.4	1.2	1.09	1.45	2.00	2.48	2.94	3.43	3.96	4.60	5.42	6.71	7.90
Sep	4.16	3.14	4.22	1966	14	9.47	1975	.87	1972	6.6	5.6	3.1	1.5	.87	1.25	1.86	2.42	2.98	3.57	4.25	5.05	6.12	7.82	9.43
Oct	3.38	2.63	4.80	1976	9	10.17	1976	.31	2000	5.4	4.8	2.2	1.1	.67	.97	1.47	1.93	2.39	2.88	3.44	4.12	5.01	6.44	7.80
Nov	3.52	3.52	3.39	1993	28	7.99	1986	.87	1976	6.6	5.6	2.7	1.0	.92	1.25	1.76	2.21	2.65	3.12	3.64	4.25	5.05	6.32	7.50
Dec	3.11	2.70	4.27	1992	11	6.86	1992	.73	1971	6.3	5.0	2.5	.9	.71	1.00	1.46	1.87	2.28	2.71	3.20	3.78	4.54	5.76	6.90
Ann	43.21	42.12	8.26	Jun 1972	21	15.07	Jun 1972	.18	May 1997	87.7	72.2	30.5	11.7	31.24	33.57	36.55	38.81	40.81	42.74	44.73	46.93	49.59	53.44	56.76

+ 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: 1930-2001

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

Complete documentation available from:
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Station: LINCOLN, VA

COOP ID: 444909

Climate Division: VA 4

NWS Call Sign:

Elevation: 500 Feet

Lat: 39°05N

Lon: 77°42W

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	9.3	10.0	2	1	16.5	1971	1	28.0	1987	30	1996	13	12	1996	2.2	2.1	1.1	.5	.1	8.0	6.7	3.9	1.1
Feb	4.5	1.0	1	#	17.0	1983	11	26.0	1983	22	1983	12	8	1979	1.5	1.3	.5	.2	@	5.8	4.0	2.2	.2
Mar	3.0	.0	#	0	10.0	1999	10	14.5	1999	16	1993	14	2+	1993	.9	.8	.4	.2	@	1.5	.7	.3	@
Apr	.2	.0	#	0	2.0	1982	9	2.0+	1990	#	2000	9	#	2000	.1	.1	.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	.2	.0	#	0	4.0	1979	10	4.0	1979	4	1979	10	#	1979	.1	.1	@	.0	.0	.1	@	.0	.0
Nov	.6	.0	#	0	6.0	1989	22	6.0	1989	4	1989	22	#+	1989	.2	.2	.1	@	.0	.2	.1	.0	.0
Dec	1.6	.0	#	0	10.0	1973	16	14.0	1973	10	1973	16	3	1989	.7	.6	.3	.2	@	1.7	1.3	.3	@
Ann	19.4	11.0	N/A	N/A	17.0	Feb 1983	11	28.0	Jan 1987	30	Jan 1996	13	12	Jan 1996	5.7	5.2	2.4	1.1	.1	17.3	12.8	6.7	1.3

+ 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: VA 4

NWS Call Sign:

Elevation: 500 Feet

Lat: 39°05N

Lon: 77°42W

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	5/16	5/12	5/09	5/06	5/03	5/01	4/28	4/25	4/21
32	5/01	4/27	4/23	4/21	4/18	4/15	4/13	4/09	4/05
28	4/18	4/13	4/10	4/08	4/05	4/03	3/31	3/28	3/24
24	4/08	4/04	3/31	3/28	3/25	3/22	3/20	3/16	3/11
20	3/28	3/22	3/18	3/14	3/11	3/07	3/04	2/27	2/21
16	3/19	3/11	3/05	2/28	2/23	2/19	2/14	2/08	1/31
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	9/24	9/29	10/03	10/06	10/08	10/11	10/14	10/17	10/22
32	10/06	10/11	10/15	10/18	10/21	10/24	10/27	10/30	11/04
28	10/17	10/22	10/26	10/29	10/31	11/03	11/06	11/10	11/15
24	10/31	11/06	11/10	11/13	11/17	11/20	11/23	11/27	12/03
20	11/14	11/20	11/25	11/29	12/03	12/06	12/10	12/15	12/22
16	11/27	12/03	12/07	12/11	12/14	12/17	12/21	12/25	12/31
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	177	170	165	161	157	153	149	144	138
32	208	200	194	190	185	181	176	170	163
28	225	220	215	212	209	205	202	198	192
24	258	250	245	240	236	231	227	221	214
20	294	285	278	272	266	261	255	248	238
16	319	310	304	298	293	288	282	276	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

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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	1039	862	687	394	149	20	1	3	47	317	606	906	5031
60	884	722	532	252	66	3	0	0	10	192	458	751	3870
57	791	638	441	177	35	1	0	0	3	132	373	658	3249
55	729	582	383	134	20	0	0	0	1	99	319	599	2866
50	583	449	247	54	4	0	0	0	0	41	197	456	2031
32	161	90	13	0	0	0	0	0	0	0	7	92	363

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	146	152	349	597	924	1150	1340	1287	1030	716	391	209	8291
55	0	0	6	41	232	460	627	574	341	102	13	4	2400
57	0	0	2	24	184	400	565	512	283	73	7	0	2050
60	0	0	0	9	122	313	472	419	200	40	2	0	1577
65	0	0	0	1	50	179	318	267	86	10	0	0	911
70	0	0	0	0	14	80	177	134	22	1	0	0	428

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	44	82	216	454	744	969	1139	1083	849	532	245	82	44	126	342	796	1540	2509	3648	4731	5580	6112	6357	6439
45	25	36	120	312	589	819	984	928	699	380	145	35	25	61	181	493	1082	1901	2885	3813	4512	4892	5037	5072
50	6	15	62	189	435	669	829	773	549	240	76	12	6	21	83	272	707	1376	2205	2978	3527	3767	3843	3855
55	1	2	25	104	288	519	674	618	402	129	29	3	1	3	28	132	420	939	1613	2231	2633	2762	2791	2794
60	0	0	8	48	162	370	519	464	264	56	8	0	0	0	8	56	218	588	1107	1571	1835	1891	1899	1899
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	34	59	145	287	467	651	773	738	556	329	153	52	34	93	238	525	992	1643	2416	3154	3710	4039	4192	4244

(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