

Climatography of the United States

No. 20

1971-2000

Station: LINTON, ND

COOP ID: 325210

Climate Division: ND 8

NWS Call Sign:

Elevation: 1,690 Feet Lat: 46° 16N

Lon: 100° 14W

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	20.3	-1.4	9.5	55+	1974	16	22.6	1987	-44+	1970	18	-5.4	1982	1724	0	.0	.0	.3	22.3	31.0	16.2
Feb	27.8	7.2	17.5	67+	1992	29	30.4	1998	-45	1994	9	1.6	1979	1330	0	.0	.0	2.4	15.5	28.0	9.5
Mar	39.7	19.0	29.4	80	1967	29	37.4	1986	-27	1962	1	19.9	1996	1106	0	.0	.0	8.5	7.8	28.1	3.3
Apr	55.9	31.2	43.6	96+	1992	30	51.7	1977	-12	1975	1	35.7	1975	645	1	.0	.3	21.8	.8	17.2	.1
May	69.1	43.1	56.1	101	1969	27	65.1	1977	12	1967	3	51.4	1979	299	23	.0	1.1	30.3	.0	4.3	.0
Jun	78.0	52.2	65.1	107	1966	29	76.6	1988	25	1969	20	58.0	1985	113	115	.3	3.8	30.0	.0	.2	.0
Jul	84.5	57.6	71.1	111+	1973	12	76.5	1974	30	1967	3	62.9	1992	32	220	1.6	10.1	31.0	.0	@	.0
Aug	83.5	55.8	69.7	109	1958	9	77.2	1983	29	1987	31	64.2	1977	48	192	.9	6.9	31.0	.0	.1	.0
Sep	72.1	43.8	58.0	104+	1960	2	64.8	1978	11	1974	30	50.9	1984	243	32	.4	2.8	29.3	@	3.7	.0
Oct	58.5	31.4	45.0	94	1963	4	48.8	1973	-7	1991	31	40.0	1976	622	0	.0	.1	24.6	.4	16.3	.1
Nov	37.4	16.9	27.2	78+	1978	2	35.9	1987	-31+	1985	29	15.4	1985	1136	0	.0	.0	6.8	8.9	28.5	2.6
Dec	24.8	4.5	14.7	63	1965	4	25.9	1997	-42	1967	31	-2.5	1983	1560	0	.0	.0	.8	19.6	31.0	11.1
Ann	54.3	30.1	42.2	111+	Jul 1973	12	77.2	Aug 1983	-45	Feb 1994	9	-5.4	Jan 1982	8858	583	3.2	25.1	216.8	75.3	188.4	42.9

+ 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: 1948-2001

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

053-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: LINTON, ND

COOP ID: 325210

Climate Division: ND 8

NWS Call Sign:

Elevation: 1,690 Feet Lat: 46°16N

Lon: 100°14W

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	.34	.23	.83	1949	4	1.30	1971	.00+	1992	3.6	1.5	.1	.0	.00	.00	.06	.14	.20	.27	.35	.44	.56	.74	.93	
Feb	.37	.31	1.00	1951	28	1.65	1979	.00+	1990	3.6	1.4	.1	.0	.00	.00	.07	.14	.21	.28	.36	.47	.60	.82	1.03	
Mar	.77	.63	1.21	1973	14	2.15	1975	.00+	1999	4.6	2.2	.5	@	.00	.10	.25	.37	.49	.63	.78	.96	1.21	1.61	2.00	
Apr	1.36	1.10	2.43	1974	20	4.34	1974	.00	1996	6.1	3.6	.9	.1	.05	.16	.36	.55	.77	1.01	1.30	1.67	2.17	3.01	3.83	
May	2.32	2.19	1.88	1999	10	5.51	1999	.50	1997	8.4	5.3	1.5	.4	.62	.84	1.18	1.47	1.76	2.06	2.40	2.80	3.32	4.14	4.91	
Jun	2.95	2.66	4.42	1956	6	7.33	1971	.19	1974	9.6	6.2	1.6	.6	.66	.94	1.37	1.76	2.15	2.56	3.03	3.58	4.31	5.48	6.57	
Jul	2.57	2.03	2.65	1981	12	6.38	1981	.32	1988	8.4	5.2	1.7	.6	.36	.58	.95	1.30	1.68	2.09	2.56	3.14	3.92	5.20	6.43	
Aug	1.80	1.48	3.85	1989	27	5.92	1989	.17	1971	6.8	3.7	1.0	.5	.34	.50	.77	1.01	1.26	1.52	1.83	2.19	2.68	3.46	4.20	
Sep	1.30	1.02	2.70	1992	1	4.09	1986	.06	1976	5.1	3.1	.8	.1	.11	.20	.37	.55	.75	.98	1.25	1.59	2.06	2.84	3.62	
Oct	1.44	1.02	2.05	1994	6	5.89	1994	.00+	1993	4.6	2.8	1.0	.3	.00	.08	.28	.49	.73	1.01	1.35	1.77	2.36	3.35	4.34	
Nov	.51	.36	1.00	2000	11	2.61	2000	.00+	1999	3.5	2.2	.1	@	.00	.00	.05	.13	.22	.33	.46	.63	.87	1.27	1.67	
Dec	.39	.30	.85	1988	26	1.31	1977	.00	1986	3.9	1.1	.1	.0	.01	.04	.10	.15	.21	.29	.37	.48	.63	.88	1.13	
Ann	16.12	15.37	4.42	Jun 1956	6	7.33	Jun 1971	.00+	Nov 1999	68.2	38.3	9.4	2.6	9.59	10.77	12.32	13.54	14.64	15.72	16.85	18.12	19.69	22.00	24.04	

+ 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

Complete documentation available from:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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: LINTON, ND

COOP ID: 325210

Climate Division: ND 8

NWS Call Sign:

Elevation: 1,690 Feet

Lat: 46° 16N

Lon: 100° 14W

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	7.7	5.9	5	4	12.0	1997	4	22.0	1971	24	1971	31	14	1971	2.6	1.8	.7	.3	@	-9.9	-9.9	-9.9	-9.9
Feb	5.5	5.9	5	#	6.0	1971	3	18.0	1979	30	1971	9	20	1979	2.2	2.0	.6	.1	.0	13.1	11.0	9.6	6.4
Mar	6.7	6.0	2	#	8.5	1982	20	22.0	1975	22	1979	2	9	1979	2.0	1.8	.8	.4	.0	8.4	5.4	4.1	2.4
Apr	1.6	.0	#	0	10.0	1997	6	15.0	1997	22	1975	1	4	1975	.5	.4	.3	.2	@	.7	.3	.3	.3
May	.3	.0	0	0	6.0	1991	3	6.0	1991	0	0	0	0	0	.1	@	@	@	.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	#	1995	21	#	1995	#	1995	21	#	1995	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.9	.0	#	0	8.0	1991	29	8.0	1991	4	1971	30	#	1971	.2	.2	.1	.1	.0	.1	.1	.0	.0
Nov	6.9	3.0	1	#	10.0	1977	20	26.0	1993	21	1977	27	6	1977	2.2	2.0	.7	.3	.1	3.0	2.7	2.0	.8
Dec	5.2	3.8	3	#	7.0	1971	7	14.0+	1977	17	1985	3	17	1985	3.0	2.3	.4	.2	.0	-9.9	-9.9	-9.9	-9.9
Ann	34.8	24.6	N/A	N/A	12.0	Jan 1997	4	26.0	Nov 1993	30	Feb 1971	9	20	Feb 1979	12.8	10.5	3.6	1.6	.1	-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:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

**Climatography
of the United States
No. 20
1971-2000**

Station: LINTON, ND

COOP ID: 325210

Climate Division: ND 8

NWS Call Sign:

Elevation: 1,690 Feet

Lat: 46° 16N

Lon: 100° 14W

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	6/24	6/16	6/10	6/06	6/01	5/27	5/23	5/17	5/09
32	6/09	6/02	5/28	5/23	5/19	5/15	5/11	5/06	4/29
28	5/25	5/21	5/17	5/14	5/11	5/08	5/05	5/02	4/27
24	5/13	5/08	5/04	5/01	4/28	4/25	4/22	4/18	4/13
20	5/07	4/30	4/25	4/21	4/17	4/13	4/09	4/04	3/28
16	4/20	4/15	4/11	4/08	4/06	4/03	3/31	3/27	3/22
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	8/26	8/30	9/03	9/06	9/09	9/12	9/15	9/18	9/23
32	9/03	9/08	9/11	9/14	9/17	9/19	9/22	9/26	10/01
28	9/12	9/17	9/20	9/22	9/25	9/28	9/30	10/04	10/08
24	9/20	9/25	9/29	10/02	10/05	10/09	10/12	10/16	10/21
20	9/22	9/29	10/03	10/07	10/11	10/14	10/18	10/23	10/29
16	9/28	10/05	10/10	10/14	10/18	10/22	10/27	11/01	11/08
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	129	119	111	105	99	93	87	79	69
32	145	136	130	125	120	114	109	103	94
28	158	150	145	140	136	132	127	122	115
24	179	173	168	164	160	156	152	147	140
20	200	192	186	181	176	171	166	160	152
16	220	212	205	200	195	190	185	179	170

* 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:

www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

**Climatography
of the United States
No. 20
1971-2000**

Station: LINTON, ND

COOP ID: 325210

Climate Division: ND 8

NWS Call Sign:

Elevation: 1,690 Feet Lat: 46°16N

Lon: 100°14W

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	1724	1330	1106	645	299	113	32	48	243	622	1136	1560	8858
60	1569	1190	951	502	185	51	10	16	139	468	986	1405	7472
57	1476	1106	858	420	130	28	3	6	91	378	896	1312	6704
55	1414	1056	796	368	99	18	1	3	65	320	836	1250	6226
50	1261	926	651	252	44	5	0	0	23	193	687	1095	5137
32	743	493	218	25	0	0	0	0	0	7	240	587	2313

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	41	87	135	371	747	992	1211	1167	779	408	94	50	6082
55	0	6	0	24	133	320	498	457	154	8	0	0	1600
57	0	0	0	16	102	270	438	398	120	4	0	0	1348
60	0	0	0	8	64	203	352	315	78	1	0	0	1021
65	0	0	0	1	23	115	220	192	32	0	0	0	583
70	0	0	0	0	6	52	121	101	10	0	0	0	290

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	0	2	28	201	527	775	987	924	574	228	24	0	0	2	30	231	758	1533	2520	3444	4018	4246	4270	4270
45	0	0	8	116	380	625	832	769	433	130	8	0	0	0	8	124	504	1129	1961	2730	3163	3293	3301	3301
50	0	0	1	60	252	476	677	614	297	61	1	0	0	0	1	61	313	789	1466	2080	2377	2438	2439	2439
55	0	0	0	28	143	336	522	461	181	20	0	0	0	0	0	28	171	507	1029	1490	1671	1691	1691	1691
60	0	0	0	10	74	204	368	310	99	7	0	0	0	0	0	10	84	288	656	966	1065	1072	1072	1072
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	4	37	157	345	493	641	597	376	180	27	0	0	4	41	198	543	1036	1677	2274	2650	2830	2857	2857

(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