

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: EDMORE 1 NW, ND

1971-2000

COOP ID: 322525

Climate Division: ND 3

NWS Call Sign:

Elevation: 1,535 Feet Lat: 48° 26N

Lon: 98° 28W

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	10.8	-9.5	.7	48	1990	10	14.6	1990	-42+	1993	10	-14.5	1982	1998	0	.0	.0	.0	28.1	31.0	21.1
Feb	18.3	-2.1	8.1	61	2000	23	23.7	1998	-46	1996	1	-7.9	1979	1595	0	.0	.0	.2	22.1	28.2	14.2
Mar	31.0	12.2	21.6	73	1963	31	32.7	2000	-38	1962	1	12.3	1996	1345	0	.0	.0	2.2	14.0	30.0	6.6
Apr	50.8	27.7	39.3	97	1980	21	48.4	1987	-13	1979	6	28.8	1979	773	1	.0	.1	16.9	2.5	21.3	.5
May	66.7	40.6	53.7	96+	1980	21	63.0	1977	5	1967	3	46.1	1979	371	19	.0	.4	29.1	.0	6.2	.0
Jun	74.4	49.9	62.2	102	1961	27	71.9	1988	23	1964	1	56.1	1985	147	60	.0	1.5	30.0	.0	.2	.0
Jul	79.0	53.9	66.5	107	1988	6	72.3	1989	33+	1984	6	59.1	1992	70	115	.2	2.9	31.0	.0	.0	.0
Aug	78.8	51.6	65.2	101+	1978	12	71.3	1983	25	1982	27	58.7	1977	98	105	.2	3.0	31.0	.0	.1	.0
Sep	67.3	41.7	54.5	101	1978	5	60.0	1998	16	1949	28	49.9	1985	325	10	@	.8	28.7	.0	4.2	.0
Oct	53.0	29.5	41.3	92	1963	4	46.6	1973	-4	1991	30	36.0	1976	736	0	.0	@	19.4	1.2	18.6	.1
Nov	31.1	12.7	21.9	75+	1999	1	33.7	1999	-30	1985	29	8.6	1996	1293	0	.0	.0	3.0	15.3	28.9	4.7
Dec	16.2	-2.5	6.9	57	1969	1	22.4	1997	-41	1967	31	-6.2	1983	1805	0	.0	.0	.0	26.8	31.0	16.1
Ann	48.1	25.5	36.8	107	Jul 1988	6	72.3	Jul 1989	-46	Feb 1996	1	-14.5	Jan 1982	10556	310	.4	8.7	191.5	110.0	199.7	63.3

+ 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

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

025-A

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COOP ID: 322525

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NWS Call Sign:

Elevation: 1,535 Feet Lat: 48°26N

Lon: 98°28W

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	.50	.38	.68	1998	25	1.59	1998	.01	1973	6.9	1.5	.1	.0	.06	.10	.17	.24	.31	.39	.49	.61	.77	1.04	1.29
Feb	.40	.32	.89	2000	26	1.30	1987	.00	1993	5.2	1.3	@	.0	.02	.06	.12	.18	.24	.31	.39	.49	.62	.85	1.07
Mar	.65	.64	.80	1956	28	1.56	1983	.08	1986	6.6	2.0	.2	.0	.14	.19	.29	.38	.46	.56	.66	.79	.96	1.22	1.48
Apr	1.02	.70	2.43	1953	24	3.45	1997	.00+	1988	6.3	2.5	.4	@	.00	.00	.24	.41	.59	.79	1.01	1.29	1.65	2.27	2.86
May	2.15	1.79	3.95	1996	17	6.13	1974	.28	1984	8.9	5.2	1.1	.2	.44	.64	.95	1.24	1.53	1.84	2.20	2.62	3.18	4.07	4.92
Jun	3.21	2.89	2.49	1997	23	7.79	1993	.59	1988	10.4	6.7	2.2	.7	1.22	1.52	1.95	2.30	2.64	2.98	3.36	3.79	4.34	5.18	5.95
Jul	3.32	3.00	4.12	1957	16	10.41	1993	.10	1985	10.6	6.9	1.9	.6	.53	.82	1.30	1.76	2.23	2.75	3.34	4.06	5.02	6.58	8.07
Aug	2.59	2.36	2.00	1985	17	6.56	1980	.49	1998	8.5	5.1	1.5	.7	.80	1.05	1.41	1.72	2.03	2.34	2.69	3.10	3.62	4.44	5.20
Sep	1.71	1.53	1.85	1973	24	3.59	1983	.32	1979	8.0	4.3	.9	.2	.47	.63	.88	1.09	1.30	1.53	1.77	2.07	2.45	3.04	3.60
Oct	1.39	1.17	2.17	1949	10	4.88	1997	.00	1993	6.9	3.2	.8	.2	.02	.08	.23	.41	.63	.90	1.23	1.66	2.27	3.34	4.42
Nov	.74	.56	1.38	1994	27	2.47	2000	.00	1976	5.9	2.1	.3	@	.02	.06	.16	.26	.38	.52	.68	.90	1.20	1.70	2.20
Dec	.48	.37	.91	2000	29	1.33	2000	.08	1979	6.2	1.5	.1	.0	.08	.13	.20	.26	.33	.40	.48	.58	.72	.93	1.14
Ann	18.16	17.99	4.12	Jul 1957	16	10.41	Jul 1993	.00+	Oct 1993	90.4	42.3	9.5	2.6	11.25	12.52	14.18	15.46	16.62	17.75	18.94	20.26	21.89	24.28	26.38

+ 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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Station: EDMORE 1 NW, ND

COOP ID: 322525

Climate Division: ND 3

NWS Call Sign:

Elevation: 1,535 Feet

Lat: 48°26N

Lon: 98°28W

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	5.8	4.8	6	5	6.0	1999	14	15.0	1998	20	1993	29	19	1993	7.8	2.3	.4	@	.0	29.0	20.9	12.6	2.8
Feb	4.5	4.0	6	4	6.0	1999	23	16.7	1987	20+	1993	28	20	1993	5.6	1.6	.4	.1	.0	23.0	18.8	10.5	4.1
Mar	5.2	4.0	4	4	7.0	1990	14	11.8	1971	20	1993	1	15	1993	5.7	1.9	.5	@	.0	16.6	12.5	8.3	2.7
Apr	2.1	1.2	1	#	8.0	1999	2	10.0	1999	8+	1999	5	6	1979	2.0	.8	.2	.1	.0	3.7	2.5	1.6	.0
May	.4	.0	#	0	4.0	1991	3	5.0	1991	4	1991	3	#+	1997	.2	.2	@	.0	.0	.1	@	.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	.1	.0	#	0	1.5	1972	26	1.5	1972	#	1995	21	#	1995	@	@	.0	.0	.0	.0	.0	.0	.0
Oct	1.5	.6	#	#	6.0	1985	7	8.5	1985	6	1985	8	1	1991	1.1	.8	.2	@	.0	1.0	.4	.2	.0
Nov	5.7	5.1	2	1	10.0	1994	27	14.0	1995	12	1986	20	9	1996	5.4	2.2	.7	.2	@	10.6	6.1	2.6	1.0
Dec	4.9	4.5	4	3	9.0	2000	29	10.2	1988	18	1992	31	12	1992	7.0	2.1	.2	.0	.0	22.3	13.9	7.2	1.7
Ann	30.2	24.2	N/A	N/A	10.0	Nov 1994	27	16.7	Feb 1987	20+	Mar 1993	1	20	Feb 1993	34.8	11.9	2.6	.4	@	106.3	75.1	43.0	12.3

+ 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: ND 3

NWS Call Sign:

Elevation: 1,535 Feet

Lat: 48°26N

Lon: 98°28W

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	6/30	6/22	6/16	6/11	6/06	6/01	5/27	5/21	5/13
32	6/04	5/31	5/27	5/24	5/22	5/19	5/16	5/13	5/08
28	5/23	5/18	5/14	5/12	5/09	5/06	5/03	4/30	4/25
24	5/17	5/11	5/06	5/02	4/28	4/24	4/20	4/16	4/09
20	5/06	4/30	4/26	4/22	4/19	4/15	4/12	4/08	4/02
16	4/21	4/16	4/13	4/10	4/07	4/04	4/01	3/29	3/24
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	8/15	8/21	8/26	8/30	9/02	9/06	9/10	9/15	9/21
32	8/31	9/05	9/09	9/12	9/15	9/18	9/21	9/25	10/01
28	9/10	9/14	9/18	9/20	9/23	9/26	9/28	10/02	10/06
24	9/17	9/23	9/27	10/01	10/04	10/07	10/11	10/15	10/21
20	9/26	10/02	10/07	10/10	10/14	10/17	10/21	10/25	10/31
16	10/10	10/15	10/19	10/22	10/25	10/28	11/01	11/04	11/10
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	122	110	102	95	88	81	74	65	53
32	138	131	125	120	116	111	106	101	93
28	156	149	145	140	137	133	129	124	117
24	186	177	170	164	158	153	147	140	130
20	203	194	188	182	177	172	167	160	151
16	223	215	210	205	200	196	191	186	178

* 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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NWS Call Sign:

Elevation: 1,535 Feet Lat: 48° 26N Lon: 98° 28W

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	1998	1595	1345	773	371	147	70	98	325	736	1293	1805	10556
60	1843	1455	1190	629	248	70	20	38	200	581	1143	1650	9067
57	1750	1371	1097	545	188	39	9	18	138	488	1053	1557	8253
55	1688	1315	1035	492	152	25	5	11	102	427	993	1495	7740
50	1533	1175	884	366	82	6	0	2	39	281	843	1340	6551
32	990	702	404	76	2	0	0	0	0	22	370	803	3369

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	15	31	82	293	673	903	1068	1030	675	309	67	22	5168
55	0	0	0	19	111	238	360	328	87	1	0	0	1144
57	0	0	0	13	84	192	302	274	63	0	0	0	928
60	0	0	0	6	51	134	221	200	35	0	0	0	647
65	0	0	0	1	19	60	115	105	10	0	0	0	310
70	0	0	0	0	5	19	44	41	2	0	0	0	111

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	0	6	131	459	688	840	795	461	154	11	0	0	0	6	137	596	1284	2124	2919	3380	3534	3545	3545
45	0	0	0	69	324	538	685	640	319	79	2	0	0	0	0	69	393	931	1616	2256	2575	2654	2656	2656
50	0	0	0	30	203	390	530	486	197	33	0	0	0	0	0	30	233	623	1153	1639	1836	1869	1869	1869
55	0	0	0	14	111	252	376	336	106	6	0	0	0	0	0	14	125	377	753	1089	1195	1201	1201	1201
60	0	0	0	4	48	134	228	196	48	1	0	0	0	0	0	4	52	186	414	610	658	659	659	659
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	6	103	299	426	535	506	285	116	9	0	0	0	6	109	408	834	1369	1875	2160	2276	2285	2285

(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