

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **BELCOURT KEYA RADIO, ND US**

GHCND:USC00320626
 Elev: 597 ft. Lat: 48.841° N Lon: 99.751° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **MADDOCK, ND US**

GHCND:USC00325434
 Elev: 492 ft. Lat: 47.962° N Lon: 99.526° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date
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151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **EDGELEY 3 WNW, ND US**

GHCND:USC00322482
Elev: 475 ft. Lat: 46.369° N Lon: 98.766° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/01	5/29	5/25	5/22	5/19	5/16	5/13	5/10	5/06
32	5/24	5/19	5/15	5/12	5/09	5/07	5/04	5/01	4/27
28	5/16	5/10	5/06	5/03	5/01	4/28	4/25	4/21	4/16
24	5/07	5/01	4/27	4/23	4/20	4/17	4/14	4/10	4/05
20	4/26	4/20	4/16	4/13	4/10	4/07	4/04	4/02	3/27
16	4/15	4/10	4/07	4/04	4/02	3/31	3/27	3/23	3/17
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	9/08	9/12	9/15	9/17	9/20	9/22	9/24	9/27	10/01
32	9/17	9/20	9/23	9/26	9/28	9/30	10/02	10/05	10/10
28	9/24	9/28	10/01	10/03	10/06	10/09	10/12	10/15	10/19
24	10/02	10/06	10/10	10/13	10/16	10/19	10/22	10/25	10/30
20	10/10	10/16	10/19	10/23	10/26	10/29	11/01	11/05	11/10
16	10/20	10/26	10/29	11/01	11/04	11/08	11/11	11/14	11/20
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	139	134	130	126	123	119	115	111	105
32	157	151	147	143	140	136	132	128	122
28	176	170	165	161	157	153	149	144	138
24	197	190	185	180	176	172	168	162	155
20	218	211	206	201	197	193	188	183	175
16	237	230	225	220	216	212	208	203	195

* 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 1981-2010 serially complete daily data

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

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151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: GACKLE, ND US

GHCND:USC00323309

Elev: 595 ft. Lat: 46.628° N Lon: 99.138° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/31	5/27	5/24	5/20	5/17	5/14	5/11	5/08	5/04
32	5/22	5/17	5/14	5/11	5/08	5/05	5/03	4/30	4/26
28	5/14	5/09	5/05	5/02	4/30	4/28	4/25	4/21	4/16
24	5/06	5/01	4/28	4/24	4/21	4/18	4/15	4/11	4/06
20	4/26	4/21	4/17	4/14	4/11	4/08	4/05	4/02	3/29
16	4/17	4/12	4/08	4/05	4/03	3/31	3/29	3/24	3/18
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	9/10	9/14	9/17	9/20	9/22	9/24	9/26	9/29	10/03
32	9/18	9/22	9/25	9/27	9/29	10/01	10/04	10/07	10/11
28	9/25	9/29	10/02	10/05	10/07	10/11	10/13	10/16	10/21
24	10/02	10/07	10/10	10/13	10/16	10/19	10/23	10/26	10/30
20	10/10	10/15	10/19	10/23	10/26	10/29	11/01	11/04	11/09
16	10/19	10/24	10/28	11/01	11/03	11/06	11/09	11/13	11/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	143	137	133	129	126	122	118	114	107
32	160	154	150	146	142	139	135	131	125
28	178	171	167	163	159	155	151	146	139
24	197	190	185	181	176	172	168	163	156
20	218	210	205	200	196	192	187	182	175
16	235	228	223	218	214	210	206	200	193

* 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.

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Complete Documentation available from:
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151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **TIOGA 1 E, ND US**

GHCND:USC00328737

Elev: 684 ft. Lat: 48.399° N Lon: 102.918° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/17	6/10	6/06	6/03	5/31	5/28	5/25	5/21	5/16
32	6/04	5/30	5/26	5/22	5/19	5/16	5/13	5/10	5/06
28	5/24	5/18	5/15	5/12	5/09	5/06	5/04	5/01	4/26
24	5/15	5/09	5/05	5/02	4/30	4/27	4/24	4/19	4/14
20	5/03	4/29	4/25	4/22	4/19	4/15	4/12	4/08	4/03
16	4/24	4/19	4/15	4/11	4/08	4/05	4/03	3/31	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	8/24	8/30	9/02	9/05	9/08	9/11	9/14	9/17	9/21
32	9/04	9/09	9/13	9/16	9/18	9/21	9/23	9/27	10/01
28	9/13	9/18	9/21	9/24	9/26	9/29	10/02	10/05	10/10
24	9/21	9/25	9/29	10/02	10/05	10/08	10/12	10/15	10/19
20	9/29	10/04	10/08	10/12	10/14	10/17	10/21	10/24	10/30
16	10/08	10/13	10/16	10/20	10/23	10/26	10/29	11/02	11/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	119	113	108	104	99	95	90	84	76
32	139	133	128	124	120	116	112	107	99
28	158	152	147	143	139	135	131	126	120
24	179	171	166	161	157	153	149	144	137
20	200	192	186	181	177	172	168	162	154
16	218	211	205	200	196	192	187	181	174

* 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 1981-2010 serially complete daily data

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

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www.ncdc.noaa.gov

Station: **HILLSBORO 3 N, ND US**

GHCND:USC00324203
Elev: 277 ft. Lat: 47.439° N Lon: 97.066° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/03	5/29	5/24	5/20	5/17	5/14	5/10	5/06	5/02
32	5/22	5/16	5/13	5/09	5/06	5/03	4/30	4/28	4/23
28	5/12	5/07	5/03	4/30	4/28	4/25	4/22	4/17	4/10
24	5/02	4/29	4/25	4/21	4/17	4/14	4/10	4/06	4/02
20	4/22	4/17	4/13	4/09	4/07	4/05	4/02	3/31	3/24
16	4/14	4/08	4/06	4/03	4/01	3/30	3/26	3/21	3/16
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	9/08	9/13	9/16	9/19	9/21	9/23	9/26	9/30	10/04
32	9/17	9/21	9/24	9/27	9/30	10/02	10/05	10/09	10/15
28	9/24	9/29	10/02	10/05	10/09	10/13	10/16	10/21	10/27
24	10/02	10/08	10/13	10/17	10/20	10/24	10/28	11/01	11/05
20	10/12	10/18	10/23	10/27	10/30	11/02	11/05	11/09	11/13
16	10/21	10/28	11/01	11/04	11/06	11/09	11/12	11/16	11/20
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	145	138	134	129	126	122	117	112	104
32	165	158	153	148	144	140	136	131	125
28	186	178	172	168	163	159	154	149	142
24	206	199	193	188	183	179	174	168	160
20	223	216	211	207	203	199	195	189	181
16	238	231	227	222	219	215	210	205	198

* 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 1981-2010 serially complete daily data

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

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 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **LIDGERWOOD, ND US**

GHCND:USC00325186
 Elev: 343 ft. Lat: 46.072° N Lon: 97.146° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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
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20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

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 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **COURTENAY 1 NW, ND US**

GHCND:USC00321816
 Elev: 462 ft. Lat: 47.241° N Lon: 98.584° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
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24									
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16									

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www.ncdc.noaa.gov

Station: **ABERCROMBIE, ND US**

GHCND:USC00320005
Elev: 285 ft. Lat: 46.450° N Lon: 96.733° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
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20									
16									

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Complete Documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

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151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **AMBROSE 3 N, ND US**

GHCND:USC00320189
Elev: 618 ft. Lat: 48.998° N Lon: 103.488° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

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Station: **DICKINSON RANCH HQ, ND US**

GHCND:USC00322193
Elev: 725 ft. Lat: 47.194° N Lon: 102.841° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/17	6/08	6/03	5/31	5/28	5/25	5/22	5/18	5/14
32	6/02	5/27	5/23	5/20	5/17	5/14	5/11	5/07	5/03
28	5/20	5/15	5/12	5/09	5/06	5/04	5/01	4/28	4/23
24	5/10	5/05	5/02	4/29	4/26	4/24	4/20	4/17	4/13
20	4/30	4/26	4/22	4/19	4/16	4/14	4/11	4/07	4/03
16	4/22	4/16	4/13	4/10	4/08	4/05	4/03	3/31	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	8/30	9/03	9/07	9/10	9/12	9/15	9/17	9/20	9/24
32	9/07	9/11	9/15	9/18	9/20	9/23	9/25	9/28	10/02
28	9/15	9/20	9/23	9/26	9/29	10/01	10/04	10/08	10/12
24	9/24	9/29	10/02	10/05	10/08	10/11	10/14	10/17	10/22
20	10/04	10/08	10/12	10/14	10/17	10/21	10/24	10/27	10/31
16	10/12	10/16	10/20	10/24	10/27	10/30	11/02	11/06	11/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	125	119	114	110	106	102	97	91	83
32	144	138	133	129	125	122	117	112	105
28	163	157	152	148	144	140	136	132	125
24	183	176	172	167	163	160	155	150	143
20	201	195	190	186	182	178	174	169	162
16	223	215	209	205	200	196	192	187	180

* Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date

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 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **FORTUNA 1 W, ND US**

GHCND:USC00323196
 Elev: 716 ft. Lat: 48.908° N Lon: 103.806° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **HEBRON, ND US**

GHCND:USC00324102
Elev: 658 ft. Lat: 46.908° N Lon: 102.038° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/15	6/08	6/05	6/02	5/30	5/27	5/24	5/20	5/15
32	6/02	5/28	5/25	5/21	5/18	5/15	5/12	5/09	5/05
28	5/23	5/18	5/14	5/11	5/08	5/06	5/03	5/01	4/27
24	5/13	5/08	5/05	5/02	4/30	4/28	4/25	4/21	4/16
20	5/04	4/30	4/27	4/24	4/21	4/18	4/15	4/12	4/07
16	4/27	4/22	4/18	4/15	4/12	4/09	4/07	4/03	3/30
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	8/22	8/30	9/02	9/05	9/08	9/11	9/13	9/17	9/21
32	9/04	9/09	9/12	9/15	9/18	9/21	9/23	9/27	10/01
28	9/13	9/18	9/21	9/24	9/27	9/29	10/02	10/05	10/10
24	9/21	9/25	9/29	10/01	10/04	10/07	10/10	10/14	10/19
20	9/29	10/03	10/06	10/10	10/13	10/15	10/19	10/22	10/27
16	10/07	10/12	10/15	10/18	10/21	10/24	10/28	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	120	113	108	104	100	95	91	85	77
32	139	133	129	125	121	118	113	108	101
28	157	151	146	142	139	135	132	127	121
24	175	169	164	159	156	152	147	143	136
20	193	186	181	177	173	169	165	160	153
16	214	205	200	195	190	186	182	177	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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **BEULAH 1 W, ND US**

GHCND:USC00320766
Elev: 544 ft. Lat: 47.262° N Lon: 101.791° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/22	6/15	6/09	6/05	6/02	5/30	5/27	5/23	5/17
32	6/08	6/02	5/30	5/26	5/21	5/18	5/14	5/10	5/05
28	5/28	5/21	5/16	5/12	5/09	5/06	5/03	4/30	4/25
24	5/15	5/10	5/05	5/02	4/30	4/27	4/24	4/20	4/14
20	5/06	5/01	4/27	4/24	4/21	4/17	4/14	4/10	4/05
16	4/28	4/22	4/17	4/14	4/11	4/08	4/04	4/01	3/25
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	8/23	8/30	9/02	9/05	9/08	9/10	9/13	9/16	9/21
32	9/04	9/09	9/12	9/15	9/18	9/20	9/23	9/26	10/01
28	9/12	9/17	9/20	9/23	9/26	9/29	10/01	10/05	10/10
24	9/20	9/24	9/28	10/01	10/04	10/07	10/11	10/15	10/20
20	9/28	10/03	10/06	10/10	10/13	10/17	10/21	10/24	10/30
16	10/06	10/12	10/16	10/20	10/23	10/27	10/31	11/03	11/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	116	109	104	99	94	90	85	79	70
32	138	132	126	122	117	113	108	103	95
28	158	151	146	142	138	133	129	123	116
24	178	170	165	160	156	152	147	142	134
20	197	189	184	179	175	170	166	160	152
16	219	210	204	199	194	190	185	179	171

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: LITCHVILLE 2 NW, ND US

GHCND:USC00325230
 Elev: 452 ft. Lat: 46.661° N Lon: 98.227° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **NEW SALEM 5 NW, ND US**

GHCND:USC00326365
Elev: 655 ft. Lat: 46.892° N Lon: 101.490° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/15	6/08	6/04	6/01	5/29	5/25	5/22	5/18	5/13
32	6/03	5/28	5/24	5/20	5/17	5/14	5/11	5/08	5/04
28	5/23	5/17	5/13	5/09	5/07	5/04	5/02	4/29	4/23
24	5/12	5/07	5/03	4/30	4/28	4/25	4/21	4/17	4/13
20	5/02	4/28	4/24	4/20	4/17	4/15	4/12	4/08	4/04
16	4/24	4/19	4/15	4/12	4/09	4/06	4/04	4/01	3/26
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	9/01	9/05	9/09	9/11	9/14	9/17	9/19	9/22	9/26
32	9/11	9/15	9/18	9/20	9/23	9/25	9/28	10/01	10/05
28	9/18	9/22	9/25	9/28	10/01	10/03	10/06	10/09	10/14
24	9/26	9/30	10/03	10/06	10/09	10/11	10/14	10/18	10/22
20	10/03	10/08	10/11	10/14	10/17	10/20	10/23	10/26	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	127	121	115	111	107	103	99	93	86
32	146	140	136	131	128	124	120	114	108
28	165	158	153	149	145	142	138	132	125
24	183	176	171	167	163	159	155	150	143
20	202	194	189	185	181	177	172	167	160
16	220	213	207	202	198	194	189	184	177

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MAX, ND US**

GHCND:USC00325638

Elev: 643 ft. Lat: 47.821° N Lon: 101.292° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/04	5/30	5/26	5/22	5/20	5/17	5/15	5/12	5/08
32	5/26	5/20	5/17	5/14	5/11	5/09	5/06	5/03	4/30
28	5/16	5/11	5/08	5/05	5/02	4/30	4/27	4/23	4/16
24	5/07	5/02	4/30	4/26	4/23	4/19	4/16	4/12	4/07
20	4/29	4/24	4/20	4/16	4/13	4/10	4/07	4/04	3/31
16	4/21	4/15	4/11	4/08	4/05	4/03	4/01	3/28	3/21
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	9/07	9/11	9/14	9/17	9/19	9/21	9/24	9/27	10/01
32	9/15	9/19	9/22	9/24	9/27	9/29	10/01	10/05	10/09
28	9/22	9/26	9/29	10/02	10/05	10/07	10/10	10/13	10/17
24	9/30	10/04	10/07	10/10	10/13	10/16	10/18	10/22	10/26
20	10/07	10/12	10/15	10/19	10/21	10/24	10/27	10/31	11/06
16	10/14	10/19	10/23	10/26	10/29	11/01	11/05	11/09	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	137	132	127	124	120	116	112	107	99
32	154	148	144	140	137	133	129	125	118
28	173	166	161	157	153	150	146	141	134
24	192	185	180	175	171	167	163	158	151
20	210	203	198	194	190	186	181	176	169
16	227	220	215	210	206	201	197	192	185

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **DICKINSON EXPERIMENTAL STATION, ND US**

GHCND:USC00322188
Elev: 750 ft. Lat: 46.891° N Lon: 102.811° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	6/07	6/02	5/30	5/26	5/22	5/19	5/16	5/12	5/08
28	5/27	5/21	5/17	5/14	5/11	5/08	5/06	5/03	4/29
24	5/15	5/10	5/06	5/04	5/01	4/29	4/26	4/23	4/18
20	5/05	4/30	4/27	4/24	4/22	4/19	4/16	4/12	4/07
16	4/26	4/21	4/17	4/15	4/12	4/09	4/06	4/02	3/28
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	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	9/03	9/08	9/11	9/14	9/17	9/19	9/22	9/25	9/29
28	9/12	9/16	9/20	9/23	9/25	9/28	9/30	10/03	10/07
24	9/19	9/24	9/27	9/30	10/03	10/06	10/09	10/12	10/17
20	9/27	10/01	10/05	10/09	10/12	10/15	10/18	10/21	10/26
16	10/05	10/11	10/15	10/18	10/21	10/23	10/27	10/31	11/05
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	114	107	102	98	93	89	84	77	68
32	136	130	125	121	117	113	108	103	96
28	154	148	143	140	136	132	128	123	116
24	173	167	162	158	154	150	146	142	135
20	193	186	181	177	173	169	164	160	152
16	214	206	200	196	192	188	183	178	171

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **BEULAH 2 NW, ND US**

GHCND:USC00320767
 Elev: 631 ft. Lat: 47.295° N Lon: 101.819° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **WILLISTON EXPERIMENTAL FARM, ND US**

GHCND:USC00329430
Elev: 642 ft. Lat: 48.138° N Lon: 103.737° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/05	6/01	5/28	5/25	5/22	5/19	5/16	5/13	5/10
32	5/25	5/20	5/16	5/14	5/11	5/09	5/06	5/03	4/29
28	5/14	5/10	5/07	5/04	5/01	4/29	4/26	4/23	4/17
24	5/04	4/30	4/27	4/24	4/21	4/17	4/14	4/10	4/04
20	4/25	4/19	4/16	4/12	4/09	4/06	4/03	4/01	3/26
16	4/16	4/10	4/07	4/05	4/02	3/31	3/27	3/22	3/15
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	9/05	9/10	9/13	9/16	9/18	9/20	9/22	9/25	9/28
32	9/14	9/19	9/22	9/24	9/26	9/28	9/30	10/03	10/07
28	9/21	9/25	9/28	10/01	10/04	10/07	10/10	10/13	10/17
24	9/28	10/03	10/07	10/10	10/13	10/16	10/18	10/22	10/26
20	10/05	10/11	10/14	10/18	10/20	10/23	10/26	10/29	11/03
16	10/13	10/18	10/22	10/25	10/28	10/31	11/04	11/08	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	134	129	125	121	117	114	110	105	98
32	154	148	144	140	137	133	130	125	119
28	174	167	163	158	155	151	147	143	136
24	194	188	182	178	174	170	166	160	153
20	214	207	202	197	193	189	184	179	172
16	232	225	219	214	210	205	201	195	188

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MC HENRY 3 W, ND US**

GHCND:USC00325730
Elev: 474 ft. Lat: 47.581° N Lon: 98.642° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/05	5/31	5/28	5/24	5/21	5/19	5/15	5/12	5/08
32	5/26	5/21	5/17	5/14	5/11	5/08	5/06	5/03	4/29
28	5/17	5/12	5/08	5/05	5/02	4/30	4/27	4/23	4/18
24	5/08	5/03	4/30	4/27	4/23	4/20	4/17	4/13	4/08
20	4/30	4/24	4/19	4/16	4/13	4/11	4/08	4/05	4/01
16	4/19	4/14	4/11	4/08	4/05	4/03	4/01	3/29	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	9/05	9/10	9/13	9/16	9/18	9/20	9/22	9/25	9/29
32	9/15	9/19	9/21	9/24	9/26	9/28	10/01	10/04	10/08
28	9/22	9/26	9/29	10/02	10/04	10/06	10/10	10/13	10/18
24	10/01	10/04	10/07	10/11	10/13	10/16	10/19	10/23	10/27
20	10/08	10/13	10/17	10/20	10/23	10/26	10/29	11/01	11/06
16	10/17	10/22	10/26	10/29	11/01	11/03	11/06	11/10	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	135	129	125	121	118	114	110	105	98
32	153	147	143	139	136	132	128	124	118
28	172	166	161	157	153	150	146	141	135
24	191	184	180	176	171	168	163	159	152
20	211	204	199	195	191	187	182	177	170
16	228	221	216	212	208	204	199	194	187

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **BREIEN, ND US**

GHCND:USC00321052
Elev: 524 ft. Lat: 46.380° N Lon: 100.941° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/13	6/08	6/03	6/01	5/30	5/26	5/23	5/19	5/14
32	6/03	5/29	5/25	5/21	5/17	5/14	5/11	5/08	5/03
28	5/23	5/17	5/13	5/10	5/07	5/04	5/01	4/28	4/23
24	5/14	5/08	5/03	4/30	4/28	4/25	4/22	4/18	4/14
20	5/04	4/29	4/25	4/21	4/18	4/15	4/12	4/09	4/04
16	4/25	4/19	4/15	4/11	4/08	4/05	4/03	3/30	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	8/25	9/01	9/03	9/06	9/09	9/11	9/14	9/17	9/21
32	9/06	9/10	9/13	9/16	9/19	9/21	9/24	9/27	10/02
28	9/15	9/19	9/22	9/24	9/27	9/30	10/02	10/05	10/10
24	9/21	9/25	9/29	10/01	10/04	10/07	10/10	10/14	10/18
20	9/28	10/03	10/07	10/10	10/13	10/16	10/19	10/23	10/27
16	10/06	10/12	10/16	10/19	10/22	10/25	10/28	11/01	11/06
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	121	114	109	105	101	97	93	88	80
32	141	135	131	126	123	119	114	109	102
28	160	153	149	145	142	138	134	129	122
24	177	170	166	161	157	154	150	144	138
20	195	189	184	179	175	171	167	162	154
16	216	209	203	199	194	190	186	180	172

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **PETTIBONE, ND US**

GHCND:USC00327047
Elev: 564 ft. Lat: 47.117° N Lon: 99.533° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/03	5/30	5/26	5/23	5/20	5/17	5/14	5/11	5/07
32	5/24	5/19	5/16	5/13	5/10	5/08	5/05	5/02	4/28
28	5/16	5/11	5/08	5/05	5/03	4/30	4/27	4/23	4/17
24	5/08	5/03	4/30	4/26	4/23	4/19	4/16	4/12	4/07
20	4/30	4/23	4/19	4/15	4/12	4/09	4/06	4/03	3/30
16	4/18	4/13	4/10	4/07	4/04	4/02	3/31	3/26	3/20
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	9/07	9/11	9/15	9/18	9/20	9/22	9/24	9/27	10/01
32	9/16	9/20	9/23	9/26	9/28	10/01	10/03	10/06	10/10
28	9/24	9/28	10/01	10/03	10/06	10/09	10/12	10/15	10/19
24	10/01	10/06	10/09	10/12	10/15	10/18	10/21	10/24	10/29
20	10/10	10/15	10/19	10/22	10/25	10/28	10/31	11/03	11/08
16	10/19	10/24	10/28	10/31	11/02	11/05	11/08	11/11	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	139	133	129	125	121	118	114	109	102
32	157	151	147	143	139	136	132	127	121
28	175	168	163	160	156	152	148	143	137
24	195	187	182	178	174	169	165	160	153
20	214	207	202	197	193	189	184	179	172
16	231	224	219	215	211	207	203	198	191

* 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 1981-2010 serially complete daily data

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

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National Oceanic & Atmospheric Administration
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Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **STREETER 7 NW, ND US**

GHCND:USC00328415
Elev: 598 ft. Lat: 46.715° N Lon: 99.448° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/06	6/02	5/30	5/26	5/23	5/20	5/17	5/13	5/09
32	5/29	5/24	5/19	5/16	5/13	5/10	5/07	5/04	4/30
28	5/19	5/14	5/10	5/07	5/04	5/01	4/29	4/25	4/19
24	5/12	5/06	5/01	4/29	4/25	4/22	4/18	4/15	4/10
20	5/02	4/27	4/22	4/18	4/15	4/12	4/09	4/05	4/01
16	4/22	4/16	4/12	4/09	4/06	4/03	3/31	3/28	3/21
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	9/01	9/08	9/12	9/15	9/18	9/21	9/23	9/26	9/30
32	9/13	9/18	9/21	9/24	9/27	9/29	10/02	10/05	10/09
28	9/22	9/26	9/29	10/02	10/05	10/07	10/11	10/14	10/18
24	9/30	10/04	10/07	10/10	10/14	10/16	10/19	10/23	10/27
20	10/07	10/12	10/16	10/20	10/23	10/26	10/29	11/02	11/07
16	10/16	10/22	10/27	10/30	11/02	11/05	11/08	11/12	11/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	135	129	124	120	116	112	107	102	94
32	153	147	142	138	135	131	127	122	114
28	171	165	160	156	152	148	144	139	132
24	190	183	178	174	169	165	161	156	148
20	211	204	198	193	189	184	179	173	166
16	231	224	218	214	209	205	200	195	186

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
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 Service

**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **STANLEY 3 NNW, ND US**

GHCND:USC00328276
 Elev: 695 ft. Lat: 48.456° N Lon: 102.595° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/11	6/05	6/02	5/31	5/28	5/25	5/22	5/18	5/14
32	5/31	5/26	5/22	5/20	5/17	5/14	5/12	5/09	5/05
28	5/20	5/16	5/13	5/10	5/08	5/05	5/03	4/30	4/24
24	5/12	5/07	5/04	5/01	4/29	4/26	4/22	4/18	4/13
20	5/01	4/27	4/24	4/20	4/17	4/14	4/11	4/08	4/04
16	4/22	4/17	4/13	4/10	4/08	4/05	4/03	4/01	3/26
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	8/29	9/02	9/06	9/09	9/11	9/14	9/17	9/19	9/23
32	9/08	9/12	9/15	9/18	9/20	9/22	9/25	9/28	10/02
28	9/16	9/20	9/23	9/25	9/28	10/01	10/04	10/07	10/11
24	9/24	9/28	10/01	10/04	10/07	10/10	10/13	10/16	10/21
20	10/02	10/07	10/11	10/13	10/16	10/19	10/22	10/26	10/30
16	10/10	10/15	10/18	10/22	10/24	10/27	10/30	11/02	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	123	117	113	109	106	102	98	93	86
32	141	136	132	128	124	121	117	112	106
28	161	154	150	146	142	138	135	130	124
24	181	174	169	165	161	157	153	148	141
20	200	193	189	184	180	177	172	167	160
16	219	211	206	202	198	194	190	185	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 1981-2010 serially complete daily data

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

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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **BISMARCK 5 NNW, ND US**

GHCND:USC00320817
 Elev: 558 ft. Lat: 46.834° N Lon: 100.797° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **GARRISON 1 NNW, ND US**

GHCND:USC00323376
Elev: 589 ft. Lat: 47.654° N Lon: 101.420° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/13	6/07	6/03	6/01	5/29	5/25	5/22	5/18	5/14
32	6/02	5/28	5/23	5/20	5/17	5/14	5/11	5/09	5/05
28	5/22	5/16	5/13	5/10	5/07	5/05	5/02	4/30	4/25
24	5/11	5/07	5/03	5/01	4/29	4/26	4/23	4/19	4/13
20	5/02	4/28	4/25	4/22	4/19	4/16	4/12	4/09	4/04
16	4/25	4/20	4/16	4/13	4/10	4/07	4/04	4/01	3/26
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	8/29	9/03	9/07	9/10	9/13	9/16	9/18	9/21	9/24
32	9/09	9/13	9/17	9/20	9/22	9/25	9/27	9/30	10/04
28	9/18	9/22	9/25	9/28	9/30	10/03	10/05	10/09	10/13
24	9/26	9/30	10/03	10/05	10/08	10/11	10/14	10/17	10/21
20	10/04	10/07	10/11	10/14	10/16	10/19	10/22	10/26	10/31
16	10/09	10/15	10/18	10/22	10/25	10/28	11/01	11/04	11/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	125	119	114	110	106	102	98	92	84
32	144	138	134	130	127	123	118	113	106
28	162	156	152	148	145	141	137	133	126
24	182	175	170	166	162	158	154	149	143
20	201	194	189	184	180	176	171	166	160
16	220	212	207	202	197	193	188	183	176

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: WESTHOPE, ND US

GHCND:USC00329333
Elev: 458 ft. Lat: 48.910° N Lon: 101.019° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/12	6/04	5/31	5/28	5/25	5/22	5/20	5/16	5/12
32	5/29	5/24	5/21	5/18	5/15	5/12	5/10	5/06	5/03
28	5/20	5/15	5/12	5/09	5/06	5/03	4/30	4/27	4/22
24	5/12	5/06	5/03	4/30	4/27	4/23	4/19	4/15	4/10
20	5/03	4/27	4/22	4/18	4/15	4/12	4/08	4/05	4/02
16	4/21	4/15	4/11	4/08	4/06	4/04	4/02	3/30	3/23
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	8/29	9/03	9/07	9/10	9/12	9/15	9/17	9/20	9/24
32	9/08	9/13	9/16	9/19	9/21	9/24	9/26	9/29	10/03
28	9/18	9/21	9/24	9/27	9/29	10/01	10/04	10/08	10/12
24	9/26	9/30	10/03	10/05	10/08	10/11	10/14	10/17	10/21
20	10/04	10/08	10/12	10/14	10/17	10/20	10/22	10/26	10/30
16	10/11	10/15	10/19	10/22	10/25	10/28	10/31	11/03	11/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	127	121	116	112	108	103	99	92	82
32	145	140	135	131	128	124	120	115	109
28	163	157	152	149	145	141	137	133	127
24	183	176	171	166	162	159	154	149	143
20	203	196	191	186	182	178	174	168	160
16	221	214	209	204	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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **LA MOURE, ND US**

GHCND:USC00324937
Elev: 401 ft. Lat: 46.355° N Lon: 98.293° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/02	5/29	5/25	5/22	5/18	5/15	5/12	5/09	5/04
32	5/24	5/18	5/14	5/11	5/08	5/05	5/02	4/29	4/25
28	5/14	5/08	5/05	5/01	4/29	4/27	4/23	4/20	4/14
24	5/05	4/30	4/26	4/22	4/19	4/16	4/13	4/09	4/05
20	4/25	4/19	4/15	4/12	4/09	4/06	4/03	3/31	3/25
16	4/15	4/10	4/06	4/04	4/01	3/30	3/26	3/22	3/16
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	9/05	9/10	9/14	9/17	9/19	9/21	9/24	9/26	10/01
32	9/14	9/19	9/22	9/25	9/27	9/29	10/01	10/05	10/09
28	9/22	9/27	9/30	10/02	10/05	10/08	10/11	10/15	10/20
24	10/01	10/05	10/08	10/12	10/15	10/18	10/21	10/25	10/29
20	10/08	10/14	10/19	10/22	10/26	10/29	11/01	11/04	11/09
16	10/19	10/25	10/29	11/01	11/04	11/07	11/10	11/13	11/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	140	134	129	125	122	118	113	108	101
32	159	152	148	144	140	137	133	128	121
28	178	171	166	162	158	154	150	145	138
24	198	191	186	182	177	173	168	163	156
20	219	212	206	202	197	193	189	183	175
16	236	229	224	220	216	212	207	202	195

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MOFFIT 3 SE, ND US**

GHCND:USC00326015
Elev: 549 ft. Lat: 46.670° N Lon: 100.229° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/11	6/03	5/30	5/27	5/23	5/20	5/16	5/12	5/08
32	5/27	5/21	5/18	5/15	5/12	5/09	5/07	5/03	4/30
28	5/18	5/13	5/09	5/06	5/03	5/01	4/28	4/24	4/19
24	5/10	5/04	5/01	4/28	4/25	4/21	4/18	4/15	4/10
20	5/01	4/26	4/21	4/18	4/15	4/12	4/09	4/05	4/01
16	4/20	4/15	4/11	4/08	4/05	4/03	3/31	3/28	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	9/02	9/07	9/11	9/14	9/16	9/19	9/21	9/24	9/29
32	9/12	9/16	9/20	9/22	9/25	9/28	10/01	10/03	10/08
28	9/20	9/25	9/28	10/01	10/03	10/06	10/09	10/12	10/18
24	9/28	10/02	10/06	10/09	10/12	10/15	10/19	10/22	10/27
20	10/06	10/12	10/15	10/19	10/22	10/26	10/29	11/01	11/06
16	10/15	10/21	10/25	10/29	11/01	11/04	11/07	11/10	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	134	127	122	118	114	110	105	99	89
32	153	147	142	138	134	131	127	122	114
28	170	164	159	155	151	148	144	139	132
24	189	182	177	173	169	164	160	155	148
20	209	202	197	192	188	184	179	173	166
16	229	222	217	212	208	204	199	193	185

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **VERONA, ND US**

GHCND:USC00329035
 Elev: 418 ft. Lat: 46.364° N Lon: 98.076° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **BOWBELLS, ND US**

GHCND:USC00320961
Elev: 598 ft. Lat: 48.799° N Lon: 102.246° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/16	6/09	6/04	6/01	5/29	5/25	5/22	5/18	5/14
32	6/01	5/27	5/22	5/19	5/16	5/13	5/10	5/07	5/04
28	5/19	5/14	5/11	5/08	5/06	5/03	5/01	4/28	4/23
24	5/10	5/05	5/02	4/30	4/27	4/24	4/21	4/16	4/11
20	5/01	4/26	4/23	4/19	4/16	4/13	4/10	4/06	4/03
16	4/22	4/17	4/13	4/10	4/07	4/05	4/03	3/31	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	8/24	8/31	9/03	9/07	9/10	9/13	9/15	9/18	9/22
32	9/04	9/10	9/13	9/17	9/19	9/21	9/24	9/27	10/01
28	9/13	9/19	9/22	9/25	9/28	9/30	10/03	10/06	10/11
24	9/23	9/28	10/01	10/04	10/07	10/10	10/13	10/16	10/20
20	10/02	10/07	10/11	10/13	10/16	10/19	10/21	10/25	10/29
16	10/09	10/14	10/18	10/21	10/24	10/26	10/29	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	122	116	111	106	102	98	93	87	78
32	142	136	132	128	124	120	115	110	102
28	162	155	151	147	143	139	135	131	124
24	182	175	170	166	162	158	153	149	142
20	201	194	189	185	181	177	172	167	160
16	219	211	206	202	198	194	189	185	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 1981-2010 serially complete daily data

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

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 National Oceanic & Atmospheric Administration
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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **ALEXANDER 4 NNW, ND US**

GHCND:USC00320096
 Elev: 652 ft. Lat: 47.902° N Lon: 103.661° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: VALLEY CITY 3 NNW, ND US

GHCND:USC00328937
Elev: 369 ft. Lat: 46.956° N Lon: 98.020° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/06	6/01	5/29	5/26	5/23	5/19	5/17	5/13	5/09
32	5/26	5/21	5/17	5/14	5/12	5/09	5/06	5/03	4/30
28	5/16	5/11	5/08	5/05	5/03	4/30	4/28	4/25	4/20
24	5/07	5/02	4/30	4/27	4/25	4/22	4/18	4/15	4/11
20	4/30	4/24	4/20	4/17	4/15	4/12	4/09	4/06	4/02
16	4/20	4/15	4/11	4/08	4/06	4/03	4/01	3/29	3/23
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	9/01	9/07	9/10	9/13	9/16	9/18	9/20	9/22	9/26
32	9/13	9/17	9/20	9/22	9/24	9/26	9/29	10/02	10/06
28	9/22	9/25	9/28	10/01	10/03	10/05	10/08	10/12	10/17
24	9/30	10/03	10/07	10/10	10/13	10/16	10/20	10/23	10/28
20	10/08	10/14	10/17	10/21	10/24	10/27	10/30	11/02	11/07
16	10/17	10/23	10/27	10/30	11/01	11/04	11/07	11/11	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	131	126	121	117	113	110	106	101	94
32	151	145	141	137	134	130	127	122	116
28	170	163	159	155	152	148	144	140	134
24	190	183	178	174	170	166	162	157	151
20	210	203	198	194	190	186	181	176	169
16	228	222	216	212	208	204	200	194	187

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **BOTTINEAU, ND US**

GHCND:USC00320941
Elev: 494 ft. Lat: 48.822° N Lon: 100.452° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/08	6/03	5/31	5/28	5/25	5/22	5/19	5/16	5/12
32	5/29	5/25	5/21	5/18	5/15	5/13	5/10	5/06	5/03
28	5/21	5/16	5/12	5/09	5/06	5/04	5/01	4/28	4/23
24	5/13	5/08	5/04	5/01	4/29	4/25	4/22	4/17	4/12
20	5/04	4/30	4/25	4/21	4/18	4/14	4/11	4/07	4/03
16	4/25	4/19	4/15	4/11	4/08	4/06	4/03	4/01	3/25
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	9/01	9/06	9/10	9/12	9/14	9/17	9/19	9/22	9/25
32	9/12	9/16	9/19	9/21	9/23	9/25	9/28	10/01	10/04
28	9/20	9/23	9/26	9/28	10/01	10/03	10/06	10/09	10/13
24	9/26	9/30	10/03	10/06	10/08	10/11	10/14	10/17	10/21
20	10/03	10/07	10/11	10/14	10/16	10/19	10/22	10/25	10/29
16	10/09	10/14	10/18	10/22	10/25	10/28	10/31	11/03	11/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	128	122	117	114	110	106	102	96	89
32	147	141	137	133	129	126	122	118	112
28	164	158	153	150	146	142	138	134	128
24	182	175	170	166	162	158	154	149	143
20	200	193	188	184	179	175	171	165	158
16	218	211	206	201	197	193	188	183	176

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **GRAND FORKS UNIVERSITY, ND US**

GHCND:USC00323621
 Elev: 253 ft. Lat: 47.922° N Lon: 97.098° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **WATFORD CITY, ND US**

GHCND:USC00329233
Elev: 661 ft. Lat: 47.804° N Lon: 103.289° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/15	6/08	6/04	6/01	5/29	5/26	5/23	5/19	5/15
32	6/03	5/28	5/24	5/20	5/17	5/15	5/12	5/09	5/05
28	5/21	5/16	5/12	5/09	5/07	5/04	5/02	4/29	4/24
24	5/11	5/06	5/03	4/30	4/28	4/25	4/22	4/17	4/12
20	5/01	4/27	4/23	4/19	4/16	4/12	4/09	4/06	4/02
16	4/21	4/16	4/12	4/09	4/06	4/04	4/02	3/29	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	9/01	9/04	9/07	9/10	9/13	9/15	9/18	9/22
32	9/05	9/09	9/13	9/17	9/19	9/22	9/24	9/27	10/01
28	9/14	9/19	9/22	9/25	9/28	9/30	10/03	10/06	10/10
24	9/21	9/27	9/30	10/03	10/06	10/09	10/12	10/15	10/20
20	9/29	10/04	10/08	10/12	10/15	10/18	10/21	10/25	10/30
16	10/07	10/12	10/17	10/20	10/23	10/27	10/30	11/02	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	121	115	110	106	102	98	93	88	80
32	140	134	130	126	122	118	114	109	102
28	160	154	149	145	141	138	134	129	122
24	180	173	169	164	160	156	151	147	140
20	201	194	188	184	179	175	170	164	156
16	221	213	207	202	198	193	189	183	175

* 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 1981-2010 serially complete daily data

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

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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **HAGUE, ND US**

GHCND:USC00323826
 Elev: 578 ft. Lat: 46.025° N Lon: 99.991° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **DUNN CENTER 1 E, ND US**

GHCND:USC00322365
 Elev: 672 ft. Lat: 47.347° N Lon: 102.587° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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.

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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: LISBON, ND US

GHCND:USC00325220
 Elev: 337 ft. Lat: 46.439° N Lon: 97.686° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **UNDERWOOD, ND US**

GHCND:USC00328872
Elev: 623 ft. Lat: 47.455° N Lon: 101.146° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/02	5/29	5/26	5/22	5/19	5/17	5/14	5/10	5/06
32	5/24	5/19	5/15	5/12	5/10	5/08	5/05	5/02	4/28
28	5/16	5/11	5/08	5/05	5/02	4/30	4/27	4/23	4/18
24	5/08	5/03	4/30	4/27	4/23	4/20	4/17	4/14	4/09
20	4/29	4/24	4/20	4/17	4/14	4/11	4/08	4/05	4/01
16	4/19	4/15	4/11	4/08	4/06	4/03	4/01	3/29	3/23
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	9/06	9/11	9/14	9/17	9/19	9/22	9/24	9/26	9/30
32	9/15	9/19	9/22	9/25	9/27	9/29	10/02	10/04	10/08
28	9/23	9/27	9/30	10/02	10/05	10/07	10/10	10/13	10/17
24	10/01	10/05	10/08	10/11	10/13	10/15	10/18	10/21	10/25
20	10/07	10/12	10/15	10/18	10/21	10/23	10/26	10/29	11/03
16	10/15	10/20	10/24	10/26	10/29	11/01	11/04	11/08	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	139	133	128	125	121	118	114	109	102
32	155	150	145	142	138	135	131	127	121
28	172	166	161	158	154	151	147	142	136
24	189	183	178	175	171	167	163	159	152
20	208	201	196	192	188	185	180	175	169
16	226	219	214	209	206	202	197	193	186

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **NORTHGATE 5 ESE, ND US**

GHCND:USW00094084
 Elev: 561 ft. Lat: 48.968° N Lon: 102.170° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **AMIDON, ND US**

GHCND:USC00320209
Elev: 887 ft. Lat: 46.482° N Lon: 103.322° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/11	6/05	6/01	5/30	5/26	5/23	5/19	5/16	5/11
32	5/31	5/25	5/21	5/17	5/14	5/12	5/09	5/06	5/02
28	5/19	5/14	5/10	5/07	5/05	5/02	4/30	4/26	4/21
24	5/09	5/04	5/01	4/27	4/24	4/21	4/18	4/15	4/10
20	4/30	4/24	4/20	4/17	4/14	4/11	4/08	4/05	4/01
16	4/20	4/14	4/10	4/08	4/05	4/03	3/31	3/27	3/21
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	9/03	9/08	9/11	9/14	9/17	9/19	9/21	9/24	9/29
32	9/11	9/16	9/19	9/22	9/25	9/28	9/30	10/03	10/07
28	9/19	9/24	9/28	9/30	10/02	10/05	10/08	10/12	10/17
24	9/27	10/01	10/05	10/09	10/12	10/15	10/18	10/22	10/26
20	10/05	10/11	10/15	10/18	10/21	10/24	10/27	10/31	11/05
16	10/15	10/20	10/24	10/27	10/30	11/01	11/05	11/10	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	132	125	121	116	113	109	104	99	92
32	151	145	140	136	132	128	124	119	112
28	170	163	158	154	150	147	142	138	131
24	190	183	178	173	169	165	160	155	148
20	210	203	198	193	189	185	180	175	167
16	229	222	216	212	207	203	199	193	186

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: JAMESTOWN STATE HOSPITAL, ND US

GHCND:USC00324418
Elev: 447 ft. Lat: 46.884° N Lon: 98.685° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/06	6/01	5/29	5/25	5/21	5/17	5/14	5/11	5/06
32	5/28	5/21	5/17	5/13	5/11	5/08	5/04	5/01	4/28
28	5/17	5/11	5/07	5/04	5/01	4/29	4/26	4/22	4/17
24	5/07	5/01	4/29	4/25	4/22	4/19	4/16	4/12	4/07
20	4/27	4/21	4/18	4/15	4/12	4/09	4/06	4/03	3/30
16	4/17	4/12	4/09	4/06	4/04	4/01	3/30	3/25	3/19
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	9/03	9/08	9/11	9/13	9/16	9/18	9/20	9/23	9/27
32	9/13	9/17	9/20	9/22	9/24	9/27	9/29	10/02	10/07
28	9/21	9/25	9/28	9/30	10/02	10/05	10/08	10/12	10/17
24	9/28	10/02	10/06	10/10	10/13	10/16	10/20	10/24	10/28
20	10/07	10/14	10/18	10/22	10/25	10/28	10/31	11/03	11/08
16	10/20	10/25	10/29	11/01	11/03	11/05	11/08	11/12	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	135	129	124	120	116	112	108	103	96
32	154	148	143	139	136	132	128	123	117
28	173	166	161	157	153	149	145	140	133
24	193	187	181	177	172	168	163	158	151
20	214	207	202	198	193	189	184	179	171
16	233	226	220	216	212	208	204	199	192

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: ZAP, ND US

GHCND:USC00329650
 Elev: 556 ft. Lat: 47.288° N Lon: 101.940° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **MEDORA 7 E, ND US**

GHCND:USW00094080
 Elev: 845 ft. Lat: 46.895° N Lon: 103.377° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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National Oceanic & Atmospheric Administration
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **GRAFTON, ND US**

GHCND:USC00323594
Elev: 252 ft. Lat: 48.418° N Lon: 97.425° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/31	5/26	5/21	5/17	5/14	5/11	5/08	5/05	4/30
32	5/20	5/15	5/11	5/07	5/04	5/02	4/29	4/26	4/20
28	5/11	5/05	5/02	4/29	4/26	4/23	4/20	4/15	4/09
24	5/02	4/28	4/23	4/20	4/16	4/13	4/09	4/06	4/01
20	4/22	4/17	4/13	4/10	4/07	4/05	4/03	3/31	3/25
16	4/14	4/09	4/07	4/04	4/02	3/31	3/28	3/23	3/18
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	9/10	9/15	9/19	9/22	9/24	9/27	9/29	10/02	10/06
32	9/20	9/24	9/27	9/30	10/02	10/05	10/08	10/12	10/17
28	9/29	10/02	10/06	10/09	10/12	10/16	10/19	10/23	10/28
24	10/07	10/11	10/15	10/19	10/22	10/26	10/29	11/01	11/06
20	10/15	10/20	10/25	10/28	11/01	11/03	11/06	11/09	11/14
16	10/23	10/29	11/01	11/04	11/06	11/09	11/13	11/17	11/22
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	150	143	139	135	131	127	123	117	110
32	169	162	157	153	149	145	141	136	130
28	190	182	177	172	168	164	159	154	147
24	209	201	196	191	187	182	178	173	165
20	225	218	213	209	205	200	196	190	183
16	239	232	227	222	218	215	210	206	198

* 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 1981-2010 serially complete daily data

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

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Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: CAVALIER 7 NW, ND US

GHCND:USC00321435
Elev: 271 ft. Lat: 48.863° N Lon: 97.701° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/09	6/03	5/31	5/28	5/25	5/22	5/19	5/15	5/11
32	5/30	5/25	5/20	5/17	5/14	5/11	5/08	5/04	4/30
28	5/19	5/14	5/10	5/07	5/04	5/01	4/28	4/24	4/18
24	5/10	5/04	4/30	4/27	4/23	4/20	4/16	4/12	4/07
20	4/30	4/23	4/19	4/15	4/12	4/09	4/06	4/03	3/31
16	4/19	4/12	4/09	4/07	4/04	4/03	4/01	3/28	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	9/01	9/06	9/10	9/13	9/15	9/18	9/20	9/23	9/27
32	9/12	9/17	9/20	9/23	9/25	9/27	9/30	10/03	10/07
28	9/23	9/27	9/30	10/02	10/04	10/07	10/10	10/14	10/19
24	10/01	10/06	10/09	10/12	10/15	10/18	10/22	10/25	10/30
20	10/10	10/15	10/19	10/22	10/26	10/28	11/01	11/04	11/09
16	10/18	10/24	10/28	10/31	11/02	11/05	11/08	11/11	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	131	124	120	116	112	108	104	99	92
32	151	145	140	136	132	129	125	120	113
28	173	165	160	156	152	148	144	139	133
24	195	187	182	177	173	169	164	159	152
20	214	207	202	198	193	189	184	179	172
16	230	223	218	214	211	207	202	197	190

* 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 1981-2010 serially complete daily data

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

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National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MOHALL, ND US**

GHCND:USC00326025
Elev: 500 ft. Lat: 48.760° N Lon: 101.509° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/14	6/07	6/03	6/01	5/29	5/26	5/23	5/19	5/15
32	6/01	5/29	5/25	5/22	5/19	5/16	5/13	5/10	5/06
28	5/24	5/20	5/16	5/13	5/10	5/07	5/04	5/01	4/27
24	5/16	5/10	5/07	5/04	5/01	4/29	4/25	4/21	4/14
20	5/06	5/01	4/28	4/24	4/21	4/17	4/13	4/09	4/04
16	4/27	4/21	4/17	4/13	4/10	4/07	4/04	4/02	3/27
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	8/25	9/01	9/04	9/07	9/09	9/12	9/14	9/18	9/21
32	9/06	9/10	9/14	9/17	9/19	9/21	9/24	9/27	10/01
28	9/14	9/19	9/22	9/25	9/27	9/29	10/02	10/06	10/11
24	9/23	9/27	9/30	10/03	10/06	10/09	10/13	10/16	10/21
20	10/01	10/06	10/10	10/13	10/16	10/19	10/22	10/25	10/29
16	10/10	10/15	10/19	10/22	10/25	10/28	10/31	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	120	114	109	105	101	97	93	87	79
32	139	133	129	125	121	118	114	109	102
28	157	151	146	142	139	135	131	126	120
24	177	170	165	161	157	153	148	143	136
20	197	190	185	180	176	172	167	162	155
16	217	209	204	200	195	191	186	180	173

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MINNEWAUKAN, ND US**

GHCND:USC00325848
Elev: 448 ft. Lat: 48.078° N Lon: 99.266° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/04	5/31	5/29	5/26	5/23	5/20	5/18	5/15	5/11
32	5/28	5/23	5/20	5/17	5/14	5/12	5/09	5/06	5/02
28	5/19	5/15	5/12	5/09	5/06	5/04	5/01	4/29	4/24
24	5/12	5/07	5/04	5/01	4/29	4/26	4/23	4/19	4/14
20	5/04	4/30	4/26	4/23	4/19	4/16	4/13	4/09	4/05
16	4/25	4/19	4/16	4/13	4/10	4/07	4/04	4/02	3/28
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	8/31	9/05	9/09	9/12	9/14	9/17	9/19	9/21	9/25
32	9/11	9/15	9/18	9/20	9/23	9/25	9/27	9/30	10/04
28	9/19	9/23	9/26	9/28	10/01	10/03	10/05	10/08	10/13
24	9/27	10/01	10/03	10/06	10/09	10/12	10/15	10/18	10/23
20	10/04	10/09	10/13	10/15	10/18	10/21	10/25	10/28	11/01
16	10/12	10/17	10/21	10/25	10/28	10/31	11/03	11/07	11/13
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	124	119	116	112	109	105	101	94
32	146	140	137	133	129	126	123	118	112
28	162	157	152	149	145	142	139	134	128
24	181	175	170	166	162	158	154	150	144
20	201	193	188	184	180	176	172	167	160
16	221	213	208	203	199	195	190	185	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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **BOWMAN, ND US**

GHCND:USC00320995
Elev: 908 ft. Lat: 46.182° N Lon: 103.406° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/11	6/05	6/01	5/30	5/26	5/24	5/21	5/17	5/13
32	5/29	5/24	5/20	5/17	5/15	5/12	5/10	5/07	5/03
28	5/18	5/13	5/10	5/07	5/05	5/03	5/01	4/27	4/22
24	5/07	5/03	5/01	4/28	4/25	4/22	4/20	4/16	4/12
20	4/29	4/24	4/21	4/18	4/15	4/12	4/10	4/06	4/02
16	4/20	4/16	4/12	4/09	4/06	4/04	4/01	3/29	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	9/01	9/06	9/09	9/12	9/15	9/17	9/19	9/22	9/25
32	9/10	9/15	9/18	9/20	9/23	9/25	9/28	10/01	10/05
28	9/18	9/22	9/26	9/29	10/01	10/04	10/06	10/10	10/14
24	9/26	10/01	10/04	10/07	10/10	10/13	10/16	10/19	10/23
20	10/04	10/10	10/14	10/17	10/19	10/22	10/25	10/28	11/02
16	10/14	10/19	10/23	10/26	10/28	10/31	11/03	11/08	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	128	122	117	113	110	106	102	97	89
32	146	141	137	133	130	126	122	118	111
28	166	160	155	152	148	145	141	136	130
24	186	180	175	171	167	164	160	155	148
20	206	200	195	191	186	182	178	173	166
16	227	219	214	209	205	201	197	191	184

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **WAHPETON 3 N, ND US**

GHCND:USC00329100
Elev: 291 ft. Lat: 46.323° N Lon: 96.611° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/28	5/23	5/18	5/15	5/12	5/09	5/06	5/02	4/29
32	5/17	5/11	5/08	5/05	5/02	4/30	4/28	4/24	4/20
28	5/06	5/02	4/29	4/26	4/23	4/20	4/17	4/13	4/08
24	4/27	4/22	4/19	4/16	4/13	4/10	4/07	4/04	3/31
20	4/17	4/13	4/09	4/06	4/04	4/02	3/31	3/26	3/20
16	4/10	4/05	4/03	3/31	3/29	3/25	3/21	3/17	3/13
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	9/13	9/17	9/20	9/22	9/24	9/26	9/28	10/01	10/05
32	9/21	9/24	9/27	9/30	10/01	10/04	10/07	10/10	10/16
28	9/29	10/03	10/06	10/09	10/12	10/15	10/19	10/23	10/27
24	10/08	10/14	10/18	10/21	10/25	10/28	10/30	11/02	11/07
20	10/20	10/26	10/29	11/01	11/03	11/05	11/08	11/12	11/16
16	10/30	11/02	11/05	11/08	11/10	11/13	11/16	11/19	11/23
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	151	145	140	137	133	129	126	121	115
32	169	163	158	154	151	147	144	139	133
28	190	183	179	175	171	167	163	158	151
24	212	205	201	196	192	188	183	179	172
20	231	224	220	216	212	208	204	199	192
16	246	239	234	231	227	223	219	215	209

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
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 Service

**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **ADAMS 7 SSW, ND US**

GHCND:USC00320022
 Elev: 474 ft. Lat: 48.331° N Lon: 98.119° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **BEACH, ND US**

GHCND:USC00320590
 Elev: 853 ft. Lat: 46.928° N Lon: 104.016° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **JAMESTOWN MUNICIPAL AIRPORT, ND US**

GHCND:USW00014919
Elev: 455 ft. Lat: 46.926° N Lon: 98.669° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/06	6/01	5/29	5/26	5/22	5/19	5/16	5/13	5/08
32	5/27	5/21	5/17	5/14	5/12	5/08	5/05	5/02	4/29
28	5/17	5/12	5/08	5/05	5/02	4/30	4/27	4/24	4/18
24	5/07	5/02	4/29	4/26	4/23	4/20	4/16	4/13	4/08
20	4/28	4/22	4/19	4/15	4/13	4/10	4/07	4/04	3/31
16	4/18	4/12	4/09	4/06	4/04	4/02	3/30	3/25	3/20
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	9/02	9/08	9/11	9/14	9/16	9/18	9/20	9/23	9/26
32	9/14	9/18	9/20	9/23	9/25	9/27	9/29	10/02	10/06
28	9/22	9/26	9/29	10/01	10/03	10/06	10/09	10/12	10/17
24	9/30	10/04	10/07	10/10	10/13	10/16	10/19	10/23	10/27
20	10/08	10/13	10/17	10/20	10/23	10/26	10/29	11/02	11/06
16	10/17	10/22	10/26	10/30	11/01	11/04	11/07	11/11	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	133	127	123	119	115	111	107	103	95
32	152	146	142	138	135	131	127	123	117
28	172	165	160	156	153	149	145	141	135
24	192	185	180	176	172	168	163	159	152
20	212	205	200	196	192	187	183	178	171
16	230	223	218	214	211	207	202	197	190

* 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 1981-2010 serially complete daily data

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

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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: TAYLOR 7 NNW, ND US

GHCND:USC00328660
 Elev: 677 ft. Lat: 46.999° N Lon: 102.476° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **FARGO HECTOR INTERNATIONAL AIRPORT, ND US**

GHCND:USW00014914
Elev: 274 ft. Lat: 46.925° N Lon: 96.811° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/04	5/30	5/26	5/23	5/19	5/16	5/13	5/09	5/03
32	5/24	5/18	5/15	5/11	5/08	5/04	5/01	4/29	4/25
28	5/14	5/08	5/04	5/01	4/29	4/26	4/23	4/19	4/13
24	5/03	4/29	4/25	4/22	4/19	4/15	4/12	4/08	4/03
20	4/23	4/18	4/14	4/11	4/08	4/05	4/03	3/31	3/24
16	4/14	4/09	4/06	4/03	4/01	3/30	3/26	3/21	3/16
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	9/08	9/13	9/16	9/18	9/20	9/22	9/25	9/27	10/01
32	9/17	9/21	9/24	9/26	9/29	10/01	10/03	10/06	10/11
28	9/25	9/29	10/02	10/04	10/07	10/10	10/14	10/18	10/23
24	10/02	10/07	10/11	10/15	10/18	10/22	10/25	10/29	11/01
20	10/11	10/17	10/22	10/26	10/29	11/01	11/03	11/06	11/12
16	10/22	10/28	11/01	11/03	11/06	11/09	11/12	11/15	11/20
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	141	135	130	126	122	118	114	109	102
32	160	154	149	145	142	138	134	129	123
28	181	174	169	164	160	156	152	147	140
24	202	195	190	185	181	176	172	167	159
20	221	214	209	205	201	197	192	187	179
16	238	231	226	222	218	214	209	204	197

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **WATFORD CITY 14 S, ND US**

GHCND:USC00329246
Elev: 618 ft. Lat: 47.600° N Lon: 103.260° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/17	6/09	6/04	6/01	5/29	5/26	5/22	5/18	5/13
32	6/02	5/27	5/23	5/19	5/16	5/13	5/10	5/06	5/02
28	5/19	5/14	5/11	5/08	5/05	5/02	4/30	4/27	4/23
24	5/08	5/03	4/30	4/28	4/25	4/23	4/20	4/16	4/11
20	4/29	4/24	4/21	4/17	4/14	4/11	4/08	4/05	4/01
16	4/20	4/15	4/11	4/08	4/05	4/03	3/31	3/26	3/19
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	8/28	9/02	9/05	9/08	9/11	9/13	9/16	9/19	9/23
32	9/07	9/12	9/15	9/18	9/20	9/22	9/25	9/28	10/02
28	9/16	9/20	9/23	9/25	9/28	10/01	10/03	10/07	10/12
24	9/23	9/28	10/01	10/04	10/07	10/10	10/13	10/16	10/21
20	10/01	10/05	10/10	10/13	10/16	10/19	10/22	10/27	11/01
16	10/09	10/14	10/19	10/22	10/26	10/29	11/01	11/05	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	124	118	112	108	103	99	94	88	79
32	145	138	134	130	126	122	117	112	104
28	163	157	152	148	145	141	137	132	125
24	183	176	171	167	163	159	155	150	144
20	205	197	192	188	183	179	174	169	162
16	225	217	212	207	202	198	193	187	179

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **ELLEDALE, ND US**

GHCND:USC00322605
Elev: 444 ft. Lat: 46.011° N Lon: 98.526° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/31	5/26	5/22	5/18	5/15	5/12	5/09	5/06	5/01
32	5/20	5/15	5/11	5/08	5/05	5/03	4/30	4/27	4/23
28	5/12	5/06	5/03	4/30	4/27	4/25	4/22	4/18	4/13
24	5/03	4/27	4/23	4/20	4/18	4/15	4/12	4/08	4/04
20	4/22	4/18	4/14	4/11	4/08	4/05	4/03	3/31	3/25
16	4/13	4/09	4/05	4/03	4/01	3/29	3/25	3/21	3/15
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	9/10	9/14	9/17	9/19	9/21	9/24	9/26	9/29	10/02
32	9/18	9/22	9/24	9/27	9/29	10/01	10/04	10/06	10/11
28	9/25	9/29	10/02	10/05	10/08	10/11	10/13	10/17	10/21
24	10/03	10/08	10/12	10/15	10/18	10/21	10/23	10/26	10/30
20	10/12	10/17	10/22	10/24	10/27	10/30	11/01	11/04	11/09
16	10/22	10/27	10/30	11/01	11/04	11/07	11/10	11/13	11/17
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	144	138	134	130	126	123	119	114	108
32	162	156	151	147	144	140	136	132	126
28	180	173	169	164	160	156	152	147	141
24	199	193	188	183	179	175	171	165	158
20	219	211	207	202	199	195	190	185	177
16	236	230	225	220	216	213	208	204	197

* 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 1981-2010 serially complete daily data

Complete Documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

U.S. Department of Commerce
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National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: HARVEY, ND US

GHCND:USC00324013
Elev: 491 ft. Lat: 47.808° N Lon: 99.876° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/05	5/31	5/28	5/25	5/21	5/18	5/15	5/12	5/08
32	5/26	5/20	5/16	5/14	5/11	5/08	5/05	5/02	4/29
28	5/17	5/13	5/09	5/05	5/02	4/30	4/27	4/24	4/19
24	5/10	5/04	4/30	4/28	4/24	4/21	4/18	4/14	4/09
20	5/01	4/25	4/21	4/17	4/14	4/12	4/08	4/05	4/01
16	4/20	4/15	4/12	4/08	4/06	4/03	4/01	3/29	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	9/01	9/06	9/10	9/13	9/15	9/18	9/20	9/23	9/27
32	9/13	9/18	9/20	9/23	9/24	9/27	9/30	10/03	10/06
28	9/21	9/25	9/28	10/01	10/03	10/05	10/07	10/10	10/14
24	9/28	10/02	10/05	10/08	10/10	10/13	10/16	10/19	10/23
20	10/06	10/11	10/14	10/16	10/19	10/21	10/24	10/27	10/31
16	10/12	10/17	10/21	10/24	10/27	10/30	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	133	127	123	119	115	111	107	102	94
32	152	146	142	138	135	131	127	123	117
28	168	162	158	154	150	147	143	138	132
24	186	180	175	171	167	163	159	154	147
20	204	198	193	188	184	181	176	171	164
16	222	215	210	206	202	198	193	188	181

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: TUTTLE 12 NNE, ND US

GHCND:USC00328853
Elev: 640 ft. Lat: 47.301° N Lon: 99.919° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/09	6/03	5/31	5/27	5/24	5/21	5/18	5/15	5/11
32	5/31	5/25	5/21	5/17	5/14	5/12	5/09	5/05	5/02
28	5/21	5/15	5/12	5/09	5/06	5/03	5/01	4/27	4/21
24	5/12	5/07	5/04	4/30	4/27	4/24	4/20	4/15	4/11
20	5/04	4/29	4/23	4/19	4/16	4/13	4/09	4/06	4/02
16	4/23	4/16	4/12	4/09	4/06	4/04	4/01	3/30	3/23
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	9/01	9/07	9/10	9/13	9/15	9/17	9/20	9/23	9/27
32	9/11	9/15	9/18	9/21	9/23	9/26	9/28	10/01	10/05
28	9/19	9/23	9/27	9/29	10/01	10/04	10/07	10/10	10/14
24	9/27	10/01	10/04	10/07	10/10	10/13	10/15	10/19	10/23
20	10/05	10/10	10/13	10/16	10/19	10/21	10/24	10/28	11/01
16	10/13	10/18	10/22	10/25	10/28	10/31	11/03	11/07	11/13
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	130	124	120	116	112	108	104	99	92
32	148	141	137	133	130	126	122	117	110
28	166	159	154	151	147	143	139	134	128
24	185	178	173	168	164	160	156	151	144
20	204	197	192	188	184	180	175	169	162
16	224	217	212	207	203	199	194	189	181

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **GRAND FORKS INTERNATIONAL AIRPORT, ND US**

GHCND:USW00014916
Elev: 257 ft. Lat: 47.943° N Lon: 97.184° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/14	6/05	6/01	5/30	5/27	5/23	5/20	5/16	5/11
32	5/31	5/26	5/22	5/18	5/14	5/11	5/07	5/03	4/29
28	5/19	5/14	5/10	5/06	5/03	4/30	4/28	4/24	4/18
24	5/10	5/03	4/30	4/27	4/24	4/20	4/16	4/11	4/06
20	4/28	4/22	4/18	4/14	4/11	4/08	4/05	4/02	3/30
16	4/17	4/12	4/08	4/06	4/03	4/01	3/30	3/26	3/20
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	8/27	9/02	9/07	9/10	9/13	9/15	9/18	9/21	9/24
32	9/09	9/14	9/18	9/20	9/23	9/25	9/28	10/01	10/05
28	9/21	9/25	9/28	9/30	10/02	10/05	10/08	10/12	10/17
24	9/29	10/02	10/06	10/09	10/12	10/15	10/19	10/23	10/28
20	10/07	10/12	10/16	10/19	10/23	10/26	10/30	11/02	11/06
16	10/15	10/21	10/26	10/29	11/01	11/03	11/06	11/10	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	127	120	115	111	107	103	98	92	83
32	148	142	137	133	129	125	120	115	108
28	170	162	157	153	149	145	141	136	130
24	192	184	179	174	170	165	160	155	148
20	213	206	200	196	191	187	182	176	168
16	229	222	217	213	209	205	201	195	188

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MC LEOD 3 E, ND US**

GHCND:USC00325754
Elev: 328 ft. Lat: 46.391° N Lon: 97.239° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/06	6/01	5/28	5/24	5/20	5/17	5/13	5/09	5/03
32	5/27	5/20	5/16	5/12	5/08	5/05	5/02	4/29	4/25
28	5/15	5/09	5/05	5/01	4/29	4/26	4/23	4/20	4/14
24	5/04	4/29	4/26	4/22	4/19	4/16	4/13	4/09	4/04
20	4/25	4/19	4/16	4/12	4/09	4/06	4/04	4/01	3/27
16	4/15	4/10	4/06	4/04	4/02	3/31	3/28	3/23	3/17
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	9/06	9/10	9/13	9/16	9/18	9/20	9/23	9/25	9/29
32	9/16	9/20	9/22	9/24	9/27	9/29	10/01	10/04	10/08
28	9/23	9/27	9/30	10/02	10/05	10/08	10/11	10/14	10/19
24	10/01	10/06	10/09	10/13	10/15	10/18	10/22	10/25	10/29
20	10/12	10/17	10/21	10/24	10/27	10/29	11/01	11/04	11/09
16	10/23	10/28	10/31	11/02	11/04	11/07	11/11	11/14	11/19
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	139	133	128	124	120	116	111	106	98
32	158	152	147	143	139	136	131	126	119
28	176	170	165	161	157	153	149	144	137
24	198	191	186	181	177	173	169	164	157
20	218	211	206	202	198	194	189	184	177
16	236	229	224	220	216	213	209	204	197

* 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 1981-2010 serially complete daily data

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

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National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **PEMBINA, ND US**

GHCND:USW00014924
Elev: 241 ft. Lat: 48.971° N Lon: 97.242° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/20	6/09	6/04	6/01	5/29	5/26	5/22	5/18	5/12
32	6/04	5/30	5/26	5/21	5/18	5/14	5/10	5/06	5/01
28	5/26	5/19	5/14	5/10	5/06	5/03	4/30	4/27	4/20
24	5/16	5/09	5/04	4/30	4/28	4/24	4/20	4/16	4/10
20	5/06	4/30	4/26	4/22	4/18	4/14	4/10	4/06	4/02
16	4/27	4/20	4/15	4/11	4/08	4/05	4/03	3/31	3/25
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	8/29	9/04	9/09	9/11	9/14	9/16	9/19	9/22	9/25
32	9/10	9/15	9/18	9/21	9/23	9/25	9/28	10/01	10/04
28	9/20	9/24	9/27	9/29	10/01	10/04	10/07	10/10	10/16
24	9/28	10/02	10/05	10/08	10/11	10/15	10/18	10/22	10/27
20	10/06	10/11	10/15	10/19	10/22	10/26	10/29	11/02	11/07
16	10/15	10/21	10/26	10/29	11/01	11/04	11/07	11/11	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	126	120	115	110	106	102	97	91	81
32	147	140	135	131	127	123	118	113	106
28	167	160	155	151	147	142	138	133	126
24	189	181	175	170	166	162	157	152	144
20	208	201	195	191	186	182	176	170	162
16	226	218	213	208	204	200	195	189	180

* 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 1981-2010 serially complete daily data

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

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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **CARRINGTON, ND US**

GHCND:USC00321360
 Elev: 483 ft. Lat: 47.449° N Lon: 99.129° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/02	5/29	5/25	5/21	5/18	5/15	5/13	5/09	5/05
32	5/22	5/17	5/14	5/11	5/09	5/06	5/04	5/01	4/27
28	5/14	5/09	5/06	5/03	5/01	4/29	4/26	4/22	4/16
24	5/06	5/01	4/28	4/24	4/21	4/18	4/15	4/12	4/07
20	4/27	4/22	4/18	4/14	4/12	4/09	4/06	4/04	3/31
16	4/18	4/13	4/09	4/07	4/04	4/02	3/31	3/26	3/20
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	9/07	9/12	9/15	9/18	9/20	9/22	9/24	9/26	9/30
32	9/18	9/21	9/24	9/26	9/28	9/30	10/02	10/05	10/09
28	9/25	9/29	10/01	10/04	10/06	10/09	10/12	10/15	10/19
24	10/01	10/06	10/09	10/12	10/15	10/18	10/21	10/24	10/27
20	10/10	10/15	10/19	10/22	10/25	10/28	10/31	11/03	11/08
16	10/20	10/25	10/28	11/01	11/03	11/05	11/08	11/12	11/17
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	140	134	130	127	123	119	115	110	104
32	157	151	148	144	141	137	134	130	124
28	175	169	165	161	157	154	150	146	140
24	194	188	183	179	175	171	167	162	156
20	214	207	202	198	194	190	186	181	174
16	232	225	220	216	212	208	204	199	192

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **COOPERSTOWN, ND US**

GHCND:USC00321766
Elev: 421 ft. Lat: 47.405° N Lon: 98.038° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/16	6/08	6/03	5/31	5/29	5/26	5/22	5/18	5/13
32	6/02	5/28	5/24	5/20	5/17	5/14	5/11	5/07	5/03
28	5/22	5/17	5/13	5/10	5/07	5/04	5/01	4/28	4/23
24	5/13	5/07	5/04	5/01	4/28	4/25	4/22	4/17	4/12
20	5/04	4/29	4/25	4/21	4/18	4/14	4/11	4/07	4/03
16	4/24	4/18	4/14	4/11	4/08	4/05	4/03	3/31	3/25
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	8/25	8/31	9/03	9/06	9/09	9/12	9/15	9/18	9/21
32	9/06	9/11	9/14	9/17	9/19	9/21	9/24	9/26	10/01
28	9/16	9/20	9/23	9/25	9/28	9/30	10/03	10/05	10/10
24	9/25	9/28	10/01	10/04	10/06	10/09	10/12	10/16	10/21
20	10/02	10/06	10/10	10/13	10/16	10/20	10/23	10/26	10/31
16	10/10	10/15	10/20	10/23	10/26	10/29	11/01	11/03	11/09
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	115	110	106	102	97	92	86	78
32	142	136	131	127	123	119	114	109	102
28	161	154	149	146	142	138	134	129	123
24	180	173	168	164	160	155	151	147	140
20	200	193	188	183	179	175	170	165	158
16	219	212	207	203	199	194	190	184	176

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **ASHLEY, ND US**

GHCND:USC00320382
Elev: 614 ft. Lat: 46.040° N Lon: 99.374° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/06	6/01	5/29	5/25	5/22	5/18	5/15	5/12	5/07
32	5/27	5/21	5/17	5/14	5/12	5/09	5/06	5/03	4/30
28	5/17	5/12	5/09	5/06	5/03	5/01	4/29	4/26	4/20
24	5/09	5/04	5/01	4/28	4/26	4/23	4/20	4/16	4/12
20	5/01	4/26	4/23	4/19	4/17	4/14	4/10	4/07	4/02
16	4/22	4/17	4/13	4/09	4/07	4/04	4/01	3/29	3/23
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	8/31	9/06	9/10	9/13	9/16	9/18	9/21	9/24	9/28
32	9/11	9/16	9/19	9/22	9/25	9/27	9/30	10/03	10/07
28	9/19	9/24	9/27	9/30	10/02	10/05	10/08	10/11	10/16
24	9/27	10/01	10/04	10/07	10/10	10/13	10/16	10/20	10/25
20	10/05	10/10	10/14	10/17	10/20	10/23	10/26	10/30	11/04
16	10/14	10/19	10/23	10/27	10/30	11/02	11/05	11/09	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	134	128	123	118	115	111	106	101	93
32	151	146	141	138	134	130	126	122	115
28	168	162	157	153	150	146	142	137	131
24	186	179	174	170	166	162	158	153	147
20	206	198	193	189	185	181	176	171	163
16	227	219	213	209	204	200	196	190	183

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **WILTON, ND US**

GHCND:USC00329455
Elev: 667 ft. Lat: 47.160° N Lon: 100.789° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/05	5/31	5/27	5/23	5/19	5/17	5/14	5/11	5/07
32	5/24	5/18	5/15	5/12	5/09	5/07	5/04	5/02	4/28
28	5/14	5/09	5/05	5/03	5/01	4/28	4/25	4/22	4/17
24	5/05	4/30	4/28	4/24	4/22	4/18	4/15	4/12	4/07
20	4/27	4/22	4/18	4/15	4/12	4/10	4/07	4/04	3/31
16	4/19	4/14	4/10	4/07	4/05	4/03	3/31	3/27	3/21
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	9/07	9/11	9/14	9/17	9/20	9/22	9/25	9/28	10/02
32	9/15	9/19	9/22	9/25	9/27	9/30	10/02	10/05	10/09
28	9/22	9/26	9/30	10/02	10/05	10/08	10/11	10/14	10/18
24	9/30	10/04	10/08	10/11	10/14	10/16	10/19	10/22	10/27
20	10/08	10/13	10/16	10/20	10/23	10/25	10/28	11/01	11/07
16	10/16	10/22	10/25	10/28	10/31	11/03	11/07	11/11	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	139	134	129	125	122	118	113	108	100
32	157	151	147	143	139	136	132	128	121
28	175	168	164	160	156	152	148	144	137
24	193	186	182	177	173	170	165	160	153
20	212	205	200	195	191	187	183	178	172
16	230	222	217	213	209	205	200	195	189

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MEDORA, ND US**

GHCND:USC00325813
Elev: 691 ft. Lat: 46.916° N Lon: 103.526° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/17	6/11	6/06	6/03	5/31	5/29	5/25	5/22	5/17
32	6/05	5/31	5/26	5/23	5/20	5/17	5/14	5/10	5/06
28	5/24	5/19	5/15	5/12	5/09	5/06	5/03	5/01	4/27
24	5/13	5/08	5/04	5/02	4/30	4/27	4/24	4/20	4/15
20	5/03	4/29	4/25	4/22	4/19	4/16	4/12	4/08	4/03
16	4/25	4/18	4/14	4/11	4/08	4/05	4/02	3/29	3/23
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	8/25	8/31	9/03	9/05	9/08	9/10	9/13	9/15	9/19
32	9/03	9/08	9/11	9/14	9/16	9/19	9/21	9/24	9/28
28	9/12	9/16	9/19	9/22	9/25	9/27	9/30	10/03	10/07
24	9/19	9/24	9/27	9/30	10/03	10/06	10/09	10/13	10/18
20	9/27	10/03	10/07	10/11	10/14	10/17	10/20	10/23	10/28
16	10/07	10/13	10/17	10/20	10/24	10/27	10/31	11/03	11/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	117	110	106	102	98	94	89	83	76
32	138	131	126	122	118	114	109	104	97
28	157	151	146	142	138	134	130	125	117
24	177	170	165	161	157	153	149	144	137
20	199	192	187	182	178	174	169	163	156
16	221	213	208	203	199	195	190	184	176

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
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 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **HURRICANE LAKE, ND US**

GHCND:USC00324372
 Elev: 476 ft. Lat: 48.460° N Lon: 99.532° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **LANGDON EXPERIMENT FARM, ND US**

GHCND:USC00324958
Elev: 492 ft. Lat: 48.762° N Lon: 98.345° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/18	6/09	6/04	6/01	5/30	5/27	5/24	5/20	5/16
32	6/02	5/29	5/25	5/22	5/19	5/16	5/13	5/09	5/05
28	5/23	5/18	5/14	5/11	5/08	5/05	5/02	4/29	4/24
24	5/14	5/09	5/05	5/01	4/29	4/26	4/23	4/18	4/12
20	5/04	4/30	4/26	4/22	4/19	4/15	4/12	4/08	4/04
16	4/25	4/20	4/16	4/12	4/09	4/07	4/05	4/02	3/29
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	8/28	9/03	9/07	9/10	9/12	9/14	9/16	9/19	9/22
32	9/09	9/14	9/17	9/19	9/21	9/23	9/25	9/28	10/02
28	9/19	9/22	9/25	9/27	9/29	10/01	10/04	10/08	10/12
24	9/26	9/30	10/02	10/05	10/08	10/11	10/14	10/18	10/24
20	10/03	10/07	10/11	10/14	10/17	10/21	10/25	10/28	11/01
16	10/11	10/16	10/20	10/24	10/27	10/30	11/02	11/06	11/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	120	115	110	107	103	99	94	88	79
32	141	135	131	127	123	120	116	111	105
28	162	155	150	146	142	139	135	130	124
24	182	175	170	165	161	157	152	148	141
20	201	194	189	184	180	176	171	166	159
16	218	211	207	202	198	194	190	184	177

* 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 1981-2010 serially complete daily data

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

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National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **GRANVILLE, ND US**

GHCND:USC00323686
Elev: 460 ft. Lat: 48.268° N Lon: 100.844° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/03	5/30	5/26	5/22	5/19	5/16	5/14	5/11	5/07
32	5/23	5/18	5/15	5/12	5/10	5/07	5/04	5/02	4/28
28	5/15	5/10	5/06	5/03	5/01	4/29	4/25	4/21	4/16
24	5/06	5/01	4/27	4/24	4/20	4/17	4/14	4/10	4/05
20	4/27	4/22	4/18	4/14	4/11	4/08	4/05	4/02	3/29
16	4/18	4/13	4/10	4/07	4/04	4/02	3/30	3/25	3/19
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	9/03	9/09	9/13	9/16	9/18	9/20	9/23	9/26	9/30
32	9/13	9/18	9/21	9/24	9/26	9/29	10/01	10/04	10/08
28	9/22	9/26	9/30	10/02	10/04	10/07	10/10	10/14	10/18
24	9/30	10/04	10/07	10/10	10/13	10/16	10/19	10/22	10/27
20	10/08	10/12	10/15	10/18	10/22	10/25	10/28	10/31	11/05
16	10/14	10/19	10/23	10/26	10/29	11/01	11/04	11/09	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	137	131	127	123	119	116	111	106	98
32	156	150	145	141	138	134	131	126	119
28	175	168	163	159	155	152	148	143	136
24	194	187	181	177	173	169	165	160	153
20	212	205	200	195	191	187	182	177	170
16	230	222	216	212	207	203	199	193	186

* 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 1981-2010 serially complete daily data

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

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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **WILLISTON SLOULIN FIELD INTERNATIONAL AIRPORT, ND US**

GHCND:USW00094014
 Elev: 580 ft. Lat: 48.174° N Lon: 103.637° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/19	6/12	6/07	6/04	6/01	5/30	5/26	5/22	5/17
32	6/06	5/31	5/27	5/23	5/20	5/17	5/14	5/11	5/06
28	5/24	5/18	5/14	5/12	5/08	5/06	5/03	4/30	4/26
24	5/12	5/07	5/03	4/30	4/28	4/26	4/22	4/19	4/13
20	5/02	4/28	4/24	4/20	4/17	4/14	4/10	4/06	4/02
16	4/23	4/17	4/12	4/09	4/06	4/03	4/01	3/27	3/20
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	8/29	9/02	9/05	9/08	9/10	9/12	9/15	9/18	9/22
32	9/06	9/11	9/14	9/17	9/19	9/21	9/23	9/26	9/30
28	9/14	9/19	9/22	9/24	9/26	9/28	10/01	10/04	10/09
24	9/22	9/26	9/29	10/01	10/05	10/08	10/11	10/14	10/18
20	9/28	10/03	10/07	10/11	10/14	10/16	10/20	10/23	10/27
16	10/06	10/12	10/16	10/19	10/22	10/25	10/28	10/31	11/06
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	119	113	108	104	100	96	91	86	78
32	139	133	129	125	121	117	113	108	100
28	159	152	148	144	140	137	132	127	120
24	178	172	167	163	159	155	151	146	139
20	200	192	187	183	178	174	170	164	157
16	219	212	206	202	197	193	188	183	175

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **FORBES 10 NW, ND US**

GHCND:USC00323064
Elev: 628 ft. Lat: 46.035° N Lon: 98.944° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
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**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **BISMARCK 7 N, ND US**

GHCND:USC00320827
 Elev: 625 ft. Lat: 46.937° N Lon: 100.744° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
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**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **FESSENDEN, ND US**

GHCND:USC00322949
Elev: 494 ft. Lat: 47.646° N Lon: 99.622° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/04	5/31	5/27	5/24	5/21	5/18	5/15	5/12	5/07
32	5/25	5/20	5/16	5/13	5/11	5/08	5/05	5/02	4/28
28	5/16	5/11	5/07	5/04	5/01	4/29	4/27	4/23	4/17
24	5/08	5/02	4/29	4/26	4/23	4/19	4/16	4/12	4/06
20	4/29	4/24	4/19	4/16	4/12	4/09	4/06	4/03	3/29
16	4/19	4/14	4/09	4/06	4/04	4/01	3/30	3/24	3/19
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	9/05	9/10	9/14	9/17	9/19	9/21	9/23	9/26	9/30
32	9/17	9/21	9/23	9/26	9/28	10/01	10/03	10/05	10/09
28	9/25	9/29	10/01	10/04	10/06	10/09	10/11	10/14	10/19
24	10/03	10/06	10/10	10/12	10/15	10/18	10/20	10/23	10/27
20	10/10	10/15	10/18	10/21	10/24	10/27	10/29	11/01	11/07
16	10/19	10/24	10/27	10/30	11/01	11/04	11/07	11/11	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	137	131	127	123	119	115	111	107	100
32	156	150	146	142	139	135	131	127	121
28	174	168	163	159	156	152	148	144	138
24	193	186	181	177	173	169	165	160	154
20	213	206	200	196	192	188	183	178	171
16	232	224	219	215	211	207	202	197	190

* 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 1981-2010 serially complete daily data

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

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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **BUTTE 5 SE, ND US**

GHCND:USC00321225
 Elev: 524 ft. Lat: 47.795° N Lon: 100.585° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **COLUMBUS, ND US**

GHCND:USC00321699
 Elev: 594 ft. Lat: 48.917° N Lon: 102.833° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: WESTBY, MT US

GHCND:USC00248777
Elev: 642 ft. Lat: 48.874° N Lon: 104.050° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/16	6/08	6/04	5/31	5/28	5/25	5/22	5/19	5/14
32	6/01	5/27	5/23	5/20	5/17	5/15	5/12	5/09	5/05
28	5/20	5/16	5/13	5/10	5/07	5/05	5/02	4/30	4/25
24	5/10	5/06	5/03	5/01	4/29	4/26	4/22	4/18	4/13
20	5/02	4/28	4/24	4/21	4/18	4/15	4/11	4/07	4/03
16	4/23	4/18	4/14	4/11	4/08	4/05	4/03	3/31	3/25
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	9/01	9/04	9/06	9/08	9/11	9/13	9/16	9/19
32	9/05	9/09	9/12	9/15	9/17	9/19	9/22	9/24	9/28
28	9/12	9/17	9/20	9/23	9/25	9/27	9/30	10/03	10/07
24	9/21	9/25	9/28	10/01	10/04	10/07	10/10	10/13	10/17
20	9/29	10/04	10/08	10/11	10/14	10/16	10/20	10/23	10/27
16	10/08	10/13	10/17	10/20	10/23	10/26	10/29	11/01	11/07
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	120	114	109	105	101	97	93	87	78
32	139	133	129	125	121	118	114	109	102
28	157	151	147	143	140	136	133	128	122
24	178	171	166	162	158	154	150	146	139
20	198	192	187	182	178	174	170	165	158
16	218	210	205	201	197	193	188	184	177

* 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 1981-2010 serially complete daily data

Complete Documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: RICHARDTON ABBEY, ND US

GHCND:USC00327530
Elev: 753 ft. Lat: 46.889° N Lon: 102.319° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/03	5/29	5/25	5/22	5/19	5/16	5/13	5/09	5/05
32	5/24	5/18	5/14	5/11	5/08	5/05	5/03	4/30	4/26
28	5/11	5/07	5/04	5/01	4/30	4/27	4/24	4/20	4/15
24	5/02	4/28	4/25	4/22	4/19	4/16	4/13	4/10	4/05
20	4/23	4/19	4/15	4/12	4/10	4/07	4/05	4/02	3/28
16	4/17	4/12	4/08	4/06	4/03	4/01	3/28	3/23	3/17
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	9/10	9/14	9/17	9/20	9/22	9/24	9/27	9/30	10/03
32	9/17	9/22	9/25	9/28	9/30	10/02	10/05	10/08	10/13
28	9/25	9/30	10/02	10/05	10/08	10/11	10/13	10/17	10/21
24	10/03	10/07	10/11	10/14	10/16	10/19	10/22	10/25	10/30
20	10/11	10/16	10/19	10/23	10/25	10/28	11/01	11/04	11/10
16	10/19	10/24	10/27	10/31	11/03	11/06	11/10	11/14	11/20
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	143	138	133	129	126	122	118	113	106
32	161	155	151	147	143	139	135	130	124
28	179	173	168	164	160	157	153	148	141
24	198	192	187	183	179	175	170	166	159
20	219	211	206	201	197	193	189	184	177
16	237	229	224	219	214	210	205	200	193

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **HETTINGER EXPERIMENT STATION, ND US**

GHCND:USC00324180
 Elev: 824 ft. Lat: 46.004° N Lon: 102.647° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **FAIRFIELD, ND US**

GHCND:USC00322809
Elev: 838 ft. Lat: 47.190° N Lon: 103.225° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/07	6/01	5/29	5/25	5/22	5/19	5/16	5/12	5/08
32	5/28	5/22	5/17	5/14	5/11	5/08	5/05	5/03	4/29
28	5/16	5/11	5/07	5/05	5/02	4/30	4/27	4/23	4/18
24	5/06	5/01	4/28	4/25	4/22	4/19	4/16	4/12	4/07
20	4/26	4/21	4/17	4/14	4/11	4/09	4/06	4/03	3/30
16	4/18	4/13	4/09	4/07	4/04	4/02	3/31	3/26	3/19
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	9/05	9/09	9/13	9/15	9/18	9/20	9/23	9/26	9/30
32	9/12	9/17	9/20	9/23	9/25	9/28	10/01	10/03	10/08
28	9/20	9/25	9/28	10/01	10/03	10/06	10/09	10/13	10/17
24	9/28	10/03	10/07	10/10	10/14	10/16	10/19	10/23	10/27
20	10/08	10/13	10/16	10/19	10/22	10/25	10/28	11/01	11/06
16	10/15	10/19	10/23	10/26	10/30	11/01	11/05	11/09	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	136	130	125	121	117	113	109	104	96
32	155	148	144	140	136	132	128	122	115
28	174	167	162	158	154	149	145	140	132
24	194	187	182	177	173	169	164	159	152
20	213	206	201	196	192	189	184	179	172
16	231	223	217	212	208	204	199	194	187

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **POWERS LAKE 1 N, ND US**

GHCND:USC00327281
Elev: 672 ft. Lat: 48.572° N Lon: 102.647° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	6/05	5/31	5/28	5/24	5/21	5/18	5/15	5/12	5/07
28	5/24	5/19	5/16	5/13	5/10	5/08	5/05	5/02	4/28
24	5/15	5/10	5/07	5/04	5/01	4/29	4/26	4/22	4/17
20	5/05	5/01	4/28	4/25	4/22	4/19	4/16	4/12	4/07
16	4/27	4/22	4/18	4/15	4/12	4/09	4/06	4/03	3/30
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	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	9/01	9/06	9/09	9/12	9/15	9/17	9/20	9/23	9/27
28	9/11	9/15	9/18	9/21	9/24	9/26	9/29	10/02	10/07
24	9/19	9/23	9/26	9/30	10/02	10/05	10/09	10/12	10/16
20	9/26	10/01	10/05	10/09	10/12	10/14	10/17	10/21	10/25
16	10/05	10/10	10/14	10/17	10/20	10/23	10/26	10/29	11/03
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	113	106	101	97	92	88	82	76	65
32	134	128	123	119	115	111	107	102	95
28	153	147	143	139	135	132	128	123	117
24	173	166	161	157	153	149	145	140	133
20	192	185	180	175	171	167	163	158	151
16	210	203	198	194	189	185	180	175	168

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **CARRINGTON 4 N, ND US**

GHCND:USC00321362
Elev: 476 ft. Lat: 47.509° N Lon: 99.121° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/05	5/31	5/27	5/24	5/21	5/17	5/14	5/11	5/06
32	5/26	5/20	5/16	5/13	5/10	5/08	5/05	5/02	4/28
28	5/17	5/12	5/08	5/05	5/02	4/30	4/27	4/23	4/18
24	5/09	5/03	4/30	4/27	4/23	4/20	4/16	4/13	4/08
20	5/01	4/24	4/19	4/16	4/13	4/10	4/07	4/04	4/01
16	4/19	4/14	4/10	4/07	4/05	4/03	4/01	3/28	3/21
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	9/01	9/08	9/11	9/14	9/16	9/19	9/21	9/24	9/28
32	9/14	9/18	9/21	9/24	9/26	9/28	10/01	10/03	10/07
28	9/22	9/26	9/29	10/01	10/03	10/06	10/09	10/12	10/16
24	10/01	10/04	10/07	10/10	10/13	10/15	10/18	10/22	10/26
20	10/08	10/12	10/16	10/19	10/22	10/25	10/28	11/01	11/05
16	10/16	10/21	10/25	10/29	11/01	11/03	11/05	11/09	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	135	129	124	120	116	112	108	103	95
32	154	148	144	140	136	133	129	125	118
28	171	165	160	156	153	149	145	141	134
24	190	184	179	174	170	166	162	157	151
20	210	203	199	194	190	186	181	176	168
16	228	221	216	212	208	204	200	195	187

* 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 1981-2010 serially complete daily data

Complete Documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: TUTTLE, ND US

GHCND:USC00328850
Elev: 573 ft. Lat: 47.133° N Lon: 100.000° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/08	6/02	5/30	5/26	5/23	5/20	5/16	5/14	5/09
32	5/27	5/21	5/17	5/15	5/12	5/09	5/07	5/04	4/30
28	5/16	5/12	5/09	5/06	5/03	5/01	4/29	4/25	4/20
24	5/08	5/03	4/30	4/27	4/23	4/20	4/17	4/14	4/09
20	4/29	4/23	4/19	4/16	4/13	4/11	4/07	4/04	4/01
16	4/19	4/14	4/10	4/07	4/05	4/03	3/31	3/28	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	9/02	9/07	9/10	9/12	9/15	9/17	9/20	9/22	9/26
32	9/12	9/17	9/19	9/22	9/24	9/26	9/28	10/01	10/05
28	9/20	9/24	9/27	9/29	10/02	10/04	10/07	10/11	10/16
24	9/27	10/01	10/05	10/08	10/11	10/14	10/17	10/21	10/25
20	10/06	10/11	10/14	10/17	10/21	10/24	10/27	10/30	11/04
16	10/14	10/19	10/24	10/27	10/30	11/01	11/05	11/08	11/13
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	132	126	121	117	114	110	106	101	93
32	150	144	140	136	133	129	125	121	114
28	169	163	158	154	150	146	142	138	132
24	189	182	177	172	168	164	160	155	148
20	209	202	197	192	188	184	179	174	167
16	227	220	215	211	207	203	198	193	186

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **DEVILS LAKE KDLR, ND US**

GHCND:USW00014912
Elev: 446 ft. Lat: 48.107° N Lon: 98.868° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/28	5/22	5/18	5/15	5/12	5/09	5/06	5/03	4/29
32	5/18	5/12	5/08	5/05	5/03	4/30	4/28	4/25	4/20
28	5/09	5/03	4/30	4/27	4/24	4/21	4/17	4/13	4/09
24	4/30	4/24	4/20	4/16	4/13	4/11	4/08	4/06	4/02
20	4/19	4/14	4/10	4/08	4/06	4/04	4/02	3/31	3/26
16	4/12	4/08	4/05	4/03	4/01	3/30	3/27	3/23	3/18
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	9/15	9/20	9/22	9/25	9/27	9/29	10/01	10/03	10/06
32	9/24	9/28	9/30	10/02	10/04	10/06	10/09	10/11	10/15
28	10/01	10/04	10/07	10/09	10/12	10/14	10/17	10/20	10/23
24	10/07	10/11	10/14	10/17	10/20	10/23	10/25	10/28	11/01
20	10/15	10/20	10/23	10/26	10/29	11/01	11/02	11/05	11/10
16	10/23	10/28	10/31	11/01	11/04	11/06	11/09	11/12	11/17
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	152	147	142	139	135	131	128	123	116
32	169	163	159	156	152	149	145	141	134
28	187	181	177	173	169	165	161	157	150
24	205	199	195	191	187	184	179	174	167
20	221	215	211	208	204	201	197	192	186
16	235	229	225	221	217	214	211	207	201

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MC VILLE, ND US**

GHCND:USC00325764
Elev: 447 ft. Lat: 47.762° N Lon: 98.182° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/10	6/03	5/30	5/27	5/24	5/21	5/17	5/14	5/09
32	5/30	5/24	5/20	5/16	5/13	5/10	5/07	5/04	4/30
28	5/19	5/14	5/10	5/07	5/04	5/01	4/29	4/26	4/21
24	5/11	5/05	5/02	4/29	4/26	4/23	4/20	4/16	4/12
20	5/02	4/27	4/23	4/19	4/16	4/13	4/10	4/07	4/03
16	4/22	4/16	4/13	4/10	4/07	4/05	4/03	3/31	3/26
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	8/30	9/04	9/08	9/11	9/13	9/16	9/18	9/21	9/24
32	9/10	9/15	9/18	9/21	9/23	9/25	9/27	9/30	10/04
28	9/20	9/23	9/26	9/29	10/01	10/03	10/06	10/09	10/14
24	9/26	9/30	10/03	10/06	10/10	10/13	10/16	10/19	10/24
20	10/04	10/09	10/13	10/16	10/19	10/22	10/25	10/29	11/02
16	10/12	10/17	10/21	10/25	10/28	10/31	11/03	11/07	11/12
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	123	118	113	110	106	101	95	87
32	148	142	137	133	129	126	122	116	109
28	165	159	155	151	147	144	139	135	129
24	184	177	172	168	164	160	156	152	145
20	204	197	192	187	183	178	174	168	161
16	222	215	210	206	201	197	193	188	180

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **KEENE 3 S, ND US**

GHCND:USC00324571
Elev: 753 ft. Lat: 47.897° N Lon: 102.921° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	6/04	5/30	5/26	5/22	5/19	5/16	5/13	5/10	5/06
28	5/22	5/17	5/14	5/11	5/08	5/06	5/03	4/30	4/26
24	5/13	5/08	5/04	5/02	4/29	4/27	4/23	4/20	4/14
20	5/03	4/29	4/25	4/22	4/19	4/16	4/12	4/08	4/04
16	4/24	4/19	4/15	4/11	4/08	4/05	4/03	3/31	3/23
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	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	9/03	9/08	9/12	9/16	9/18	9/21	9/23	9/26	9/30
28	9/12	9/17	9/21	9/24	9/27	9/29	10/02	10/05	10/10
24	9/21	9/26	9/29	10/02	10/05	10/09	10/12	10/15	10/20
20	9/29	10/04	10/09	10/12	10/15	10/18	10/21	10/25	10/29
16	10/08	10/13	10/17	10/20	10/23	10/26	10/30	11/02	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	119	112	107	103	99	94	88	82	72
32	139	133	128	124	120	116	112	107	99
28	159	152	148	143	140	136	132	127	121
24	179	172	167	163	158	154	150	145	138
20	199	191	186	181	177	173	168	163	155
16	218	210	205	200	196	191	186	180	173

* 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 1981-2010 serially complete daily data

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

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National Oceanic & Atmospheric Administration
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Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **CARSON, ND US**

GHCND:USC00321370
Elev: 712 ft. Lat: 46.425° N Lon: 101.574° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/12	6/07	6/04	6/01	5/30	5/27	5/23	5/19	5/15
32	6/02	5/29	5/25	5/21	5/18	5/15	5/12	5/09	5/05
28	5/24	5/19	5/15	5/11	5/09	5/06	5/03	5/01	4/27
24	5/15	5/09	5/06	5/03	4/30	4/28	4/24	4/20	4/15
20	5/05	4/30	4/27	4/23	4/20	4/17	4/14	4/10	4/05
16	4/26	4/21	4/17	4/14	4/11	4/08	4/05	4/01	3/26
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	9/01	9/06	9/10	9/12	9/15	9/18	9/20	9/23	9/27
32	9/10	9/15	9/18	9/21	9/23	9/26	9/28	10/01	10/06
28	9/18	9/22	9/25	9/28	10/01	10/04	10/07	10/11	10/16
24	9/25	9/30	10/04	10/07	10/10	10/14	10/16	10/20	10/25
20	10/04	10/09	10/13	10/16	10/19	10/22	10/26	10/30	11/05
16	10/14	10/18	10/22	10/26	10/29	11/01	11/05	11/10	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	127	120	116	111	108	104	100	95	88
32	145	139	134	130	127	123	119	114	107
28	163	156	151	147	143	139	135	130	124
24	182	175	170	165	161	157	152	147	140
20	203	195	190	185	181	176	172	166	159
16	223	215	209	205	200	196	191	185	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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **ENDERLIN 2 W, ND US**

GHCND:USC00322695
Elev: 350 ft. Lat: 46.617° N Lon: 97.638° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/04	5/31	5/27	5/23	5/20	5/17	5/14	5/10	5/05
32	5/24	5/19	5/15	5/12	5/09	5/06	5/03	4/30	4/26
28	5/14	5/09	5/05	5/02	4/30	4/28	4/25	4/21	4/15
24	5/05	4/30	4/27	4/24	4/21	4/18	4/14	4/10	4/05
20	4/27	4/21	4/18	4/14	4/11	4/08	4/05	4/02	3/28
16	4/18	4/13	4/09	4/06	4/03	4/01	3/29	3/24	3/18
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	9/01	9/07	9/11	9/14	9/17	9/19	9/21	9/24	9/28
32	9/14	9/18	9/21	9/24	9/26	9/28	10/01	10/04	10/08
28	9/22	9/27	9/30	10/02	10/05	10/07	10/11	10/14	10/19
24	9/30	10/04	10/09	10/12	10/15	10/18	10/22	10/26	10/30
20	10/08	10/14	10/19	10/23	10/27	10/30	11/01	11/05	11/10
16	10/19	10/26	10/30	11/01	11/04	11/07	11/10	11/14	11/19
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	137	131	126	122	118	114	110	105	97
32	156	150	146	142	138	135	130	126	119
28	176	169	164	160	156	152	148	143	136
24	197	189	184	179	175	171	166	161	153
20	217	210	205	200	195	190	185	180	172
16	235	228	222	218	213	209	204	198	190

* 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 1981-2010 serially complete daily data

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

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National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MOTT, ND US**

GHCND:USC00326155
Elev: 773 ft. Lat: 46.372° N Lon: 102.316° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/12	6/06	6/03	5/31	5/28	5/25	5/22	5/18	5/15
32	6/01	5/26	5/22	5/19	5/16	5/13	5/11	5/08	5/05
28	5/21	5/15	5/11	5/09	5/06	5/04	5/02	4/30	4/26
24	5/10	5/05	5/02	4/30	4/28	4/26	4/23	4/19	4/15
20	5/01	4/28	4/24	4/21	4/18	4/16	4/13	4/10	4/05
16	4/23	4/18	4/15	4/12	4/09	4/07	4/04	4/01	3/26
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	8/28	9/01	9/05	9/07	9/10	9/12	9/15	9/18	9/22
32	9/05	9/10	9/13	9/16	9/19	9/21	9/24	9/27	10/01
28	9/13	9/18	9/21	9/24	9/27	9/29	10/02	10/05	10/09
24	9/21	9/26	9/30	10/02	10/05	10/08	10/11	10/15	10/19
20	9/30	10/04	10/08	10/11	10/15	10/17	10/20	10/23	10/28
16	10/09	10/14	10/18	10/21	10/23	10/26	10/30	11/02	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	122	116	111	107	104	100	96	91	85
32	141	135	131	127	124	120	116	111	105
28	159	153	149	145	142	138	134	129	123
24	178	171	167	163	159	155	151	146	139
20	197	191	186	182	178	173	169	164	157
16	218	210	205	201	197	193	188	183	176

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **WILLOW CITY, ND US**

GHCND:USC00329445
 Elev: 449 ft. Lat: 48.606° N Lon: 100.291° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	6/07	6/02	5/30	5/28	5/25	5/21	5/18	5/15	5/12
28	5/29	5/25	5/21	5/18	5/15	5/12	5/09	5/06	5/01
24	5/21	5/15	5/12	5/08	5/05	5/02	4/30	4/26	4/19
20	5/12	5/07	5/02	4/29	4/26	4/22	4/17	4/12	4/07
16	5/03	4/26	4/21	4/17	4/13	4/10	4/07	4/03	3/31
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	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	8/30	9/05	9/09	9/12	9/14	9/17	9/19	9/22	9/26
28	9/11	9/16	9/19	9/21	9/23	9/26	9/28	10/01	10/06
24	9/21	9/25	9/28	9/30	10/03	10/05	10/09	10/12	10/17
20	9/30	10/03	10/07	10/10	10/13	10/16	10/19	10/23	10/27
16	10/07	10/12	10/16	10/19	10/23	10/25	10/28	11/01	11/06
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	109	103	98	93	88	82	76	68	57
32	129	123	119	115	111	108	104	98	90
28	148	142	138	134	130	127	123	118	112
24	170	162	157	153	149	145	141	136	129
20	192	184	178	173	169	165	160	154	146
16	212	204	199	194	189	185	180	174	165

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **SHIELDS, ND US**

GHCND:USC00328065
Elev: 550 ft. Lat: 46.233° N Lon: 101.129° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
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National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **WASHBURN, ND US**

GHCND:USC00329195
Elev: 529 ft. Lat: 47.284° N Lon: 101.027° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/04	5/31	5/27	5/24	5/21	5/18	5/15	5/11	5/08
32	5/24	5/19	5/16	5/13	5/10	5/08	5/05	5/02	4/29
28	5/16	5/12	5/08	5/05	5/02	4/30	4/27	4/24	4/19
24	5/08	5/02	4/30	4/27	4/24	4/20	4/17	4/14	4/09
20	4/29	4/24	4/20	4/17	4/14	4/11	4/08	4/04	3/31
16	4/19	4/14	4/10	4/07	4/05	4/02	3/31	3/27	3/20
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	9/04	9/09	9/12	9/16	9/18	9/20	9/23	9/26	9/30
32	9/14	9/18	9/21	9/24	9/27	9/29	10/01	10/04	10/08
28	9/22	9/26	9/29	10/02	10/04	10/07	10/10	10/13	10/17
24	9/30	10/04	10/07	10/10	10/13	10/16	10/19	10/22	10/26
20	10/09	10/14	10/17	10/20	10/23	10/26	10/29	11/01	11/07
16	10/19	10/23	10/27	10/30	11/01	11/05	11/08	11/11	11/17
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	137	131	127	123	119	115	111	106	99
32	155	149	145	141	138	134	131	126	120
28	173	166	161	157	153	150	146	141	135
24	191	184	179	175	171	167	163	158	152
20	212	205	200	195	191	187	183	178	170
16	231	224	219	214	210	206	202	197	190

* 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 1981-2010 serially complete daily data

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

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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **HETTINGER, ND US**

GHCND:USC00324178
 Elev: 817 ft. Lat: 45.992° N Lon: 102.644° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/15	6/08	6/04	6/01	5/30	5/27	5/23	5/20	5/15
32	6/02	5/28	5/24	5/21	5/18	5/15	5/12	5/09	5/05
28	5/22	5/16	5/13	5/10	5/07	5/05	5/03	4/30	4/26
24	5/11	5/06	5/03	4/30	4/28	4/25	4/22	4/19	4/14
20	5/01	4/26	4/23	4/20	4/17	4/14	4/11	4/08	4/04
16	4/21	4/16	4/13	4/10	4/07	4/05	4/02	3/31	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	8/27	9/01	9/05	9/08	9/10	9/13	9/15	9/18	9/21
32	9/05	9/09	9/12	9/15	9/18	9/20	9/23	9/26	9/30
28	9/11	9/17	9/20	9/23	9/26	9/29	10/02	10/05	10/09
24	9/19	9/24	9/28	10/02	10/05	10/08	10/11	10/15	10/20
20	9/26	10/03	10/07	10/11	10/15	10/18	10/21	10/25	10/30
16	10/08	10/15	10/18	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	121	115	110	106	102	98	94	88	80
32	139	134	129	125	122	118	113	108	102
28	158	152	147	143	140	136	131	127	120
24	180	173	168	164	159	155	151	146	138
20	200	193	188	183	179	175	170	165	158
16	220	213	208	203	199	195	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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **BERTHOLD, ND US**

GHCND:USC00320729
Elev: 634 ft. Lat: 48.314° N Lon: 101.733° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

Complete Documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **FLASHER, ND US**

GHCND:USC00323004
Elev: 604 ft. Lat: 46.458° N Lon: 101.200° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/10	6/05	6/02	5/30	5/27	5/23	5/19	5/16	5/12
32	6/01	5/26	5/22	5/18	5/15	5/12	5/10	5/07	5/03
28	5/19	5/15	5/12	5/08	5/06	5/03	5/01	4/28	4/23
24	5/11	5/05	5/02	4/30	4/27	4/24	4/20	4/17	4/13
20	5/01	4/27	4/23	4/20	4/17	4/15	4/12	4/08	4/04
16	4/23	4/18	4/14	4/11	4/09	4/06	4/04	4/01	3/26
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	8/29	9/04	9/09	9/12	9/15	9/18	9/21	9/24	9/29
32	9/12	9/17	9/20	9/23	9/25	9/28	10/01	10/04	10/07
28	9/21	9/25	9/28	10/01	10/03	10/05	10/07	10/11	10/14
24	9/28	10/02	10/05	10/07	10/10	10/12	10/15	10/18	10/22
20	10/05	10/10	10/13	10/15	10/18	10/20	10/23	10/26	10/31
16	10/14	10/18	10/21	10/24	10/27	10/30	11/02	11/06	11/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	131	124	119	115	110	106	102	96	88
32	149	143	139	135	131	127	123	118	112
28	165	159	155	152	148	145	141	136	130
24	183	177	172	168	165	161	157	153	146
20	201	194	190	186	182	178	174	170	163
16	221	214	209	204	200	196	192	187	181

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **WILDROSE, ND US**

GHCND:USC00329400
Elev: 689 ft. Lat: 48.663° N Lon: 103.213° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/15	6/08	6/04	6/02	5/30	5/27	5/24	5/20	5/16
32	6/02	5/28	5/25	5/21	5/19	5/16	5/14	5/11	5/07
28	5/22	5/17	5/14	5/12	5/09	5/07	5/04	5/02	4/27
24	5/13	5/08	5/05	5/03	4/30	4/28	4/24	4/20	4/15
20	5/03	4/29	4/25	4/22	4/19	4/16	4/13	4/09	4/04
16	4/23	4/19	4/15	4/12	4/09	4/06	4/04	4/01	3/27
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	8/23	8/30	9/02	9/05	9/07	9/10	9/13	9/15	9/19
32	9/04	9/09	9/13	9/15	9/17	9/19	9/22	9/24	9/28
28	9/14	9/18	9/21	9/23	9/26	9/28	10/01	10/04	10/08
24	9/21	9/26	9/29	10/02	10/04	10/07	10/10	10/13	10/17
20	9/30	10/04	10/08	10/11	10/14	10/16	10/18	10/22	10/26
16	10/08	10/13	10/16	10/18	10/21	10/24	10/27	10/30	11/04
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	117	111	107	103	99	94	90	85	76
32	137	131	127	123	120	116	112	108	101
28	155	150	145	142	138	135	131	127	121
24	175	169	164	160	156	152	148	144	137
20	195	189	184	180	176	172	168	162	155
16	214	207	202	198	194	190	186	181	175

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: RIVERDALE, ND US

GHCND:USC00327585
 Elev: 603 ft. Lat: 47.498° N Lon: 101.375° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **NEW ENGLAND, ND US**

GHCND:USC00326315
Elev: 804 ft. Lat: 46.541° N Lon: 102.869° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/16	6/07	6/03	5/31	5/28	5/25	5/22	5/18	5/13
32	5/31	5/26	5/22	5/18	5/15	5/12	5/10	5/07	5/03
28	5/18	5/13	5/10	5/07	5/05	5/03	5/01	4/28	4/23
24	5/08	5/04	5/01	4/29	4/27	4/24	4/21	4/18	4/13
20	4/30	4/26	4/23	4/20	4/17	4/14	4/11	4/08	4/03
16	4/22	4/18	4/14	4/11	4/08	4/05	4/03	3/31	3/23
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	9/01	9/05	9/08	9/11	9/13	9/16	9/18	9/21	9/25
32	9/09	9/13	9/17	9/19	9/22	9/24	9/26	9/29	10/03
28	9/16	9/21	9/24	9/27	9/30	10/02	10/04	10/07	10/12
24	9/24	9/28	10/02	10/04	10/07	10/10	10/13	10/16	10/21
20	10/02	10/07	10/11	10/14	10/17	10/20	10/22	10/26	10/31
16	10/13	10/18	10/21	10/24	10/27	10/30	11/02	11/05	11/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	126	120	115	111	107	103	98	92	83
32	145	139	135	131	127	124	120	115	108
28	163	157	152	149	145	142	138	133	127
24	182	175	171	167	163	159	155	151	144
20	202	196	191	187	183	179	174	170	163
16	223	215	210	205	201	197	193	188	182

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **SHARON, ND US**

GHCND:USC00327986
Elev: 465 ft. Lat: 47.598° N Lon: 97.900° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/04	5/30	5/27	5/23	5/20	5/16	5/13	5/10	5/05
32	5/25	5/20	5/16	5/13	5/09	5/06	5/04	5/01	4/27
28	5/16	5/11	5/07	5/04	5/01	4/29	4/26	4/22	4/16
24	5/07	5/02	4/29	4/25	4/22	4/19	4/16	4/12	4/07
20	4/28	4/23	4/19	4/15	4/12	4/09	4/07	4/04	3/31
16	4/18	4/13	4/10	4/07	4/05	4/03	4/01	3/28	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	9/06	9/11	9/14	9/17	9/19	9/22	9/24	9/27	10/01
32	9/15	9/20	9/23	9/25	9/28	10/01	10/03	10/06	10/10
28	9/23	9/28	10/01	10/03	10/06	10/09	10/12	10/15	10/20
24	10/01	10/05	10/09	10/13	10/16	10/19	10/22	10/25	10/29
20	10/08	10/14	10/19	10/22	10/26	10/28	10/31	11/03	11/07
16	10/18	10/24	10/28	10/31	11/02	11/05	11/07	11/11	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	139	133	128	124	120	116	112	107	100
32	157	151	146	142	139	135	131	126	119
28	175	168	164	159	155	152	148	143	137
24	195	187	182	178	174	170	165	160	153
20	213	206	201	197	193	189	184	178	170
16	229	222	217	213	209	205	201	196	189

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: CASSELTON AGRONOMY FM, ND US

GHCND:USC00321408
Elev: 285 ft. Lat: 46.877° N Lon: 97.233° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/04	5/31	5/27	5/24	5/20	5/17	5/14	5/10	5/05
32	5/25	5/19	5/16	5/13	5/10	5/06	5/03	4/30	4/26
28	5/16	5/10	5/06	5/02	4/30	4/28	4/25	4/20	4/15
24	5/05	4/30	4/26	4/23	4/19	4/16	4/12	4/09	4/04
20	4/24	4/19	4/14	4/11	4/08	4/06	4/03	4/01	3/26
16	4/15	4/09	4/06	4/04	4/02	3/31	3/27	3/23	3/17
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	9/05	9/10	9/13	9/16	9/18	9/20	9/22	9/25	9/29
32	9/15	9/19	9/22	9/24	9/26	9/29	10/01	10/04	10/09
28	9/23	9/27	9/30	10/03	10/05	10/08	10/12	10/16	10/22
24	10/01	10/06	10/10	10/13	10/17	10/20	10/24	10/27	11/01
20	10/10	10/16	10/21	10/24	10/27	10/30	11/01	11/05	11/10
16	10/21	10/27	10/30	11/01	11/04	11/07	11/10	11/14	11/19
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	138	131	126	123	119	115	111	106	100
32	157	151	146	142	139	135	131	126	120
28	178	170	165	160	157	153	148	144	137
24	200	192	187	182	178	173	168	162	155
20	219	212	207	202	198	194	189	183	175
16	236	229	223	219	215	211	207	202	194

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: COLGATE, ND US

GHCND:USC00321686
Elev: 360 ft. Lat: 47.243° N Lon: 97.656° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/08	6/01	5/29	5/25	5/22	5/18	5/15	5/11	5/07
32	5/27	5/21	5/16	5/13	5/10	5/07	5/05	5/01	4/28
28	5/16	5/11	5/07	5/04	5/01	4/29	4/26	4/23	4/18
24	5/07	5/02	4/29	4/25	4/22	4/20	4/17	4/13	4/09
20	4/28	4/23	4/19	4/16	4/13	4/10	4/07	4/04	4/01
16	4/19	4/14	4/10	4/07	4/05	4/03	4/01	3/29	3/23
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	8/30	9/04	9/08	9/11	9/14	9/16	9/19	9/21	9/25
32	9/10	9/15	9/18	9/21	9/23	9/25	9/28	10/01	10/04
28	9/20	9/24	9/27	9/29	10/01	10/04	10/06	10/10	10/15
24	9/28	10/01	10/04	10/07	10/10	10/13	10/16	10/20	10/24
20	10/05	10/09	10/13	10/16	10/20	10/23	10/26	10/29	11/02
16	10/12	10/18	10/22	10/25	10/29	11/01	11/03	11/06	11/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	132	126	121	117	113	109	104	99	91
32	151	145	141	137	133	130	126	121	114
28	170	163	159	155	152	148	144	139	133
24	189	182	177	173	169	165	161	155	149
20	207	201	195	191	187	183	178	173	166
16	224	217	212	208	204	200	195	190	183

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **NAPOLEON, ND US**

GHCND:USC00326255
Elev: 604 ft. Lat: 46.507° N Lon: 99.769° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/06	5/31	5/29	5/26	5/22	5/20	5/16	5/13	5/08
32	5/27	5/22	5/18	5/15	5/12	5/09	5/06	5/03	4/29
28	5/17	5/12	5/09	5/06	5/03	4/30	4/28	4/24	4/19
24	5/09	5/04	4/30	4/27	4/24	4/20	4/17	4/14	4/09
20	4/30	4/24	4/20	4/17	4/14	4/11	4/08	4/04	3/31
16	4/20	4/15	4/11	4/08	4/05	4/02	3/31	3/27	3/20
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	9/03	9/09	9/12	9/15	9/17	9/20	9/22	9/25	9/29
32	9/14	9/19	9/22	9/24	9/26	9/29	10/01	10/04	10/08
28	9/22	9/26	9/29	10/01	10/04	10/07	10/10	10/13	10/18
24	9/30	10/04	10/07	10/10	10/13	10/16	10/19	10/22	10/26
20	10/07	10/12	10/16	10/20	10/23	10/26	10/29	11/01	11/06
16	10/17	10/22	10/27	10/30	11/01	11/04	11/07	11/11	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	134	128	124	120	116	112	108	103	96
32	153	147	143	139	136	132	128	123	117
28	172	165	160	156	153	149	145	140	134
24	191	184	179	174	170	166	162	157	150
20	212	205	199	195	190	186	181	176	168
16	230	223	218	214	209	205	201	195	187

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **WOODWORTH, ND US**

GHCND:USC00329575
 Elev: 585 ft. Lat: 47.184° N Lon: 99.292° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **TURTLE LAKE, ND US**

GHCND:USC00328840
Elev: 577 ft. Lat: 47.521° N Lon: 100.888° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/10	6/04	5/31	5/29	5/26	5/22	5/19	5/16	5/12
32	5/29	5/24	5/20	5/17	5/14	5/12	5/09	5/06	5/03
28	5/20	5/14	5/11	5/08	5/05	5/02	4/30	4/27	4/21
24	5/11	5/06	5/02	4/29	4/26	4/23	4/19	4/16	4/11
20	5/01	4/26	4/22	4/19	4/16	4/13	4/10	4/07	4/03
16	4/21	4/17	4/13	4/10	4/07	4/05	4/02	3/31	3/23
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	9/01	9/06	9/10	9/13	9/15	9/17	9/20	9/23	9/26
32	9/10	9/15	9/18	9/20	9/23	9/25	9/28	10/01	10/05
28	9/18	9/23	9/26	9/28	10/01	10/04	10/07	10/10	10/15
24	9/26	10/01	10/04	10/07	10/10	10/13	10/16	10/20	10/25
20	10/04	10/09	10/13	10/16	10/20	10/23	10/27	10/30	11/04
16	10/13	10/18	10/22	10/26	10/29	11/01	11/05	11/09	11/15
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	123	119	115	111	107	103	98	90
32	147	141	137	133	130	126	122	117	111
28	167	160	155	151	147	143	139	134	128
24	186	179	174	169	165	161	156	151	144
20	206	199	193	189	185	180	176	170	163
16	225	218	213	208	204	199	194	189	182

* 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 1981-2010 serially complete daily data

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

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 National Oceanic & Atmospheric Administration
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **CHURCHS FERRY, ND US**

GHCND:USC00321500
 Elev: 445 ft. Lat: 48.272° N Lon: 99.199° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
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 National Environmental Satellite, Data, and Information
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **RUGBY, ND US**

GHCND:USC00327704
 Elev: 472 ft. Lat: 48.354° N Lon: 99.992° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **MARMARTH, ND US**

GHCND:USC00325575
 Elev: 826 ft. Lat: 46.291° N Lon: 103.921° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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.

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U.S. Department of Commerce
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **HAZELTON 4 NW, ND US**

GHCND:USC00324083
Elev: 604 ft. Lat: 46.517° N Lon: 100.349° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/08	6/02	5/30	5/26	5/23	5/20	5/16	5/13	5/09
32	5/28	5/22	5/18	5/15	5/12	5/10	5/07	5/04	5/01
28	5/18	5/13	5/10	5/07	5/04	5/02	4/30	4/26	4/21
24	5/10	5/05	5/02	4/30	4/27	4/23	4/20	4/16	4/12
20	5/02	4/27	4/23	4/19	4/16	4/13	4/10	4/06	4/02
16	4/22	4/16	4/13	4/10	4/07	4/04	4/02	3/29	3/23
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	8/30	9/04	9/08	9/11	9/14	9/17	9/19	9/22	9/27
32	9/09	9/14	9/17	9/20	9/23	9/26	9/29	10/02	10/06
28	9/18	9/22	9/26	9/29	10/01	10/05	10/07	10/11	10/16
24	9/27	10/01	10/05	10/08	10/11	10/14	10/17	10/21	10/25
20	10/05	10/11	10/15	10/18	10/21	10/24	10/27	10/31	11/05
16	10/15	10/21	10/25	10/28	10/31	11/03	11/06	11/10	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	132	125	120	116	112	108	103	98	90
32	150	144	139	135	132	128	124	119	112
28	168	161	156	152	149	145	141	136	130
24	187	180	175	170	166	162	158	153	146
20	207	200	195	190	186	181	177	172	165
16	227	220	215	210	206	202	197	191	184

* Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date

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Derived from 1981-2010 serially complete daily data

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

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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MANDAN EXPERIMENT STATION, ND US**

GHCND:USC00325479
Elev: 533 ft. Lat: 46.813° N Lon: 100.910° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/07	6/02	5/29	5/26	5/22	5/19	5/16	5/13	5/09
32	5/27	5/21	5/17	5/14	5/11	5/09	5/06	5/03	4/30
28	5/16	5/12	5/08	5/05	5/02	4/30	4/27	4/23	4/18
24	5/07	5/02	4/29	4/26	4/23	4/19	4/17	4/13	4/09
20	4/29	4/24	4/19	4/16	4/14	4/11	4/08	4/05	4/01
16	4/19	4/14	4/11	4/08	4/05	4/03	3/31	3/27	3/21
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	9/04	9/09	9/11	9/14	9/17	9/19	9/21	9/24	9/28
32	9/13	9/17	9/20	9/23	9/25	9/28	9/30	10/03	10/08
28	9/20	9/24	9/27	9/30	10/03	10/05	10/08	10/12	10/16
24	9/27	10/01	10/05	10/08	10/11	10/14	10/17	10/20	10/24
20	10/05	10/10	10/14	10/18	10/21	10/24	10/27	10/31	11/05
16	10/14	10/19	10/24	10/27	10/31	11/02	11/06	11/11	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	134	128	123	119	115	111	107	103	96
32	153	147	142	139	135	132	128	123	117
28	170	164	159	155	152	148	144	139	133
24	189	182	178	173	169	165	161	156	149
20	210	202	197	193	188	184	180	175	168
16	230	222	217	212	207	203	199	193	186

* Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date

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Derived from 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **CANDO, ND US**

GHCND:USC00321288
 Elev: 455 ft. Lat: 48.488° N Lon: 99.183° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **HURDSFIELD 8 SW, ND US**

GHCND:USC00324343
Elev: 591 ft. Lat: 47.350° N Lon: 100.017° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/15	6/07	6/02	5/31	5/27	5/24	5/21	5/17	5/13
32	5/31	5/27	5/22	5/19	5/16	5/14	5/11	5/08	5/04
28	5/21	5/16	5/13	5/10	5/08	5/05	5/03	4/30	4/25
24	5/13	5/08	5/05	5/02	4/30	4/27	4/24	4/19	4/14
20	5/05	4/30	4/26	4/22	4/19	4/16	4/13	4/09	4/05
16	4/25	4/19	4/16	4/12	4/10	4/07	4/04	4/01	3/28
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	8/28	9/03	9/07	9/10	9/12	9/15	9/17	9/20	9/24
32	9/09	9/14	9/17	9/19	9/21	9/23	9/26	9/29	10/03
28	9/18	9/22	9/25	9/27	9/30	10/02	10/05	10/08	10/12
24	9/25	9/29	10/02	10/05	10/08	10/11	10/14	10/17	10/22
20	10/03	10/07	10/11	10/14	10/17	10/20	10/23	10/27	11/01
16	10/11	10/16	10/20	10/23	10/26	10/30	11/02	11/06	11/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	125	119	114	110	106	102	97	92	84
32	143	137	133	130	126	122	118	114	107
28	161	155	150	147	143	140	136	132	126
24	180	173	168	164	160	156	152	147	141
20	199	192	187	183	179	175	170	165	158
16	219	212	207	202	198	194	189	184	177

* 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 1981-2010 serially complete daily data

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

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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **MONTPELIER, ND US**

GHCND:USC00326105
 Elev: 428 ft. Lat: 46.700° N Lon: 98.584° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date

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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **EDMORE 1 NW, ND US**

GHCND:USC00322525
Elev: 468 ft. Lat: 48.424° N Lon: 98.471° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	6/05	5/31	5/27	5/23	5/20	5/17	5/14	5/10	5/05
28	5/25	5/19	5/15	5/12	5/08	5/05	5/02	4/30	4/25
24	5/15	5/09	5/05	5/02	4/30	4/27	4/23	4/19	4/13
20	5/06	5/01	4/27	4/23	4/19	4/16	4/12	4/09	4/04
16	4/26	4/20	4/16	4/12	4/10	4/07	4/05	4/02	3/29
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	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	9/05	9/11	9/14	9/16	9/18	9/21	9/23	9/25	9/29
28	9/15	9/19	9/22	9/24	9/27	9/29	10/01	10/04	10/08
24	9/23	9/27	9/30	10/02	10/04	10/07	10/10	10/14	10/19
20	9/30	10/04	10/07	10/10	10/13	10/16	10/20	10/24	10/29
16	10/06	10/11	10/15	10/19	10/22	10/26	10/29	11/02	11/07
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	116	110	105	100	96	91	85	77	66
32	137	131	127	123	119	115	111	106	97
28	157	151	147	143	139	135	131	126	119
24	177	170	165	161	157	153	149	144	137
20	196	189	184	179	175	171	166	161	153
16	214	207	202	198	193	189	184	179	171

* 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 1981-2010 serially complete daily data

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

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National Oceanic & Atmospheric Administration
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Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **HETTINGER MUNICIPAL AIRPORT, ND US**

GHCND:USW00094038
Elev: 824 ft. Lat: 46.014° N Lon: 102.655° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/22	6/15	6/10	6/06	6/03	5/31	5/27	5/23	5/18
32	6/07	6/02	5/28	5/24	5/20	5/17	5/15	5/11	5/07
28	5/26	5/19	5/15	5/12	5/10	5/07	5/05	5/02	4/28
24	5/13	5/08	5/05	5/02	4/30	4/28	4/25	4/22	4/17
20	5/03	4/30	4/26	4/23	4/20	4/17	4/14	4/11	4/07
16	4/25	4/20	4/16	4/13	4/10	4/07	4/04	4/02	3/27
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	8/24	8/30	9/02	9/05	9/08	9/10	9/13	9/16	9/20
32	9/03	9/07	9/10	9/13	9/16	9/19	9/21	9/24	9/28
28	9/10	9/14	9/18	9/21	9/24	9/27	9/30	10/03	10/07
24	9/17	9/23	9/27	9/30	10/03	10/06	10/09	10/13	10/18
20	9/26	10/02	10/06	10/10	10/13	10/16	10/19	10/22	10/27
16	10/07	10/13	10/17	10/20	10/23	10/26	10/29	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	116	109	104	100	95	91	86	80	72
32	135	129	124	120	116	112	108	102	95
28	154	148	143	139	135	131	127	122	115
24	174	168	163	159	155	151	147	141	134
20	195	188	183	179	175	171	166	161	154
16	216	208	203	198	194	190	186	180	173

* 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 1981-2010 serially complete daily data

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

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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: FULLERTON 1 ESE, ND US

GHCND:USC00323287
Elev: 437 ft. Lat: 46.158° N Lon: 98.400° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/04	5/30	5/27	5/23	5/20	5/17	5/14	5/10	5/05
32	5/25	5/19	5/16	5/13	5/10	5/07	5/04	4/30	4/27
28	5/15	5/10	5/07	5/04	5/01	4/29	4/26	4/22	4/17
24	5/07	5/02	4/29	4/25	4/22	4/19	4/16	4/12	4/07
20	4/28	4/22	4/18	4/15	4/12	4/09	4/06	4/03	3/30
16	4/17	4/12	4/08	4/05	4/03	4/01	3/29	3/25	3/19
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	9/03	9/09	9/13	9/15	9/18	9/20	9/22	9/25	9/28
32	9/15	9/19	9/22	9/24	9/26	9/28	10/01	10/03	10/07
28	9/23	9/27	9/29	10/01	10/04	10/07	10/10	10/13	10/17
24	10/01	10/04	10/08	10/11	10/14	10/17	10/20	10/23	10/27
20	10/09	10/14	10/18	10/21	10/24	10/27	10/30	11/02	11/06
16	10/18	10/24	10/28	10/31	11/02	11/05	11/08	11/11	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	137	131	126	122	119	115	111	106	99
32	155	149	145	141	137	134	130	125	119
28	172	166	162	158	154	150	147	142	136
24	193	186	181	176	172	168	164	159	152
20	213	206	201	196	192	188	183	178	170
16	232	225	220	216	212	208	203	198	190

* 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 1981-2010 serially complete daily data

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

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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: REEDER 13 N, ND US

GHCND:USC00327452
 Elev: 840 ft. Lat: 46.286° N Lon: 102.951° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **KENMARE 1 WSW, ND US**

GHCND:USC00324646
Elev: 552 ft. Lat: 48.669° N Lon: 102.098° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/10	6/05	6/01	5/30	5/27	5/23	5/20	5/17	5/13
32	5/30	5/26	5/22	5/19	5/16	5/13	5/10	5/07	5/03
28	5/20	5/15	5/12	5/09	5/06	5/03	4/30	4/28	4/22
24	5/11	5/06	5/03	4/30	4/28	4/24	4/21	4/17	4/12
20	5/02	4/28	4/24	4/20	4/17	4/14	4/11	4/08	4/03
16	4/22	4/17	4/13	4/10	4/08	4/05	4/03	3/31	3/25
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	8/25	8/31	9/04	9/07	9/09	9/12	9/15	9/18	9/22
32	9/04	9/09	9/13	9/16	9/19	9/21	9/24	9/27	10/01
28	9/14	9/19	9/22	9/25	9/27	9/30	10/03	10/07	10/12
24	9/23	9/27	9/30	10/04	10/07	10/10	10/13	10/16	10/22
20	10/01	10/06	10/10	10/13	10/16	10/19	10/22	10/25	10/30
16	10/09	10/14	10/18	10/22	10/25	10/28	10/31	11/03	11/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	123	117	112	108	104	100	96	91	83
32	143	136	132	128	124	121	117	112	105
28	163	156	151	147	143	140	136	131	124
24	182	175	170	165	162	158	154	148	142
20	200	194	188	184	180	176	171	167	160
16	219	212	207	202	198	194	189	184	177

* 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 1981-2010 serially complete daily data

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

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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **SHERWOOD 3 N, ND US**

GHCND:USC00328047
 Elev: 502 ft. Lat: 48.999° N Lon: 101.628° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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.

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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: REEDER, ND US

GHCND:USC00327450
Elev: 864 ft. Lat: 46.109° N Lon: 102.945° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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

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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **CHAFFEE 5 NE, ND US**

GHCND:USC00321477
Elev: 294 ft. Lat: 46.796° N Lon: 97.269° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

Complete Documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **FORT YATES 4 SW, ND US**

GHCND:USC00323207
Elev: 510 ft. Lat: 46.050° N Lon: 100.667° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	6/03	5/28	5/22	5/18	5/15	5/12	5/09	5/06	5/02
28	5/20	5/15	5/12	5/08	5/06	5/03	5/01	4/28	4/24
24	5/12	5/06	5/03	4/30	4/28	4/25	4/23	4/19	4/15
20	5/02	4/28	4/25	4/22	4/19	4/16	4/14	4/10	4/05
16	4/24	4/19	4/16	4/13	4/10	4/07	4/04	4/01	3/27
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	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	9/06	9/11	9/14	9/17	9/20	9/22	9/25	9/28	10/02
28	9/14	9/19	9/22	9/25	9/28	10/01	10/03	10/07	10/11
24	9/20	9/25	9/29	10/02	10/05	10/08	10/12	10/16	10/21
20	9/27	10/02	10/07	10/11	10/14	10/18	10/22	10/26	10/31
16	10/05	10/12	10/16	10/21	10/24	10/28	11/01	11/05	11/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	125	118	113	109	105	101	96	89	79
32	144	138	133	129	125	121	116	111	103
28	161	155	151	147	143	139	135	130	123
24	179	173	167	163	159	155	151	146	139
20	199	191	186	181	177	173	168	162	155
16	220	212	206	201	196	192	187	181	173

* 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 1981-2010 serially complete daily data

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

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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **LEITH 13 SW, ND US**

GHCND:USC00325090
 Elev: 692 ft. Lat: 46.177° N Lon: 101.670° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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.

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

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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **HANSBORO 4 NNE, ND US**

GHCND:USC00323963
Elev: 469 ft. Lat: 48.999° N Lon: 99.346° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	6/05	5/31	5/28	5/25	5/21	5/18	5/15	5/11	5/06
28	5/26	5/21	5/17	5/13	5/09	5/06	5/03	4/30	4/26
24	5/17	5/11	5/06	5/03	4/30	4/27	4/24	4/19	4/13
20	5/08	5/02	4/28	4/24	4/20	4/16	4/12	4/08	4/04
16	4/29	4/22	4/17	4/13	4/10	4/07	4/04	4/01	3/27
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	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	9/03	9/10	9/13	9/16	9/19	9/21	9/24	9/27	10/01
28	9/15	9/20	9/23	9/25	9/28	9/30	10/02	10/05	10/09
24	9/24	9/28	10/01	10/03	10/05	10/08	10/12	10/15	10/19
20	10/02	10/05	10/09	10/12	10/15	10/17	10/21	10/24	10/29
16	10/09	10/14	10/17	10/20	10/24	10/27	10/30	11/02	11/07
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	116	109	104	100	95	90	83	75	63
32	138	131	126	122	118	114	110	105	97
28	158	152	147	143	139	135	131	126	119
24	178	172	166	162	158	153	149	144	137
20	198	191	185	180	176	172	167	162	154
16	216	209	203	199	195	190	186	180	172

* 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.

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

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 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **JAMESTOWN 38 WSW, ND US**

GHCND:USW00054937
 Elev: 585 ft. Lat: 46.770° N Lon: 99.478° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **GARRISON, ND US**

GHCND:USW00094041
Elev: 582 ft. Lat: 47.646° N Lon: 101.439° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/08	6/02	5/30	5/26	5/23	5/19	5/16	5/13	5/09
32	5/29	5/22	5/18	5/15	5/12	5/09	5/06	5/03	4/30
28	5/16	5/12	5/08	5/05	5/03	4/30	4/28	4/25	4/20
24	5/07	5/03	4/30	4/27	4/24	4/21	4/18	4/15	4/10
20	4/29	4/24	4/20	4/17	4/15	4/12	4/09	4/06	4/02
16	4/19	4/15	4/11	4/08	4/06	4/03	4/01	3/28	3/21
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	9/02	9/08	9/11	9/14	9/17	9/19	9/21	9/24	9/28
32	9/13	9/17	9/20	9/23	9/25	9/28	9/30	10/03	10/07
28	9/21	9/25	9/28	10/01	10/03	10/06	10/09	10/12	10/17
24	9/29	10/03	10/06	10/10	10/12	10/15	10/18	10/21	10/25
20	10/06	10/11	10/14	10/18	10/20	10/23	10/26	10/29	11/03
16	10/13	10/19	10/23	10/26	10/30	11/01	11/05	11/09	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	134	128	123	119	115	111	106	101	93
32	152	146	142	138	134	130	126	121	114
28	170	164	160	155	152	148	144	140	133
24	188	182	177	173	169	165	161	157	150
20	207	200	195	191	187	183	179	174	167
16	228	220	214	210	205	201	197	191	184

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
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 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: TAGUS, ND US

GHCND:USC00328627
 Elev: 661 ft. Lat: 48.348° N Lon: 101.932° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **PRETTY ROCK, ND US**

GHCND:USC00327311
 Elev: 756 ft. Lat: 46.176° N Lon: 101.856° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/13	6/07	6/03	6/01	5/29	5/26	5/22	5/19	5/14
32	6/02	5/27	5/23	5/20	5/16	5/14	5/11	5/08	5/04
28	5/21	5/15	5/12	5/09	5/07	5/04	5/02	4/29	4/24
24	5/12	5/06	5/03	4/30	4/28	4/25	4/21	4/18	4/13
20	5/02	4/28	4/24	4/20	4/17	4/15	4/12	4/08	4/03
16	4/24	4/18	4/15	4/11	4/09	4/06	4/03	3/31	3/25
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	9/01	9/05	9/08	9/11	9/13	9/16	9/19	9/23
32	9/05	9/10	9/13	9/17	9/19	9/22	9/25	9/28	10/02
28	9/13	9/18	9/21	9/25	9/28	10/01	10/03	10/07	10/12
24	9/21	9/27	9/30	10/03	10/06	10/10	10/13	10/16	10/22
20	9/30	10/04	10/08	10/12	10/15	10/19	10/22	10/26	11/01
16	10/07	10/13	10/18	10/21	10/25	10/29	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	123	116	112	107	103	99	95	90	82
32	142	136	132	128	124	120	116	111	104
28	161	155	150	146	142	138	134	129	122
24	181	174	169	164	160	156	151	146	139
20	200	193	187	183	179	174	170	165	157
16	219	211	206	201	197	193	188	182	175

* 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 1981-2010 serially complete daily data

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

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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: EDMUNDS ARROWWOOD RE, ND US

GHCND:USC00322536
Elev: 445 ft. Lat: 47.265° N Lon: 98.858° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/04	5/31	5/27	5/23	5/19	5/16	5/13	5/09	5/05
32	5/24	5/18	5/14	5/11	5/08	5/05	5/02	4/29	4/25
28	5/13	5/08	5/04	5/02	4/29	4/27	4/23	4/19	4/14
24	5/04	4/30	4/26	4/23	4/19	4/16	4/13	4/10	4/05
20	4/26	4/20	4/16	4/13	4/10	4/07	4/04	4/02	3/27
16	4/17	4/11	4/08	4/05	4/03	3/31	3/28	3/23	3/17
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	9/04	9/10	9/13	9/17	9/19	9/21	9/23	9/26	10/01
32	9/15	9/20	9/23	9/25	9/27	9/30	10/02	10/05	10/10
28	9/23	9/27	9/30	10/03	10/05	10/09	10/12	10/16	10/22
24	10/01	10/05	10/09	10/12	10/15	10/19	10/23	10/26	10/31
20	10/09	10/15	10/19	10/23	10/27	10/30	11/01	11/05	11/10
16	10/19	10/26	10/29	11/01	11/04	11/06	11/09	11/13	11/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	139	133	128	124	120	116	112	107	100
32	159	153	148	144	140	137	133	128	121
28	178	171	167	162	158	154	150	146	139
24	199	191	186	181	177	172	168	163	156
20	218	211	206	202	197	193	188	183	175
16	236	229	223	219	215	211	206	201	194

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **CROSBY, ND US**

GHCND:USC00321871
 Elev: 595 ft. Lat: 48.908° N Lon: 103.294° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/07	6/03	5/31	5/27	5/24	5/22	5/19	5/15	5/12
32	5/28	5/23	5/19	5/16	5/14	5/12	5/09	5/06	5/02
28	5/17	5/12	5/09	5/06	5/04	5/02	4/29	4/26	4/20
24	5/07	5/03	4/30	4/27	4/24	4/21	4/17	4/14	4/08
20	4/28	4/23	4/19	4/16	4/13	4/10	4/07	4/04	3/31
16	4/19	4/14	4/11	4/08	4/05	4/03	4/01	3/28	3/21
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	9/01	9/05	9/09	9/11	9/14	9/17	9/19	9/22	9/25
32	9/10	9/15	9/18	9/21	9/23	9/25	9/28	10/01	10/04
28	9/19	9/23	9/26	9/29	10/01	10/04	10/07	10/10	10/14
24	9/26	10/01	10/05	10/08	10/11	10/13	10/16	10/19	10/23
20	10/05	10/10	10/13	10/16	10/19	10/22	10/24	10/28	11/01
16	10/12	10/16	10/20	10/23	10/26	10/29	11/01	11/04	11/11
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	123	119	115	111	107	103	99	91
32	148	142	138	134	131	127	124	119	113
28	168	162	157	153	149	146	142	137	131
24	188	181	176	172	168	164	160	155	149
20	206	200	195	191	187	183	179	174	168
16	224	216	211	207	203	199	195	190	183

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
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 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **LARIMORE, ND US**

GHCND:USC00325013
 Elev: 351 ft. Lat: 47.874° N Lon: 97.711° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **VELVA, ND US**

GHCND:USC00328990
Elev: 468 ft. Lat: 48.080° N Lon: 100.875° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	6/04	5/31	5/28	5/24	5/20	5/17	5/14	5/11	5/06
28	5/26	5/21	5/17	5/13	5/10	5/07	5/04	5/01	4/27
24	5/18	5/12	5/08	5/04	5/02	4/30	4/26	4/22	4/17
20	5/09	5/02	4/29	4/26	4/22	4/19	4/16	4/13	4/08
16	4/30	4/24	4/19	4/16	4/13	4/10	4/07	4/04	3/31
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	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	9/04	9/10	9/14	9/17	9/19	9/22	9/24	9/27	10/01
28	9/16	9/20	9/23	9/26	9/28	9/30	10/03	10/06	10/10
24	9/24	9/28	10/01	10/04	10/06	10/09	10/12	10/14	10/18
20	10/02	10/06	10/09	10/12	10/14	10/17	10/20	10/23	10/27
16	10/08	10/13	10/16	10/19	10/22	10/25	10/28	10/31	11/05
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	118	112	108	104	99	95	90	84	75
32	138	132	127	124	120	116	112	107	99
28	157	151	147	143	139	135	131	126	120
24	174	168	164	160	156	152	148	144	137
20	193	186	181	177	173	169	165	160	153
16	211	203	198	194	190	186	182	177	169

* 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 1981-2010 serially complete daily data

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

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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MAYVILLE, ND US**

GHCND:USC00325660
Elev: 288 ft. Lat: 47.499° N Lon: 97.351° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/03	5/30	5/26	5/23	5/20	5/17	5/14	5/11	5/07
32	5/25	5/19	5/16	5/13	5/11	5/08	5/05	5/02	4/28
28	5/16	5/11	5/07	5/04	5/01	4/29	4/26	4/23	4/18
24	5/07	5/02	4/29	4/25	4/22	4/19	4/16	4/12	4/08
20	4/25	4/21	4/17	4/13	4/10	4/08	4/06	4/03	3/31
16	4/15	4/11	4/07	4/05	4/03	4/02	3/31	3/27	3/21
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	9/03	9/09	9/12	9/14	9/17	9/19	9/21	9/23	9/26
32	9/15	9/18	9/21	9/23	9/25	9/27	9/29	10/02	10/06
28	9/23	9/26	9/29	10/01	10/04	10/06	10/09	10/13	10/18
24	10/01	10/04	10/07	10/11	10/14	10/17	10/20	10/24	10/29
20	10/08	10/14	10/17	10/21	10/24	10/27	10/30	11/02	11/07
16	10/17	10/23	10/27	10/30	11/01	11/04	11/07	11/11	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	134	129	125	121	118	114	111	106	99
32	153	147	143	140	137	133	129	125	120
28	173	167	162	158	154	150	147	142	136
24	194	187	181	177	173	169	165	159	153
20	213	206	201	197	193	189	184	179	172
16	229	222	218	214	210	207	202	197	190

* 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 1981-2010 serially complete daily data

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

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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **LINTON 5 NW, ND US**

GHCND:USC00325211
 Elev: 561 ft. Lat: 46.302° N Lon: 100.326° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

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 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **REGENT, ND US**

GHCND:USC00327465
 Elev: 744 ft. Lat: 46.420° N Lon: 102.561° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **KILLDEER, ND US**

GHCND:USC00324722
Elev: 704 ft. Lat: 47.371° N Lon: 102.760° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/16	6/09	6/05	6/02	5/30	5/26	5/22	5/18	5/13
32	6/02	5/28	5/24	5/19	5/16	5/13	5/10	5/07	5/03
28	5/20	5/15	5/12	5/08	5/06	5/03	5/01	4/28	4/23
24	5/10	5/05	5/01	4/29	4/26	4/23	4/20	4/16	4/12
20	4/30	4/25	4/22	4/19	4/16	4/13	4/09	4/06	4/02
16	4/21	4/16	4/12	4/09	4/06	4/03	4/01	3/28	3/20
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	8/31	9/05	9/08	9/11	9/13	9/16	9/18	9/21	9/24
32	9/10	9/14	9/18	9/20	9/22	9/25	9/27	9/30	10/04
28	9/18	9/22	9/25	9/28	9/30	10/03	10/06	10/09	10/14
24	9/26	9/30	10/04	10/06	10/09	10/12	10/15	10/18	10/22
20	10/04	10/09	10/13	10/16	10/18	10/21	10/24	10/28	11/02
16	10/12	10/17	10/21	10/24	10/27	10/30	11/02	11/06	11/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	126	119	114	110	106	102	97	92	84
32	146	140	136	132	128	124	119	114	107
28	165	159	155	151	147	143	139	134	128
24	185	178	173	169	165	162	157	153	146
20	205	197	192	188	184	180	176	171	164
16	225	217	212	207	203	198	194	188	181

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **LINTON, ND US**

GHCND:USC00325210
Elev: 515 ft. Lat: 46.267° N Lon: 100.230° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/11	6/05	6/01	5/29	5/26	5/22	5/18	5/14	5/09
32	6/01	5/26	5/22	5/18	5/15	5/12	5/09	5/05	5/01
28	5/21	5/16	5/12	5/09	5/06	5/03	4/30	4/27	4/22
24	5/14	5/08	5/04	5/01	4/28	4/25	4/22	4/18	4/14
20	5/05	4/30	4/26	4/22	4/18	4/16	4/12	4/09	4/04
16	4/25	4/19	4/15	4/11	4/08	4/05	4/03	3/30	3/23
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	8/27	9/02	9/06	9/09	9/12	9/15	9/18	9/21	9/25
32	9/08	9/12	9/16	9/18	9/21	9/24	9/26	9/30	10/04
28	9/16	9/20	9/24	9/26	9/29	10/01	10/04	10/07	10/12
24	9/22	9/27	9/30	10/03	10/06	10/09	10/13	10/17	10/21
20	9/29	10/04	10/08	10/12	10/15	10/19	10/22	10/26	11/01
16	10/07	10/13	10/17	10/21	10/25	10/29	11/01	11/05	11/11
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	122	116	112	108	103	98	93	84
32	147	140	136	132	128	124	119	114	106
28	163	157	152	148	145	141	136	131	125
24	180	173	168	164	160	156	152	147	139
20	201	193	187	183	178	174	169	164	156
16	223	215	208	203	199	194	189	183	175

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **DRAKE 9 NE, ND US**

GHCND:USC00322304
Elev: 466 ft. Lat: 48.048° N Lon: 100.310° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/03	5/30	5/27	5/24	5/21	5/17	5/15	5/12	5/08
32	5/25	5/20	5/16	5/14	5/11	5/08	5/06	5/03	4/30
28	5/17	5/12	5/09	5/06	5/03	5/01	4/29	4/26	4/20
24	5/10	5/05	5/01	4/29	4/26	4/22	4/19	4/15	4/10
20	5/02	4/26	4/22	4/19	4/16	4/13	4/10	4/06	4/02
16	4/23	4/17	4/13	4/10	4/07	4/05	4/02	3/30	3/23
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	8/31	9/06	9/10	9/13	9/15	9/17	9/20	9/23	9/26
32	9/10	9/15	9/19	9/21	9/24	9/26	9/29	10/01	10/05
28	9/20	9/24	9/27	9/29	10/01	10/04	10/06	10/09	10/13
24	9/27	10/01	10/04	10/07	10/09	10/12	10/15	10/18	10/22
20	10/04	10/08	10/12	10/15	10/18	10/21	10/24	10/27	11/01
16	10/11	10/16	10/20	10/23	10/27	10/30	11/01	11/05	11/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	134	128	123	119	116	112	108	103	96
32	152	146	141	138	134	131	127	122	115
28	167	161	157	153	149	146	142	137	130
24	185	179	174	170	166	162	158	153	146
20	204	197	192	187	183	179	175	170	162
16	222	215	210	205	201	197	192	187	179

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **WISHEK, ND US**

GHCND:USC00329515
Elev: 621 ft. Lat: 46.261° N Lon: 99.560° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/07	6/02	5/30	5/26	5/23	5/20	5/17	5/13	5/09
32	5/28	5/22	5/18	5/15	5/12	5/10	5/07	5/04	4/30
28	5/17	5/13	5/09	5/06	5/04	5/01	4/29	4/26	4/21
24	5/10	5/04	5/01	4/29	4/26	4/22	4/19	4/16	4/12
20	5/01	4/26	4/21	4/18	4/15	4/12	4/09	4/06	4/02
16	4/20	4/15	4/11	4/08	4/06	4/03	4/01	3/28	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	9/02	9/07	9/11	9/13	9/16	9/18	9/21	9/23	9/28
32	9/12	9/16	9/19	9/22	9/24	9/27	9/30	10/02	10/06
28	9/20	9/25	9/28	9/30	10/03	10/05	10/08	10/12	10/16
24	9/29	10/03	10/06	10/09	10/12	10/15	10/18	10/21	10/25
20	10/07	10/12	10/16	10/19	10/22	10/25	10/27	10/31	11/05
16	10/16	10/21	10/26	10/29	11/01	11/04	11/06	11/10	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	132	127	122	118	114	110	106	101	95
32	151	145	140	137	133	129	126	121	114
28	168	162	158	154	150	146	143	138	132
24	188	181	176	172	168	164	160	155	149
20	209	202	196	192	188	184	180	174	168
16	228	222	217	212	208	204	200	194	187

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: TROTTERS 3 SSE, ND US

GHCND:USC00328812
Elev: 738 ft. Lat: 47.284° N Lon: 103.900° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/13	6/05	6/02	5/30	5/27	5/23	5/20	5/17	5/12
32	5/31	5/25	5/21	5/18	5/15	5/12	5/09	5/06	5/02
28	5/20	5/14	5/11	5/08	5/05	5/03	4/30	4/27	4/22
24	5/09	5/04	5/01	4/28	4/25	4/22	4/19	4/15	4/10
20	4/29	4/24	4/20	4/17	4/14	4/11	4/08	4/04	3/31
16	4/19	4/14	4/10	4/07	4/05	4/02	3/31	3/26	3/20
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	9/03	9/08	9/11	9/14	9/16	9/18	9/20	9/23	9/27
32	9/11	9/16	9/19	9/21	9/23	9/26	9/28	10/01	10/05
28	9/18	9/23	9/26	9/29	10/01	10/03	10/06	10/10	10/14
24	9/25	9/30	10/03	10/06	10/09	10/12	10/15	10/19	10/24
20	10/03	10/08	10/12	10/15	10/18	10/21	10/24	10/28	11/02
16	10/12	10/17	10/21	10/24	10/28	10/31	11/03	11/07	11/13
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	123	118	114	110	106	102	96	89
32	148	142	138	134	130	126	122	117	110
28	166	160	155	151	148	144	140	135	128
24	187	180	175	171	166	162	158	153	145
20	208	201	196	191	187	183	178	172	165
16	228	220	215	210	206	201	197	192	184

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **GOLDEN VALLEY, ND US**

GHCND:USC00323529
 Elev: 567 ft. Lat: 47.155° N Lon: 102.071° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **MEDINA, ND US**

GHCND:USC00325798
 Elev: 552 ft. Lat: 46.893° N Lon: 99.290° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **FOXHOLM 7 N, ND US**

GHCND:USC00323217
 Elev: 510 ft. Lat: 48.458° N Lon: 101.570° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **ELGIN, ND US**

GHCND:USC00322588
Elev: 732 ft. Lat: 46.409° N Lon: 101.842° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

Complete Documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MINOT EXPERIMENT STATION, ND US**

GHCND:USC00325993
Elev: 539 ft. Lat: 48.180° N Lon: 101.296° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/03	5/30	5/27	5/23	5/20	5/17	5/15	5/11	5/08
32	5/25	5/20	5/16	5/13	5/10	5/08	5/05	5/02	4/29
28	5/16	5/10	5/07	5/04	5/02	4/30	4/26	4/22	4/16
24	5/06	5/01	4/29	4/25	4/22	4/19	4/16	4/12	4/07
20	4/28	4/23	4/19	4/15	4/13	4/09	4/07	4/04	3/31
16	4/19	4/14	4/10	4/08	4/05	4/03	4/01	3/28	3/21
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	9/03	9/09	9/12	9/15	9/18	9/20	9/23	9/25	9/29
32	9/13	9/18	9/21	9/24	9/26	9/29	10/01	10/04	10/08
28	9/23	9/27	9/30	10/02	10/05	10/07	10/10	10/13	10/17
24	9/30	10/04	10/07	10/10	10/13	10/15	10/18	10/22	10/26
20	10/07	10/11	10/14	10/18	10/21	10/24	10/27	10/30	11/04
16	10/12	10/17	10/21	10/25	10/28	10/31	11/03	11/07	11/13
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	136	130	126	122	118	115	111	106	98
32	155	149	144	141	137	133	130	125	119
28	174	167	162	159	155	151	147	142	136
24	192	186	181	176	172	168	164	159	153
20	210	203	198	193	190	186	181	177	170
16	226	219	213	209	205	200	196	191	184

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **UPHAM 3 N, ND US**

GHCND:USC00328913
Elev: 434 ft. Lat: 48.615° N Lon: 100.726° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/15	6/07	6/03	5/31	5/28	5/26	5/22	5/19	5/15
32	5/30	5/27	5/23	5/20	5/17	5/15	5/12	5/09	5/05
28	5/22	5/17	5/14	5/11	5/09	5/06	5/04	4/30	4/26
24	5/14	5/09	5/05	5/03	4/30	4/28	4/25	4/20	4/15
20	5/05	5/01	4/27	4/24	4/20	4/17	4/14	4/10	4/05
16	4/27	4/21	4/17	4/14	4/11	4/08	4/05	4/02	3/29
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	8/24	8/30	9/02	9/05	9/07	9/09	9/12	9/15	9/19
32	9/04	9/09	9/12	9/14	9/16	9/19	9/21	9/24	9/28
28	9/13	9/17	9/20	9/22	9/24	9/27	9/29	10/02	10/06
24	9/22	9/25	9/28	9/30	10/02	10/05	10/07	10/11	10/15
20	9/29	10/02	10/05	10/08	10/11	10/14	10/16	10/20	10/25
16	10/05	10/10	10/14	10/16	10/20	10/23	10/26	10/30	11/04
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	118	112	108	104	100	96	92	86	77
32	137	131	127	124	120	117	113	109	102
28	155	149	144	141	137	134	130	126	120
24	173	167	162	158	154	151	147	142	136
20	191	184	180	176	172	168	164	159	152
16	211	204	199	194	190	186	182	177	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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **OAKES 2 S, ND US**

GHCND:USC00326620
Elev: 404 ft. Lat: 46.146° N Lon: 98.092° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/03	5/30	5/26	5/22	5/19	5/16	5/13	5/10	5/05
32	5/23	5/18	5/15	5/12	5/09	5/06	5/03	4/30	4/26
28	5/14	5/09	5/06	5/03	4/30	4/28	4/25	4/21	4/16
24	5/05	4/30	4/26	4/23	4/20	4/17	4/14	4/10	4/06
20	4/25	4/20	4/16	4/13	4/10	4/07	4/05	4/02	3/28
16	4/15	4/10	4/06	4/04	4/02	3/31	3/27	3/22	3/17
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	9/03	9/09	9/12	9/15	9/17	9/20	9/22	9/25	9/29
32	9/15	9/19	9/21	9/23	9/26	9/28	10/01	10/04	10/07
28	9/22	9/26	9/29	10/01	10/04	10/06	10/09	10/13	10/17
24	9/30	10/04	10/08	10/11	10/14	10/17	10/20	10/23	10/28
20	10/09	10/15	10/19	10/22	10/25	10/28	10/31	11/03	11/08
16	10/20	10/26	10/29	11/01	11/03	11/06	11/09	11/12	11/17
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	137	131	126	123	119	115	111	106	99
32	155	149	145	141	138	134	130	126	120
28	174	167	163	158	155	151	147	142	136
24	194	187	182	178	174	170	166	160	153
20	216	209	204	199	195	191	186	181	173
16	235	228	223	219	215	211	207	202	194

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **LANSFORD, ND US**

GHCND:USC00325002
Elev: 491 ft. Lat: 48.628° N Lon: 101.377° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

Complete Documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **PETERSBURG 2 N, ND US**

GHCND:USC00327027
Elev: 466 ft. Lat: 48.036° N Lon: 98.010° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/07	6/01	5/29	5/26	5/23	5/19	5/16	5/13	5/09
32	5/27	5/22	5/18	5/14	5/12	5/08	5/06	5/03	4/29
28	5/18	5/13	5/09	5/05	5/02	4/30	4/27	4/23	4/18
24	5/10	5/04	4/30	4/27	4/24	4/21	4/17	4/13	4/08
20	4/30	4/25	4/21	4/17	4/14	4/11	4/08	4/05	4/02
16	4/20	4/15	4/12	4/09	4/06	4/04	4/02	3/31	3/25
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	8/30	9/06	9/10	9/13	9/16	9/18	9/21	9/24	9/27
32	9/11	9/16	9/20	9/22	9/25	9/27	9/30	10/02	10/07
28	9/20	9/25	9/28	9/30	10/02	10/05	10/08	10/12	10/17
24	9/28	10/02	10/05	10/09	10/12	10/15	10/18	10/22	10/27
20	10/05	10/11	10/15	10/18	10/21	10/25	10/28	11/01	11/05
16	10/13	10/19	10/23	10/27	10/31	11/02	11/05	11/09	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	132	126	121	117	114	110	105	99	91
32	152	145	141	137	133	129	125	120	113
28	171	164	159	155	151	147	143	138	131
24	190	183	178	173	169	165	160	155	148
20	209	202	197	192	188	184	179	174	166
16	224	218	213	209	205	201	196	191	184

* 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 1981-2010 serially complete daily data

Complete Documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **ROLETTE 2 SE, ND US**

GHCND:USC00327655
 Elev: 494 ft. Lat: 48.630° N Lon: 99.807° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MC CLUSKY, ND US**

GHCND:USC00325710
Elev: 587 ft. Lat: 47.482° N Lon: 100.444° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/30	5/25	5/21	5/18	5/15	5/13	5/10	5/07	5/04
32	5/20	5/15	5/12	5/09	5/07	5/04	5/02	4/29	4/24
28	5/12	5/07	5/03	5/01	4/28	4/26	4/22	4/18	4/13
24	5/03	4/29	4/24	4/21	4/18	4/15	4/12	4/09	4/05
20	4/24	4/18	4/15	4/12	4/09	4/06	4/04	4/01	3/28
16	4/15	4/10	4/07	4/05	4/02	3/31	3/29	3/24	3/19
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	9/09	9/13	9/17	9/19	9/22	9/24	9/26	9/29	10/03
32	9/18	9/22	9/25	9/27	9/29	10/01	10/04	10/07	10/11
28	9/25	9/29	10/02	10/04	10/07	10/10	10/12	10/15	10/20
24	10/02	10/06	10/10	10/13	10/15	10/18	10/20	10/24	10/28
20	10/09	10/14	10/18	10/21	10/23	10/26	10/29	11/01	11/07
16	10/18	10/23	10/27	10/30	11/02	11/04	11/08	11/11	11/16
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	145	139	135	131	128	124	121	116	110
32	162	156	151	148	144	141	137	133	127
28	179	172	168	164	160	157	153	148	142
24	197	190	185	181	178	174	169	164	157
20	215	209	204	199	195	192	187	183	176
16	233	226	221	217	213	209	205	200	193

* 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 1981-2010 serially complete daily data

Complete Documentation available from:
www.ncdc.noaa.gov/oa/climate/normal/usnormals.html

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**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **FORMAN 5 SSE, ND US**

GHCND:USC00323117
Elev: 381 ft. Lat: 46.033° N Lon: 97.595° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/31	5/26	5/22	5/19	5/16	5/13	5/09	5/06	5/01
32	5/21	5/16	5/12	5/09	5/06	5/03	4/30	4/28	4/23
28	5/13	5/07	5/03	4/30	4/28	4/25	4/21	4/17	4/12
24	5/04	4/29	4/24	4/21	4/17	4/14	4/11	4/07	4/03
20	4/25	4/18	4/14	4/10	4/08	4/05	4/03	3/31	3/24
16	4/14	4/09	4/06	4/03	4/01	3/29	3/25	3/21	3/16
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	9/06	9/11	9/15	9/18	9/20	9/22	9/25	9/27	10/01
32	9/17	9/21	9/24	9/27	9/29	10/01	10/04	10/07	10/12
28	9/25	9/29	10/02	10/05	10/07	10/10	10/14	10/17	10/22
24	10/03	10/07	10/11	10/15	10/18	10/21	10/24	10/27	11/01
20	10/12	10/18	10/23	10/26	10/29	11/01	11/03	11/07	11/12
16	10/24	10/30	11/01	11/04	11/07	11/09	11/13	11/16	11/21
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	144	138	133	129	125	121	117	112	106
32	161	155	151	147	143	140	135	131	124
28	181	174	169	164	161	157	152	148	141
24	202	194	189	184	180	176	171	165	158
20	222	215	210	206	201	197	192	186	178
16	239	232	228	223	220	216	211	206	199

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: LAKE METIGOSHE ST PK, ND US

GHCND:USC00324879
 Elev: 653 ft. Lat: 48.980° N Lon: 100.334° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **ALMONT, ND US**

GHCND:USC00320127
Elev: 584 ft. Lat: 46.725° N Lon: 101.505° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/14	6/08	6/04	6/02	5/30	5/27	5/24	5/20	5/15
32	6/03	5/29	5/25	5/21	5/18	5/15	5/12	5/09	5/05
28	5/24	5/18	5/15	5/12	5/09	5/06	5/03	4/30	4/26
24	5/14	5/09	5/05	5/02	4/30	4/27	4/24	4/20	4/15
20	5/06	5/01	4/27	4/24	4/21	4/18	4/15	4/12	4/07
16	4/29	4/23	4/18	4/15	4/12	4/09	4/06	4/02	3/28
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	8/21	8/29	9/01	9/04	9/07	9/10	9/13	9/16	9/20
32	9/01	9/07	9/11	9/14	9/17	9/20	9/22	9/25	9/29
28	9/11	9/16	9/20	9/23	9/26	9/29	10/01	10/05	10/09
24	9/19	9/24	9/28	10/01	10/04	10/07	10/10	10/14	10/19
20	9/28	10/02	10/06	10/09	10/12	10/15	10/19	10/23	10/28
16	10/05	10/11	10/14	10/18	10/21	10/24	10/29	11/01	11/07
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	119	112	107	103	99	95	90	84	76
32	139	132	128	124	120	115	111	106	98
28	158	151	146	142	138	134	130	125	117
24	176	169	164	159	155	151	147	142	135
20	194	187	181	177	173	168	164	159	152
16	215	207	201	196	191	186	182	176	168

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **TOWNER 2 NE, ND US**

GHCND:USC00328792
Elev: 451 ft. Lat: 48.371° N Lon: 100.391° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/20	6/11	6/06	6/02	5/31	5/27	5/24	5/20	5/15
32	6/04	5/30	5/26	5/22	5/19	5/16	5/13	5/09	5/04
28	5/23	5/17	5/14	5/10	5/08	5/05	5/02	4/29	4/24
24	5/14	5/08	5/04	5/01	4/29	4/26	4/22	4/17	4/12
20	5/05	4/30	4/25	4/21	4/17	4/14	4/11	4/08	4/04
16	4/25	4/18	4/14	4/11	4/08	4/06	4/04	4/01	3/26
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	8/22	8/30	9/03	9/06	9/09	9/12	9/14	9/17	9/21
32	9/02	9/10	9/14	9/17	9/19	9/21	9/23	9/26	9/30
28	9/16	9/20	9/23	9/25	9/28	9/30	10/02	10/05	10/10
24	9/25	9/28	10/01	10/04	10/06	10/09	10/11	10/15	10/19
20	10/02	10/06	10/09	10/12	10/15	10/18	10/21	10/24	10/28
16	10/09	10/13	10/17	10/21	10/24	10/27	10/29	11/01	11/07
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	119	113	108	104	99	95	89	83	73
32	139	133	129	125	121	116	112	107	99
28	159	153	148	144	141	137	133	128	122
24	178	171	166	162	159	155	151	146	139
20	198	191	186	182	178	174	169	164	157
16	216	209	204	200	196	192	187	182	174

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **HALLIDAY, ND US**

GHCND:USC00323846
 Elev: 628 ft. Lat: 47.354° N Lon: 102.337° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
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 Service

**Summary of Annual Normals
 1981-2010**

National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **SYKESTON, ND US**

GHCND:USC00328608
 Elev: 498 ft. Lat: 47.465° N Lon: 99.398° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **ROLLA 1 NE, ND US**

GHCND:USC00327664
Elev: 559 ft. Lat: 48.881° N Lon: 99.586° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/17	6/09	6/05	6/02	5/31	5/28	5/25	5/21	5/17
32	6/02	5/30	5/26	5/23	5/20	5/17	5/15	5/12	5/08
28	5/24	5/20	5/16	5/13	5/10	5/08	5/05	5/03	4/30
24	5/17	5/12	5/08	5/05	5/02	4/30	4/27	4/23	4/18
20	5/08	5/03	4/30	4/28	4/24	4/21	4/18	4/14	4/09
16	4/30	4/25	4/22	4/18	4/15	4/12	4/09	4/05	4/02
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	9/01	9/06	9/10	9/12	9/15	9/17	9/19	9/22	9/25
32	9/12	9/17	9/19	9/21	9/23	9/26	9/28	10/01	10/04
28	9/21	9/25	9/27	9/30	10/01	10/04	10/06	10/10	10/14
24	9/29	10/02	10/05	10/08	10/11	10/13	10/16	10/19	10/23
20	10/06	10/10	10/13	10/16	10/18	10/22	10/24	10/27	11/01
16	10/11	10/16	10/20	10/23	10/27	10/30	11/01	11/05	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	117	112	109	105	102	98	93	85
32	141	135	131	128	124	121	118	114	108
28	160	153	149	146	142	139	135	131	126
24	178	171	167	163	159	156	152	147	140
20	196	189	184	180	176	172	168	163	156
16	213	206	201	196	192	188	183	178	171

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **HANKINSON, ND US**

GHCND:USC00323908
Elev: 326 ft. Lat: 46.067° N Lon: 96.900° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/29	5/24	5/20	5/16	5/13	5/11	5/08	5/04	4/30
32	5/18	5/13	5/10	5/07	5/04	5/02	4/30	4/27	4/23
28	5/09	5/04	5/01	4/28	4/26	4/23	4/20	4/17	4/13
24	5/01	4/25	4/21	4/18	4/16	4/13	4/10	4/07	4/03
20	4/20	4/15	4/12	4/09	4/06	4/04	4/02	3/31	3/24
16	4/13	4/08	4/05	4/02	3/31	3/29	3/25	3/21	3/16
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	9/10	9/14	9/17	9/19	9/21	9/22	9/24	9/27	9/30
32	9/19	9/22	9/24	9/27	9/29	10/01	10/03	10/06	10/10
28	9/26	9/30	10/02	10/05	10/08	10/10	10/13	10/17	10/21
24	10/04	10/08	10/12	10/15	10/18	10/21	10/24	10/27	10/31
20	10/12	10/18	10/22	10/26	10/28	10/31	11/03	11/06	11/11
16	10/22	10/29	11/01	11/04	11/06	11/09	11/12	11/16	11/21
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	145	139	135	132	129	125	121	117	112
32	162	157	153	149	146	143	139	135	129
28	181	175	171	167	164	160	156	152	146
24	203	196	192	187	184	180	176	171	164
20	223	216	211	207	203	199	194	189	182
16	240	233	228	224	220	216	212	207	199

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **HEART BUTTE DAM, ND US**

GHCND:USC00324091
Elev: 650 ft. Lat: 46.592° N Lon: 101.808° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/05	6/01	5/29	5/26	5/23	5/20	5/17	5/14	5/10
32	5/27	5/22	5/18	5/15	5/13	5/10	5/08	5/05	5/01
28	5/17	5/13	5/09	5/06	5/04	5/02	4/30	4/26	4/21
24	5/08	5/03	4/30	4/28	4/25	4/22	4/19	4/16	4/11
20	4/29	4/24	4/21	4/18	4/16	4/13	4/10	4/07	4/03
16	4/20	4/16	4/13	4/10	4/07	4/05	4/02	3/30	3/23
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	9/01	9/07	9/11	9/14	9/16	9/19	9/21	9/24	9/28
32	9/12	9/17	9/20	9/23	9/26	9/28	10/01	10/03	10/07
28	9/19	9/24	9/28	9/30	10/03	10/05	10/08	10/12	10/16
24	9/27	10/01	10/05	10/08	10/11	10/14	10/16	10/20	10/23
20	10/04	10/09	10/13	10/16	10/19	10/22	10/25	10/28	11/02
16	10/12	10/18	10/22	10/25	10/28	11/01	11/04	11/08	11/14
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	133	127	123	119	115	112	108	103	96
32	151	145	141	137	134	130	126	122	115
28	168	162	157	153	150	146	142	137	131
24	186	180	175	171	167	163	159	154	146
20	205	198	193	189	185	181	177	172	164
16	224	217	212	207	203	199	194	189	182

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
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Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **CENTER 4 SE, ND US**

GHCND:USC00321456
Elev: 607 ft. Lat: 47.064° N Lon: 101.212° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/07	6/01	5/29	5/25	5/22	5/19	5/15	5/11	5/06
32	5/28	5/22	5/17	5/14	5/11	5/08	5/04	5/01	4/27
28	5/17	5/12	5/08	5/04	5/01	4/29	4/25	4/21	4/16
24	5/08	5/02	4/29	4/25	4/21	4/18	4/14	4/11	4/06
20	4/28	4/22	4/18	4/15	4/12	4/08	4/05	4/02	3/29
16	4/19	4/13	4/09	4/06	4/03	4/01	3/28	3/24	3/18
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	9/03	9/08	9/11	9/14	9/17	9/20	9/22	9/25	9/30
32	9/13	9/18	9/21	9/24	9/26	9/29	10/01	10/04	10/09
28	9/22	9/27	9/30	10/02	10/05	10/08	10/11	10/15	10/19
24	10/01	10/05	10/08	10/12	10/15	10/17	10/20	10/23	10/27
20	10/08	10/13	10/17	10/20	10/23	10/26	10/28	11/01	11/06
16	10/16	10/22	10/26	10/29	11/01	11/04	11/07	11/11	11/17
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	136	129	124	120	116	112	108	102	95
32	156	149	145	140	136	132	128	123	116
28	175	168	163	159	155	151	146	141	134
24	194	187	182	178	174	170	165	160	153
20	213	206	201	196	192	188	183	178	171
16	233	225	220	215	211	206	201	196	188

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
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**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **GRASSY BUTTE 2 ENE, ND US**

GHCND:USC00323705
Elev: 814 ft. Lat: 47.401° N Lon: 103.207° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	6/03	5/29	5/25	5/21	5/18	5/15	5/12	5/09	5/05
28	5/22	5/16	5/13	5/09	5/07	5/04	5/02	4/29	4/24
24	5/10	5/05	5/02	4/29	4/26	4/23	4/20	4/16	4/11
20	4/29	4/25	4/21	4/18	4/15	4/11	4/08	4/05	4/01
16	4/19	4/14	4/10	4/07	4/05	4/03	4/01	3/28	3/21
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	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31	10/31
32	9/08	9/13	9/16	9/19	9/21	9/24	9/26	9/29	10/03
28	9/17	9/21	9/25	9/28	9/30	10/03	10/05	10/09	10/14
24	9/26	10/01	10/04	10/07	10/10	10/13	10/16	10/19	10/23
20	10/04	10/09	10/13	10/15	10/18	10/21	10/24	10/28	11/01
16	10/12	10/17	10/21	10/24	10/27	10/30	11/02	11/06	11/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	123	117	112	107	103	99	93	86	76
32	143	137	133	129	125	120	116	111	103
28	164	158	153	149	145	142	138	133	126
24	186	179	174	170	166	162	157	152	146
20	206	199	194	190	186	182	177	172	165
16	226	218	212	208	204	200	195	190	184

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
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Service

**Summary of Annual Normals
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **STEELE, ND US**

GHCND:USC00328366
Elev: 574 ft. Lat: 46.892° N Lon: 99.932° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/05	5/31	5/28	5/25	5/21	5/18	5/15	5/12	5/08
32	5/26	5/21	5/17	5/14	5/12	5/09	5/06	5/03	4/30
28	5/17	5/13	5/09	5/06	5/03	5/01	4/29	4/25	4/20
24	5/10	5/05	5/01	4/29	4/25	4/22	4/18	4/15	4/10
20	5/01	4/26	4/22	4/18	4/15	4/12	4/09	4/05	4/01
16	4/22	4/16	4/12	4/09	4/06	4/03	4/01	3/28	3/21
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	9/01	9/06	9/09	9/12	9/15	9/17	9/20	9/23	9/27
32	9/12	9/16	9/19	9/22	9/24	9/27	9/29	10/02	10/06
28	9/21	9/25	9/28	9/30	10/03	10/05	10/08	10/11	10/15
24	9/28	10/02	10/05	10/08	10/11	10/14	10/16	10/20	10/24
20	10/05	10/10	10/13	10/17	10/20	10/22	10/25	10/28	11/02
16	10/13	10/19	10/23	10/26	10/29	11/01	11/04	11/07	11/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	132	126	122	118	114	110	106	101	94
32	151	145	141	137	133	130	126	122	116
28	169	163	158	154	150	147	143	138	132
24	187	180	175	171	167	163	159	154	147
20	207	200	194	190	186	182	177	172	164
16	226	219	213	209	205	200	196	191	183

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **DICKINSON THEODORE ROOSEVELT REGIONAL AIRPORT, ND US**

GHCND:USW00024012
Elev: 786 ft. Lat: 46.799° N Lon: 102.797° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/14	6/08	6/05	6/02	5/30	5/27	5/24	5/20	5/15
32	6/03	5/28	5/24	5/20	5/17	5/15	5/12	5/08	5/04
28	5/20	5/15	5/12	5/09	5/06	5/04	5/02	4/30	4/25
24	5/10	5/05	5/02	4/30	4/27	4/24	4/22	4/18	4/14
20	5/01	4/27	4/23	4/20	4/17	4/14	4/11	4/08	4/03
16	4/22	4/17	4/13	4/10	4/07	4/05	4/02	3/30	3/23
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	8/31	9/05	9/08	9/11	9/14	9/16	9/19	9/21	9/25
32	9/09	9/14	9/18	9/20	9/22	9/25	9/27	9/30	10/04
28	9/17	9/22	9/25	9/28	10/01	10/03	10/06	10/09	10/14
24	9/25	9/30	10/03	10/06	10/09	10/12	10/15	10/18	10/22
20	10/03	10/08	10/12	10/15	10/18	10/20	10/23	10/27	11/01
16	10/12	10/16	10/20	10/23	10/26	10/29	11/01	11/05	11/12
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	125	118	114	109	105	102	98	92	85
32	145	139	134	130	127	122	118	113	106
28	163	157	153	149	145	142	138	133	127
24	183	176	171	167	163	159	155	150	144
20	202	195	190	186	182	178	174	169	162
16	223	215	210	205	201	197	192	187	180

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **LEEDS, ND US**

GHCND:USC00325078
Elev: 466 ft. Lat: 48.288° N Lon: 99.432° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/09	6/03	5/31	5/29	5/26	5/23	5/20	5/17	5/13
32	5/30	5/26	5/22	5/19	5/16	5/13	5/10	5/07	5/03
28	5/21	5/16	5/12	5/09	5/06	5/04	5/01	4/29	4/24
24	5/13	5/08	5/04	5/01	4/29	4/26	4/22	4/18	4/12
20	5/04	4/30	4/26	4/22	4/18	4/15	4/11	4/08	4/03
16	4/25	4/19	4/15	4/11	4/09	4/06	4/04	4/01	3/27
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	9/01	9/05	9/08	9/11	9/13	9/16	9/19	9/22
32	9/08	9/13	9/16	9/19	9/21	9/23	9/25	9/28	10/02
28	9/18	9/22	9/25	9/27	9/30	10/02	10/04	10/08	10/13
24	9/26	9/30	10/03	10/06	10/08	10/11	10/15	10/19	10/23
20	10/04	10/08	10/12	10/15	10/18	10/21	10/25	10/28	11/01
16	10/12	10/17	10/21	10/24	10/28	10/31	11/02	11/06	11/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	124	118	114	110	106	102	98	92	85
32	143	137	133	129	126	122	118	114	107
28	163	156	151	148	144	140	137	132	126
24	183	176	170	166	162	158	154	149	143
20	202	195	190	185	181	177	172	166	159
16	220	213	208	204	199	195	191	185	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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information
Service

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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **MINOT INTERNATIONAL AIRPORT, ND US**

GHCND:USW00024013
Elev: 508 ft. Lat: 48.255° N Lon: 101.273° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/01	5/29	5/25	5/22	5/19	5/17	5/14	5/11	5/07
32	5/23	5/19	5/15	5/13	5/10	5/07	5/04	5/01	4/27
28	5/16	5/10	5/06	5/03	4/30	4/28	4/24	4/20	4/15
24	5/05	5/01	4/27	4/24	4/20	4/17	4/14	4/10	4/05
20	4/26	4/20	4/16	4/13	4/10	4/07	4/05	4/02	3/29
16	4/17	4/11	4/08	4/05	4/03	4/01	3/29	3/24	3/18
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	9/05	9/10	9/14	9/17	9/19	9/22	9/24	9/27	10/01
32	9/16	9/21	9/24	9/26	9/29	10/01	10/04	10/07	10/11
28	9/25	9/30	10/02	10/05	10/08	10/11	10/13	10/16	10/21
24	10/04	10/08	10/11	10/14	10/16	10/19	10/22	10/25	10/30
20	10/09	10/14	10/18	10/21	10/25	10/27	10/30	11/03	11/08
16	10/17	10/22	10/26	10/30	11/01	11/04	11/08	11/12	11/18
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	139	133	129	125	122	118	114	109	103
32	159	153	148	144	140	137	133	128	122
28	178	172	167	163	159	155	151	146	139
24	198	191	186	182	178	173	169	164	157
20	215	208	203	199	195	191	186	181	174
16	234	226	221	216	212	208	203	198	191

* 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 1981-2010 serially complete daily data

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

U.S. Department of Commerce
 National Oceanic & Atmospheric Administration
 National Environmental Satellite, Data, and Information
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**Summary of Annual Normals
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National Climatic Data Center
 Federal Building
 151 Patton Avenue
 Asheville, North Carolina 28801
 www.ncdc.noaa.gov

Station: **WALHALLA 1 SW, ND US**

GHCND:USC00329155
 Elev: 286 ft. Lat: 48.913° N Lon: 97.918° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									
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									
32									
28									
24									
20									
16									
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36									
32									
28									
24									
20									
16									

* 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 1981-2010 serially complete daily data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
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National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **PARK RIVER, ND US**

GHCND:USC00326857
Elev: 296 ft. Lat: 48.400° N Lon: 97.750° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/02	5/30	5/26	5/23	5/19	5/16	5/14	5/10	5/05
32	5/24	5/19	5/15	5/12	5/08	5/05	5/02	4/30	4/26
28	5/15	5/09	5/05	5/02	4/30	4/27	4/24	4/20	4/15
24	5/05	4/30	4/26	4/22	4/19	4/16	4/12	4/09	4/05
20	4/23	4/18	4/14	4/11	4/09	4/06	4/04	4/02	3/29
16	4/14	4/10	4/07	4/05	4/03	4/01	3/30	3/26	3/20
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	9/09	9/13	9/17	9/19	9/21	9/24	9/26	9/29	10/03
32	9/19	9/22	9/25	9/28	9/30	10/02	10/05	10/08	10/13
28	9/28	10/01	10/04	10/07	10/10	10/13	10/16	10/20	10/24
24	10/06	10/10	10/14	10/17	10/21	10/24	10/27	10/30	11/03
20	10/14	10/19	10/24	10/27	10/30	11/01	11/04	11/08	11/12
16	10/23	10/28	11/01	11/03	11/06	11/09	11/12	11/16	11/21
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	141	135	131	127	123	119	115	111	104
32	162	155	151	147	143	139	135	131	125
28	182	176	171	166	163	159	155	150	143
24	203	196	191	187	182	178	174	169	162
20	220	214	209	205	201	197	193	188	181
16	236	229	224	220	216	213	209	204	198

* 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 1981-2010 serially complete daily data

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

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**Summary of Annual Normals
1981-2010**

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: **BISMARCK MUNICIPAL AIRPORT, ND US**

GHCND:USW00024011
Elev: 503 ft. Lat: 46.782° N Lon: 100.757° W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (through Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/10	6/04	5/31	5/28	5/25	5/21	5/18	5/14	5/09
32	5/28	5/23	5/19	5/15	5/12	5/10	5/07	5/04	4/29
28	5/17	5/12	5/09	5/06	5/03	4/30	4/28	4/24	4/19
24	5/09	5/03	4/30	4/27	4/24	4/21	4/18	4/14	4/10
20	4/30	4/24	4/20	4/17	4/14	4/11	4/08	4/05	4/01
16	4/19	4/14	4/10	4/08	4/05	4/02	3/31	3/27	3/20
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	8/31	9/06	9/09	9/12	9/15	9/17	9/20	9/23	9/26
32	9/12	9/16	9/19	9/21	9/24	9/26	9/29	10/02	10/06
28	9/20	9/24	9/27	9/30	10/02	10/04	10/07	10/11	10/16
24	9/28	10/02	10/05	10/08	10/11	10/14	10/17	10/21	10/25
20	10/06	10/11	10/14	10/18	10/21	10/24	10/27	10/31	11/05
16	10/14	10/20	10/24	10/28	11/01	11/03	11/06	11/10	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	131	125	120	116	112	107	103	98	90
32	151	145	140	136	132	129	125	120	113
28	169	163	158	155	151	147	143	139	132
24	189	182	177	173	169	165	160	156	149
20	208	202	197	192	188	184	180	174	167
16	229	222	216	212	208	204	199	194	186

* 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 1981-2010 serially complete daily data

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