

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: UNIVERSITY OF MINN ST PAUL, MN US

GHCND:USC00218450
 Elev: 296 ft. Lat: 44.985° N Lon: 93.177° 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	5/22	5/16	5/11	5/08	5/05	5/02	4/29	4/26	4/21
32	5/10	5/04	4/30	4/28	4/25	4/22	4/19	4/15	4/10
28	4/29	4/24	4/20	4/17	4/14	4/11	4/08	4/05	4/02
24	4/19	4/14	4/10	4/08	4/05	4/03	4/01	3/29	3/23
20	4/10	4/06	4/03	4/01	3/30	3/27	3/23	3/19	3/14
16	4/04	3/31	3/28	3/25	3/22	3/19	3/16	3/12	3/08
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	9/19	9/23	9/26	9/28	10/01	10/03	10/05	10/08	10/12
32	9/26	9/30	10/03	10/06	10/09	10/12	10/15	10/19	10/24
28	10/05	10/10	10/14	10/17	10/21	10/24	10/27	10/31	11/05
24	10/16	10/22	10/26	10/29	11/01	11/04	11/07	11/10	11/15
20	10/28	11/01	11/04	11/07	11/10	11/13	11/16	11/20	11/24
16	11/04	11/09	11/12	11/16	11/19	11/22	11/25	11/29	12/03
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	165	159	154	150	146	142	138	133	126
32	187	180	175	170	166	161	157	152	144
28	209	203	197	193	189	184	180	174	167
24	228	222	217	213	209	206	202	197	190
20	246	239	234	230	226	223	219	214	207
16	261	255	250	245	241	238	233	229	222

* 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