

**\*\* SEE FOOTNOTES ON USING THIS CHART ON PAGE 2 \*\***

## MASSACHUSETTS FREEZE/FROST OCCURRENCE DATA

STATION NAME	Temp. Threshold (Fahrenheit)	SPRING DATE			FALL DATE			FREEZE-FREE PERIOD (DAYS)			FREEZE/FROST PROBABILITY <sup>4</sup>
		PROBABILITY LEVEL <sup>1</sup>			PROBABILITY LEVEL <sup>2</sup>			PROBABILITY LEVEL <sup>3</sup>			
		↓	↓	↓	↓	↓	↓	↓	↓	↓	
		90%	50%	10%	10%	50%	90%	10%	50%	90%	
<b>KNIGHTVILLE DAM</b>	36°	May 23	Jun 04	Jun 16	Sep 03	Sep 13	Sep 24	116	100	85	55%
	32°	May 05	May 19	Jun 02	Sep 11	Sep 23	Oct 05	146	126	106	48%
	28°	Apr 21	May 05	May 19	Sep 20	Oct 05	Oct 21	174	153	131	39%
<b>LAWRENCE</b>	36°	Apr 20	May 04	May 19	Sep 24	Oct 05	Oct 16	172	153	134	44%
	32°	Apr 08	Apr 20	May 02	Oct 08	Oct 20	Nov 01	200	182	164	36%
	28°	Mar 25	Apr 07	Apr 19	Oct 18	Nov 03	Nov 18	229	210	190	27%
<b>MIDDLETON</b>	36°	Apr 21	May 09	May 28	Sep 12	Sep 27	Oct 12	168	140	112	44%
	32°	Apr 06	Apr 27	May 17	Sep 25	Oct 11	Oct 27	195	167	138	35%
	28°	Mar 27	Apr 11	Apr 27	Oct 05	Oct 25	Nov 15	227	196	166	27%
<b>NANTUCKET FAA</b>	36°	Apr 20	May 09	May 27	Oct 01	Oct 19	Nov 07	193	163	134	37%
	32°	Apr 03	Apr 18	May 02	Oct 16	Nov 03	Nov 22	226	199	172	28%
	28°	Mar 21	Apr 04	Apr 18	Oct 29	Nov 15	Dec 03	252	225	198	19%
<b>NEW BEDFORD</b>	36°	Apr 04	Apr 18	May 03	Oct 10	Oct 25	Nov 08	210	188	167	33%
	32°	Mar 23	Apr 06	Apr 20	Oct 22	Nov 10	Nov 28	243	217	191	24%
	28°	Mar 12	Mar 26	Apr 08	Nov 06	Nov 22	Dec 09	267	241	216	17%
<b>PLYMOUTH</b>	36°	Apr 28	May 15	Jun 01	Sep 22	Oct 03	Oct 13	163	140	117	43%
	32°	Apr 11	May 02	May 23	Oct 04	Oct 16	Oct 27	191	166	141	35%
	28°	Mar 30	Apr 16	May 03	Oct 16	Nov 02	Nov 18	229	199	169	26%
<b>ROCHESTER</b>	36°	May 03	May 17	Jun 01	Sep 13	Sep 26	Oct 09	150	131	111	47%
	32°	Apr 16	May 04	May 22	Sep 24	Oct 09	Oct 23	183	157	131	39%
	28°	Apr 07	Apr 23	May 08	Oct 09	Oct 21	Nov 03	201	181	161	30%
<b>ROCKPORT 1 ESE</b>	36°	Apr 15	Apr 30	May 15	Oct 03	Oct 15	Oct 27	185	167	148	40%
	32°	Apr 07	Apr 19	May 01	Oct 14	Oct 26	Nov 07	207	189	171	31%
	28°	Mar 24	Apr 05	Apr 17	Oct 27	Nov 12	Nov 27	242	220	198	23%
<b>SPRINGFIELD</b>	36°	Apr 22	May 07	May 23	Sep 20	Oct 05	Oct 20	174	150	127	43%
	32°	Apr 08	Apr 19	Apr 29	Sep 29	Oct 15	Oct 31	196	179	161	35%
	28°	Mar 25	Apr 06	Apr 19	Oct 11	Oct 29	Nov 16	227	205	183	26%
<b>STOCKBRIDGE</b>	36°	May 22	Jun 04	Jun 16	Aug 28	Sep 12	Sep 27	118	100	82	53%
	32°	May 8	May 23	Jun 06	Sep 10	Sep 23	Oct 06	144	123	102	46%
	28°	Apr 18	May 04	May 20	Sep 21	Oct 06	Oct 22	177	154	131	37%
<b>TAUNTON</b>	36°	May 10	May 24	Jun 08	Sep 10	Sep 21	Oct 03	137	119	120	48%
	32°	Apr 27	May 11	May 26	Sep 13	Sep 29	Oct 15	159	139	120	40%
	28°	Apr 08	Apr 23	May 08	Sep 29	Oct 11	Oct 23	190	170	150	31%
<b>TULLY LAKE</b>	36°	May 16	Jun 02	Jun 18	Aug 29	Sep 13	Sep 27	127	102	77	55%
	32°	May 03	May 20	Jun 05	Sep 09	Sept 23	Oct 07	150	126	102	47%
	28°	Apr 17	May 03	May 19	Sep 21	Oct 08	Oct 24	183	157	131	38%
<b>WORCESTER WSO</b>	36°	Apr 27	May 10	May 23	Sep 21	Oct 03	Oct 16	163	145	127	46%
	32°	Apr 14	Apr 27	May 11	Oct 02	Oct 17	Nov 01	193	172	151	39%
	28°	Apr 07	Apr 14	Apr 26	Oct 11	Oct 26	Nov 10	213	194	176	31%

- <sup>1</sup> % Probability of a later date in the spring (through July 31) than the date indicated. In other words, the percent chance that a temperature at or below the indicated threshold level will occur after the corresponding spring date.
- <sup>2</sup> % Probability of an earlier date in the fall (beginning August 31) than the date indicated. In other words, the percent chance that a temperature at or below the indicated threshold level will occur before the corresponding fall date.
- <sup>3</sup> % Probability of a longer than indicated freeze/frost-free period. In other words, the percent chance that that period of days with temperatures above the indicated threshold level will exceed the corresponding number of days listed in the table.
- <sup>4</sup> Probability of a freeze/frost day within the yearly period. In other words, the average percentage of days in the year with temperatures at or below the corresponding threshold temperature.

PLEASE NOTE: This data is intended for use as general guidelines for your location; actual frost dates vary (sometimes considerably) from year to year. Station temperature readings are commonly made at a height of approximately five feet, and actual ground temperatures can be up to 4° F to 8° F less. Thus, ground frost can occur even when the measured temperature is 36° F. Site specifics, radiational cooling, and air drainage, as well as other factors, will all have influence over actual frost dates at your location.

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The preceding was excerpted from Koss, W.J. et.al. *Climatology of the U.S No. 20, Supplement No. 1: Freeze Frost Data*. Published by the National Oceanic and Atmospheric Administration (NOAA), 1988.

