

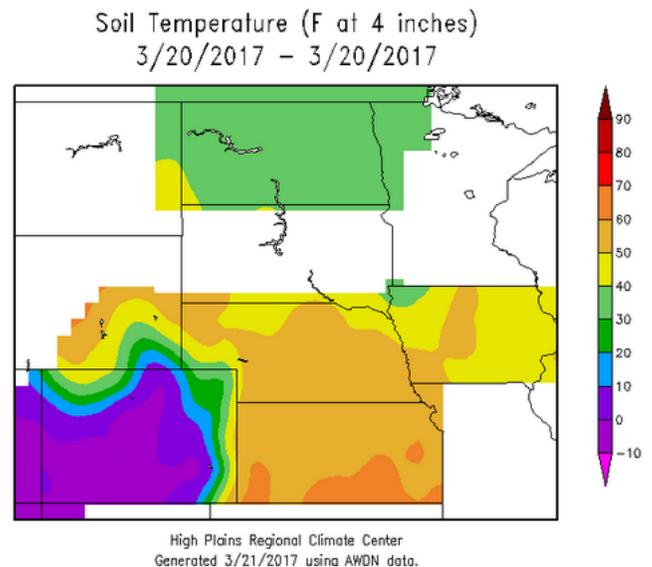
Preemergence Herbicide Timing Update March 21, 2017

With the recent warm temperatures, many are wondering if it's time to make the first preemergence (PRE) herbicide application of the year – three weeks before the window traditionally opens on April 15. The short answer is “No.” Even though it's been warm, you don't need to be in a rush to apply PRE for crabgrass control this year. Here are a few reasons for this recommendation:

Freezing temperatures will likely kill crabgrass seedlings that germinate before April 15th. In Lincoln, the last freeze occurred between April 12th and May 16th each of the last three years according to [data from the School of Natural Resources](#) at UNL. Further, the 130-year average last freeze day is April 23rd. It's likely that crabgrass that germinates before April 15th in Nebraska will be killed by frost, meaning there is no need to apply PRE before this date in most situations. This is also why we conservatively recommend making your first PRE application between April 15th and the first week of May – even this year. That said, provided that an adequate herbicide rate is used, beginning PRE control now shouldn't decrease overall control for the season (especially if a split-application schedule is used).

Don't let air temperatures fool you. Even though it's been warm, it's still early. We recommend making the first spring PRE application for control of crabgrass when the soil temperature at a 1 inch depth is > 55° F for five days. Some recommendations indicate that crabgrass germinates when the 24-hour average soil temperature at 4 inches is 55° F, but I was unable to verify this recommendation with refereed research. Still, we only have access to 4-inch soil temperatures across the state. This mean is 52.9° F in Lincoln (as of 3/21/17).

Growing degree days (GDD) only accumulate. The Michigan State growing degree-day (GDD) tracker website (www.gddtracker.net) we've discussed in previous *Turf iNfos* indicates that we have accumulated the optimum number of GDD for PRE control of crabgrass (250-500 GDD with a base temperature of 32° F) throughout most of Nebraska, and will be late (> 500 GDD) for control by Saturday (3/25) in SE Nebraska. This is an exceptional tool, but needs to be used with common sense in years such as this one. Growing degree days only accumulate in this method, meaning that alternating warm and cold air temperatures will accumulate GDD without accounting for the cool temperatures we've had in between unseasonably warm high temperatures. Crabgrass seeds need sustained warm temperatures to warm soil before seeds begin to germinate.



24-hour average soil temperature across NE at a depth of 4" as of March 21, 2017.

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