

## Yard and Garden 04-30-2011 -- Ted Griess/ Extension Horticulture Assistant

Every spring, beginning in mid-March to the present, I am inundated with the same question. When should I apply my pre-emergence to control crabgrass? As simple as that question may seem, the answer is not that simple. Predicting the exact date to carry out this particular gardening task involves a number of variables. They include weather conditions, where one lives and the type of pre-emergence applied.

As we all know, Nebraska's weather is unpredictable. For example, during the month of April, we have witnessed a wide array of weather conditions. A few days were sunny and warm; yet a number were cold, many with snow showers. As a result, air temperatures ranged from the 20s to the 70s. . Such fluctuations in air temperatures greatly influence soil temperatures. Soil temperature determines when crab grass seed germinates.

Research has shown that crabgrass seed begins germinating when soil temperatures reach and remain at 55° to 60° F. I want to emphasize the word *remain*! Soil temperatures must remain at 55° to 60° F for a minimum of ten days or more before crabgrass rears its ugly head.

The University of Nebraska measures soil temperatures over the entire state. Log onto <http://cropwatch.unl.edu/web/cropwatch/cropwatchsoiltemperature> for a report on soil temperatures in your community. Today, as I begin writing this column, the Kearney area's average soil temperature from April 19 to April 25 has been 47°F. Obviously, this past seven day average temperature is too low for crabgrass seed to germinate. However, two weeks ago the reported seven-day average had reached 57°F. Did some crabgrass already germinate? Perhaps so, but since soil temperatures have not remained constant, my guess is little, if any, germinated. Soil temperatures in the Kearney area traditionally reach and remain at 55° to 60°F sometime in early May.

Where one lives will determine when to apply pre-emergence products. Turf experts from the University of Nebraska suggest that homeowners who live in eastern Nebraska and apply their own pre-emergence products should do so the first week of May. For those living in western Nebraska, the date is the second week of May. However, there is no specific date for those of us who live in central Nebraska. I usually recommend applying pre-emergence around May 10. Often I suggest that one divide his or her pre-emergence product in half. Apply the first half in the first week of May, and the second half in the second week.

Observing professional applicators creates confusion. For professional applicators, the window of timing for application is expanded due to the sheer numbers of lawns treated. Homeowners should also understand that professionals are applying different products with longer residual control. Professionals also have better equipment that can be accurately calibrated to apply products at the higher rates needed with earlier applications.

Several pre-emergent active ingredients are available to the homeowner. The most common are Dithiopyr, Proflam, Pendimethalin and Trifluralin. Dithiopyr is often sold under the registered name of Dimension®; whereas, Proflam is sold as Barricade®; Pendimethalin is sold as Prowl® and Trifluralin is sold as Preen® or Treflan®. No matter which product is selected, keep in mind the highest recommended label rate should be used to ensure consistent control. Since crabgrass invasion is more likely to occur in thin turfgrass stands, next to sidewalks or driveways and other “hot spots,” one may even wish to follow up with a sequential application in late May or early June.

Lastly, keep in mind, crabgrass usually invades a lawn where growing conditions favor its growth over the desirable turf. To keep this pest at bay, consider following these cultural procedures:

1. Maintain mowing height between 3 to 3.5 inches.
2. Remove only 1/3 of the turfgrass leaf at one time.
3. Deep, infrequent watering is best.
4. Limit fertilizer at a rate of 2 to 4 pounds of nitrogen per 1000 sq. ft. per year. Between 60% to 100% of annual nitrogen should be applied in the fall. Minimize fertilization in the spring.

Perhaps now I have answered the question, "When is the best time to apply pre-emergence to control crabgrass?"