**Yard and Garden – 04-02-2016 – Ted Griess/Extension Horticulture Assistant**

Last week's snowstorm and colder weather placed a spring gardening chore back on schedule. Prior to the snow, almost on a daily basis, I received numerous phone calls from homeowners asking if it was time to apply a pre-emergent herbicide to their lawns. Even under normal conditions, homeowners seem to be in a hurry to apply a pre-emergent herbicide. This time, I completely understood their sense of urgency. Spring-like, warm weather had arrived exceptionally early.

For those unfamiliar, a pre-emergent herbicide is a chemical that blocks weeds from seeds. A pre-emergent herbicide does not prevent weed seeds from germinating; rather, it prevents young developing seedlings from maturing. When a seedling comes in contact with a pre-emergent chemical barrier in the soil, the seedling dies.

If the chemical is applied too early, the chemical barrier often breaks down and its effectiveness is lost by the time weed seeds germinate. On the other hand, if the pre-emergent is applied too late, the weed seeds have already germinated and emerged, also making the application ineffective. The question might be, "When is the correct time to apply a pre-emergent?"

Because most homeowners apply a pre-emergent herbicide to control crabgrass in the lawn, it behooves them to know a few facts about crabgrass. Crabgrass is an annual grass. It only returns from seed. Crab grass seeds will not germinate until soil temperatures have reached a sustained temperature of fifty-five degrees for twenty-four to forty-eight hours. Crabgrass seed doesn't germinate everywhere at once. It often starts to germinate in hot spots. Plan treatments based on what is known about soils. For example, light sandy soils warm up before clay soils; sunny areas warm up first. Thatch layers insulate and delay warming; whereas, grassy areas boarding pavement warm up more quickly. Prioritize your applications where practical to achieve the best treatment.

Although the recommended dates to apply a pre-emergent in Central Nebraska are the first or second week in May, checking soil temperatures is the best. UNL Extension has been keeping soil temperature records for over fifty years. One can check the soil temperatures by logging onto the

University's website at
http://cropwatch.unl.edu/web/cropwatch/cropwatchsoiltemperature

Understanding the when leads to the question, "What products are available, and which should one use?"

The industry standard is a product with a Pendimethalin base. Trade names for this product may be Halts®, Pendulum®, Accota®, Pre-M® or Prowl®. It's been around for years. Under typical Nebraska conditions, this product proves to be most effective with two applications: the first application at the optimal time, followed by another application four to six weeks later.

Products that contain the chemicals Prodiamine or Dithiopyr are herbicides that have a long residual effect. The trade name printed on the bag for Prodiamine is Barricade®; whereas, the trade name for Dithiopyr is Dimension®. Since both are deemed long residual products, one application is usually all that is needed for seasonal control. One caution when using these products ─ if you choose to reseed in late summer, be aware there may still be residual herbicide in the soil that will inhibit the new grass seedlings.

Unless we have another spring snowstorm, it is my guess, treating the lawn with a pre-emergent to control crabgrass should occur around the first of May. Keep in mind, pre-emergent herbicides only work if they are applied at the proper time. For greater accuracy, pay close attention to soil temperatures.