

Necrotic Ring Spot Turf Disease Control



Each year brings special challenges to our home landscapes. Thus far, this year has been characterized by severe weather and in many locations a wet summer. Heat and moisture drive necrotic ring spot development (NRS). This year, a combination of wet conditions coupled with irrigation systems adjusted to keep the lawn green during dry weather set up the perfect storm for disease development.

This disease begins with several small irregularly shaped brown patches of turf ranging in size from a few inches to a few feet in diameter. As the disease progresses these patches become sunken or crater-like. The turf sinks as the fungus digests the thatch layer. These patches will get larger and merge with each other if left untreated. Often there is a tuft of green grass in the middle of the patch, giving a frog eye appearance.

The NRS fungus lives in the soil and thatch layer of the grass. It is active in the turf in the spring and fall when soil temperatures are between 50 and 70 degrees. The disease is most severe when we experience wet and cool springs followed by hot summer temperatures.

NRS is most prevalent on sodded lawns that are at least three years old. This is a disease of lawns stressed from watering and drainage issues, poor soil preparation prior to sod installation and/or heavy thatch levels. All these issues lead to a weakened root system that favors the disease.

Controlling fungal diseases is not like controlling insects. You see insects in your landscape, you spray them with a product and the pests disappear. With a disease such as NRS you will not usually see the symptoms until well after the disease has done its damage. Fungal diseases need to be treated before the symptoms appear. Necrotic Ring Spot fungus is most active when the soil temperatures cool to below 70 degrees in the fall or warm to above 50 degrees in the spring. Now would be the time to schedule chemical controls for this disease – with both early fall and mid-spring being the optimum times for the treatments.

A combination of good horticultural practices along with fungicide applications are needed to control NRS

- Core aeration of the lawn in both the spring and fall. Aeration helps break-up the thatch layer, gets water to the roots and increases the natural microbial activity in the lawn.
- Make sure your mower is set to cut at a height of 2.5 – 3 inches. Keep the blades sharp and don't mow more than a third of the grass blade off at a time. The longer turf helps promote root growth by keeping the soil temperatures cooler.
- Water less frequently but deeply – This also encourages deeper rooting. Do not water every day.
- Change from a quick release fertilizers to a slow release or organic fertilizer. These products release their nutrients slowly favoring the turf grass plant over the disease fungus. Increasing the organic content of the soil will also help build the soil micro-flora such that it out competes the NRS fungus.