

Clark Talks Turf

■ TIMELY TURF ADVICE



→ Rhizoctonia Leaf & Sheath Spot: A Problem on Bermudagrass Greens

BY CLARK THROSSELL, PH.D.

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Q Which is the correct name for the disease, rhizoctonia leaf and sheath spot or mini-ring disease?

Rhizoctonia leaf and sheath spot is the name used by plant pathologists because it most accurately describes the range of symptoms caused by *Rhizoctonia zea* and *Rhizoctonia oryzae*.

Symptoms of the disease include a bronzing of leaves, thinning of turf and patches or rings of dead turf. In only about 1 percent to 5 percent of cases of rhizoctonia leaf and sheath spot outbreaks are mini-rings present.

Q Has the disease increased or decreased in severity and incidence over the last few years? Why?

Based on the number of samples submitted to our diagnostic lab, both the severity and incidence of rhizoctonia leaf and sheath spot has increased on golf courses in the last few years. We have identified the disease on bermudagrass greens throughout the Southeast. We have also identified the disease on zoysiagrass and seashore paspalum.

As for why, our observations led us to believe that as superintendents

lower the mowing height and decrease nitrogen fertilization of putting greens, rhizoctonia leaf and sheath spot increases. More stress on the grass, more rhizoctonia leaf and sheath spot.

Q Can you describe the disease cycle for our readers?

The fungus infects plants during periods of warm weather, from May to September, depending on geographic location.

In the first year of infection, symptoms are usually seen in late summer or early fall as bermudagrass growth begins to slow and stress on the grass becomes apparent.

In the second and subsequent years of infection, symptoms may be seen beginning in the spring and last throughout the year.

In some cases, symptoms that appear in fall remain all winter and spring, since the bermudagrass is not growing fast enough to recover from the damage caused by rhizoctonia leaf and sheath spot.

Q What is the most effective fungicide control strategy?

A preventive fungicide program based on the use of QOI, flutolanil and DMI fungicides works best to improve overall putting green performance and control rhizoctonia leaf and sheath spot.

A curative fungicide program will work, but higher rates of fungicides

applied at shorter intervals are needed, which makes the curative program about the same cost as a preventive program. Plus, the preventive program provides for improved playing quality throughout the season.

Use caution before applying a DMI fungicide to a bermudagrass green in hot weather. The DMI fungicide can cause the turf to go off-color and will have a growth regulating effect on the turf. For these reasons we do not recommend DMI fungicides be applied to bermudagrass greens in the summer months in Florida.

Q What cultural practices reduce rhizoctonia leaf and sheath spot?

Reduce stress on the grass by increasing the mowing height and increasing the nitrogen fertilization rate. Implement any practice that provides the desired putting speed without lowering the mowing height.

We observe rhizoctonia leaf and sheath spot on all cultivars of bermudagrass. Low mowing heights dictate the disease's incidence and severity.

Q Is there anything else you would like to add?

Rhizoctonia leaf and sheath spot is a difficult disease to diagnose in the field. It can be confused with fairy ring and large patch, among other diseases.

The only way to correctly identify the disease is to send in samples to a disease diagnostic lab that will culture the fungi on plates and properly identify the presence of *Rhizoctonia zea* or *Rhizoctonia oryzae*.

Clark Throssell, Ph.D., loves to talk turf. He can be reached at clarkthrossell@bresnan.net.