Gray Leaf Spot (*Pyricularia grisea*) Management on Perennial Ryegrass

The development of gray leaf spot (GLS) in the transition and northern climates has changed the management of perennial ryegrass forever. Perennial ryegrass was first adopted by turfgrass managers because it has a better tolerance to fairway and tee mowing heights than does Kentucky bluegrass. With the additional advantage of a rapid germination rate allowing for quick cover following overseeding, it quickly took the place of summer patch prone Kentucky bluegrass. Unfortunately, beginning in the early 1990’s a disease once known to attack St. Augustinegrass in the South began to ravage perennial ryegrass in the North.

The causal organism *Pyricularia grisea* (also known as *Magnaporthe grisea*) can infect both perennial ryegrass and tall fescue. This devastating pathogen is believed to become active and colonizing during late spring or early summer, with plant damage appearing late summer into early fall. Still not totally understood, the disease often appears on golf courses, athletic fields, and occasionally other turf areas throughout many sections of the United States.

Symptoms may include small gray to reddish-brown lesions on leaf blades, tip diedack, general blighting not specific to high or low areas, a twisted or “fishhook” appearance particularly on new leaves, and a fuzzy appearance on leaves early in the morning.

**Beneficial Cultural Practices Include:**
- Reduce periods of leaf wetness.
- Avoid plant stress from soil compaction, drought, other diseases, etc.
- Provide adequate balanced fertility but not excessive nitrogen.
- Avoid core cultivation and overseeding procedures during periods of potential infection.

**Chemical Control:**

Protecting perennial ryegrass from gray leaf spot will require a good preventive fungicide spray program. It is essential to choose the proper fungicide to maximize plant protection.

Fungicides that have shown good control of gray leaf spot include:
- Azoxyostrobin (Heritage®)
- Propiconazole (Banner MAXX®)
- Chlorothalonil (Daconil ULTREX®, Daconil Weather Stik®, Daconil Zn®)
- Thiophanate methyl (Cleary’s 3336®)
- Avoid brown patch fungicides that do not provide protection from gray leaf spot.
Figure 1. Incidence of gray leaf spot in Maryland with different fungicides. (From Dernoeden, 1998)

An effective preventive fungicide program:

**Application 1:** Controls GLS, brown patch, dollar spot, & pythium blight.
- Banner MAXX (1 fl oz/1000 ft²) with
- Daconil ULTREX (3.2 oz/1000 ft²) with
- Subdue MAXX® (0.5 fl oz/1000 ft²)

**Application 2:** Controls GLS and brown patch.
- Banner MAXX (1 fl oz/1000 ft²) with
- Daconil ULTREX (3.2 oz/1000 ft²)

**Application 3:** Controls GLS, brown patch & pythium blight.
- Heritage (0.4 oz/1000 ft²)

**Application 4:** Controls GLS, brown patch, dollar spot & pythium blight.
- Thiophanate methyl 50% (8 oz/1000 ft²) with
- Subdue MAXX® (1.0 fl oz/1000 ft²)

**Application 5:** Controls GLS and brown patch.
- Banner MAXX (1 fl oz/1000 ft²) with
- Daconil ULTREX (3.2 oz/1000 ft²)

Local conditions may require adjustment of application dates.
Other formulations of Daconil may be used in place of ULTREX at equal ai rates.

**Resistance Management:** Under normal conditions, use only one application of Heritage per season for control of gray leaf spot. Any fungicide that does not appear to provide control of gray leaf spot should not be used on affected turf for one full year.

Call 1-800-395-8873 to contact your local Syngenta turf and ornamental sales representative and learn more about Banner MAXX, Daconil ULTREX, Daconil Weather Stik, Daconil Zn, Heritage, and Subdue MAXX.