

Exserohilum Leaf Spot on Tiger Grass

Tiger grass (*Thysanolaena maxima* (Roxb.) Kuntze) is a popular ornamental grass used in South Florida landscapes. In 2006, nurseries and landscapes throughout South Florida reported observations of a leaf spot on Tiger grass. Symptoms began as tan colored flecks that often turned chlorotic to necrotic (Figure 1). These initial lesions elongated elliptically between leaf veins, sometimes with a yellow halo, and ranged between pinpoint size up to 0.2 cm wide and 1.2 cm long. Gradually, these lesions coalesced into large necrotic spots to blotches. Infected leaf tips may turn light brown to brown, curl, and turn yellow below the necrotic leaf tip. The purpose of this study was to identify and characterize the causal agent of the disease.



Figure 1. Tiger grass showing tan-colored lesions that are typical of leaf-spot symptoms on day of receipt from the supplier.

A dark-colored fungus was consistently isolated from the lesions on tiger grass and identified as *Exserohilum rostratum* (*E. rostratum*) based on conidial morphology. Polymerase chain reaction was performed to further confirm this identification. The process of infection was observed using slides prepared with lactophenol. To characterize disease progression, clean tiger grass leaves were inoculated with varying densities of *E. rostratum*. Leaves inoculated with relatively low densities (5×10^3 conidia/ml) resulted in symptoms appearing 2 to 5 days after inoculation. Inoculation with higher densities (5×10^5 conidia/ml) resulted in symptoms appearing as early as 12 hours after inoculation. Leaves inoculated with higher densities were severely symptomatic, with coalescing lesions resulting in widespread necrosis and death of the leaf (Figure 2).

E. rostratum has not previously been reported on tiger grass, although it is known to be common on grasses, other plants and substrates, and soil. This fungal disease in tiger grass has the potential to be severe under favorable conditions for sporulation, dissemination, and germination. Since tiger grass is utilized as a landscape ornamental in Florida, any disease symptoms at the time of sale, compromises the aesthetic quality and potential sale of the product.



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Figure 2. The effect of inoculum density of *Exserohilum rostratum* on leaf spot development on tiger grass. Numbers to the right of each leaf define inoculum densities of 0, 5×10^3 , 10^4 , or 10^5 conidia/ml applied to leaves during inoculation studies.

