

TALL FESCUE (*Schedonorus arundinaceus* syn. *Festuca arundinacea* 'Rembrandt')
Brown patch; *Rhizoctonia solani* AG2-2 IIIB

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Evaluation of Xzemplar, Lexicon Intrinsic, Heritage, and Headway for brown patch control on tall fescue, 2014.

Fungicides were evaluated for control of brown patch at the University of Missouri Turfgrass Research Facility in Columbia on 'Rembrandt' tall fescue. Mowing was performed two times weekly at a height of 3.0-in. No fertilizer applications were made during the trial period. Plots were 5 ft × 10 ft and arranged in a randomized complete block with four replications. Treatments were applied in water equivalent to 2.0 gal/1,000 sq ft with a CO₂-powered sprayer at 26 psi using TeeJet 8008 nozzles. On 30 May, 1.83-in.³ of rye grain (*Secale cereale* L.) infested with *Rhizoctonia solani* AG2-2 IIIB was broadcast across each plot. In the center of each plot, an additional 0.61-in.³ of inoculum was covered with a clear 5 fl oz plastic cup and left on the turf for 3 days to encourage infection. Disease severity and turfgrass quality were assessed every 14 days from initial symptom development. Disease severity was assessed as a visual estimation of the percent symptomatic area within the plot. Turfgrass quality was evaluated using a 1 to 9 scale (9=best, 5=acceptable) based on color, density, and uniformity. Data were subjected to analysis of variance and means separation using Fisher's Protected LSD (P=0.05).

Preventative applications were initiated on 20 May and applied on either a 21- or 28-day interval. Brown patch was first observed on 3 Jun within the trial area. On all ratings from 10 Jun to Aug, all treated plots had significantly lower brown patch severity than the untreated control. No significant differences in brown patch control were noted among the tested treatments throughout the trial period. Brown patch pressure decreased in Jul and Aug in the trial area due to below average temperatures (5th coolest July on record in Columbia, MO). On all rating dates, turf quality in all treated plots was significantly higher than the untreated control. No significant differences in turf quality among treated plots were noted during the trial period. No phytotoxicity was observed within the trial area.