Disease Resistance of Bentgrasses

Norman Hummel, Dept. of Floriculture and Ornamental Horticulture and Eric Nelson, Dept. of Plant Pathology

There were few differences in cultivar resistance to Pythium root rot.

Studies were conducted in growth chambers and in the field to evaluate several bentgrasses for resistance to brown patch, dollar spot, and Pythium root rot. Twenty two bentgrass from the National Turfgrass Evaluation Program were grown in the growth chamber and/or at the Turfgrass Research Laboratory in Ithaca. Varieties grown in the growth chamber were inoculated with *Rhizoctonia solani* and *Sclerotinia homeocarpa* in two separate studies. Observations on mortality were taken on several dates after inoculation. Natural infestations occurred in the field studies, except for the Pythium root rot, which was inoculated.

Differences in cultivar resistance to brown patch and dollar spot occurred in both field and growth chamber studies. In the field, the colonial bentgrasses, such as Allure, Tracenta, and Bardot showed the greatest resistance to dollar spot. Egmont browntop bentgrass and BR-1518 also showed some resistance relative to the creeping bentgrasses. None of the creeping bentgrasses showed observable resistance, although Emerald, SR-1020, and Forbes 89-12 exhibited the most severe disease injury.

Greatest resistance to brownpatch in the field trial was observed on Lopez creeping bentgrass, followed closely by WVPB 89-D-15, Forbes 89-12, and Penncross. BR 1518, Bardot, and Allure were most susceptible, with most of the other creeping bentgrasses intermediate in resistance.

There were few differences in cultivar resistance to Pythium root rot, all the bentgrasses succumbing to the disease within one month after inoculation.

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