## **News About Bentgrass Dead Spot**

## John E. Kaminski

Bentgrass dead spot (BDS) is a relatively new disease of creeping bentgrass. The causal agent, Ophiosphaerella agrostis, was first isolated from a golf course in Maryland in 1998. The disease has since been found in creeping bentgrass as far north as Michigan, as far west as Missouri, and along the eastern seaboard from Massachusetts to North Carolina. Cultivar evaluation trials have shown that all major Agrostis spp. used on golf courses are susceptible to BDS. In addition, the pathogen also has been found to infect hybrid bermudagrass greens in Texas and Florida.

On close-mown creeping bentgrass grown on golf course putting greens, BDS appears initially as dime-sized, reddish-brown spots which can increase to about 3-4 inches in diameter. During early stages of disease development, the reddish-brown or coppercolored spots often are confused with ball-mark injury. The disease generally develops on greens that are in open locations and along ridges and on mounds and south-facing slopes of individual greens. As the disease progresses, grass in the center of the spots becomes tan, while leaves in the outer edge appear reddish-brown. The severity of the disease may vary from a few spots to several hundred per green. Spots may be distributed throughout the putting green or localized, but generally do not coalesce. Spots recover very slowly as stolon growth in the center of dead patches appears to be inhibited. Regrowth generally is from bentgrass tillers along the outer edge of diseased spots and in severe cases, BDS spots will not fully recover prior to winter. Foliar mycelium is not observed in the field, but sexual fruiting structures, known as pseudothecia, often can be found in the field on necrotic leaf, sheath, and stolon tissues and may be used to diagnose the disease.

The disease is most commonly found on greens within 2 years following the seeding of new greens or older greens that have been fumigated with methyl bromide. Field observations confirm that the disease may decline dramatically within 1 to 3 years. The oldest greens where BDS was found, however, were 6 years old. Bentgrass dead spot appears restricted to sand-based greens, collars, and tees, and has not been found in bentgrass or bermudagrass grown on native soil. The disease initially was thought to be a problem during late summer and autumn months. In the mid-Atlantic region, however, the disease is most prevalent in July and August, but may appear as early as May and can remain active in bentgrass as late as December. Disease symptoms in bermudagrass may appear as early as March.

Several fungicides have been shown to reduce BDS severity including Banner MAXX, Daconil Ultrex, CL3336, Medallion and Chipco26GT. It is important to apply fungicides on a 7 to 10 day interval when the disease is active. During the summer months, tank-mixing small amounts of nitrogen with each fungicide application may help reduce disease severity.

The University of MD Turfgrass Diagnostic Laboratory is seeking additional BDS samples from various turfgrass species. If your course has been diagnosed with BDS or you think that the disease may be present at your golf course, please contact the UMD turf pathology lab at kaminski@wam.umd.edu or call 301-405-1337.

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