The Mystery of Dollar Spot

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As many of you have noticed this has been quite a year for dollar spot which started with a heavy outbreak in early June. Within the last couple of years, we have noticed dollar spot developing severe epidemics fairly early in the spring and lasting late into the fall. In some cases these epidemics have been remarkably severe and the spots have appeared to be more damaging than we are used to seeing. The result of these atypical dollar spot epidemics has lead to some confusion with respect to diagnosis of the disease.

Perhaps the most disconcerting aspect of these outbreaks is the fear that these are outbreaks of a relatively new disease, bentgrass dead spot, caused by the fungus Ophiosphaerella. While the two diseases may be confused, bentgrass dead spot has yet to be positively identified in Minnesota. Bentgrass dead spot has only been identified on young bentgrass (under 6 years old). The initial symptoms are actually more similar to microdochium patch (A.K.A fusarium patch; pink snow mold), having a reddish brown color. This color eventually fades to a bleached/tan color typical of dollar spot.

So how do you make sure that you are dealing with dollar spot? A relatively simple test for dollar spot is to remove a 4 inch diameter plug containing an infected spot(s). Place the plug in a plastic bag along with a small amount of water. Seal the bag closed and place it in a warm (~72E F) place overnight. Most dollar spot samples will form a white fluffy mycelium (strands of the fungal pathogen) within this time period when placed in a moist chamber. Bentgrass dead spot will not form any noticeable mycelial growth.

Fungicide resistance in Minnesota? For the most part, dollar spot will exhibit resistance to the benzimidazole fungicides (Cleary's 3336, Cavalier). Beyond that there has not been many reports of resistance to other classes of fungicides (DMI and dicarboximide) used to manage dollar spot in Minnesota. Does this mean we don't have to be concerned with dollar spot resistance? During a recent class at the U of M we examined several isolates collected around the state and found a couple of isolates that exhibited significant levels of resistance to the DMI fungicides (propiconazole, tridimefon, fenarimol, triticonazole). So with these isolates out there the question becomes; Will your management practices promote the development of resistant populations? This does not mean you avoid using DMI fungicides for management of dollar spot, but rather use them wisely (and timely).