

Dollar Spot Resistance to DMI Fungicides

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The dollar spot (*Sclerotinia homoeocarpa*) study is being conducted on an area sodded with Penneagle creeping bentgrass. The area is irrigated daily, moderately fertilized (1/2 lb. N/month), and mowed at 1/2" height of cut.

The study was initiated to determine the competitiveness and fitness of *S. homoeocarpa* strains which have shown reduced sensitivity to the DMI fungicides: fenarimol, triadimefon, and propiconazole. Plots (6' x 6') have been inoculated with equal amounts of DMI resistant strains (strains with resistance to benomyl and thiophanate-methyl) and wild type strains (strains with resistance to no fungicides) of *S. homoeocarpa* on a weekly basis.

Treatments were initiated curatively on July 27, 1991 with subsequent applications being made at 14 and 21 day intervals. All applications were made with a CO₂ small-plot sprayer at 30 PSI and 48 gal/A spray volume.

This study should determine the ability of the DMI resistant strains to compete with the wild type strains of *S. homoeocarpa*: 1) in the presence of the selective pressure of the DMI fungicides, 2) in the presence of the DMI fungicides plus different fungicide chemistry, 3) in the absence of DMI fungicides but with the selective pressure of other fungicide chemistry, and 4) in the absence of any fungicide pressure.

This study should help provide the information necessary to develop programs to deal with reduced sensitivity to the DMI fungicides when it occurs.