Do you struggle to control dollar spot?

Your golf course may be facing fungicide resistance. Repeated use of site-specific fungicides in the same class leads to resistance, which has been reported in three of the five fungicide classes commonly used to control *Sclerotinia homoeocarpa*, the causal agent of dollar spot. Conducting a fungicide resistance assay will improve your knowledge of the problem and can save your golf course thousands of dollars by avoiding non-effective large scale fairway fungicide applications.

What is a fungicide resistance assay?

The University of Massachusetts Turfgrass Pathology Laboratory has been conducting assays to detect resistance in *S. homoeocarpa* to the benzimidazole, dicarboximide, demethylation inhibitor (DMI) and succinate dehydrogenase inhibitor (SDHI) fungicide classes since 2008. We provide site-specific recommendations to superintendents facing dollar spot control problems. By defining the *S. homoeocarpa* fungicide resistance profile at your golf course, you will know which fungicide classes provide adequate control and avoid experiencing fungicide failure. Contact us to schedule a resistance assay for your golf course this summer.

Sampling

Site preparation:

1. Contact the UMass Turf Pathology Lab and indicate you would like to schedule a fungicide resistance assay.
2. At the beginning of the season, leave 1,000 ft^2 of turf untreated where dollar spot regularly occurs.
3. Please make sure to mark the perimeter of the 1,000 ft area clearly to avoid fungicide applications to the sampling area.

Contact us:

4. Contact the UMass Turf Pathology lab to schedule a sampling time when approximately 50-dollar spot infection centers can be counted within the area.
5. Lab members will travel to your golf course to collect *S. homoeocarpa* samples. Sampling will take approximately 15-25 minutes per site and will not interfere with play.

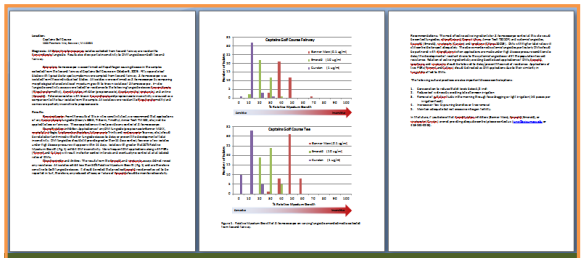
Sampling a leafing blade with symptomatic *S. homoeocarpa* lesions

Cost

- $500* to cover the cost of sampling, a lab assay for resistance to benzimidazole, dicarboximide, demethylation inhibitor (DMI) and succinate dehydrogenase inhibitor (SDHI) fungicide classes, and a written lab report of your results.

- You will receive a detailed report based on the result of 50 *S. homoeocarpa* isolates collected from your golf course and tailored to your unique management conditions and resistance profile.

- The report includes a diagnosis, results of resistance for each fungicide class tested, and a recommendation for managing your *S. homoeocarpa* population.



Sample lab report

*The cost of the fungicide assay has been subsidized for the summer of 2011 and 2012 thanks to funding from the New England Regional Turfgrass Foundation (NERTF), chemical companies, and the University of Massachusetts Turf Pathology and Breeding Lab.

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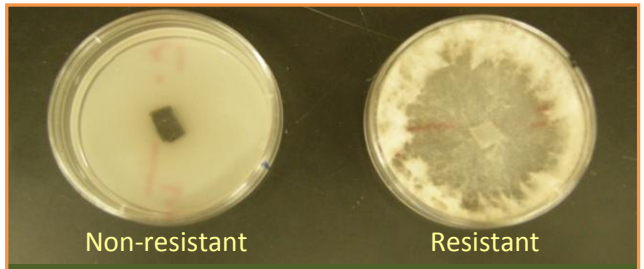
Turf Pathology and Breeding Lab

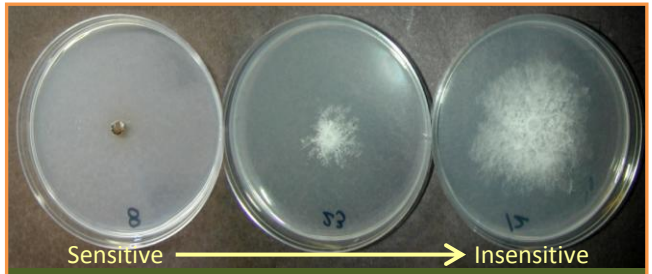
How is fungicide resistance measured?

Benzimidazole and dicarboximide fungicides exhibit a qualitative resistance response, meaning the *S. homoeocarpa* isolate is either non-resistant or resistant.



Two *S. homoeocarpa* isolates grown on benzimidazole amended media exhibiting qualitative resistance.

DMI fungicides on the other hand exhibit a quantitative resistance response, which is better described as a range in levels of insensitivity to DMI fungicides. Since, DMI insensitivity is not absolute, lab assays are required to make accurate recommendations.



Three *S. homoeocarpa* isolates grown on DMI amended media exhibiting quantitative resistance.

Address:
Turf Pathology and Breeding Lab
Department of Plant, Soil and Insect Sciences
University of Massachusetts
French Hall Rm. 100
230 Stockbridge Rd.
Amherst, MA 01003

Web:
http://www.umass.edu/turfpathology

Email:
turf@psis.umass.edu

Phone:
413-577-3303

Fax:
413-545-3075

Fungicide Resistance Assay for Dollar Spot

Department of Plant, Soil and Insect Sciences