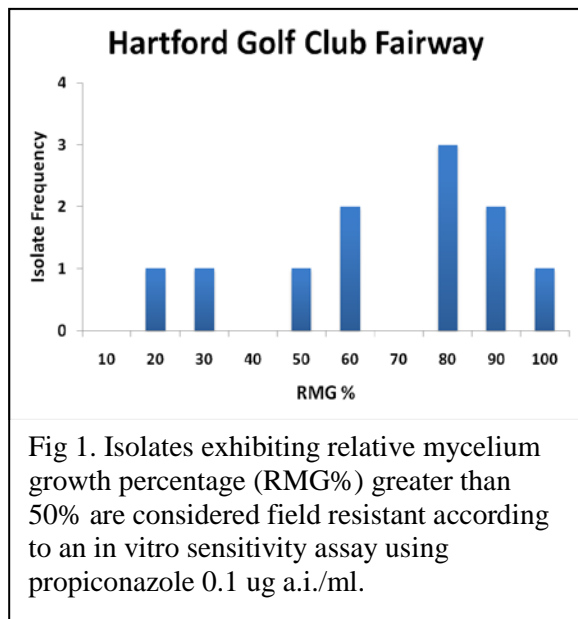


Creeping Bentgrass (*Agrostis stolonifera*)
Annual Bluegrass (*Poa annua*)
Perennial Ryegrass (*Lolium perenne*)
Dollar Spot (*Sclerotinia homoeocarpa*)

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Fungicide efficacy on a demethylation inhibitor (DMI) and benzimidazole (BM) resistant dollar spot population, Summer 2010

This evaluation was conducted at the Hartford Golf Club in Hartford, CT. *In vitro* sensitivity determined that *S. homoeocarpa* isolates sampled were field resistant (> 50% RMG has been associated with DMI field resistance) (Fig. 1). Moreover, 88% of isolates sampled were resistant to the benzimidazole fungicide class. The objective of this trial was to test fungicide treatments and other products for field efficacy at a location with resistance to BM and DMI fungicides and to provide data on resistance management of dollar spot. The plot was maintained at fairway height and consisted mostly of creeping bentgrass with some annual bluegrass and perennial ryegrass. The site was irrigated as needed to prevent drought stress.



Weekly ratings of the number of dollar spot infection centers were made. Photographs of each plot were taken at each rating date. Individual plots measured 3x6 ft, and were arranged in a randomized complete block design with three replications.

Fungicides and products (see Table) were applied based on label or suggested rates. Individual treatments were applied at a nozzle pressure of 40 psi using a CO₂ pressurized boom sprayer equipped with two XR TeeJet 8004VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 2 gallons of water per 1000 ft². Applications were made on 30 July (all treatments) prior to the onset of favorable disease conditions, and then followed a spray interval as indicated in the Table until 16 September when the last treatment was made. Dollar spot severity was rated by counting disease infection centers. Data was subject to an analysis of variance, however, no significant differences were observed among treatments throughout all rating dates. Area Under Disease Progress Curve values were not significantly different and are listed in the table for reference.

Results and Discussion. Environmental conditions were not favorable for dollar spot infection and untreated plots did not incur significantly more disease than any other plot. AUDPC values for the respective treatments are ranked high to low for reference. DPX-LEM17-50 applied at a rate

Treatment and oz/1,000ft ²	Interval (days)	AUDPC ^z
DPX-LEM17-50, 0.5	21	255.5
Civitas, 16		
Harmonizer, 1	14	236.833
Cuttless MEC, 0.57	21	207.667
Trinity, 1	14	197.167
Untreated		138.833
TB 6-0-0, 22	14	138.833
Banner Maxx, 2	21	121.333
Tourney, 0.37	14	119.58
Daconil Ultrex, 1.84	14	86.333
Emerald, 0.18	28	79.333
Trimmit, 0.35	21	78.167
Civitas, 16		
Harmonizer, 1		
Tourney, 0.18	14	72.333
Disarm M, 1	14	51.333
Civitas, 16		
Harmonizer, 1		
Tourney, 0.09	14	49
New QP, 3.2	14	45.5
Honor, 0.83	14	43.167
Civitas, 16		
Harmonizer, 1		
Emerald, 0.045	28	43.167
Cuttless MEC, 0.57		
Banner Maxx, 2	21 rotate ^y	36.167
Trimmit, 0.18		
Banner Maxx, 1	21 mix ^x	35
New QP, 1.84	14	32.667
DPX-LEM17-50, 0.3	14	31.5
Chlorothalonil 720 SFT, 3.53	14	30.333
Chlorothalonil 720 SFT, 2.02	14	29.167
0.5	14	28
QP Chlorothalonil DF, 1.84	14	26.833
Cuttless MEC, 0.28		
Banner Maxx, 1	21 mix	24.5
Civitas, 16		
Harmonizer, 1		
Emerald, 0.09	28	22.167
1	14	22.167
Daconil Ultrex, 3.2	14	16.333
QP Chlorothalonil DF, 3.2	14	14
Echo Ultimate, 1.84	14	14
Civitas, 16		
Harmonizer, 1		
Iprodione Pro 2SE, 2	14	12.833
Insignia SC, 0.54		
Trinity, 1	14	10.5
Iprodione Pro 2SE, 4	14	10.5
0.96	14	10.5
DPX-LEM17-50, 0.5	14	8.167
Trimmit, 0.35		
Banner Maxx, 2	21 rotate	5.833
Honor, 1.1	14	4.667
Emerald, 0.13	14	4.667
Echo Ultimate, 3.2	14	4.667

of 0.5 oz/1,000ft² on a 21-day interval incurred the highest AUDPC value while Echo Ultimate applied at a rate of 3.2 oz/1,000ft² on a 14-day interval had the lowest. Interval nor rate of applications had an effect on dollar spot control. Natural dollar spot infection in the summer of 2010 did not reach levels that impacted turf quality or playability. No differences in turf quality were observed. These results strongly suggest that scheduled fungicide treatments or "programmed treatments" can be economically wasteful and expose turf to unnecessary chemical amendments.

^z Area Under Disease Progress Curve (AUDPC)
^y Spray rotation: Cutless MEC (30 July), Banner Maxx (17 August), Cutless MEC (9 September), Banner Maxx (16 September)
^x Tank Mix of Plant Growth Regulator (PGR) and Demethylation Inhibitor (DMI) fungicide at half rates.