



Preventive Suppression of Fairy Ring on a Chicago Bent/Poa Golf Green

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Goal: Evaluate fungicides and alternatives capable of fairy ring suppression.

Location: Kemper Lake Country Club's 3 green in play – Kildeer, Illinois

Background: Fairy ring can cause dark green ring/arc symptoms on greens. Hot summers are associated with severe outbreaks (e.g., summer 2010). Multiple basidiomycete fungi are known to cause fairy ring. Those called Agaricales produce mushrooms while Lycoperdales produce puff balls. In Chicago outbreaks on greens are associated with puff balls. A range of fungicides can be used, but effectiveness will vary according to each site and its fungi. Preventively, DMIs are preferred because according to research they provide most consistent control. However at midsummer, DMIs can reduce golf green health by phytotoxicity. Therefore, for control all summer multiple products are often necessary to avoid negative effects by certain fungicides.

Brief Material and Methods: Kemper Lakes Golf Club 3 green using a randomized complete block design with 4 replications. Individual plot size was 4 ft by 6 ft. Products were applied at labeled rates for fairy ring in water equivalent to 2.0 gal./1,000 sq. ft. The irrigation system was used to lightly water-in products. Nine fungicides were applied every 28 days (14 May, 9 Jun, 8 Jul, 2 Aug), while Urea, ConSan, and 3 Tier were every 14 days (Table 1). Data collected in each plot included; fairy ring number, fairy ring percent, and symptom color intensity. Visual quality assessed impact of disease and/or any phytotoxicity.

Results: Visual quality, Fairy ring percent, Fairy ring number

- Type 2 fairy ring developed early in 2010 and began 14 May at Kemper Lakes.
- Approximately 2 weeks after first application, 25 May, all treatments were similar to untreated plots. Applications made when fairy ring is active may several weeks until suppression can occur. (Fig. 1)
- Visual quality was improved by suppression of fairy ring. By 7 July all treatments that showed complete control were DMI fungicides. (Fig. 2)
- Visual quality was reduced by phytotoxicity. Although DMI fungicides provided complete control on 7 Jul, only Tourney and Triton FLO were similar to ProStar and ProStar+Heritage TL with acceptable visual quality (≥ 6) without phytotoxicity. (Fig. 2)

Table 1. Treatments for fairy ring on a green at Kemper Lakes Country Club, Kildeer, IL in 2010.

Number	Treatment	Interval	Rate per 1,000 sq ft
1	Untreated
2	Urea 46-0-0	14 day	0.15 lbs N
3	ConSan (wetting/cleaning agent)	14 day	1.6 fl oz
4	BlueXL (fertilizer + <i>Bacillus spp.</i>) 3 Tier Tech.	14 day	3.0 fl oz
5	Headway + Revolution	28 day	2.4 fl oz + 6.0 fl oz
6	Headway G (granular product)	28 day	2 lbs
7	Heritage TL + ProStar	28 day	2.0 fl oz + 4.5 oz
8	Tartan	28 day	2.0 fl oz
9	Bayleton FLO	28 day	1.5 fl oz
10	ProStar 70WDG	28 day	4.5 oz
11	Heritage TL	28 day	2.0 fl oz
12	Triton FLO	28 day	1.1 fl oz
13	Tourney 50WD	28 day	0.37 oz

* All applications were followed with irrigation of 1/10 inch (approximately 2 turn cycles).

Figure 1. Following 14 May and 9 Jun applications, differences in fairy ring symptoms existed with certain treatments providing good control by 7 July at Kemper Lakes, Kildeer, IL in 2010.

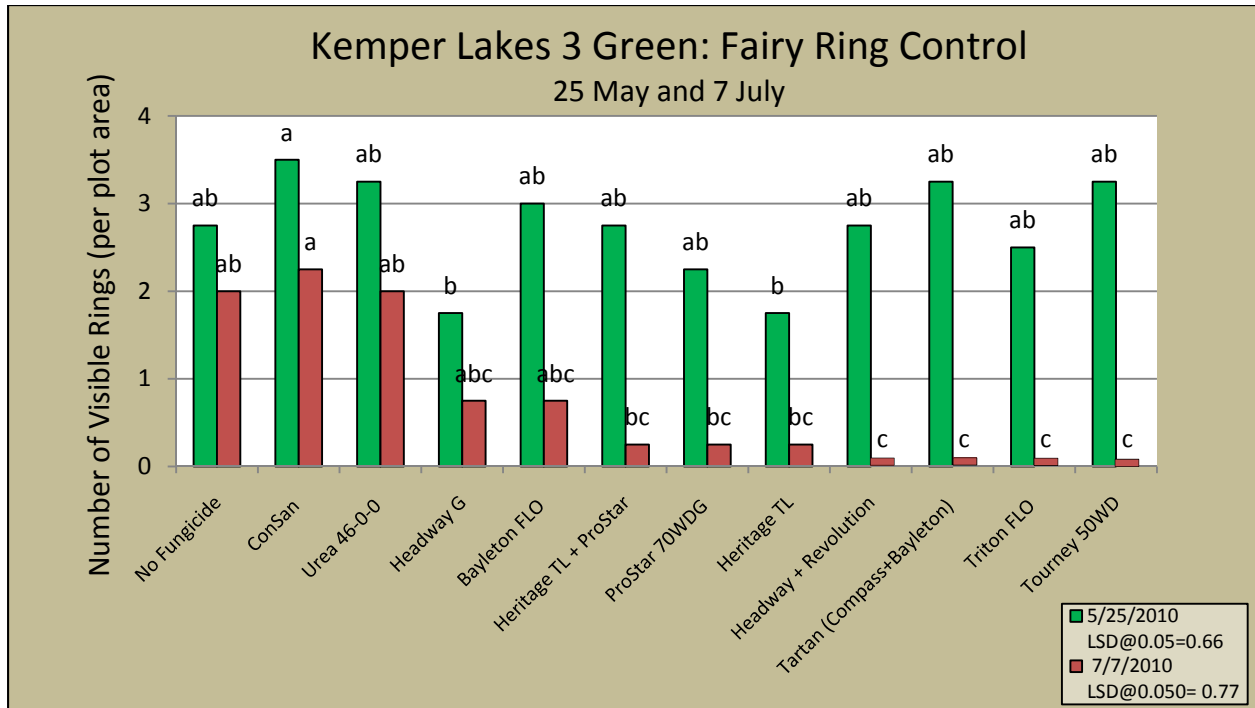


Figure 2. Best golf green visual quality was associated with treatments that both suppressed fairy ring and did not harm plant health (quality ≥ 6.0) at Kemper Lakes, Kildeer, IL in 2010.

