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Suppress dollar spot and brown patch and evaluate plant health effects.

Three golf course fairways in play.
1) North Shore Country Club – Glenview, Illinois
2) Coyote Run Golf Course – Flossmoor, Illinois
3) Briar Ridge Country Club – Shererville, Indiana

: Dollar spot (*Sclerotinia homoeocarpa*) is the most persitent fungal disease that negatively affects golf courses each season. As such it requires more input than any other pest. Annually, the use of fungicides and associated cost is highest for fairways they represent large acreage. Alternative products for dollar spot control exist, but their efficacy remains largely unknown in Chicago's environment. Products Rhapsody and Ecoguard contain biological modes of action (*Bacillus* sp. bacteria) to suppress dollar spot fungal development. Dew Cure, on the other hand, alters the dew pattern and limits leaf wetness duration. Nitrogen by Urea was also investigated as low N levels are associated with increased dollar spot.

This ongoing study began in 2008 at two Chicago locations and was repeated in 2009. In 2010 a third far-southern location was added (Table 1). Biorationals investigated were Rhapsody and Ecoguard. DewCure, and Urea were also investigated as fungicide alternatives. Fungicide standards for comparison were Daconil Ultrex preventively and Daconil Ultrex curatively (Table 2). Treatments were applied every 14 days and plots were scouted weekly to monitor dollar spot. If a damage threshold of 5% was met, Daconil Ultrex would be applied curatively every 14 days until recovery (<5%). In 2010, on native soil fairways in Chicago, extended periods of saturated soils delayed disease development (> 5% on 3 Aug).

- Biorationals (Ecoguard, Rhapsody) did not suppress dollar spot without requirement of Daconil curatively to maintain acceptable levels at two locations. (Table 2)
- DewCure reduced curative applications required at two locations. (Table 2)
- DewCure was associated with phytotoxicity at BRCC on 11 Aug when applied on a 90+ degree day at BRCC; not observed at NSCC or CRGC (data not shown).

- Dew Cure can result in higher levels of brown patch disease (data not shown).
- N by urea suppressed dollar spot at CRGC, but not at NSCC or BRCC. (Fig. 2)
- Ecoguard had a trend of reducing dollar spot on certain dates. (Fig. 2)

Table 1. Three fairway locations were used to investigate biorationals alternatives for dollar spot suppression in 2010.

Relative Location	Golf Course, Superintendent	City, State	Fairway species, Cultivar
North Chicago	North Shore, Dan Dinelli	Glenview, Illinois	mixture Poa spp. : creeping bentgrass
South Chicago	Coyote Run, Dave Ward	Flossmoor, Illinois	creeping bentgrass Southshore plus L-93 (50:50)
Indiana	Briar Ridge, Erwin McKone	Schererville, Indiana	creeping bentgrass Penncross

Table 2. Site, treatments, and applications required of curative (Daconil Ultrex 3.2 oz.) to maintain acceptable quality (≤ 5%). Curative treatments were used as needed to determine effectiveness of biorationals to suppress dollar spot (1 Jun to 10 Aug, 2010).

Treatments every 14 days	Curative Applications (number) curative = Daconil Ultrex 3.2 oz 5% damage threshold		
	Briar Ridge	North Shore	Coyote Run
1. Untreated	---	---	---
2. Daconil Ultrex 3.2 oz	---	---	---
3. Daconil Ultrex 3.2 oz curative	3	1	0
4. Rhapsody 10 fl oz + curative	2	1	0
5. EcoGuard 20 fl oz + curative	2	1	0
6. DewCure 4 fl oz + curative	1	0	0
7. Urea 0.15lbs N + curative	2	1	0

Figure 1. Disease development of dollar spot in untreated plots at 3 fairway locations in 2010.

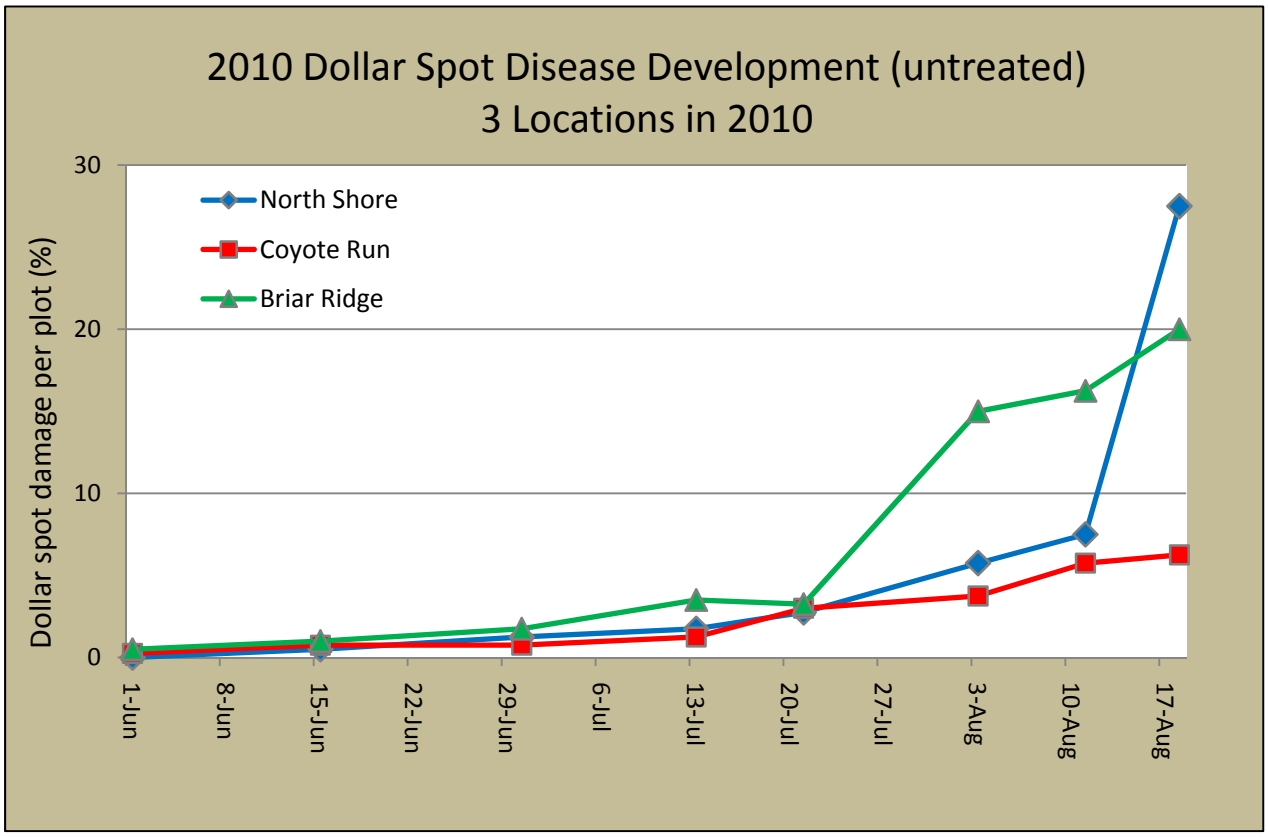

Figure 2. Effect of treatments on dollar spot damage on a 'L-93':'Southshore' creeping bentgrass fairway at Coyote Run Golf Course, Flossmoor in 2010.