## A Team-Up for Dollar Spot Control Longevity

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In recent years, university researchers and fungicide industry scientists have been investigating more innovative ways to control dollar spot more effectively and economically than ever before.

One new interesting idea is the use of a late fall or early spring applications to delay the initial occurrence of dollar spot. The biological theory behind these early applications is to knock back the initial inoculum density, meaning that the initial inoculum density needs to be built up to a certain level by the pathogen in order to cause a disease.

You might remember a recent *Grass Roots* article (Abler et al., 2005) reporting last year's results on longevity of fungicide efficacy on dollar spot control conducted at O.J. Noer Research and Education Facility. In a nutshell, we found a significant difference in longevity (the longest duration of control) among registered fungicides tested in our plot. Two fungicides, Emerald and Eagle had an acceptable control (a few dollar spots) for up to 48 days after last treatment and Banner Maxx, Curalan EG, 3336F, and Bayleton were significantly different from untreated check up to 25 days after the last treatment.

Along the same lines, this year we have launched eight experiments only for dollar spot control on greens and fairways at the O.J. Noer Turfgrass and Research Facility and on fairways at two golf courses (Milwaukee Country Club and Big Foot Country Club) in Wisconsin. There are twenty-six treatments (13 different fungicides) applied individually and as synergistic combinations. Here is a detailed description of the experiments: 1. To test whether the fungicides



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applied for snow mold control last fall delay of initial dollar spot incidence at the O.J. Noer (fairway), 2. To test an effect of early spring application made in early May to delay of initial dollar spot occurrence at the O.J. Noer (green and fairway) and the Milwaukee CC (fairway), 3. To test the treatments for their longevity when treatments are applied at the time disease is first noticed at the O.J. Noer (green and fairway), and 4. To test the treatments for their curative efficacy with 14 day intervals for 2-3 times after 20-30 percent dollar spot damage appears at the O.J. Noer (green) and the Big Foot CC (fairway). At the end of this season, we will have a comprehensive understanding of various efficacy of individual fungicides registered for dollar spot control.

A unique aspect of this project is the collaboration among people with different backgrounds. In addition to University researchers, undergraduate students J. Rivers and M. Manemann, are performing experiments for academic credit. Also, superintendents P. Sisk and J. Knulty graciously allowed us to use plots on their courses in order to get a hands-on research experience. The superintendents will maintain and monitor their respective plots, rate disease severity as well as turf quality, interpret results, and present them to other peer superintendents. The undergraduates will do exactly the same things at the O.J. Noer. Further, we will work together to organize dollar spot field days to be held right on the respective golf courses. Stay tuned for a date and a time for the field days, which will be announced in the near future.

Another interesting part of this collaborative research is to find out whether there might be any discrepancy in disease and turfgrass quality assessment between superintendents and university researchers by comparing the data collected by them. Of course, final results (research data, advantages and limitations of the three way collaboration, and etc.) will be discussed and published in *The Grass Roots*. The undergraduate students will write them up in place of a final written exam. Research, extension, and teaching will be all accomplished through this cooperative effort.

I sincerely want to thank Pat and Jim for their kindness to provide research plots and their willingness and valuable time to lead these projects.



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