

Dollar Spot Control in Cool Season Grass Fairways

Rick Latin, Ph.D., is a professor of turfgrass pathology at Purdue University and has conducted research on controlling many common turfgrass diseases including dollar spot. Our conversation centered on dollar spot control in cool season grass fairways. Rick can be reach at rlatin@purdue.edu.

What is your take on early season (March or April) fungicide applications to control dollar spot?

Spraying on a specific date like March 15th or 30th or April 15th is artificial. A specific date fits well for human activities but it does not reflect what is occurring with the dollar spot pathogen. Dollar spot infection occurs in response to moderate air temperatures and consecutive hours of moisture on the leaves. Two years of research at Purdue has shown fungicides applied on specific dates in March and April did not reduce dollar spot severity later in the season.

This year may be the exception where early season fungicide applications for dollar spot control may make sense because of unusually mild weather in the Midwest. However, temperature is only part of the equation — ample moisture must accompany the elevated temperature for infection to occur.

What guidelines do you suggest to predict when the first fungicide for dollar spot control should be applied?

We are a few years away from having accurate predictive models. The best a superintendent can do is to use his / her compiled experience to anticipate initial outbreaks. From a scouting perspective, it is important to understand the history of dollar spot on the course because initial outbreaks tend to occur in certain areas with favorable microclimates. Being able to recognize the very first signs and symptoms is critical.

What cultural practices are recommended to reduce dollar spot severity on cool season grass fairways?

Remove dew in the morning to reduce the period of leaf wetness; avoid early evening irrigation on fairways to reduce the period of leaf wetness; and provide sufficient nitrogen to encourage a healthy, actively growing turf stand.

What are the guiding principles for developing a fungicide program to control dollar spot on fairways?

- 1. Understand the history of dollar spot outbreaks on your course and know which areas are most prone to dollar spot.
- 2. Know which fungicides are most effective for controlling dollar spot and if the pathogen populations on your course have issues with fungicide resistance.
- 3. Include chlorothalonil in the fungicide program. It has multi-site activity and therefore will not contribute to the rise of resistant populations.
- 4. Closely monitor weather conditions

and be aware of the conditions that favor dollar spot infection.

Fall is a long way off, but when do you recommend stopping fungicide applications for dollar spot control in the fall?

First, never let a dollar spot outbreak get out of hand. Dollar spot damage on fairways in the fall can be seen long into the spring. A late August/early September fungicide application to control dollar spot followed by mid-September fertilization provides satisfactory control most years. The fertilization in mid-September gets the grass growing and the turf can cope with a low level of dollar spot infection.

If the turf has a history of dollar spot infection in the fall keep treating until the first frost. My experience is that the threat of dollar spot infection usually declines dramatically following the first hard frost.

Is there anything else you would like to add?

Dollar spot is usually clustered in certain fairways, certain portions of specific fairways or in certain microclimates. To economize on time and fungicide expense, consider spot treating only the areas that have a history of dollar spot infection.

If you want to determine if an early season fungicide application for dollar spot control is effective, put down a sheet of plywood, mark the corners with a small dot of spray paint and spray over the top of the plywood. This way you can determine the value of the application for yourself.

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