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Purdue Turf and Landscape Field Day - After the Storm

(Aaron J Patton, ajpatton@purdue.edu)



On Tuesday, July 16, 2024 the Purdue Turf Program, the Purdue Green Industry Working Group and the Midwest Regional Turf Foundation successfully hosted the Purdue Turf and Landscape Field Day. The day didn't start off as we had planned as our tent, capable of seating 500 people, was destroyed overnight in a severe storm. However, quick work by all allowed us to reset the area for some open-air dining in what turned out to be fantastic weather the remainder of the day. Attendees were very

appreciative of the diverse education, many exhibitors, networking opportunities, lunch, and cake to celebrate the 25th anniversary of the W. H. Daniel Turfgrass Research & Diagnostic Center.

The Purdue Turf and Landscape Field Day is the largest field day hosted by the Purdue College of Agriculture and Indiana's largest Green Industry field day. This was now our eleventh year combining both turf and landscape disciplines at our event. Specialists from four different departments in the College of Agriculture shared with Green Industry professionals their research findings, recommendations, as well as advice on troubleshooting problems.

It was a great opportunity for those attending to receive education, research updates, product updates and also a great opportunity to network with their colleagues and exhibitors in the Green Industry. The field day featured 35 exhibitors representing companies from around the region ranging the gamut from equipment, seed, fertilizers, pesticides, landscape plants, hardscape and more. The 432 attendees were mostly from Indiana and all its surrounding states but many national representatives were also there from various companies to learn more about Purdue's latest green industry research.

Attendees came from a variety of backgrounds including business owners, managers and staff of wholesale and retail nurseries, landscape management firms, greenhouse growers, golf course superintendents and staff, lawn care companies, grounds maintenance departments, landscape design and installation firms, garden centers, consulting firms, educational institutions, suppliers and more! This year's field day provided four morning research tours and five afternoon tours including a popular weed identification and control tour, discussion and demonstration of raised bed gardens, a walking tour on turfgrass diseases, hands-on turfgrass identification practice, and a discussion of conflict resolution in the workplace.

Nineteen different speakers were at the field day including Purdue faculty/staff from Botany and Plant Pathology, Entomology, Horticulture and Landscape Architecture, and Forestry and

Natural Resources. This year's field day was once again a success and continues to be a leading provider of information and education among the Midwest turf professionals and the Green Industry. Mark your calendars for next year's Turf and Landscape Field Day, July 8, 2025.

Thank you all for coming!

Golf & Giving – Annual MRTF Golf Day Fundraiser

(Ashley Ryan Breed, ashbreed@purdue.edu)



Our Annual Golf Day Fundraiser is always an enjoyable day of networking and fellowship with turf industry professionals! The goal is to raise awareness of programs and activities of the Purdue Turf Program and to support and promote turfgrass research and education. The event rotates around to different premier golf courses. This year, we will hold this event at **Broadmoor Country Club in Indianapolis, IN with a 12:00 pm shotgun start**. The field will be limited to 120 players and we anticipate filling the field again this year! Join us for this fun event and help us work toward our annual fundraising goals.

Be sure to check out our **NEW** sponsorship packages that **INCLUDE** your foursome and other awesome benefits/upgrades. Visit

https://www.mrtf.org/event/annual-golf-day-fundraiser/?event_date=2024-09-30 for all the details, including a link to register!

This year, Broadmoor is offering Sunday afternoon practice rounds, starting after 1:00 pm on September 29th. The cost is \$100 per person (includes cart and golf). **If you mention that you are supporting the MRTF, 50% of the proceeds will be donated to the foundation!** Play will go on until the sun goes down. Call or email James at Broadmoor to schedule your tee time TODAY! 317-251-9444 X216 or jgilbert@broadmoorcc.com. Thank you, Broadmoor, for this amazing opportunity!

MRTF Membership Update

(Ashley Ryan Breed, ashbreed@purdue.edu)

We want to extend a big THANK YOU to all who have chosen to be 2024 MRTF Members this year. Please see below for a breakdown (to date) and some additional links to important member info.

Membership breakdown:

- **TOTAL 2024 Members: 380**
- Individual Members: 78
- Business Bronze Members: 198
- Business Silver Members: 30
- Business Gold Members: 27
- Retired Members: 13
- Student Members: 24
- *SUSTAINING MEMBERS: 73

Sustaining Membership:

Sustaining members give \$200 (in addition to their regular membership fee) which helps to fund Daniel Turf Center improvements and contributes \$50 towards a NEW sustaining member student scholarship. Sustaining members are also recognized at the Indiana Green Expo, Field Day, here on the MRTF Website, and at the MRTF annual meeting. In addition, they will receive a sustaining member lapel pin and an MRTF "Sustaining Member" logo for their company website or business card.

If you or your company is already a regular member but would like to upgrade your membership to a sustaining one, please contact Ashley Breed at admin@mrtf.org or call 765-494-8039.

For a full list of all our 2024 Sustaining Members, please visit <https://www.mrtf.org/members/sustaining-members/>.

Additional Membership Information:

- Membership descriptions and pricing – <https://www.mrtf.org/members/membership/>
 - Regular Membership Directory (downloadable) – <https://www.mrtf.org/about-mrtf/members-list/>
 - Expanded Membership Directory (downloadable) – <https://www.mrtf.org/members-only/expanded-membership-directory/> (please note: you will need your membership password to access this page. This can be found in your original confirmation email. If you need assistance, please email Ashley Breed at admin@mrtf.org)
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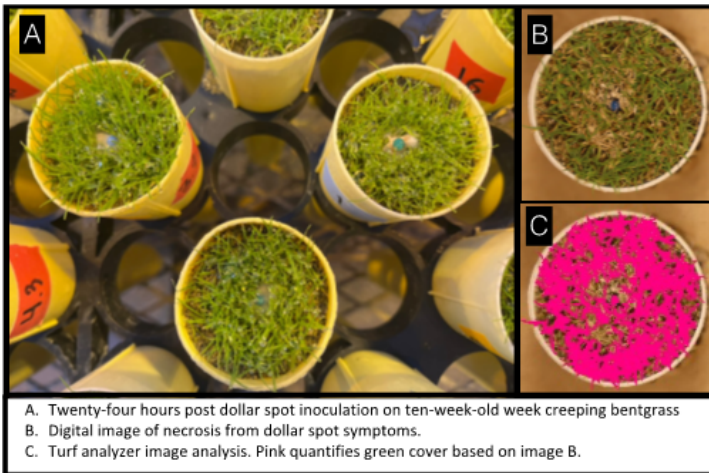
Research Spotlight – Evaluation of Interseeding Dollar Spot Resistant Bentgrass Cultivars into Fairways with Susceptible Bentgrass

(Lee Miller)

Justice Ruwona, Ph.D. student and Dr. Lee Miller

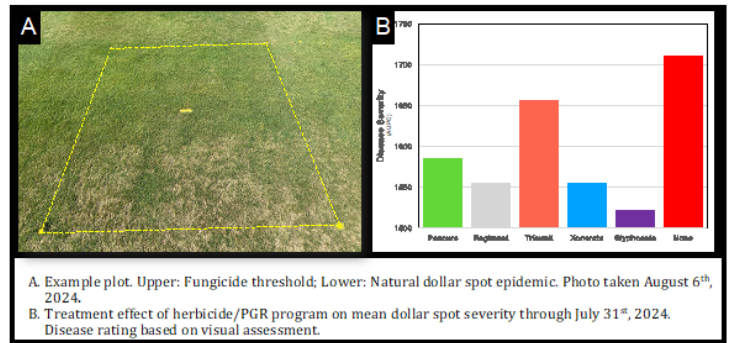
Dollar spot is the most fungicide intensive and expensive disease to control on golf courses. New bentgrass cultivars with enhanced dollar spot resistance are available but adoption has been slow due to the expense of renovation procedures and unknown agronomic attributes of the new varieties. This research aims to evaluate interseeding techniques of bentgrass areas using dollar spot host resistance as the phenotypic marker to indicate a successful conversion with funding provided by the United States Golf Association Mike Davis Program for Advancing Golf Course Management.

Greenhouse Experiments



This study was conducted to determine an optimal ratio of resistant to susceptible cultivars in a blend that will result in dollar spot reduction. Seed blend ratios between susceptible and resistant cultivars serve as proxies to model the anticipated reduction in disease that a turf manager might expect upon transitioning to a more dollar spot-resistant cultivar. Greenhouse experiments were conducted on cultivar blend ratios (0%, 10%, 25%, 50%, 75%, 90%, 100%) of dollar spot resistant ('Pure Select', '007XL', 'Coho') and susceptible ('Penncross') bentgrass inoculated with two different dollar spot isolates. Disease severity was assessed visually and through image analysis software. Results demonstrated that blending susceptible and resistant cultivars reduces dollar spot severity compared to using solely susceptible cultivar 'Penncross'. Increasing resistant cultivar proportions led to a consistent decrease in dollar spot severity, with blends containing 90% resistant cultivar achieving up to 32% less disease. Based on these findings, there is no optimal ratio of susceptible to resistant cultivars. Instead turf management strategies should focus on maximizing the proportion of resistant cultivar phenotypes within the stand to achieve the greatest reduction in dollar spot.

Field Trials



In July 2023, three dollar spot resistant cultivars (007 XL, Pure Select, Coho) were slit seeded into a susceptible bentgrass cultivar under five herbicide/PGR treatments and a non-treated control to control *Poa annua* invasion. These field trials are being replicated at two other locations (Wisconsin and Penn State). Plots are being maintained at fairway height of 0.5 inches. *Poa annua* flowering was rated in spring 2024 as a clear indicator of presence. *Poa annua* was more than three times higher in glyphosate treated plots compared to Poacure treated plots, with Poacure demonstrating the most effective control of all herbicide/PGR treatments. In May 2024, plots were divided with one half left to natural disease development and the upper half receiving a curative fungicide (Secure - 0.5 fl oz/1000 sq ft) when a threshold of five dollar spot infection centers occurs. Disease severity ratings through July 31st shows interseeding without using herbicide treatment has more than 10% higher disease severity than plots treated with glyphosate. There were no significant disease severity differences among the three resistant cultivars. Due to the heavy disease pressure experienced thus far in the season, all treatments have received an average of three fungicide applications. We will continue to monitor disease activity throughout the season to determine if interseeding method related disease variations lead to reduced fungicide sprays in a cost benefit analysis. Grass clippings are being collected to track grass stand composition and will be assessed with molecular markers developed by colleagues at the USDA-ARS.

Research Spotlight – More on white grub insecticide efficacy: What the data says about application timing

(Doug Richmond)

Dr. Doug Richmond

My last entry in this newsletter explored what 20 years of data say about the efficacy of two different white grub insecticides (imidacloprid and chlorantraniliprole) when applied at different times during the white grub development cycle. Here, I'd like to share some additional data that I've been able to summarize. These data cover those two initial active ingredients plus three more (clothianidin, cyantraniliprole, and tetraniliprole).

As I've mentioned previously, insecticide programming is a combination of logistics and the application of scientific information. We all have our favorite products and approaches,

but operational constraints often dictate how much flexibility we have in developing insecticide programs. Since many of our best white grub insecticides are long residual, systemic products, turfgrass professionals have a lot of flexibility in their approach for managing white grubs effectively. We have a wealth of great insecticides available to us and the residual activity of these products provides an extended application window that allows for applications to be made over a longer period of time. As a result, most professionals have landed on a preventive approach that puts the active ingredient in place well ahead of any potential grub infestation. But, unless you are targeting other insects, like billbugs, that occur earlier in the season with a multiple targeting approach (one application, multiple insect targets), there really isn't any good reason to make grub applications so far in advance. Our most effective grub insecticides do not require a preventive approach. In fact, timing applications closer to the appearance of grubs in the soil, or shortly thereafter, may be the best approach. Why leave a grub material exposed to the elements and slowly degrading for weeks or months before white grub eggs even begin to hatch?

In the figure below, I've summarized all of the white grub insecticide trials my lab has generated over the last 20 years to highlight how application timing (think management strategy) influences the efficacy of five widely used white grub insecticides; chlorantraniliprole, clothianidin, cyantraniliprole, imidacloprid and tetraniliprole (Figure 1). For this analysis I considered applications made during May and June as preventive applications. These applications were made well in advance of the time white grubs are typically hatching from the eggs. Applications made during July and August were considered early curative applications and were typically made after egg hatch, but prior to the appearance of destructive, late instar larvae in the soil. Application made during September and October were considered late curative applications and were directed toward late instar larvae that are capable of causing the most damage.

When controlling for application rate, chlorantraniliprole, clothianidin and imidacloprid performed equally well when used in a preventive strategy (Figure 2), with cyantraniliprole and tetraniliprole providing good control, but lagging just a bit compared to the top performers. Neither chlorantraniliprole nor imidacloprid saw any reductions in performance when applied during the early curative window, which is noteworthy since this window provides professionals with even greater flexibility, expanding the application window by another 8 weeks! Also, both cyantraniliprole and tetraniliprole saw a slight numerical bump in efficacy when applied during this window, matching the efficacy of clothianidin. It's also worth mentioning that there was no relationship between efficacy and application date during these two application windows, regardless of active ingredient.

Now for the most interesting part of this —the late curative window. This is the most challenging time to manage grubs because they are large, may have already caused damage to the turf, and cooler temperatures can force them deeper into the soil profile at any time; putting them out of the reach of any insecticide. These data clearly show a decrease in efficacy for

chlorantraniliprole and imidacloprid compared to the levels of control provided by these two products when used preventively, but control is still hovering around the 80% mark for both. Cyantraniliprole performed better during this late curative window than it did at any other time and only tetraniliprole dropped below the 70% control mark. These are good numbers at this late stage of the game, but the later you go in this window, the less effective these products will be. As a matter of fact, it is only during this window that we see any relationship between % control and application date.

As a reminder, these data were not collected from just one efficacy trial, but from many replicated trials conducted over the last 20 years (n= the number of trials for each treatment). The take home message is that while several products perform well when used preventively, early curative timing seems to be optimal regardless of active ingredient. It is also a bit surprising how well many of these products perform later in the season. These data indicate that the time frame for good grub control effectively runs from May to September for most white grub materials. You have much more time to get your grub applications out, so don't kill yourself to get them out by the end of June!

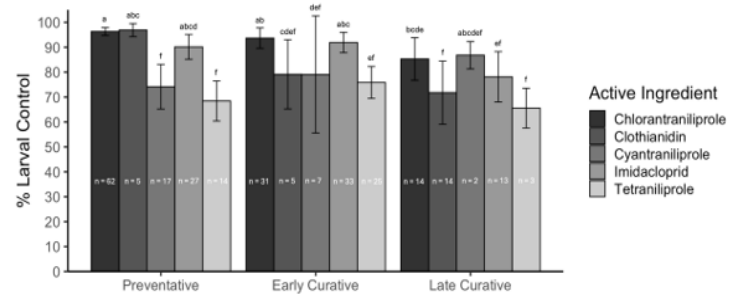


Figure 1. Influence of application timing on the efficacy of five insecticides against white grubs in turfgrass. Preventive = May-June, Early Curative = July-August, Late Curative = September-October. N = the number of replicated field trials including each treatment (material x application timing).

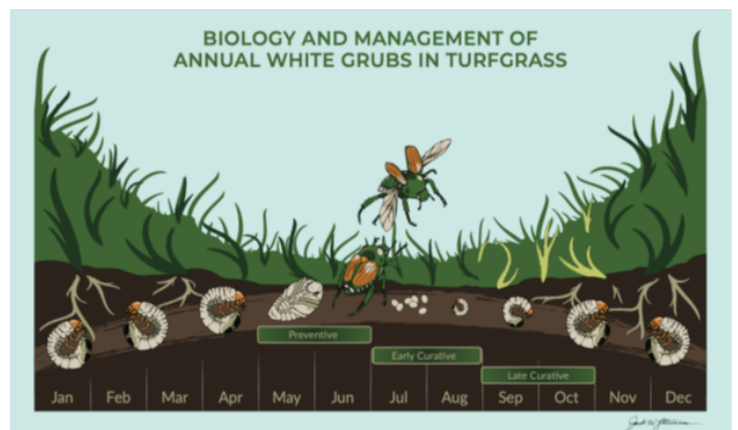


Figure 2. Life cycle of a typical white grub species (Japanese beetle as a model) and application windows for three different chemical management strategies. Preventive = May-June, Early Curative = July-August, Late Curative = September-October.

Member Profile: Chad Allen Announced as GCSAA's 2025 Emerging Leader

(Ashley Ryan Breed, ashbreed@purdue.edu)

(Article pulled from the GCSAA website)

Six-year GCSAA member took an unconventional path to turf management



Chad Allen, superintendent at The Club at Chatham Hills in Westfield, Ind., is the winner of the 2025 Emerging Leader Award from the Golf Course Superintendents Association of America (GCSAA). Allen will be honored Feb. 6 during the Send-off Celebration of the 2025 GCSAA Conference and Trade Show in San Diego, Calif.

Allen, a six-year GCSAA member, took a non-traditional path to the turf industry. He started college in his early 30s and eventually became a substance abuse counselor. However, the stress of the job combined with the needs of his young family led him to seek a new career. His brother Brad, a 21-year GCSAA member who is the certified golf course superintendent (CGCS) at Hickory Stick Golf Club in Mooresville, Ind., suggested he try golf course management.

"I got hooked right away," Allen said. "Little did I know it would turn out to be something that would profoundly impact my life."

Despite his late entry into the profession, Allen wasted no time in making his mark. He earned a turfgrass management degree online from Penn State's World Campus and soon rose through the ranks from the maintenance team to assistant superintendent to superintendent at The Club at Chatham Hills.

He also quickly became involved with GCSAA and his local chapter, the Indiana Golf Course Superintendents Association (GCSA). He currently serves as secretary/treasurer of the Indiana GCSA. Allen was the first person in Indiana to complete GCSAA's Assistant Superintendent Certificate Series and currently serves as a GCSAA Grassroots Ambassador. Ambassadors are matched with members of Congress to build strong relationships with them and advocate on the key issues impacting golf. Allen is paired

with Rep. Victoria Spartz (R-Ind.) He has also been one of GCSAA's representatives in meetings with the Small Business Administration Office of Advocacy.

"Chad embodies all the attributes that the Emerging Leader Award represents," GCSAA CEO Rhett Evans said. "In just a few short years he has done his part to better the profession and the industry by getting involved on the chapter and national level."

Allen said he is "beyond honored and grateful" to win the Emerging Leader Award.

"I was smiling ear to ear (when he found out he was the winner)," Allen said. "Thanks to GCSAA for everything they do for us and the industry."

While earning the Emerging Leader honor is a testament to Allen's drive, it hasn't affected his goals for the future.

"I'm very comfortable where I am at," he said of his position at The Club at Chatham Hills. "I feel very lucky. I have to pinch myself a lot. I am living the dream, but that doesn't stop me from wanting to grow and learn. I'm going to keep on grinding."

The Emerging Leader Award, which is presented in partnership with John Deere, recognizes an individual who serves the industry as a superintendent with less than five years of experience or a student, associate member or assistant superintendent who displays continuous growth in service and leadership.

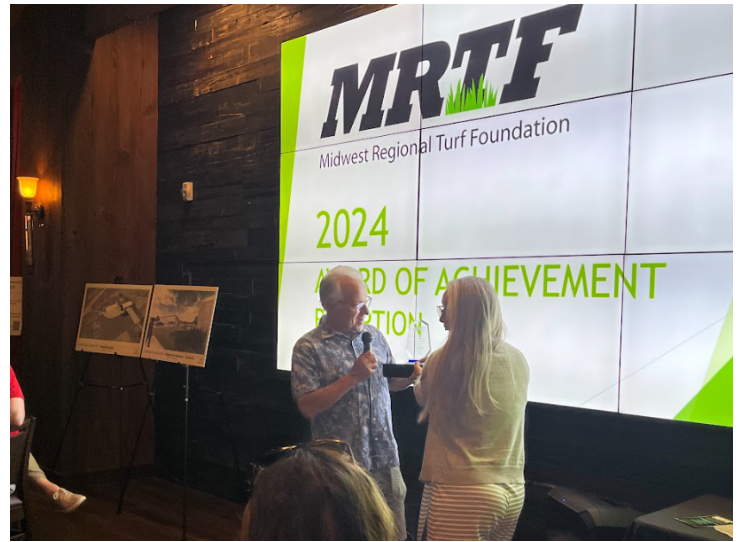
2024 Award of Achievement Winners & Reception

(Ashley Ryan Breed, ashbreed@purdue.edu)

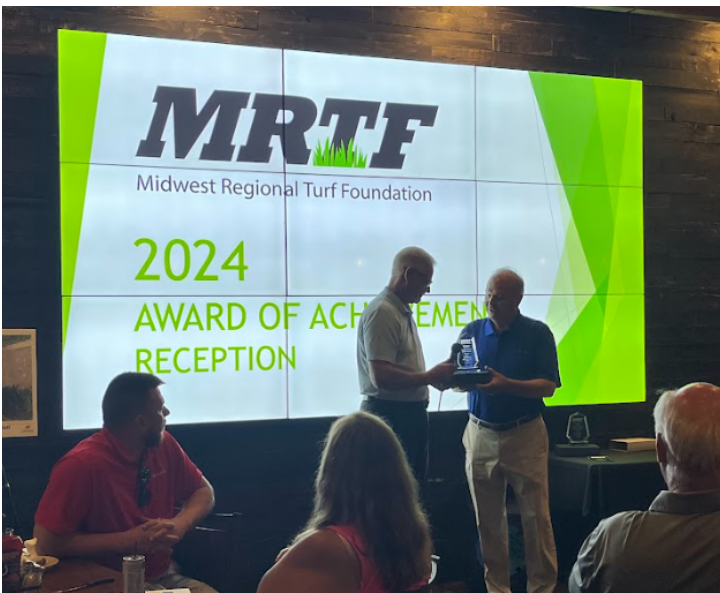
On July 15th, 2024, the MRTF hosted a reception to honor this year's Award of Achievement winners: Joe Becovitz, Cliff Sadof, and David Riedman (posthumous) at Walt's Pub and Grill in West Lafayette, IN. The MRTF Award of Achievement, established in 2005, was created to honor those who unselfishly have given to the Midwest Regional Turf Foundation, the turf industry, and/or the Purdue University Turf Program. The award recognizes those who have made a significant contribution to improving the turfgrass industry in Indiana while also demonstrating high standards of professional and personal conduct. Congratulations to this year's winners!



Joe Becovitz (left) and Cliff Sadof (right).



Nikki Hendrickson (right) presenting the award to Cliff Sadof (left).



Randy Brehmer (right) presenting the award to Joe Becovitz (left).



50 industry professionals taking advantage of this networking opportunity and chance to honor their peers.

For a list of past winners, please visit:
<https://www.mrtf.org/awards/award-of-achievement/>

2024-2025 MRTF Calendar of Events

(Ashley Ryan Breed, ashbreed@purdue.edu)

January 17-19, 2024

Indiana Green Expo; Indiana Convention Center, Indianapolis, IN

July 16, 2024

Turf & Landscape Field Day; Daniel Turf Center, West Lafayette, IN

August 1, 2024

Lawncare Diagnostic Training; Daniel Turf Center, West Lafayette, IN

September 26, 2024

MRTF Day of Service; Abby & Libby Memorial Park, Delphi, IN

September 30, 2024

MRTF Golf Day-Fundraiser; Broadmoor Country Club, Indianapolis, IN

November 20-21, 2024

Turf & Landscape Seminar; Daniel Turf Center, West Lafayette, IN

December 1-31, 2024

Herbicide Workshop; ONLINE

December 3, 2024

Herbicide Workshop; Holiday Inn Purdue Fort Wayne, Fort Wayne, IN

December 5, 2024

Herbicide Workshop; Fort Harrison State Park & Garrison Conf. Center, Indianapolis, IN

December 12, 2024

Herbicide Workshop; Location TBA, Louisville, KY

February 10-12, 2025

Indiana Green Expo; Indiana Convention Center, Indianapolis, IN

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