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02.21

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02.21

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have seen at an in-person Golf Industry Show in Las Vegas





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## VIVA GIS


Who says the 2021 Golf Industry Show was canceled? Not us, as we take a stroll through our own imaginary show ...

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“For many of us, it will be the first time in decades that we won’t sit in an educational seminar, walk the trade show floor or catch up with friends at the chapter party.”

**SETH JONES**, *Editor-in-Chief & Associate Publisher*

## Wish we were there

I was reading Mike Kenna’s new column (“Thank you is not enough,” page 32), where he gives an acceptance speech for the honor the Golf Course Superintendents Association of America (GCSAA) bestowed on him, the Col. John Morley Distinguished Service Award. What an honor! I thought to myself how cool it is to have someone like Mike on the *Golfdom* team, which made me think of how the partnership came to fruition in the first place.

It was during a breakfast meeting on the last day of the 2020 Golf Industry Show (GIS), that a mutual friend recommended Mike to me.

That got me thinking about the other things that came to fruition at the 2020 GIS. A research article by Adam Van Dyke, M.S., CPAg, and Ben McGraw, Ph.D., on the flea beetle (or as I like to call it, *Chaetocnema minuta* Melsheimer) was pitched to me, and quickly accepted, at the Corteva party. I made a dozen new contacts (and a few friends) by moderating a panel at the FMC meeting. Or, even the simple things — my friend Julio Diaz handing me some cigars before heading

to the airport to fly back to the Dominican Republic; celebrating with my pal Deron Zendt after he won his second GCSAA championship at the Friends of *Golfdom* party; a relaxing post-show dinner with my wife at a fancy Mexican restaurant.

The GIS, and before that the GCSAA Conference & Show, has been an important part of my career as well as a memorable annual event in my life. I attended my first show more than 20 years ago. I first got to know the *Golfdom* guys over a hard-fought foosball match at a John Deere party 15 years ago. The last time the show was in Las Vegas my wife and

I brought our then-5-year-old girl and our newborn son, as well as both of our moms. What a memorable week!

2020 was a strange year, but there was one thing that was normal for many of us — thousands of us traveled to Orlando and attended the Golf Industry Show. How many of us will remember where we were in Orlando when we learned of the tragic helicopter crash involving Kobe Bryant and his daughter and seven other friends?

Now, in 2021, we’re all going to miss the in-person version of this event. For many of us, it will be the first time in decades that we won’t sit in an educational

seminar, walk the trade show floor or catch up with friends at the chapter party.

How weird is that?

In honor of this show that didn’t happen, the team and I imagined what might have been if we could have all went to Las Vegas this year (see “Viva Las Vegas,” page 13.) We do wish we were there. As of this writing, the virtual GIS hasn’t happened yet, but we will be there, though it just won’t be the same as seeing each other in person.

There are things I don’t love about the GIS — rushing from dinner to dinner, not having enough time to see everyone I want to see and the last two hours of the trade show — but there is so much I appreciate about this giant assembly of our industry.

And now that we’re starting down a year without this annual event, I wonder (and worry) about what I’ll miss out on. What story idea would have been pitched to me at the Corteva party? Would FMC have invited me back? Would I have seen Julio? Would DZ have repeated? What lighting strike of a partnership would have come to fruition at a breakfast or over cold drinks? I guess I’ll never know.

But, I do know that it will be more important than ever to stay connected, to share ideas, to pick up the phone or arrange a Zoom. We might not see you in person this month, but we’re still here. So don’t be a stranger, OK? **G**

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# Starter

NEWS, NOTES AND QUOTES



## // 75 YEARS STRONG

### PLANT FOOD CO. MARKS 75-YEAR MILESTONE

BY SARAH WEBB // Managing Editor



With the year 2021, Plant Food Co. is celebrating its 75th anniversary in business.

"It's incredible how much has changed just over the past 15 years that I have been working full-time with my father, not to mention how much has changed over the past 43 years that my father has dedicated to the company," Grant Platz, Plant Food Co.'s vice president, told *Golfdom*. "75 years in business is no doubt a milestone for our company, but we have individual employees who have been with us for 20, 30, even 40-plus years and that is a milestone of dedication that we will remember and celebrate forever."

Headquartered in Cranbury, N.J., Plant Food Co. formulates liquid fertilizer for golf and professional turf, lawn and tree care, and specialty agriculture maintenance.

Founder Edward Platz established roots within the plant nutrition industry in 1946, which led the family business to the development of the first liquid fertilizer manufacturing company in the state of New Jersey, originally under the name Brookside Spreading Service.

In 1962, Platz purchased 15 acres in



Vice President Grant Platz (left) and President Ted Platz commemorate Plant Food Co.'s 75th anniversary in 2021.

Cranbury, N.J., for a fluid fertilizer formulation facility. In 1977, after Platz's passing, his family agreed to maintain ownership of the business. In 1981, the company was incorporated under the name Plant Food Chemical Co. before becoming what it is known as today, Plant Food Co., a company with global distribution networks, independent research and development, and manufacturing capabilities.

"We produce momentum through our constant pursuit of progression," Grant Platz said. "We believe that bettering ourselves, our team and our offerings to the industry is what will lead us to another 75 years in business."

## // TROON MAKES MOVES

### TROON PURCHASES INDIGO GOLF PARTNERS

Troon acquired Indigo Golf Partners, the company formerly known as Billy Casper Golf.

Current plans call for the Indigo Golf Partners office in Reston, Va., to continue and support managed clubs throughout Troon's full family of brands, including Troon Golf, Troon Privé, Honours Golf, OB Sports and more. In addition to its global headquarters in Scottsdale, Ariz., Troon now has offices in Reston; Newton, Mass.; Chicago; Irvine, Calif.; Palm Beach Gardens, Fla.; Jacksonville, Fla.; Birmingham, Ala.; Seattle; New Braunfels, Texas; and Dubai, United Arab Emirates.

"Peter Hill (co-founder, chairman and CEO of Indigo Golf Partners) and I have been good friends for many years," said Troon founder and Executive Chairman Dana Garmany. "We've always shared a mutual admiration for each other's company. We share common values and a similar approach to putting our clients' interests first and foremost and working to impact the golf industry in a positive fashion."

## // GIVING BACK

### TRUGREEN MARKS \$1M IN DONATIONS

TruGreen recapped its year of giving and partnerships with First Tee and St. Jude Children's Research Hospital. This past year also marked a milestone with the company giving \$1 million back to local communities since 2014.

TruGreen's charity of choice for 2020 was youth development organization First Tee, which uses golf as a catalyst for personal growth. In September, TruGreen donated \$80,000 to First Tee - Greater Philadelphia, one of First Tee's 150 chapters, to support its Drive for the Future Initiative designed to create an innovative outdoor classroom for children in the Philadelphia area.

TruGreen also announced an ongoing partnership with First Tee, which will support the expansion of the First Tee College Scholarship Program to include applicants pursuing careers in agronomy, plant science and other science-based professions.



The PGA Board of Directors voted to terminate the agreement to play the 2022 PGA Championship at Trump Bedminster in New Jersey.

## //PGA PIVOTS COURSE

# PGA pulls 2022 PGA Championship

➔ The Professional Golfers' Association (PGA) of America Board of Directors voted to terminate the agreement to play the 2022 PGA Championship at Trump Bedminster in New Jersey.

Jim Richerson, PGA of America president, said in a video posted on the organization's site that the decision was made "to ensure that PGA of America and PGA professionals can continue to lead and grow our great game for decades to come."

The announcement by the PGA came shortly after the events at the United States Capitol on Jan. 6, 2021,

when a group stormed the building, causing damage and resulting in the deaths of five people.

Richerson said, "It's become clear that conducting the PGA Championship at Trump Bedminster would be detrimental to the PGA of America brand" and risks the organization's ability to deliver on its programs and goals of promoting golf.

The PGA of America previously held the Senior PGA Championship at Trump's course outside Washington, D.C., in 2017. That same year, the USGA staged the U.S. Women's Open at Trump National in Bedminster.

## //JOINING FORCES

### ALBAUGH ACQUIRES PRIME SOURCE

Albaugh, a manufacturer and supplier of crop protection and specialty products, acquired the assets of Prime Source from Excelsior Equity. The details of the deal were not disclosed.

"Prime Source has been an exceptional player in the turf and ornamental market, with a remarkable passion for service and providing solutions to their customers," said Spencer Vance, president of Albaugh North America. "Today marks the beginning of an exciting new chapter for Albaugh, one where we will be able to build upon this legacy by expanding our presence in the T&O market with a focus on tailored customer solutions that improve profitability, flexibility and are more convenient to use than the leading brands."

Albaugh said the company continues to be focused on delivering excellent value to its customers through a constantly expanding product portfolio. The state-of-the-art manufacturing facility is strategically located in St. Joseph, Mo., which Albaugh said allows the company to have convenient and efficient distribution nationwide.

"There is little doubt that this transaction will be smooth for all parties as a result of Albaugh's strong commitment to the Prime Source brand, the T&O market, and our customers," said Keith Montgomery, CEO of Excelsior Equity.

## //INDUSTRY LEGEND PASSES

### IN MEMORIAM: HARRY NIEMCZYK, PH.D.

BY KARL DANNEBERGER, PH.D.

Harry Niemczyk, Ph.D., a professor in the Department of Entomology at The Ohio State University, died Dec. 16, 2020, at the age of 91, after a battle with cancer.

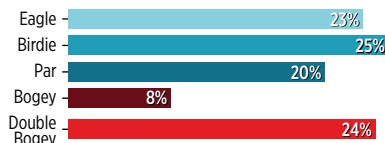
Harry was the first full-time university turfgrass entomologist and part of the turfgrass generation of researchers that included Joseph Duich, Ph.D.; James Beard, Ph.D.; William Daniel, Ph.D.; and Richard Skogley, Ph.D.

Harry's research led to the identification of major insect pests like the black turfgrass ataenius beetle. His early research into the biology and control of this insect was frontier-leading work. Later, Harry would conduct research into the fate of insecticides in turfgrass systems. His workshops on turfgrass insects and control were nationally known for their in-depth and thorough coverage of the subject. At the time, the photographs of insects used in his workshops were second to none and unique.

## Golfdom Asks

### HOW WOULD YOU RATE DONALD TRUMP'S PRESIDENCY AS A GOLF SCORE?

In December 2020 we surveyed readers and asked how they would rate President Donald Trump's presidency, in terms of a golf score. 321 readers voted and the results were quite diverse.



Source: December 2020 *Golfdom* State of the Industry survey



## // SUMMER JOB TO SUPERINTENDENT

### BICE NAMED NEBRASKA GCSA'S SUPERINTENDENT OF THE YEAR

The Nebraska Golf Course Superintendents Association recognized Eric Bice, superintendent of Elks Country Club in Columbus, Neb., as its Superintendent of the Year.

The Columbus Telegram reports that Bice has a long history with the Elks Country Club, going back to 1997 when he worked at the course in the summer mowing greens and raking bunkers. He grew up playing golf and was a member of his high school team, but he told *The Telegram* he did not expect to have a career in golf.

He earned a degree in commercial agriculture at Hastings Community College and has spent 23 years at the Elks Club, the last eight years as superintendent.

"It's a big honor. I've been doing this a long time, and you don't do it for awards or recognition," Bice told *The Telegram*. "It's like being an offensive lineman — people don't know you're there until there's something wrong. There have been lots of years of hard work, but it's also been rewarding, so I'm grateful."

## // RIGHT HIRE

### MCCLLOUD JOINS RIGHTLINE

RightLine added Brian McCloud as regional sales manager. McCloud comes to RightLine with more than 20 years of experience in the turf and ornamental markets.

"Brian's knowledge of the industry and the relationships he has formed will help RightLine quickly expand its business," said Tim Zech, vice president of sales for RightLine. "With additional products scheduled to launch in 2021, the timing could not be better."



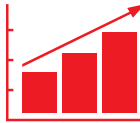
Brian McCloud

In the new position, McCloud will represent the existing RightLine products, which includes EPA-registered herbicides, insecticides, fungicides, nematocides and nutritional products. He will also help launch a proprietary turf herbicide, two plant growth regulators and one new fungicide in 2021.

McCloud resides in Texas and will lead the Western and Midwestern sales efforts by working with RightLine's expanding distributor network.

## // SWINGING STRONG

### GOLFNOW RELEASES RESULTS OF GOLF OPERATION SURVEY



Uncertainty and fear felt by golf course operators in April 2020 due to the coronavirus pandemic

have been tempered and replaced with optimism, according to results from the latest Golf Operation Impact survey conducted by GolfNow.

More than 300 owners and managers, mostly from public and semiprivate clubs and representing 45 states, six Canadian provinces and several international properties, participated in the survey. Questions were designed to help them better understand the pandemic's long-term impact on the game and answers were anonymous.

Overall, the 2021 outlook is generally positive based on the survey results, despite some stumbling blocks in certain segments. Two-thirds of the respondents are "very optimistic" that golf will be able to capitalize on the surge of interest and newcomers to the game. Roughly 51 percent of respondents agree, at least somewhat, that the pandemic is a new "silver lining" for the game of golf, and 46 percent of respondents disagreed with the statement that the new interest in golf will be "short-lived."

"We remain positive for the future, and we have learned a lot in 2020,"

*Continued on page 11*



## #TurfTweetoftheMonth

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### Travis Olson

@travisolson86

Superintendent at Kamloops G&CC, Kamloops, British Columbia, Canada

Golfers don't see many of the things that go into the playing conditions. I'm sure we could add about 100 more things to this Golf Superintendent Iceberg.



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Attendees of a past *Golfdom* Summit learn about Smithco's spraying equipment.

## // GOLFDOM SUMMIT TO CELEBRATE 10 YEARS

# The reunion at Reunion

**➔** The 2021 *Golfdom* Summit — the 10th anniversary of the event — is scheduled to take place at Reunion Resort in Orlando, Fla., Dec. 8-10.

The Summit is an invitation-only event that brings together qualified superintendents with leading suppliers of products used for the maintenance of golf courses. The Summit is a limited gathering and the *Golfdom* team is working diligently with Reunion Resort to develop event protocols with the health, well-being

and safety of all Summit participants top of mind.

"After having to cancel the event in 2020, we know that our readers, partners and staff are all excited to meet with each other at Reunion Resort," said *Golfdom* publisher Craig MacGregor. "The 10-year anniversary of the *Golfdom* Summit had to wait an extra year ... but I'm positive this one will be the best one yet."

Superintendents who are interested in attending a future *Golfdom* Summit can apply at [GolfdomSummit.com](http://GolfdomSummit.com).

## // TURF ADVOCATE

# COOK WINS AMBASSADOR LEADERSHIP AWARD

The Golf Course Superintendents Association of America (GCSAA) named Chris Cook, superintendent at Bailey Ranch Golf Club, Owasso, Okla., a Grassroots Ambassador Leadership Award winner. The Grassroots Ambassador Leadership Award, presented quarterly in partnership with The Toro Co., recognizes and honors individuals who have demonstrated growth in advocacy and advancement of the GCSAA Priority Issues Agenda through congressional outreach and relationship development with a member of Congress. Through Toro, the winners will receive an all-expenses-paid trip to take part in the 2021 National Golf Day in Washington, D.C.

"Chris is a great example of how ambassadors work to educate lawmakers and their staff members on the benefits of golf," said GCSAA CEO Rhett Evans.



Chris Cook

## // MOVIN' ON UP

# WEBB PROMOTED TO MANAGING EDITOR

Sarah Webb, formerly the associate editor of *Golfdom* and its sister publication, *Landscape Management*, has been promoted to managing editor of the publications. Webb has authored multiple



Sarah Webb

stories in *Golfdom* over the last few years, including stories on new bunker technologies, golf hacks during the pandemic and the 2020 U.S. Open at Winged Foot Golf Club.

"Sarah's hustle to get timely, useful stories published online and in the magazine helped *Golfdom* have a stellar 2020," said *Golfdom* Editor-in-Chief Seth Jones. "We all had to learn how to do our jobs a little bit differently last year. I'm thankful Sarah rose to the occasion, and I look forward to seeing her take on 2021 in her new role for both publications."

Webb has served as associate editor of *Golfdom* and *Landscape Management* since September 2017. She holds a bachelor's degree from Wittenberg University, where she studied journalism and Spanish.

*Continued from page 10*

read a comment from one survey participant. "The golf industry will have a great year in 2021. I am convinced with the generation of 25- to 35-year-olds who have just discovered golf. Our industry will do well."

The positive outlook is being fueled by the more than 81 percent of facilities that reported rounds increased year to date (through September), including 36 percent where revenue was up more than 25 percent during the peak summer season.

Online (85 percent) and mobile (81 percent) tee time bookings are outpacing in-person bookings (74 percent).

More golfers meant big summer revenue gains in many categories compared to last year — green fees (77 percent), cart fees (70 percent), pro shop (36 percent), on-course food and beverage (34 percent), instruction/lessons (26 percent) and clubhouse food and beverage (22 percent).

With an eye toward the future, facilities may begin utilizing technology more than ever before. Pre-COVID-19, only 4 percent of facilities said technology investment was important. That number nearly tripled to 11 percent. Almost half (47 percent) now believe technology is a priority, up from 27 percent pre-pandemic.

# The Golfdom

## FILES

FROM THE ARCHIVE

As the saying goes, the show must go on ... even if there aren't many people there to see it. As reported in the March 1976 issue of *Golfdom*, the 1976 Turfgrass Conference and Show of the Golf Course Superintendents of America drew 3,142 attendees, including 1,039 superintendents, to Minneapolis. For reference, the Golf Industry Show (GIS) in Orlando had an attendance of nearly 12,000 in 2020 — and peaked in 2008 (also in Orlando), with more than 25,000.

For a while, it looked like GIS would make a triumphant return to the Las Vegas Strip this year. The coronavirus changed all that — and so February's GIS will have a record-low in-person attendance of zero. Luckily, we'll all stay connected at the virtual GIS, and with some luck, we'll be able to meet again in San Diego next year.

To read the complete article, visit [golfdom.com/exclusive](http://golfdom.com/exclusive), and for a glimpse at the week in Las Vegas that could have been, check out our cover story on the 2021 Golf Industry Show, which begins on the next page.

## Temperatures high, crowd low

Even an unusual heat wave with temperatures in the mid-40s couldn't get more superintendents to Minneapolis last month, as the 47th Turfgrass Conference and Show of the Golf Course Superintendents of America drew its lowest number of superintendents since 1973.

The final tally of 1,039 that did show up in the Twin Cities got a lot for the effort, as the GCSAA cranked out another top educational presentation filled with noted speakers on all phases of course management.

Final attendance figures for the four-day stand ended at 3,142, still down from last year's New Orleans event that stood at 3,544. The '76 figure was mildly inflated, though, since the GCSAA allowed 700 distributors of showing companies into the convention site to see their respective firm's new lines for the coming season. Some 150 exhibitors were out in force, promoting their products.

If there was any controversy during the event, it might have occurred on the show's first day, as exhibitors were reminded that due to an Internal Revenue



the running of their annual get-together. John Leeper, superintendent at Orchard Ridge Country Club, Fort Wayne, Ind., mentioned he had been attending shows a long time, and to keep up on the industry, it was mandatory he made it every year. William Walsh, superintendent at Springbrook Golf Club, Naperville, Ill., made Minneapolis his third show since becoming a member of the association but admitted he'd like to see the event kept in a warmer climate on a permanent basis.

Another long-time showgoer was Walt Trombley, Arrowhead Golf Club, Pontiac, Mich. Trombley has been at every GCSAA event since joining in 1964. "I enjoy the show and especially the educational seminars. They get better every year. To be honest, though, I thought the weather in Minneapolis would be much worse."

Not all the action was on the floor of the Auditorium and Convention Center. At its yearly membership meeting of chapter delegates, the GCSAA rank and file sat behind closed doors for four hours taking care of new bylaw changes and the election of national officers.

The biggest change many thought would get the most hassle, got the least, as yearly dues were raised from \$65 to \$90. The lack of reaction pointed to the fact the general membership realized the enormous cost escalation the association has gone through in the last few years.

Attempting to know its membership's background better, the GCSAA passed a bylaw change that would automatically reclassify members according to their employment status. At the same time, another bylaw will allow membership expansion into the student area, that, according to Public Relations Director Doug Fender, could increase total association membership by 1,000. **G**



# VIVA LAS VEGAS

Who says the 2021 Golf Industry Show was canceled?  
Not us, as we take a stroll through our own imaginary show ...

BY THE GOLFDOM STAFF

OK, the reality is we didn't go to Las Vegas for GIS. No one did. We didn't play Topgolf. We didn't see the guys dressed up like Zach Galifianakis. That's what a pandemic will do to an event.

*Continued on page 14*





Continued from page 13

**T**he GCSAA hosted a virtual GIS, and your friends at *Golfdom* were an exhibitor. We saw a few familiar faces on our computer screens, shared a few stories and even signed up some new subscribers. But it just wasn't ... *the same.*

So, we asked ourselves, if we have a magazine where we always tell our GIS travel stories ... what's stopping us from going forward with that idea? We contacted our Friends of *Golfdom* and asked them if we were able to travel to see you in Las Vegas, what would we have seen? What are you excited about sharing with our readers?

The following is a retelling of our own imaginary GIS 2021. The good news? We didn't have to spend any money on hotel rooms, we didn't run late for any dinners and our esteemed editor-in-chief didn't have a single hang-over. The bad news? We didn't get to see you in person.

We look forward to seeing you soon. In the meantime, we present this report about the GIS that did not go on.

## It's Vegas — show us the Mooney

For the ninth consecutive year, *Golfdom's* Herb Graffis Businessperson of the Year Award was recognized at the Golf Industry Show. Rees Jones, the Open Doctor, said a few words about Mr. Graffis, who founded *Golfdom*, along with his brother Joe, in 1927. "Graffis was one of the first to look at the game as a business, and that's why he and my dad got along so well," Jones said. "Today, *Golfdom* carries on that tradition with this award, and I'm proud to be associated with it."

The 2019 winner of the award, first recognized in the September 2020 issue is Rick Mooney, vice president of maintenance and development at Shore Lodge | Whitetail Club in McCall, Idaho. Mooney was given the award because of how he helped Whitetail Club overcome the challenges of fielding a complete crew with its remote location. Mooney helped Shore Lodge

expand its living quarters for employees. He's also a highly respected superintendent and a mentor to many.

"It's very humbling; I'm very honored," Mooney said to the group. "As soon as I found



**Rick Mooney**

out about it, I did some research on Mr. Graffis and all of his impact on golf, and being a World Golf Hall of Famer ... I'm extremely honored to be representing him and to be in the same fraternity as the other

winners. Some pretty special people have won this over the years, and I'm happy to be linked with them."

## Kafka Granite gets patent

Wisconsin-based Kafka Granite believes that superintendents have better things to be doing with their resources than maintaining walking paths. That's why they were excited to be in Las Vegas with a very special piece of paper on display.

"We love talking about our wax polymer pathways mix, and the thing that has been super exciting in the past year is that we have now been patented," said Tiffany Kafka, director of sales and marketing. "We have the exclusive rights to make and produce this — you won't find it anywhere else in the country."

In a city like Las Vegas, with its arid climate, Kafka's product cuts down on dust. Back home in Wisconsin, it has a different selling point: It saves superintendents the headache of what freeze/thaw conditions do to their paths.

"We've been working on the patent for quite some time. It's time-consuming. It opens up some opportunities for us. Now, we have the potential to partner with quarries throughout the country to produce this more locally," Kafka said. "It's not happening currently, but it's the long-term goal; the next step to make our product even more accessible throughout the country."

Kafka said the Wax Polymer Pathway Mix blends seamlessly into the course, but it's also hardy. It withstands erosive effects and cuts down on maintenance by cutting out the crack-







Tiffany Kafka of Kafka Granite shows off the company's recently acquired patent.

ing and crumbling that comes with hardscapes.

"It's giving courses a great marriage of something that's beautiful and gives a great golfer experience but also cuts back on maintenance," Kafka said. "We get real excited when we talk to superintendents and they tell us about the hours and hours that it saves them."

## Nufarm's new AI for the U.S.

Nufarm's National Golf Account Manager Cam Copley gave us some good advice: Don't miss their party.

"It has grown to be an event," he said. "We're an Australian-owned company, and the one thing the Aussies love to do is have parties."

Before we could attend the Nufarm party, at Nufarm's booth, we got to learn more about a new fungicide, Decide, that is pending EPA approval and is slated for a March 2022 release. Nichino America has partnered with Nufarm to supply the company with the active ingredient pyraziflumid.



Cam Copley

Nufarm is going into its third year of trials with the product and is looking forward to sharing more about this new product with the industry.

"It's a new active ingredient that the U.S. has never seen before," he said. "It's going to be exciting. We're going to be doing a lot of promo-

tions with it. We're going to try to educate the market as best we can on how to use it and when to use it so we can hit the ground running."

Copley also said he hopes superintendents get a chance to talk to him about Anuew plant growth regulator as superintendents approach him often about best practices.

"I still have conversations with superintendents almost daily about how to use it and when to incorporate it, and what you should expect from it," he said.

And, of course, all visitors to the Nufarm booth have a chance to enter to win a Husqvarna Automower 430X or monthly Amazon gift cards. Copley said visitors will also learn more about Nufarm's Sure Power, Millenium Ultra and SureGuard SC herbicides as well as the Excel Leadership Program.

## Turfco visits the Pawn Stars

A quick cab ride brought us to Las Vegas Gold & Silver Pawn Shop, known as the location of the TV show *Pawn Stars*. Turfco had reserved a section of the parking lot to show off the WideSpin 1550 topdresser and the Torrent 2 blower. Seth brought a Herb Graffis-signed copy of the May 1967 *Golfdom* with him in case he saw Rick or Chumlee, but they must have had the day off.

Turfco announced they would be giving away a Torrent 2 blower at the end of August to one winner who registers at [Turfco.com](http://Turfco.com), and the company will donate \$25 for every registration, up to 200, to the GCSAA's disaster recovery fund for superintendents.

"There are a lot of guys that love the control they had with the 1550s but wanted to be able to have different settings for different times of the year, for their greens, for their tees, for their approach, for a cleanup pass," said Scott Kinkad, executive vice president, Turfco. "Now, it gives them pretty much any application they want to save. You can really dial in, 'I'm going three miles an hour,' 'I'm going four-and-a-half miles an hour.' Now, I know what my rate is."

*Continued on page 16*





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**VIVA GIS**



Turfco will be giving away one Torrent 2 blower at the end of August. Register at [Turfco.com](http://Turfco.com).

*Continued from page 15*

Kinhead has been attending the GIS for 30 years, and said it's always fun. "It's great to bump into the variety of people we've had the honor to meet over the years. Being able to move around and see people you haven't seen in a while — and try to recognize those people while they're not wearing a hat."

### **Anuvia recognizes Legend Shawn Emerson**

The team at Anuvia — in partnership with Audubon International and *Golfdom* — named its newest Legend in Las Vegas. This longtime superintendent is widely known and respected not just in the Desert Southwest, but throughout the nation. That's why the honor for Shawn Emerson, director of agronomy for Desert Mountain Club in Scottsdale, Ariz., drew such a large crowd to the Anuvia booth.



**Shawn Emerson**

The Legends Initiative celebrates superintendents who have gone above and beyond in their careers — not just in maintaining tremendous golf courses, but also in their contributions to the industry, creative problem-solving and mentorship.

"I'm speechless, and that's rare for me. And, it's because of the people who came before me — the Bob Farrrens, the David Stones, the Ted Hortons, the Matt Shaffers. That's unbelievable," Emerson said.

To see our full interview with Emerson, where he talks about the influence of his superintendent father on him, his best advice for managers and more, visit [Golfdom.com](http://Golfdom.com).

### **Corteva makes lemonade**

While on the trade show floor, we stopped by the Corteva Agriscience booth to talk to Chris Moyer, turf and ornamental

PHOTO COURTESY OF TURFCO



category lead, about what's new and exciting for his company.

Moyer said he's excited to promote Corteva's podcast-style conversation between industry experts called "The Sour and Bitter of 2020 ... How the Industry Made Lemonade." Experts include Jared Hoyle, Ph.D., Midwest turf and ornamental territory manager for Corteva; Gilbert del Rosario, Western turf and ornamental sales and market development leader for Corteva; Chester VandenBerg, turf and ornamental territory manager; and Andy Jorgensen, director of golf course maintenance operations at On Top of the World Communities in Ocala, Fla.



Chris Moyer

"We hope superintendents found this conversational format more digestible and engaging," Moyer said. "This podcast-style conversation explored the economic and social impacts of a disruptive market year on the golf industry and how our uncertain future can be met with resilience and planning."

Other highlights at the Corteva booth included information on Dimension specialty herbicide, GameOn specialty herbicide, NativeKlean herbicide and MatchPoint insecticide.

Moyer said his favorite part of GIS is connecting with friends, new and old. But, one thing he's sure not to miss out on is the Corteva Happy Hour.

"The Corteva Happy Hour has

been a way for Corteva Agriscience to say thank you to our distribution partners, and going forward, we are excited to resume that tradition in person," he said.

### Staying healthy — sort of — with Syngenta

Syngenta has maintained a theme of wellness at the Golf Industry Show, a theme that continued in 2021 with an annual Health in Action 5K race sponsored by the company early Tuesday morning. We caught up with Mark LaFleur, Syngenta communications lead, at the 5K. Well, at the finish line after the race, because let's face it, after a late night at the various chapter parties, we didn't have the gas in the tank to get up and run.

Syngenta launched three new products to help superintendents in 2020, and with those new products, the company launched several new assurance programs, essentially guaranteeing

*Continued on page 18*



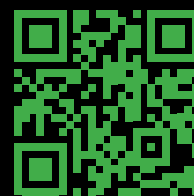
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**QUALI-PRO**



At the Nufarm party, Editor Christina Herrick was invited to join the wolf pack — a group of fun party dudes dressed as Alan from *The Hangover*.



*Continued from page 17*

control of certain pests.

“With innovation, it isn’t just products; it’s some of the tools that we have. I think one way that Syngenta sets itself apart are our digital tools, whether it be the Smith-Kerns Dollar Spot tool that we built, WeevilTrak or the GreenCast Turf app,” LaFleur said, catching his breath. “Before, it was very much just a calculator that helped people calculate how much product they need based on the number of acres they’re treating. It was also a bit of a record-keeping tool. The problem was it was not cloud based, so you couldn’t share it with other people. We’ve made that cloud based, so all of the records are backed up. It makes it so that more than one person can sign into an account. Superintendents put together a program, and if they want their spray tech to reference it, they just go into the app. But then, there are all sorts of other added benefits that we’ve added to the relaunch of this tool.”

I asked LaFleur what he was most looking forward to on his GIS 2021 agenda, and without hesitation, he said it was the Ladies Leading Turf event.

“No matter how busy I am in the booth, I want to go out and make sure that I’m part of (that event),” LaFleur said. “I think it’s inspiring to hear what a lot of the women have done with their lives. And, I think, in order for change, you can’t just have the people that are looking to create change be part of the group. I think everyone else needs to be a part of the

conversation. As a man in the turf industry, I want to help be a part of making women more inclusive, more accepted, more appreciated.”

## Rain Bird’s Innovation Lab

We hustled from the 5K (guess Syngenta got us to run after all) back to the trade show to visit our friends at Rain Bird. We met up with Mohan Subramanian, marketing manager for Rain Bird, and talked about the GIS returning to Las Vegas and the energy of this year’s show. “The best thing about Vegas is people let their hair down, they can relax and open up more and that’s always good for business,” Subramanian told us.

He was in the middle of a jam-packed day at the booth manning the Rain Bird Innovation Lab. After the lab’s popular debut at the 2020 GIS in Orlando, the company brought it back, giving trusted superintendents the chance to see new Rain Bird product releases and upcoming technology and offer their feedback.



Rain Bird’s newest series of golf rotors provides 75 percent faster nozzle changes, according to the company.



Syngenta’s Mark LaFleur (left) with MLB Hall of Famer Mike Schmidt, who signed autographs at the booth.

PHOTOS BY: ARSENIY45 / ISTOCK – GETTY IMAGES PLUS / GETTY IMAGES (POKER CHIPS); PHOTO COURTESY OF CHRISTINA HERRICK (THE HANGOVER); PHOTO COURTESY OF MARK LAFLEUR (BOTTOM LEFT); PHOTO COURTESY OF RAIN BIRD (BOTTOM RIGHT)



In addition to the Innovation Lab, the new 702/752 Series golf rotors were the other headliner at the Rain Bird booth.

"The new rotor series is very easy to use and very versatile, and we've added new nozzles to the lineup," Subramanian said. He explained that the rotors provide 75 percent faster nozzle changes and that it's very easy to change nozzles on these rotors with just a screwdriver. He added that the 702 Series covers a radius of 59 feet to 77 feet, and the 752 Series offers a radius from 19 feet to 84 feet.

We were able to get the rundown on the latest from Rain Bird, but what would a Golf Industry Show be without leav-



**Mohan Subramanian**

ing us wanting more? "We're going to be unveiling something pretty exciting in the next couple of months," Subramanian said. "We're very pumped up about what's coming in the future."

We'll be sure to share the news once it's ready here in the magazine, on social media and on **Golfdom.com**.

## BASF talks DMI safety

A short walk away from Rain Bird was the BASF booth, where a packed crowd had assembled. Many were there to talk about Maxtima fungicide and Navicon Intrinsic brand fungicide, two of the company's latest innovations... but there's also a crowd surrounding the Golden Tee machine, trying to birdie their way to a nice prize.

We caught up with two of BASF's Marketing and Strategic account managers: Brian Thompson and Mark Semm.

Thompson said 2021 is going to be a big year for BASF, as they expect four new products to launch this year. That's all the future forecast we could get for now, as the duo wanted to talk DMI safety and how Maxtima fungicide and Navicon Intrinsic brand fungicide have turned some heads in 2020.

"Some of the things with Maxtima fungicide, being a DMI that you can really



**Brian Thompson**

spray at any time on any turf without regulation, there's been 'safe' DMIs that maybe weren't as safe as people thought, but this is truly one you can use at any time. The control on dollar spot — resistant dollar

*Continued on page 20*



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Left to right, Luke Maddox, Adrienne and Seth Jones, and Eugene (Ore.) CC, at Smithco's Topgolf Las Vegas event.



*Continued from page 19*

spot — has been great. It's just short of a Swiss army knife," Semm said. "I step back a couple years from when I first joined the team, and it's interesting to see a product go from a thought, all the way to market — it's something I've never seen before. To see the satisfaction on a superintendent's face is priceless."

Thompson echoed those thoughts and said Maxtima fungicide and Navicon Intrinsic



**Mark Semm**

brand fungicide have changed the perception many superintendents have of DMIs.

"(DMI) fungicides carry some negative baggage — we've shifted that thought process with our customers," Thompson said. "We've taken that DMI class and proven to our customers, even the skeptics, you can throw the most adverse conditions that DMIs aren't known to be utilized in ... spraying a DMI in high heat, under a growth regulator program ... Maxtima fungicide and Navicon Intrinsic brand fungicide perform extremely well. We have the confidence to go to a customer and say, 'I know you've heard it before, but this truly is setting the mark for a new safe DMI.'"



Smithco's Sand Star E is powered by lithium battery packs, ensuring a quiet ride.

## Topgolf Las Vegas with Smithco

There is no Topgolf like the Las Vegas Topgolf. A short bus ride from the MGM Grand, and you're smacking golf balls toward movie screens displaying live sports. Was that an Elvis impersonator hitting next to us, or the real Elvis?

"You can't put a price on people watching," laughed Steven Johnson, regional sales manager, Smithco. "And, there are always some crazy antics going on in Las Vegas."

Smithco hosted a reception for GIS attendees at Topgolf Las Vegas. As groups waited for their bay to open, they were invited to take a look at Smithco's Star Command 3.0 and the Sand Star E.

"We've done a number of things for 2021, one of which is the Star Command 3.0, in conjunction with TeeJet Technologies," Johnson said. "There are a lot of unique features that have been upgraded. We've been doing GPS sprayers now for 10 years, and TeeJet has really stepped up to the plate with turn compensation, the individual nozzle control and now we have 10-inch spacing that's available on all of our GPS models."

Johnson said the company has redesigned all its sprayer platforms and it'll be introducing the new 1200 series this year, a single-seat 200-gallon self-contained spray rig with an open format.

"We have another product that's not

PHOTOS BY: SERGEY NAZAROV / ISTOCK - GETTY IMAGES PLUS / GETTY IMAGES (ACES); PHOTO COURTESY OF SMITHCO (TOP RIGHT); PHOTO BY: GOLFDOM STAFF (BOTTOM LEFT)





exactly new, the Sand Star E — it's very exciting to bring that back to the marketplace," he said. "We took it out three years ago because we were having issues with

vendor parts. We've partnered with a couple companies that have some unbelievable technology.

"New for 2021, all our electric bunker rakes will be going out with lithium battery packs. We're making that next step, that next investment that gives the machine the longevity that's expected out of all Smithco products," Johnson said. "When you take a piece of equipment like this, where the guys are on it for three, four hours, and you have it sitting next to the exact same model of product except with an engine in it? They all fight over the electric because it's so nice not hearing it. It's zero (decibels)! Not only is it eco-friendly, but you're part of Mother Nature; everything is going on around you and you can lose yourself when you're operating something that doesn't make any noise."

## Porous Pave pours it on

On the final morning of the show, after shaking off the cobwebs from our Topgolf



**Matt Lamb**

outing, we caught up with Matt Lamb, vice president of sales and marketing for Porous Pave.

Lamb and his team brought plenty of water to the desert to show off the Porous Pave product. The first thing that we noticed was the company's demo, where hundreds of gallons of water were pumped through a panel of Porous Pave XL. As water flowed through the product, Lamb gave us the rundown: It's a pour-in-place product for cart paths and drains away 5,800 gallons of water per square foot per hour.

*Continued on page 22*

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Porous Pave XL permeable paving material gets doused to show the product's drainage capabilities.



*Continued from page 21*

The product is much lighter than concrete or asphalt because it's 50 percent crumb rubber and 50 percent stone aggregate by weight. It comes in eight colors, works well for new applications or can be installed over existing cart paths and is very easy to install and repair.

"You can literally cut out a section of Porous Pave, mix up a batch right on-site and repair it with your maintenance crew," he explained.

Sand Guard, Porous Pave's bunker liner product, can also be mixed on-site and installed with a golf course's maintenance crew with training from the Porous Pave team.

Both products stand up to freeze/thaw cycles, since the rubber and stone blend "work like one big expansion joint," according to Lamb.

A highlight of this year's GIS for Lamb

was attending the "Bunkers: Everything You Wanted to Know and More" session. He said it was good exposure for the company.


"I'm excited that Sand Guard was referenced in this presentation," he said. "We are relatively new to this space, and many superintendents and other decision-makers aren't yet familiar with our solution."

## Nothing runs like Deere's Bert Schmidt

Possibly no one had a better Golf Industry Show than Bert Schmidt, global manager, Market Development and Strategy (Golf) for John Deere. Fresh off winning the 5K — and an untold amount of cash on the tables at the Bellagio — Schmidt held a press conference in the John Deere booth to announce that John Deere is now the official equipment sponsor of the PGA and will be sponsoring the 2021 Solheim Cup. From an equipment standpoint, Deere also had some updates.

"We're building on our technology platform that we showed GIS attendees last year," Schmidt said. "Look at what John Deere is doing in GPS technology across the entire John Deere enterprise. We continue to leverage what we've done as a company and bring it to the golf space."

The company is also building on the autonomous mower technology that the company unveiled at the 2019 John Deere Classic. Schmidt said progress has been slowed because of the pandemic and the company's inability to get face to face with customers last year. Despite the challenges of 2020, Schmidt said 2021 is looking to be a great year for John Deere Golf.

"Golf is booming in terms of participation and rounds played," he said. "There's a lot of positivity because of the game's popularity, and it's a safe game to play. You're seeing tee sheets full. Superintendents have to continue to maintain the golf course with all that play they're getting. And, a lot of them who delayed purchases due to the unknown early on in 2020? (Now), we're getting contacted for opportunities to sell some equipment." 



Deere believes its autonomous fairway mower will gain some ground in 2021, after 2020 got off to a slow start due to the pandemic.

PHOTOS BY: POROUS PAVE (TOP); JOHN DEERE (BOTTOM)





# Super Science

## // DEAD SPOT DNA

### A NEW TOOL TO ID SPRING DEAD SPOT

By Mike Kenna, Ph.D.

**B**ermudagrass is widely used as a turfgrass in warm regions throughout the world. Spring dead spot (SDS) is one of the most damaging bermudagrass diseases where cold temperatures cause winter dormancy. The causal pathogen is three fungal species of *Ophiosphaerella*, including *O. herpotricha*, *O. korrae* and *O. narmari*.


During cool temperatures, the fungi colonize the roots, stolons and rhizomes of the grass. The colonized stolons and rhizomes do not survive winter dormancy. The SDS symptoms appear as dead plants in circular patches anywhere from a few inches to 3 feet in diameter in the spring.

Weed establishment can be a problem in the dead areas and requires additional herbicide applications to reduce weed competition during bermudagrass regrowth.

Research shows that *O. herpotricha* is the most aggressive, followed by *O. korrae* and *O. narmari*. Smaller SDS patches may recover in the spring in a month, but large patches may require the entire growing season.

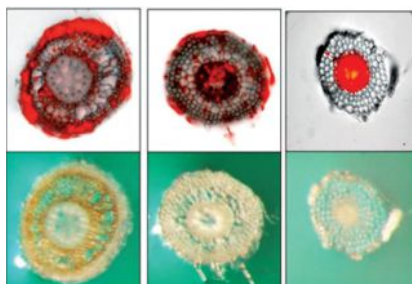
It is difficult to determine the *Ophiosphaerella* species because they seldom produce spore fruiting bodies. A correct diagnosis is needed to help turfgrass managers deal with the aggressiveness of the different species.

Researchers from Ecuador and Oklahoma State University developed a molecular assay to identify the three fungal species in the genus accurately. The team designed three pairs of DNA primers to identify fungal isolates and detect the pathogen in infected roots to achieve a species-specific diagnosis.

Results show the molecular technique can produce a unique DNA tag for each of the three SDS-associated *Ophiosphaerella* spp. The new molecular test does not detect the DNA of close relatives to *Ophiosphaerella* and common bermudagrass pathogens. This sensitive and specific molecular technique will correctly identify SDS-associated *Ophiosphaerella* spp. from field-collected roots, making this method a useful tool for timely diagnosis. 

#### Reference

Martínez, J. Francisco Iturralde, Francisco J. Flores, Alma R. Koch, Carla D. Garzon and Nathan R. Walker. 2019. Multiplex End-Point PCR for the Detection of Three Species of *Ophiosphaerella* Causing Spring Dead Spot of Bermudagrass. *Plant Disease* 103(8):2010-2014. <https://doi.org/10.1094/PDIS-10-18-1727-RE>



Colonization of a spring dead spot susceptible bermudagrass and cortical necrosis by *Ophiosphaerella korrae* (left), a tolerant bermudagrass (center) exhibiting vascular colonization by *O. korrae* and no necrosis and *O. korrae* colonization of a grass which does not produce disease (right).

## NEWS UPDATES

### RISE WELCOMES NEW REGULATORY AFFAIRS DIRECTOR

Responsible Industry for a Sound Environment (RISE) added Kristen Spatz as its senior director of regulatory affairs. She joins the association with a strong regulatory and technical background, along with manufacturing experience of various products at the Food and Drug Administration, where she specialized in quality control and quality engineering.

Spatz will be responsible for RISE's regulatory work, which includes providing strategic oversight for the development, implementation and management of effective policy strategies and tactics, and serving as the staff lead for the association's Regulatory Affairs Committee.

"Kristen's nearly 16 years' experience in regulatory affairs makes her a great addition to our staff," said Megan Provost, RISE president. "She'll enable our association to proactively and productively engage with federal- and state-level regulatory agencies and our member volunteers on regulatory priorities in the specialty pesticides and fertilizer industry."

Prior to joining RISE, Spatz worked as the manager of regulatory affairs at the Consumer Brands Association, formerly known as the Grocery Manufacturers Association, which represents food, beverage and consumer packaged goods companies.

“POST-APPLICATION IRRIGATION TIMING, AND, TO A LESSER EXTENT, MOWING TIMING, CAN INFLUENCE FUNGICIDE MOVEMENT ...”

James P. Kerns, Ph.D., et al.  
(see story on page 24)



This project was funded in part by the USGA Green Section.

## // FUNGUS FIGHTERS

# The fate of the fungicide

By James P. Kerns, Ph.D., Travis W. Gannon, Ph.D., and Cameron M. Stephens

**P**ost-application management practices (i.e., post-application mowing timing and irrigation timing) can influence fungicide fate and performance. For example, previous research found that up to 34 percent of azoxystrobin was removed in tall fescue clippings following a single mowing event one day after application.

The fate and efficacy of fungicides as influenced by post-application management practices have not been evaluated on golf course putting greens. We assessed the fate of pyraclostrobin, triadimefon and penthiopyrad following various post-application irrigation and mowing treatments. These evaluations were on a putting green constructed to USGA specifications and planted with A-1 creeping bentgrass.

Plots were treated with a single



Research provided and funded in part by USGA.

application of the fungicides and irrigated either immediately (zero hours) or six hours after fungicide application with 0.25 inch (0.64 cm) of water. We then mowed the plots at either zero, one or three days after treatment (DAT). Daily mowing resumed after three DAT.

Cores were harvested using a standard 4.25-inch cup cutter and dissected into four subsections: remaining above-ground vegetation (verdure and thatch), a depth of 0-1 inch (0-2.5 cm), a depth of 1-2 inches (2.5-5.1 cm) and a depth of 2-3 inches (5.1-7.6 cm). We homogenized samples

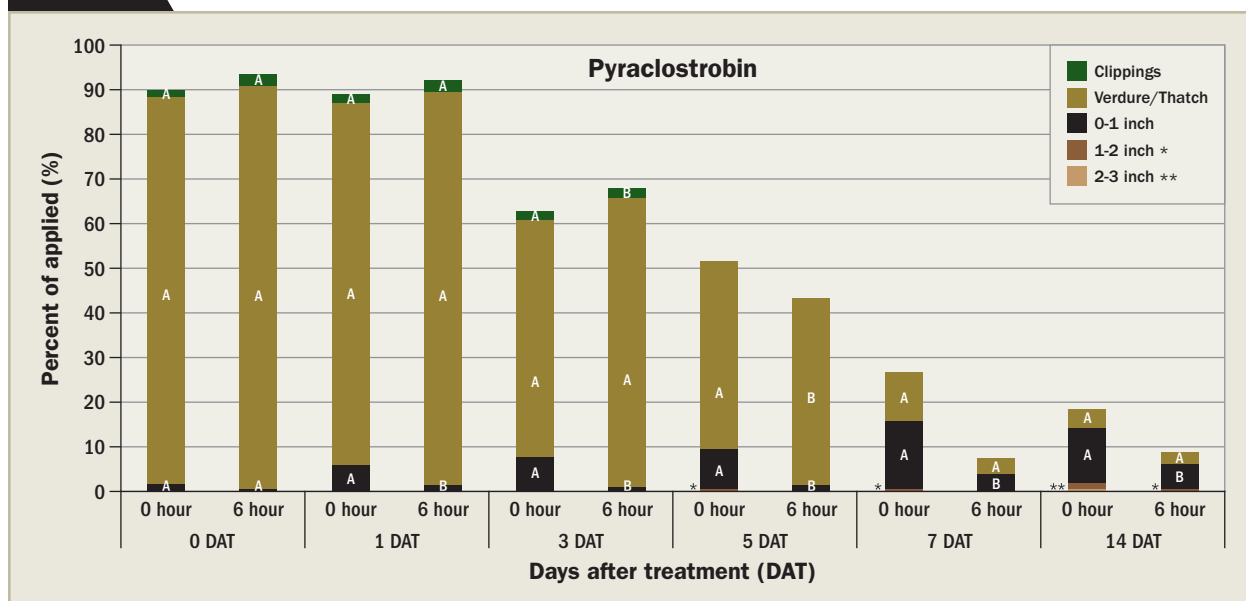
### Research Takeaways

- We found very little fungicide within removed clippings when delaying mowing events.
- It is challenging to move fungicide past the remaining verdure and thatch, regardless of irrigation treatment.
- Immediate irrigation resulted in more fungicide movement past the above-ground vegetation.
- Small differences in fungicide movement could dramatically impact the efficacy of fungicides on golf course putting greens.

using a FitzMill and then analyzed them using high-performance liquid chromatography-mass spectrometry.

For the first year of data, pyraclostrobin recovered in turfgrass clippings at zero, one and three DAT did not exceed 2.5 percent of total fungicide applied (Figure 1). Delaying mowing events post pyraclostrobin application

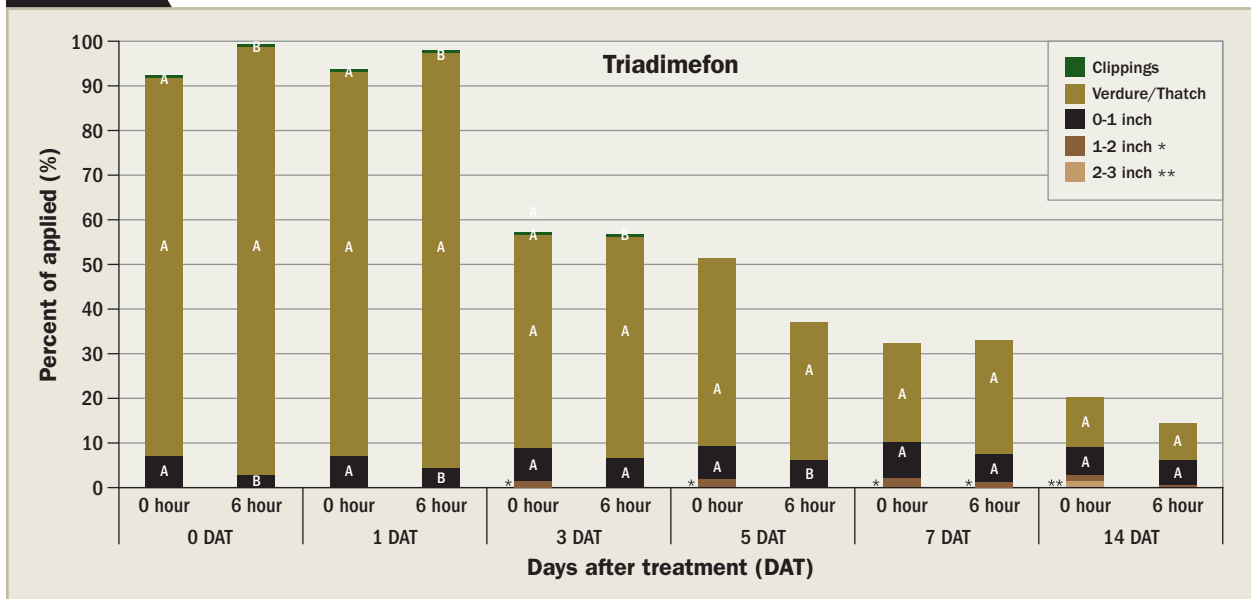
**FIGURE 1**



Influence of post-application irrigation timing on pyraclostrobin movement on a golf course putting green. Means followed by the same letter between irrigation treatments within each day after treatment at each depth are not statistically different ( $P < 0.05$ ).

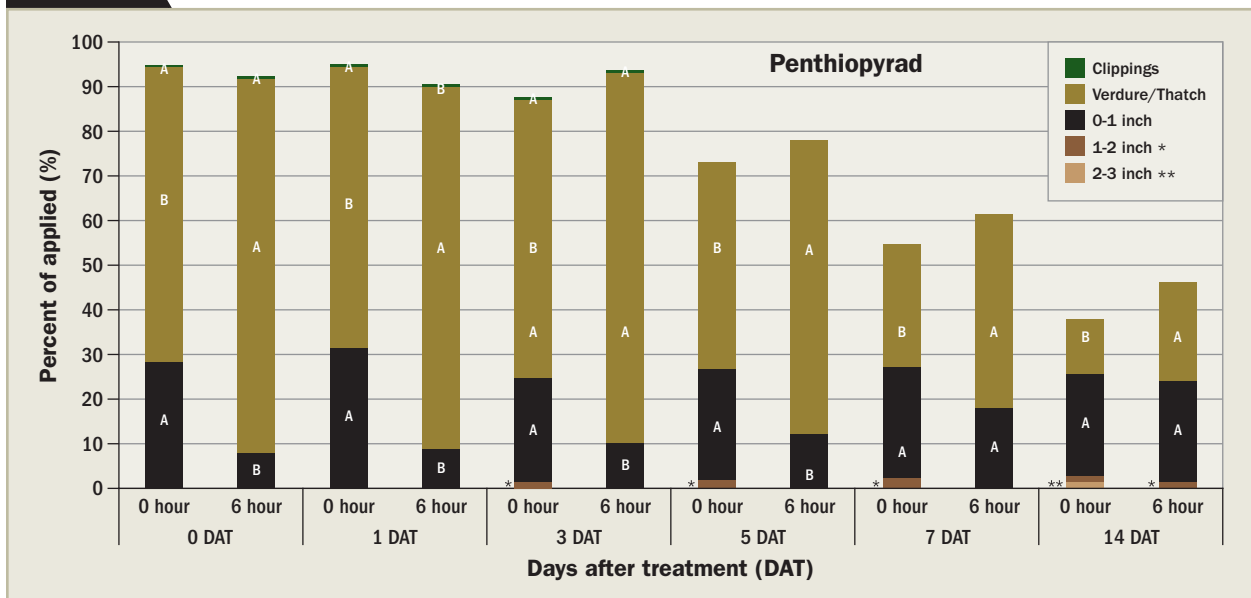


**FIGURE 2**



Influence of post-application irrigation timing on triadimefon movement on a golf course putting green. Means followed by the same letter between irrigation treatments within each day after treatment at each depth are not statistically different ( $P < 0.05$ ).

**FIGURE 3**



Influence of post-application irrigation timing on penthiopyrad movement on a golf course putting green. Means followed by the same letter between irrigation treatments within each day after treatment at each depth are not statistically different ( $P < 0.05$ ).

did not significantly influence the amount of fungicide removed with clippings.

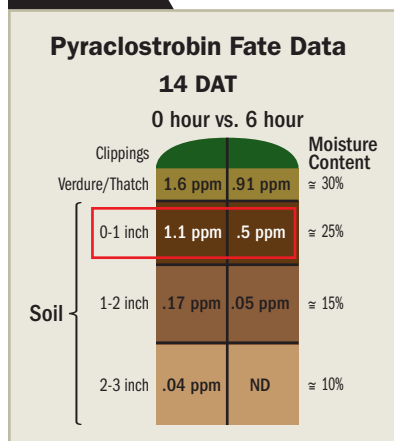
A large amount of fungicide remained bound in the verdure and thatch. However, we did observe significant

differences between irrigation treatments at and past one DAT at the 0-1-inch depth. We detected more fungicide in the 0-1-inch and 1-2-inch depth for plots irrigated immediately compared to those irrigated six hours after application.

We only detected pyraclostrobin at the 2-3-inch depth at 14 DAT for the immediate irrigation plots. A greater total amount of pyraclostrobin was in plots for later DAT (five, seven, 14 DAT) irrigated

Continued on page 26

FIGURE 4



Pyraclostrobin residue data from a sample core collected 14 days after treatment. Percent of applied data converted to ppm at each depth. An *in vitro* evaluation of *Gaeumannomyces graminis* on pyraclostrobin-amended media demonstrated that 1 ppm completely inhibits fungal growth.

Continued from page 25

immediately compared to those irrigated six hours after treatment. Immediate irrigation may have implications in residual disease control with this compound.

The movement and distribution of triadimefon over time, following different irrigation and mowing treatments, were similar to pyraclostrobin (Figure 2). Less triadimefon was removed in turfgrass clippings when compared to pyraclostrobin.

We found smaller differences between irrigation treatments in the verdure/thatch and 0-1-inch depth compared to pyraclostrobin. However, detection of triadimefon in the 1-2-inch depth occurred earlier and in higher amounts than pyraclostrobin. Detection in the 2-3-inch depth was only present at 14 DAT for plots irrigated immediately.

Post-application irrigation timing greatly influenced penthiopyrad movement (Figure 3). We saw significantly less fungicide bound in the verdure/thatch and more fungicide moving into the 0-1 inch depth for

plots irrigated immediately compared to those irrigated six hours after penthiopyrad application.

The movement and distribution of penthiopyrad over time, following different irrigation and mowing treatments, was similar to the other compounds (Figure 3). Penthiopyrad was detected in the 1-2-inch and 2-3-inch depth earlier and in higher amounts for immediate irrigation plots.

It is important to note that for all three fungicides evaluated, fungicide recovery was more than 90 percent at zero DAT, which confirms the methodology used in this experiment.

Post-application irrigation timing, and, to a lesser extent, mowing timing, can influence fungicide movement through the soil profile and fungicide removal with clippings. In our experiment, delayed mowing events did not result in less fungicide removed in clippings.

The preliminary results suggest that most of the fungicide is retained in the foliage and thatch regardless of post-application irrigation timing. However, immediate irrigation following fungicide application can move fungicide deeper into the soil where target soil-borne pathogens reside.

Our data suggest that a small difference in fungicide movement may significantly impact potential field efficacy. For example, an *in vitro* evaluation of the ectotrophic root infecting fungi (*Gaeumannomyces graminicola*) on pyraclostrobin-amended media showed that 1.0 ppm is the concentration required to inhibit fungal growth (Figure 4).

When irrigated immediately after application (zero hours), the converted percent of applied (1.1 ppm) from a sample core collected on 14 DAT provides an adequate amount of fungicide to the 0-1-inch depth and only 0.5 ppm when irrigating six hours after application. ©

James P. Kerns, Ph.D., Travis W. Gannon, Ph.D., and Cameron M. Stephens are at North Carolina State University. Please contact Kerns at [jpkerms@ncsu.edu](mailto:jpkerms@ncsu.edu).

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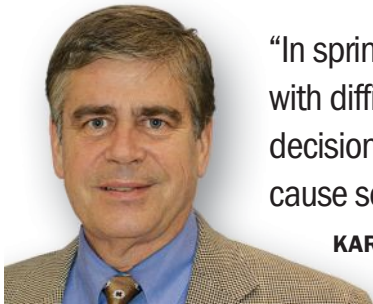
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“In spring, we are immediately faced with difficult agronomic problems and decisions that, if not addressed, can cause serious turf damage ...”

KARL DANNEBERGER, PH.D., *Science Editor*

## Shot out of a cannon

**W**ith the arrival of spring, there is always anticipation and excitement of a new season approaching. The completion of winter projects gradually gives way to daily turf management practices. The most basic management practice of mowing brings continuity and uniformity to playing surfaces like tees, greens and fairways. The flowering of ornamentals, the emergence of leaves on trees and the smell of freshly mowed turf announce the arrival of spring.

Since spring is the optimum time for cool-season turfgrasses, it should be the time for superintendents to enjoy the time and prepare for the waiting summer stress. The start of spring, however, is best described as a shot out of a cannon. In spring, we are immediately faced with difficult agronomic problems and decisions that, if not addressed, can cause serious turf damage well into late spring and early summer.

In the Northeast, just when the turf begins to grow, golf course superintendents face the annual bluegrass weevil (ABW). The ABW attacks primarily annual bluegrass but can cause damage to creeping bentgrass. The pest overwinters as an adult surviving, at least in the Northeast, along the tree lines of golf courses. From late February through April — depending on how warm temperatures are — ABWs migrate to annual bluegrass greens and fairways where the adults lay their eggs in the stem of the plant. The eggs hatch, and larvae emerge feeding down through

the stem and crown. Symptoms of ABW damage manifest themselves with environmental stresses like temperature and moisture and increased wear injury as the season progresses.

The weevil was first reported as a turfgrass pest 90 years ago in Connecticut and subsequently throughout New England. In the 1960s, the ABW found its way through New York and into Pennsylvania in 1970. Since the 2000s, it has been reported in the mid-Atlantic area, including Virginia and western North Carolina through Ohio.

Given the shortness of its legs, I doubt if the ABW spread into various regions and states by walking down highways and streets. More likely, the weevil was already present and either not noticed, ignored or misdiagnosed. Or, it might have hitchhiked in transported sod or by other means, which may contribute to its sporadic establishment.

In areas like Virginia, western North Carolina and central Ohio where the

ABW is not well established, early monitoring is required. Monitoring identifies if the ABW is present or not and in what numbers. The severity of ABW is related to the number of adults in the spring laying eggs. The more larvae that hatch, the more damage can be expected.

A significant means of reducing the ABW damage is to target the adult weevil with insecticide applications in the spring. Various growing degree day models are available that can help target adult control. Monitoring the ABW in the spring is key to its control.

Roughly around the same time as concern with ABW is arising, farther south, into the adaptive range of warm-season turfgrasses, large patch is occurring. Large patch appears roughly when warm-season turfgrasses are beginning to break dormancy. The disease is not a serious problem on bermudagrass.

Bermudagrass will often grow out of the damage and symptoms. However, in warm-season turfgrasses like seashore paspalum, zoysiagrass and St. Augustinegrass, the symptoms can last for several weeks.

Large patch often occurs in the fall at the time warm-season turfgrasses are beginning to enter dormancy. Fungicide applications for controlling large patch work effectively when applied preventively during the fall. Fungicide applications in the spring often fall into repeat applications and in the end, are not very effective.

The difficulty of both the ABW and large patch is that chemical applications are needed for control. In a sense, the discouraging part is the treatment need and expense — especially in case ABW control is required at the beginning of spring. So, right out of the gate, golf course superintendents need to be at the top of their game. **G**

Karl Danneberger, Ph.D., *Golfdom's* science editor and a professor at The Ohio State University, can be reached at [danneberger.1@osu.edu](mailto:danneberger.1@osu.edu).



**While spring dead spot symptoms** show up after green-up, key control happens in the fall.

# Start spring on track

Experts share how you can help give your turf a leg up during green-up when it comes to spring dead spot on bermudagrass

It's almost spring again, and many superintendents across the country will start to see signs once again of the annual foe: spring dead spot. Nathan Walker, professor of turfgrass IPM and turfgrass pathology at Oklahoma State University, offers some tips to help turf recover and provides recommendations on what to do in the fall.

First, Walker says, take photographs. This will help superintendents remember precisely where spring dead spot-prone areas are so they can treat them with appropriate fungicides in the fall.

Second, spring dead spot areas will be prone to weeds. It's important to choose herbicides that won't slow down turfgrass recovery. Also understand that anything done to help turf recover, whether that's fertilizing or watering, can also help those enterprising weeds take hold.

"If they didn't have a preventive herbicide application down, they can get weed encroachment in those dead spots because there is nothing there to compete with the weeds," he says.

In the fall, it's critical to get fungicides into the root zone quickly. The first application should begin as soon as root zone soil temperatures hit the mid- to lower 70s for a few days. Apply fungicides in high volumes of carrier water, 2 or more gallons per 1,000 square feet. He says it might be a good idea to have someone apply the fungicides and have another crew member quickly water them in to help get them into the root zone. He recommends making a second application about four weeks after the first.

"I recommend they (apply fungicides) early in the morning when there is a heavy dew present because that takes advantage of even more water," he says. "You want the fungicide watered in as quickly as possible. When you're trying to target a soil-borne disease, you've got to get the fungicide into the root zone. You really don't want that fungicide bound up to the leaf surface. You want to get it into the soil so that those roots can take it up." ©

PHOTO COURTESY OF: PEIGGORDON



## FMC Specialty Solutions

### KEN HUTTO, PH.D.

Product development manager,  
herbicides/fungicides



In spring, management practices to encourage lateral bermudagrass growth from surrounding areas are important.

Certain preemergence herbicides can inhibit rooting of bermudagrass stolons in dead areas, therefore slowing down the recovery of infected areas. Cultural practices like core aeration, sand topdressing and verticutting will encourage root growth and minimize thatch buildup. Properly time preventive fungicide applications in fall. Applying a preventive fungicide too early in fall or not applying sufficient irrigation after application may lead to less effective control. The pathogens associated with spring dead spot are soil-borne pathogens that colonize bermudagrass when soil temperatures are below 70 degrees F. There are three main *Ophiosphaerella* species associated with spring dead spot. Research has reported these species can respond differently to certain fertility programs.

## Quali-Pro

### IAN RODRIGUEZ, PH.D.

Technical services manager



If you have spring dead spot this spring, be sure to take notes on where it was most severe if you don't have that already mapped. This will allow for more targeted use of fungicides next fall rather than blanketing larger areas. During the peak bermudagrass growing months, any practices that help promote a more vigorous root system and overall turf health going into the fall can help mitigate severity next year and speed up recovery. Balanced fertility, core aeration, thatch reduction and good soil moisture management can make a real difference.

## PBI-Gordon Corp.

### BRIAN AYNARDI, PH.D.

Northeast research scientist



Know where the problematic areas are on your golf course and make preventive applications for control with isofetamid. Best results are observed with two applications at rates less than 1.0 fluid ounce of product per 1,000 square feet per application. The first application should be timed when soil temperatures at the 2-inch depth are 70-72 degrees F for three to five consecutive days, with the sequential application at the same rate occurring 21-28 days thereafter. You are not going to overwater a fungicide through the root zone because nearly all fungicides used for control of the pathogen(s) do not move down through the soil more than a few inches. Make sure to initiate post-application irrigation immediately following the application. Irrigation amounts in excess of 1/8 inch are desirable.

## Bayer

### ROB GOLEMBIEWSKI, PH.D.

Green Solutions Team member



Spring dead spot (SDS) is a root disease of bermudagrass that is most problematic in the Transition Zone where bermudagrass experiences winter dormancy and greater potential for freezing injury. SDS is a perennial disease with symptoms reoccurring in the same location every year if left untreated. Cultural management practices include improving drainage for optimal root growth and reducing thatch through vertical mowing and aeration. Fungicides are needed to maximize control. Initiate applications for SDS in the fall when the average soil temperature at a 2-inch depth falls below 75 degrees F. Make a second application 28 days later. Fungicides should be lightly watered in (0.25 inch) to move the product off the leaf tissue down into the plant crown and upper root zone.

# (Chinch) bugging out

By Abby Hart

**C**hinch bug damage in the southern U.S. was long thought to be a severe problem in mostly St. Augustinegrass and zoysiagrass, but ask Jim Kilgore, golf course superintendent at The Dye Preserve in Jupiter, Fla., and he'll tell you that these critters aren't quite so picky.

"I have more damage in my Celebration bermudagrass fairways and rough than in my St. Augustine (rough) right now," Kilgore says. He says the end of July and August and the early fall are when chinch bug damage is at its worst.

"Chinch bugs are known to be more of a residential lawn pest, but the past couple years, we've seen more incidences of chinch bugs damaging golf course turf," says Adam Dale, Ph.D., assistant professor of entomology and nematology at the University of Florida.

There are three species of chinch bugs considered pests of turfgrasses in the U.S.: the southern chinch bug in the South; the hairy chinch bug in the northern U.S.; and the western chinch bug in the West. According to Dale, the damage, feeding profiles and management strategies for all three are very similar.



Adam Dale

Drought and full sun conditions promote chinch bug abundance and damage, and proper irrigation and maintaining proper soil moisture and turf health are

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**Left:** Chinch bug damage on a south-facing slope at a Pittsburgh-area golf course.



**Right:** A closer look at the *Blissus insularis*, the southern chinch bug.

**"Chinch bug populations have developed resistance to at least four chemical classes in Florida alone."**

the best practices to keep the bugs at bay.

Fertilization is also a factor to consider. "Research has shown that nitrogen fertilization rates are positively correlated to chinch bug abundance — so I would tell superintendents to be mindful of how much nitrogen they're putting out," Dale says.

The type of infestation dictates the best control option. Systemic neonicotinoids are best if chinch bugs are present without severe damage, and if both

chinch bugs and damage are present, Dale recommends a pyrethroid or other broad-spectrum products. A combination product with a neonicotinoid and a pyrethroid can provide rapid knockdown of the pest population and residual control from the systemic, he says.

Dale adds that chinch bug populations have developed resistance to at least four chemical classes in Florida alone — so rotating chemical classes is important.

At The Dye Preserve, after trying a number of products, Kilgore now uses a granular product with pyrethrin.

"I usually tell my guys when applying (insecticide) to go 3 feet outside the (damaged) area because (the bugs) work their way out into the good grass," Kilgore says. And, he says, timing is everything.

"When chinch bugs destroy an area, it takes double the time than normal for the grass to come back," he says. "Just stay on top of it — a spot can go from the size of five-gallon bucket to the size of a cart in a matter of days." ©

PHOTOS BY: MIKE AGNEW, PH.D., SYNGENTA (LEFT); LYLE BUSS (RIGHT)





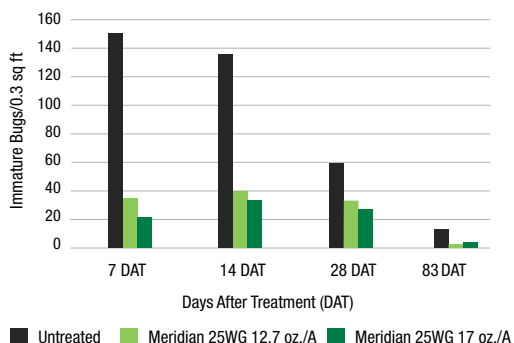
# Tips for managing invasive chinch bugs

By Matt Giese, technical services manager for Syngenta

Chinch bug damage often isn't noticed until hot, dry spells occur during the summer. Adults and nymphs can cause damage that looks like drought or moisture stress in early-to-late summer.

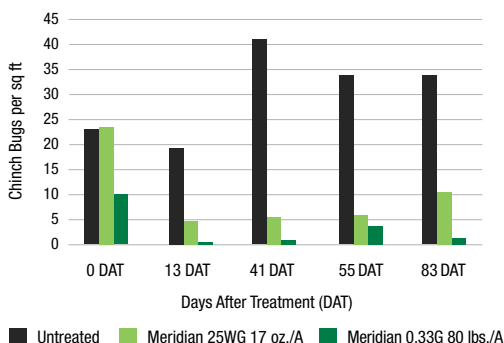
After the eggs hatch, nymphal instars and young adults can be found on cart paths or foundation walls. Once they feed on turf, they are difficult to find, hiding deep in the turfgrass canopy and thatch.

## NORTHERN CHINCH BUG CONTROL



Source: Baxendale, Nebraska, 1999

## SOUTHERN CHINCH BUG CONTROL IN ST. AUGUSTINE GRASS



Source: Clemson University, 2013

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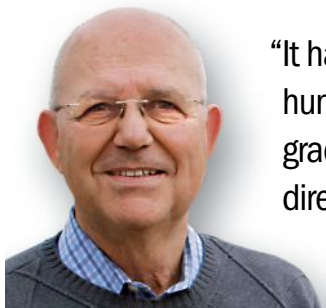
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"It has been an honor to work with hundreds of professors, staff and graduate students during my time as director of Green Section Research."

**MIKE KENNA, PH.D.,** *Research Editor*

# Thank you is not enough

**I**t was a pleasant surprise when GCSAA President John Fulling called me to share the news that I would receive the 2021 Colonel John Morley Distinguished Service Award. Thank you, John and the GCSAA board of directors, for selecting me for this award.

I want to take a few minutes to recognize the people who have guided me throughout the years.

My biology teacher, John Salyer, saw my interest in science and encouraged me. He even hired me to work in his sideline taxidermy business.

While working with the GCSAA staff on my background, I learned about the passing of Dave Fleming, the superintendent at Singing Hills Golf Resort, who hired me when I was 15 years old. Dave encouraged me to go to California State Polytechnic University (Cal Poly), Pomona, to study how to become a golf course superintendent. Thank you, Dave; rest in peace.

At Cal Poly, Dr. Kent Kurtz gave me the push to attend graduate school. He put me in touch with Dr. Wayne Huffine and Dr. Charles Taliaferro at Oklahoma State University. I owe a lot to these professors, especially Dr. Taliaferro, who has mentored me

throughout my career. Thanks, Doc!

After graduating with my Ph.D. from Oklahoma State University, Dr. Milt Engelke took a chance to hire me on his USGA Zoysiagrass research grant at Texas A&M University.

While working for Dr. Engelke, I had the pleasure of meeting Bill Bengeyfield, national director of the Green Section, and Dr. Jim Watson, vice president of research with the Toro Co. Bill and Dr. Watson both shaped my career, as well as many others, and deserve our gratitude.

After working two years for Dr. Engelke, I was fortunate to get back to Oklahoma State University as the state turfgrass Extension specialist. I was reunited with Dr. Taliaferro, who had just received a USGA grant to breed cold-hardy bermudagrass for golf courses. By the way, seven game-changing cultivars were developed by his breeding program.

In 1990, I left Oklahoma State University to take a USGA Green Section agronomist job in Florida under John Foy. Before starting the job, the new national director for the Green Section, Jim Snow, asked me to be the Green Section Research Program director.


It was sad news to hear about Jim's passing in November. He was my boss, but also a good friend.

The next 30 years went by too quickly. We are fortunate to have the most outstanding agricultural universities in the world. It has been an honor to work with hundreds of professors, staff and graduate students during my time as director of Green Section Research.

A big thank you to all of you who did excellent research. Without you, I could not have been successful!

I want everyone to know that the USGA Turfgrass and Environmental Research Committee was instrumental in guiding this monumental program. I believe its members helped change the importance of turfgrass research and Extension programs at our land grant universities. Thank you all for your service as USGA committee members!

I want to thank the Green Section staff, who were terrific colleagues during my years of service with the USGA; what a great group of professionals to work with each year.

Last, my thanks go out to all golf course superintendents. You are the ones who take the research and turn it into the beautiful golf courses we can enjoy. Thank you for what you provide to golf! 

Mike Kenna, Ph.D., is the retired director of research, USGA Green Section. Contact him at [mpkenna@gmail.com](mailto:mpkenna@gmail.com).



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[DryJect.com](http://DryJect.com)

## 3 | John Deere TX Work Series Gator UTVs

The **JOHN DEERE** TX Work Series Gator utility vehicles are designed to power through any job, according to the company. Equipped with four-wheel suspension, the models offer a smooth ride no matter what is being hauled. Composite sides can be removed to convert the box to a flat-bed mode that's ideal for carrying large objects.

[Deere.com/golf](http://Deere.com/golf)





4



5



6

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### 4 | PondHawk

PondHawk from **LINNE INDUSTRIES** is a solar-powered subsurface aeration system that delivers low-maintenance pond maintenance. Using the power of the sun (even on cloudy days), PondHawk needs no electricity, so operating costs are minimal. PondHawk is quiet, tamper-resistant and environmentally friendly. By using subsurface aeration, PondHawk improves water quality, reduces odors and encourages decomposition of organic matter with aerobic bacteria.

[PondHawk.com](https://PondHawk.com)

### 5 | Kioti K9 2400 utility vehicle

The **KIOTI** K9 2400 offers an abundance of storage, an ergonomic design and contemporary styling. The 24-horsepower, three-cylinder diesel engine — which makes way for ground speeds up to 31 mph — allows operators to tackle any task with strength and efficiency, Kioti said. The K9 2400 has a 1,102-pound capacity, a standard spray-in liner and an optional hydraulic dump kit. It comes standard with in-dash storage as well as power and USB sockets.

[Kioti.com](https://Kioti.com)

### 6 | Turfco WideSpin 1550 Topdresser

The **TURFCO** WideSpin 1550 was designed to help superintendents achieve agronomic goals, increase staff productivity and free up time, according to the company. It comes with Turfco's patented hydraulic system and spinner design. Superintendents can reduce up to 720 passes per year and minimize turf traffic to achieve the most playable golf course, Turfco said. It's available in truck-mounted and tow-behind models with engine or hydraulic power options. Users can choose between standard electronic control or upgrade to the digital Smart Controller.

[Turfco.com](https://Turfco.com)

# The 19<sup>th</sup> Hole

## Joey Franco

**CGCS, DIRECTOR OF AGRONOMY** // Daniel Island Club, Charleston, S.C.

**After 18 holes, what can I get you?** A Corona Light.

**How long have you been there at Daniel Island Club?**

I started here in December of 2018. It's been a busy two years, to say the least. Daniel Island is 36 holes. We have a Rees Jones design and a Tom Fazio design. We think we're the only club in the country that has those two architects at one facility. It's a very healthy, good club. Our membership has grown considerably over the last year and a half.

**Do you have a family?** I do. Peyton and I have been married for 12 years. We have a 9-year-old son, and we just had a baby girl six months ago. She lights me up every day with that smile. We didn't know we could have a second child and the man above blessed us. My son was so

excited. When he was 4 years old, when he'd pray at night, he'd pray for a sister or a brother. So, when she came along, he was so happy.

**What's your favorite tool in the shop?**

My favorite is the (FieldScout) TDR (from Spectrum Technologies). We use TaskTracker. I'm a big data guy; I like to see the numbers. I don't like to bombard the guys on the radio and ask what they're seeing. Everything is on my phone. I can see where the moistures are for the day. The TDR is the No. 1 tool for what we do on the golf course.

**What's the strangest thing you've found on the golf course?** Recently, I found an ATV, a Mule, flipped over on

our eighth fairway. Some kids stole it from a construction site down the road. It didn't do too much damage. They did a few donuts and then quickly flipped it, or it would have been much worse.

**What teams do you root for?** My money goes to Penn State, but my blood bleeds orange and blue. I'm an Auburn Tiger fan, but I did not graduate from there. I graduated from Penn State through its World Campus program.

**What's something you've bought that has paid for itself?** My golf cart at home. We can take it anywhere in our neighborhood, and there are so many stores nearby. I take my son fishing in the neighborhood. We have a bunch of ponds. We just hop in and go.

**What's the best thing about living in Charleston, S.C.?** The weather. There's so many things you can do down here. Golf, fish ... I love the beach. I can make a phone call and be fishing within 20 minutes. Just this past weekend, I hosted a shrimp boil and oyster roast. Oh man, I'm telling you! We got the food local, cooked it ourselves, and it was awesome.

As interviewed by Seth Jones, Jan. 22, 2021.

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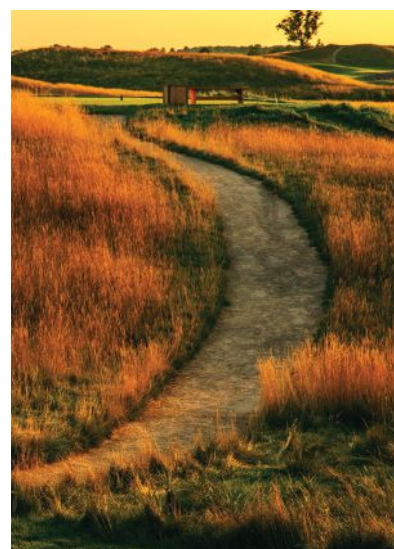
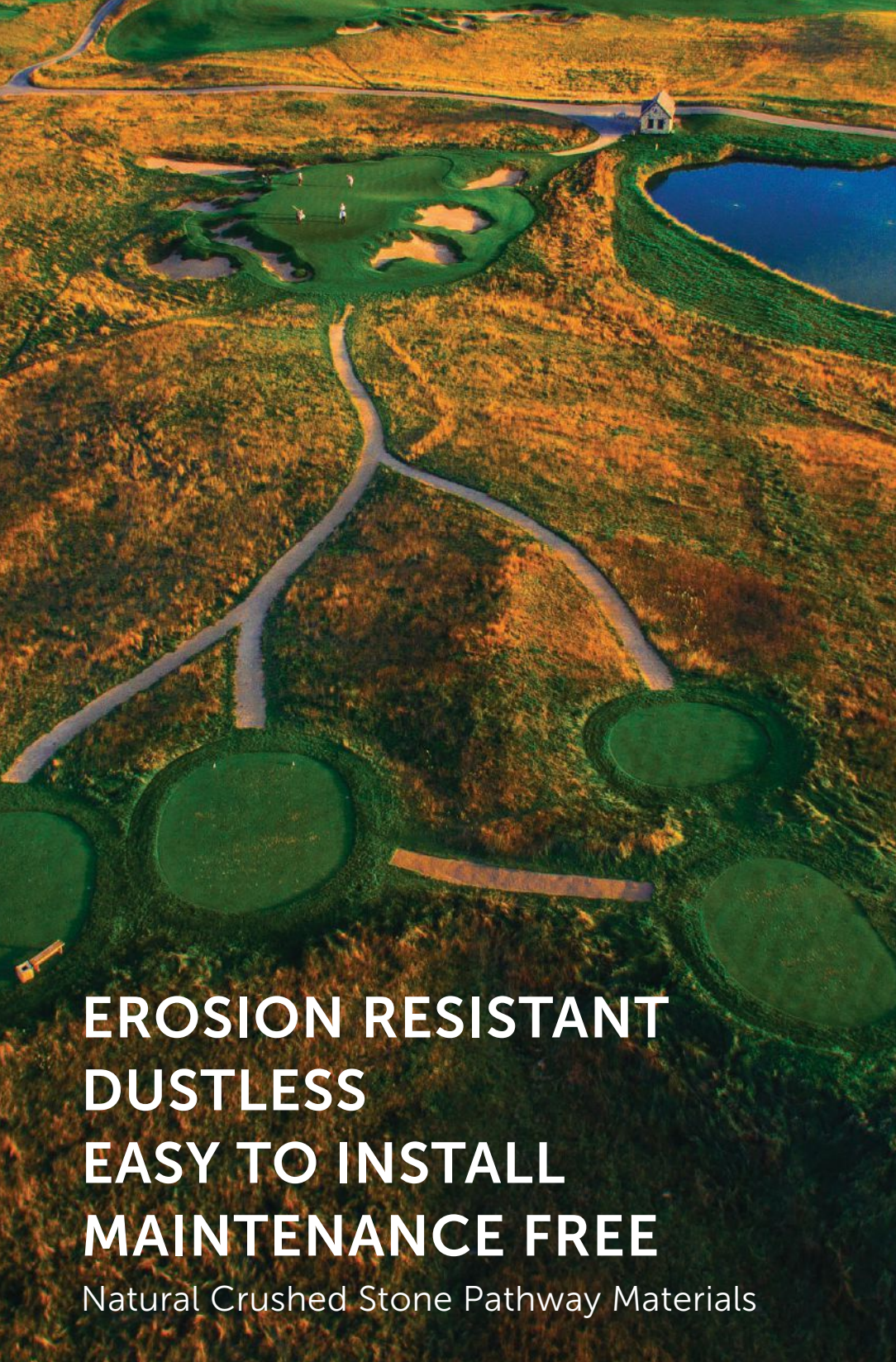


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