

# Golfdom<sup>12.19</sup>



## STATE OF THE INDUSTRY

Chapter presidents from across the U.S.  
report on the year that was and  
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Chapter officials from across the U.S. report on the year that was and what they expect for 2020

## STATE OF THE INDUSTRY



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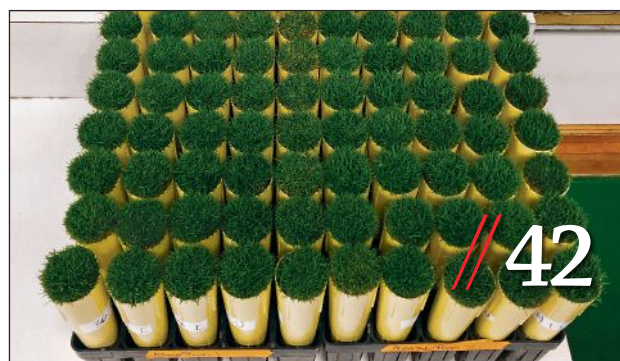
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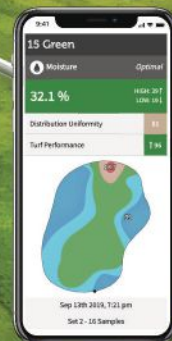
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“... it is the end of 2019, and it’s a good time to reflect on the year that was ... I’d like to play along with the same questions we asked various chapter leaders for the State of the Industry report ...”

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

## Maybe it’s the mirror

**I**t’s been a hectic few weeks for the Joneses, as we recently moved. After 10 years of living in a small town of 6,000, we upped and moved the family to the country. Today a neighbor literally rode his horse from the prairieland across the road into my driveway to introduce himself and welcome me to “the neighborhood.”

It was surreal speaking to someone up so high on his horse (now I know where the saying comes from) but also very cool. And good news: everyone is so nice out here. The neighbor invited me to bring our two kids over to see his horses whenever convenient.

But I do think the move, and 2019 in general, has aged me. On Sunday, I spent time working on the yard — raking leaves, picking up branches, burning the pile — and I sat there and smoked a cigar while I watched it burn. I came inside, smelling terrible, and looked in the mirror. I was shocked at how old and disheveled I looked. I’ve only been living in the country for a little over a month and I al-

ready look like Ted Kaczynski?

I complained out loud and my wife said the sweetest thing: “Maybe it’s the mirror.”

I can promise you it is not the mirror. But it is the end of 2019, and it’s a good time to reflect on the year that was. Our State of the Industry report, detailing what superintendents experienced in 2019 and are forecasting for 2020, is included in this issue. Also, a 13-month calendar celebrating 2020 with dozens of golf course dogs is packaged with this issue.

I’d like to thank our sponsors of these two bonus items for making them possible — Nufarm, John Deere and Rain Bird — and I’d also like to play along with the same questions we asked various

chapter leaders for the State of the Industry report ...

**How was the golf season in your area?** Beautiful. The best golf I played was with my son Boyd on the new land. We created a four-hole track that loops around the house. I guess the Some Guy’s Backyard team featured in the October issue made an impression on me.

**How was the weather for your area?** No spring, no fall. My two favorite seasons. I want a refund.

**What was the disease pressure like?** If I keep smoking cigars by a burning pile of yard waste on the weekends, it is increasing.

**What was the biggest challenge you faced this year?** I had to deal with a

lot of first-world problems. For example, the distance from the media center to the first tee at Pebble Beach Golf Links? That was a heck of a walk. Also, generally speaking, there’s so much to do and so little time to do it. Why does time keep moving faster?

**Were there any notable success stories this year?**

We had a lot of great news at *Golfdom*. We welcomed a new addition to the family (Senior Editor Abby Hart and her husband, Chris, welcomed baby Leo in August), and two staffers, Jake Goodman and Clara McHugh (née Richter), married Katie and Joe, respectively. We hired a talented new editor in Christina Herrick. The magazine had a successful year, thanks to our loyal readers and advertising partners. The *Golfdom* Summit, in its ninth year, celebrated its biggest year ever — 20 partners and 45 superintendent attendees. And it’s hard to believe I’m entering my ninth year with the magazine, which is a real honor.

**What are your expectations for 2020?** I’m optimistic, for multiple reasons. I have a great team in place. Readers trust us. And I’m looking forward to overusing 20/20 puns next year.

Reflecting on 2019, it really was a good year ... even if the reflection in the mirror doesn’t look so good. **G**

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THE LEADER.

# Starter

NEWS, NOTES AND QUOTES



## // WELCOME TO THE CLUB

### FRANK SIPLE INDUCTED INTO GEORGIA GCSA HOF

BY SARAH WEBB // Associate Editor

➔ Frank Siple, CGCS, “didn’t know greens mowing from window washing” on his first day on the job at Northwood Country Club in Lawrenceville, Ga., in 1971.

Siple has since been inducted into the Georgia Golf Course Superintendents Hall of Fame Nov. 4 at the Georgia GCSA’s annual awards banquet at Jekyll Island Resort.

Siple was traveling with his wife, Sherry, when he received the news.

“It was a humbling and exciting conversation. To now be included in a group with many of whom I consider my heroes, that means a lot to me,” Siple says.

After working at Northwood Country Club for three years, he became golf course superintendent at Idle Hour Country Club in Macon, then owned and operated his own landscape com-

pany for seven years.

He moved back into the golf course business at Lake Arrowhead Yacht and Country Club in Waleska, then Royal Lakes Golf and Country Club in Flowery Branch. He became a certified golf course superintendent in 1993. From 1997 to 2011, he was at Lanier Golf Club in Cumming, then joined the Corbin company. Siple officially retired in the summer of 2018.

“I was always taught by my parents that effort and hard work pay off,” he says. “It’s the willingness to do a project when the funds are provided, and even when they’re not, to improve the golf course.”

He volunteered at nearly 50 tournaments over his career, including The Masters and qualifying events such as the U.S. Amateur, the U.S. Mid-Amateur and Georgia GCSA state events.

Frank Siple (middle) with his Distinguished Service Award, presented by past U.S. Open champion Jerry Pate, left, and Jamie Pate, of the Jerry Pate Co., right.



## // A NEW OWNER IN TOWN

### HARRELL'S ACQUIRES KOCH'S POLYON BRAND

Harrell's has acquired the Polyon brand from Koch Agronomic Services.

Polyon is a fertilizer with a reactive coating technology that diffuses nutrients based on soil temperature and coating thickness. Under the agreement, Harrell's also will custom manufacture Polyon for Koch Agronomic Services, which will continue to hold exclusive rights to Polyon in certain international markets.

The sale, which was effective at the close of business Nov. 15, includes the Polyon controlled-release fertilizer brand and related technology, patents and manufacturing capability. More than 70 veteran team members from the landmark Sylacauga, Ala., Polyon production facility have become Harrell's employee-owners.

“This is a great day for Harrell's,” said CEO Jack Harrell Jr. “We’ve always wanted to own Polyon, and finally the time was right for everyone. Now we’re going to do everything we can to bring this superb technology to more customers and markets.”

## // STAPLES TAKES ON THE SQUIRE

### PGA NATIONAL RESORT RETAINS STAPLES GOLF DESIGN

The Palm Beach Gardens, Fla.-based PGA National Resort & Spa retained Staples Golf Design, a golf course architecture firm located in Scottsdale, Ariz., to lead a reimagination of its Squire Course.

One of five distinct 18-hole courses on property, The Squire was designed by the duo of Tom and George Fazio and hasn't gone through a significant update since opening.

Staples Golf Design formed in 2002 and is an award-winning national leader in sustainable golf course design services that helps golf courses increase their efficiency, become more profitable and instill local pride in the game of golf.

“I’ve watched tournaments on this property since I was a kid, so it’s a real honor to be working here,” said Andy Staples, the firm’s president. “We’ll be coming up with an innovative solution that addresses golf’s future, and that’s really exciting. You’re going to want to keep an eye on this project.”



Green Start Academy presenters, L to R: Billy Weeks, Matt Fauerbach, Lukus Harvey, Pat Finlen, Carlos Arraya, Shelia Finney, Grant Murphy, Carol Rau and Dan Meersman.

## // YOUNG LEADERS UNITE

# 2019 Green Start Academy recap

BY SARAH WEBB // Associate Editor

➔ If leadership and development were at the forefront of the Green Start Academy, connection with industry peers served as the overriding theme.

Co-hosted by Bayer and John Deere, the event was held at the Bayer and John Deere facilities in North Carolina Oct. 23-25.

While much of the programming remained similar to that of past years, more time was added for attendees to network with one another.

“(The Green Start Academy) will expand your network, and you’ll meet a lot of individuals like yourself, people in the same position,” says Sean Nolan, East Course and West Course superintendent at Oak Hill Country Club in Rochester, N.Y. “It’s good to collaborate with your peers, and the turf industry is unique in that everyone is rooting for each other.”

Terrance DiLoreto, assistant su-

perintendent at Canterbury Golf Club near Cleveland, Ohio, agrees.

“Unless I’m volunteering at a tournament or at the Golf Industry Show, I don’t really get to meet new peers. So, just being able to add people into my contacts for future reference is invaluable,” he says.

The speakers for the event included Lukus Harvey of Atlanta Athletic Club; Dan Meersman of Philadelphia Golf & Cricket Club; Grant Murphy of Barrie Country Club; Carlos Arraya of Bellerive Country Club; Pat Finlen of Winchester Country Club; Billy Weeks of the Country Club of Houston; Matt Fauerbach of Billy Casper Golf; and Carol Rau of Career Advantage Golf. The topics ranged from people management to interview skills.

“The mentors there weren’t scared to tell the whole room their mistakes and what they’ve done,” DiLoreto says. “They want to see you succeed.”

## // PLAYER WINS BIG

# PLAYER TO RECEIVE 2020 OLD TOM MORRIS AWARD

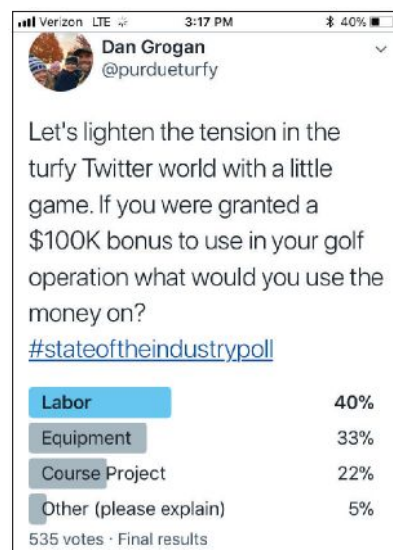
Golf legend Gary Player — one of five men to win the career grand slam, and the namesake of The Player Foundation, which has raised millions of dollars globally for underprivileged children and education — will receive the 2020 Old Tom Morris Award from the Golf Course Superintendents Association of America (GCSAA).

Player, 84, is among an elite group of golfers who have won all four majors. The others are Gene Sarazen, Ben Hogan, Jack Nicklaus and Tiger Woods. The winner of nine major championships, Player’s road to the career grand slam started when he won The Open Championship in 1959. He went on to win the Masters in 1961 and the PGA Championship in 1962, and he completed the grand slam in 1965 at Bellerive Country Club in St. Louis at age 29.

The OTM Award has been presented annually since 1983 to an individual who, through a lifetime commitment to the game of golf, has helped mold the welfare of the game in the manner and style exemplified by Old Tom Morris. The OTM Award will be presented Jan. 29 during the Opening Session of the Golf Industry Show in Orlando.

“I have tremendous respect for all the fellas and ladies and all the staff that get up early in the morning and prepare a golf course for members. They do an incredible job,” Player said.

## @ AS SEEN ON TWITTER



# Golfdom Gallery



**1 Start 'em young** Paul Culclasure, CGCS at Kilmarlic Golf Club, Powell's Point, N.C., says his daughter Carson (age 3) is already determined to follow in her dad's footsteps ... she's off to a good start, based on her reading material!



**2 Smile for the selfie** What better way to pass the time during a bus ride than to take a selfie? That's what these ladies did on the way to Bayer's facility during the Green Start Academy. From bottom left: Carol Rau, Career Advantage Golf; Elizabeth Holmes, Metuchen G&CC. From top left: Sarah Webb, Golfdom; Morgan Taylor, Peninsula Golf & Racquet Club.



**3 Wedding bells** Congratulations to the newlyweds, Jake and Katie Goodman (center)! Joining them on their big day from the Golfdom team was (L to R) Kevin Stoltman, Bill Roddy, Craig MacGregor and Seth Jones.



**4 Leaders in the making** After eating a filling lunch at the Bayer Pavilion during day two of the Green Start Academy, the Green Start class of 2019 was all smiles.

PHOTOS BY: PAUL CULCLASURE (1); ELIZABETH HOLMES (2); JOHN DEERE (4)



“Correct and forgive mistakes made on the golf course, as we must forgive people for hurting us, either personally or professionally.”

**CARLOS ARRAYA**, CGCS, Bellerive CC, St. Louis

## King of Action

**T**he snow is falling (at least at my house in St. Louis), the holiday music is blaring, the department stores and the internet have fully activated their best ads.

The new ads and creativity are great marketing strategies designed to make you feel the holiday spirit and spend a share of your hard-earned dollars on the advertised products.

The holidays are the last mile marker of the calendar year, but the end of 2019 represents only another year in our rearview mirror, not lessons to be forgotten. However, do not be saddened. A new year also signals the time for spirited resolutions that focus on new goals, ambitions and action. Resolutions will soon pour out of our souls as the new calendar becomes the starting line for immediate personal and professional improvements.

I am inspired by so many of you as I watch with admiration the start of new adventures and how you sustain your commitments throughout the year. Because a new year invokes inspired activity (action), here's a question for

you. What is your Old Year and New Year King of Action?

The question and its answer are full of unknowns. To save time, allow me to pass along my thoughts on action. In fact, take a minute and think of actions you have performed this year at your club or in your sales role. While you are processing, I'll share the ranking of my 2019 Top 5 actions (most likely many will appear on your list in some form). You'll also get my 2019/2020 King of Action.

**Ranked No. 5 on my list is SUPPORT.** More than half of emails or calls to me are asking to provide support to others at the club or for staff (Easy one).

**Ranked No. 4 is SHARING.** Each day you are sharing time

with professionals and hard-working staff. Sharing the appreciation of time — which never is returned to you, or them for that matter — makes this a must rank.

**Ranked No. 3 is COMMUNICATION.** Communication was once the King of Action. Don't allow the slippage in rank to fool you into believing it's less important. My resolutions from year to year have allowed me to refine leadership.

**Ranked No. 2 on my list is FORGIVENESS.** All of us deal with high demands and a desire for perfection, all while both managing a living, breathing organism (your golf course) and leading living, breathing organisms (your people). Correct and forgive

mistakes made on the golf course, as we must forgive people for hurting us, either personally or professionally. Forgiveness is vital to living a well-balanced and healthy lifestyle.

Before sharing the King of (leadership) Action for 2019/2020, review this year before the end of 2019 and before you sit at the starting line for 2020. With pen and paper in hand, rank the leadership action words that best describe your year. Find the ones you desire to carry forward, and if you truly want to test your mettle, ask a peer to rank them with you.

When you support, share, communicate and forgive, there's still one thing left to do. It not only allows my other actions to be fully activated, it focuses all my human senses. The King of Action allows me to not only hear, but to listen. For me, the King of Action is *SILENCE*. I'm no longer afraid that I've not responded to a request or a message. If it doesn't benefit me or the team, I remain silent until I've prepared the appropriate plan of action.

I am grateful in my personal life that silence has enlightened me and shown me the appropriate path. To all of you, my friends, peers and mentors, Happy New Year, and best of luck defining your King of Action! 🙏

Carlos Arraya, CGCS, is director of grounds and agronomy at Bellerive Country Club in St. Louis. Follow him on Twitter at @carrrayacgcs.



# ZEROING IN ON ZOYSIA

This turf was stealing headlines just a few years ago.  
Where does it stand now?

**BY SHANE SHARP**

By all measures, 2016 had a lot of impact on America. There was the election, the Zika virus, President Obama's visit to Cuba and, more relevant to these pages, the summer Olympics in Rio de Janeiro and golf's return to the games after a 112-year absence.

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Initially, it was thought that zoysia's lush look and environmental advantages would make it the go-to turfgrass for golf courses. Trinity Forest Golf Club, pictured here, went with zoysia and has hosted the AT&T Byron Nelson for the last two years to rave reviews.

PHOTO COURTESY OF TRINITY FOREST GOLF CLUB

We know how the golf chapter of this story goes. Gil Hanse was tapped to design the Olympic Golf Course. Zeon Zoysia from Bladerunner Farms in Poteet, Texas, was selected as the turfgrass for fairways and greens. Then — boom — this spunky species with thick blades, lush looks and much-discussed environmental upside was all the rage.

In fact, a 2016 *Golfdom* online post (see sidebar, page 17) from the Golf Industry

Show noted that pundits were predicting 2016 would be “the year of zoysia.” Along with the Olympic Golf Course, high-profile venues such as Bluejack National outside Houston, Trinity Forest in Dallas and The Golf Club of Texas in San Antonio all rolled out zoysia playing surfaces. The latter went all-in, with three different strands on tees, fairways and greens.

Zoysia again received some love during the 2019 PGA Championship at Bel-

lerive Country Club in St. Louis. The players loved it, with Rickie Fowler and Gary Woodland both paying their respects. Rees Jones, who renovated Bellerive in 2007, told *Golf Magazine* that playing a hybrid off the course's zoysia fairways is as “easy as pie.”

But as we round the dogleg toward 2020, has zoysia been able to continue its momentum and exponentially increase

*Continued on page 14*



**“THE CURRENT NICHES FOR ZOYSIA ARE WHERE WINTER TEMPERATURES OR SHADE PRECLUDE THE USE OF BERMUDA.”**

**Cole Thompson, USGA**

*Continued from page 13*

market share in the proverbially tricky Transition Zone? And has it been able to expand into semitropical regions where Bermuda still reigns supreme?

The answers, according to the data, are “no” and “no.”

### **Economics ... and perception**

According to the Golf Course Superintendents Association of America (GCSAA), zoysia is planted on only 8 percent of the potential golf course acreage in this sweeping region that spans from the Midwest and Southwest to the Southeast and Mid-Atlantic. The reasons for the paucity of the “Big Z,” as with so many things in golf and life, boil down to economics.

“Zoysia is an amazing grass, but you don’t find many owners or membership boards willing to kill off all the Bermuda on their golf course and replace it with zoysia,” says former superintendent Mark Semm, now a strategic account manager with BASF. “There has to be a return on investment, and bunker and clubhouse renovations are much easier to quantify.”

Prior to joining BASF to lead its Pinehurst Experience, Semm was head superintendent at Cordillera Ranch in Boerne, Texas. Home to PGA Tour star Jimmy



**Mark Semm**

Walker and country music legend George Strait, Cordillera was one of the first courses to sport Zeon Zoysia on tees and fairways. It’s widely regarded as one of the best layouts in the state.

“The members absolutely loved it,” Semm says. “But I think it is a niche grass that really appeals to high-end clubs that can afford to install it (and) with members who appreciate the playability advantages.”

Texas, with its mercurial swings of the mercury, has emerged as a zoysia hotbed over the past decade. Especially Dallas, which can experience 30- to 40-degree temperature fluctuations in the same week. According to Kasey Kauff, director of grounds at Trinity Forest Golf Club, perception plays as big a role as economics.

“Many people think zoysia is more expensive and the upfront cost is much higher than Bermuda,” Kauff says. “The cost of sodding zoysia versus Bermuda is not even close. They also think zoysia is more expensive to maintain because of the fungicides needed to prevent large patch.”

Kauff says that because his course mows only twice a week — and because zoysia requires significantly less fertilizer — Trinity



**Kasey Kauff**

*Continued on page 16*

PHOTO COURTESY OF: BLADERUNNER FARMS, LCOSMO/ISTOCK-GETTY IMAGES PLUS/GETTY IMAGES (TARGET)

Zoysia is only planted on 8 percent of golf course acreage. Bluejack National, a Tiger Woods-designed course, is part of that small group.

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*Continued from page 14*

Forest spends less money than it would on maintaining Bermuda. This despite the application of fungicide for large patch four times annually. Maintenance budgets notwithstanding, Kauff believes zoysia appeals to high-end facilities that want to stand out.

“Planting Bermuda doesn’t make your club any different from any other,” he adds.

## The zone of opportunity

Cole Thompson, an assistant director at the USGA’s Green Section, agrees that up-front costs and establishment are the biggest barriers to zoysia breaking out of its niche. Moreover, zoysia’s benefits decrease in warmer regions.

“The current niches for zoysia are where winter temperatures or shade preclude the use of Bermuda,” Thompson says. “The



It’s predicted that zoysia use on greens may catch on over the next several years.

more common scenario for a zoysia-based renovation is when a golf course decides to replace a cool-season grass in a climate too cold for Bermuda.”

This zone of opportunity extends well into the western United States in addition to the Midwest and Mid-Atlantic. Breed-

ing for even more cold tolerance in zoysia has an added side benefit, according to Thompson.

“Some zoysia grasses tend to have better green color retention during the winter in the West, potentially limiting the need for overseeding,” he says. “Many breeders are currently working to improve the winter color retention of both Bermuda and zoysia.”

David Doguet, president of Bladerunner Farms, is one of zoysia’s most ardent advocates and groundbreaking pioneers. In January 2019, Bladerunner celebrated the announcement of zoysia’s deployment at seven golf course projects in seven different locations around the world. Doguet agrees that market share significantly trails other turfgrasses. But he has a different theory as to why.

“So far, production is not keeping up with demand,” Doguet says. “Therefore,

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# The year of zyosia

Published 2/11/16 on Golfdom.com | By Ed Hiscock


In case you weren't aware, 2016 is set to be the year of zyosia, with some of the highest-profile courses in golf choosing the zyosia family of grasses, according to the experts at Team Zoysia International.

As proof of that claim, Arthur Milberger and David Doguet, interviewed at their booth on the trade show floor, point to no less than the Rio Olympics course, whose fairways, tees and roughs have been grassed with Zeon Zoysia, the opening of the first Tiger Woods-designed course, Bluejack National, north of Houston, which also boasts Zeon Zoysia, Trinity Forest Golf Club, a new zyosia course designed by Bill Coore and Ben Crenshaw, and San Antonio's Golf Club of Texas, the first course with zyosia

on every playing surface, including greens.

"Zoysia will change golf," says Team Zoysia's Doguet, largely because new fine-textured zoysiagrass varieties expand zoysia's usefulness beyond fairways, roughs and tees and onto greens. That is a revolution in the way golf courses are planted and maintained, he says, because the grass uses much less nitrogen and other nutrients, as well as only half the water of bermudagrass and paspalum.

Doguet and Milberger have a list of other courses whose superintendents plan to convert to zoysia or already have it in places.

It's nice to have a year. I had planned that 2016 would be mine. I guess zoysia got there ahead of me. 

use fluctuates, depending on availability. We are working on that by licensing key sod producers known for growing high-quality turf for golf around the world."

## An emerging change agent?

Any way you slice it, zoysia has its work cut out for it to gain a bust on the Mount Rushmore of turfgrass. Some industry insiders note, however, that new and emerg-

ing zoysia strands for putting surfaces could become a legitimate change agent.

"We will see a lot more zoysia greens going in as sod and sprig production acres

*Continued on page 18*



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*Continued from page 17*

increase,” Doguet says. “It takes time to get a new grass into the marketplace. The greens that are out there are doing a great job.”

Thompson sees an opportunity for new courses or those undergoing renovations that want to regrass greens with an ultra-dwarf bermuda but are too far north to

take the gamble.

“Breeders are working to improve the texture and quality of zoysia for putting green heights of cut,” he says. “Widespread use is years away, but I do believe you’ll begin to see some adopt zoysia on putting greens.”

Trinity Forest has hosted the PGA Tour’s AT&T Byron Nelson since 2018, and feedback from players and caddies has been overwhelmingly positive. Kauff believes more options for zoysia greens would simplify the turf selection process and lead to more overall market share.

“Zoysia greens that putt at a championship level will be a game-changer, for sure,” Kauff says. “Courses could plant the same grass through the green. That would be a huge deal and give the club so many playing options.”<sup>G</sup>

Shane Sharp is a freelance writer and content marketer based in Greenville, S.C.



Breeders seek to improve the texture and quality of zoysia for putting green heights of cut.

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**STATE OF THE INDUSTRY**

Chapter presidents from across the U.S. report on the year that was and what they expect for 2020

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# STATE OF THE INDUSTRY

## A WORD FROM OUR SPONSOR

# A quick look back, a long look forward

As 2019 ends and 2020 takes its place, we at Nufarm are looking back at a successful year and forward to another one. We're excited to continue bringing new innovation to the marketplace so that you, our customer, can grow your own success in 2020.

Our golf course solutions are stronger than ever. We continue to gain new data on annual bluegrass seed-head suppression with Anuew, Nufarm's late-stage plant growth regulator. Traction and Pinpoint fungicides provide efficient dollar spot control, even SDHI-resistant strains. And Millennium Ultra 2 is your go-to selective herbicide solution when you want to maintain milkweed without killing it, which benefits pollinators.

One focus for us this upcoming year is natural areas. With labor always an issue, natural areas can be an asset on the course due to minimal maintenance needs. Plus, they increase environmental sustainability and provide a natural habitat for pollinators. Nufarm has full rotational solutions to make managing natural areas easy and efficient.

We are also entering our third year of the EXCEL Leadership Program in collaboration with the GCSAA. The program offers a three-year curriculum to assistant superintendents, focusing on leadership on their course, in their community and in the industry as a whole. Six of the 23 participants have moved into superintendent roles since beginning the

program, and it's exciting to see how the leadership skills of all the participants have grown in the last two years. We're excited to welcome the third class at the 2020 GIS in Orlando.

Whatever challenges you face on the course, Nufarm is here to help. For over 100 years, our customer has been our top priority, and that's not changing anytime soon. Thank you for allowing us to take part in your success, and we look forward to another year of the same.



Cam Copley

Kind regards,



Cam Copley  
*Golf National Accounts Manager*





# STATE OF THE INDUSTRY

## Chapter presidents from around the country tell how this year's golf season played out, what their biggest challenges were and what successes they enjoyed

Reporting by Christina Herrick, Clara McHugh and Sarah Webb

2019 was a year of many successes, multiple challenges and happily, a few near misses.

An inaccurately forecast hurricane saved a lot of superintendents some trouble (but not the unnecessary prep work), while floods and drought were common themes in this year's report. The labor challenge? We had to laugh when Daniel Francis, president of the Cincinnati GCSA, said, "I'm not going to talk about labor. Everyone knows labor is a problem."

For our 2019 State of the Industry report, sponsored by Nufarm, we once again embarked on a journey to learn what the golf season was like across the country. We talked to GCSAA chapter presidents and representatives to learn about regional weather, disease pressures, challenges and successes. This report, surveying 13 different states, covers a lot of ground.

We're happy to see that many of these reports are positive. It seems that — despite some challenging weather conditions and the omnipresent labor issue — superintendents had a lot to be proud of in 2019. But

that doesn't mean they are celebrating just yet. Like TPC Louisiana Superintendent Brandon L. Reese reminds us, "Our business never stops. It's a little bit of a slowdown, but not much. The grass has slowed down, but things don't slow down a ton."

---

### **Brian Benedict, CGCS**

**PRESIDENT**, Long Island GCSA

**SUPERINTENDENT**, Seawane Golf & Country Club, Hewlett Harbor, N.Y.

#### **Generally speaking, how was the golf season in your region?**

It was pretty normal. Rounds were slow in the beginning because it was a little wet, but then it picked up. April, May were a little light, and then the weather turned for the better. I would say we were down in the beginning of the year and then picked up to normal.

#### **How was the weather for your area this year?**

It was kind of a wet early spring, and then it basically stopped raining.

#### **What was the disease pressure like in your area in 2019?**

Not bad, maybe two weeks all summer were kind of sketchy. We dealt with *Pythium* and brown patch during those hot spells. During the heat and humidity, those are typical.

#### **What was the biggest challenge faced by your area this year?**

Labor, by far. Finding either qualified assistants or even qualified crew members, which is getting to be more and more difficult every year. I started using a lot more part-time summer help. We began employing more women this year. Right now, I have a couple women this fall who will get their kids off to school, then work 8:30 to 1:30 every day. That seems to be the possibility moving forward, is having more females who're looking for part-time work during the day.

#### **Were there any notable success stories from your area/chapter this year?**

We had a great turnout for member-



ship and our local chapter at the PGA Championship at Bethpage since the PGA was on Long Island.

### **What are your expectations for 2020?**

It's supposed to be a cold winter, so superintendents in our area, the No. 1 thing on their minds is, "Are we going to make it through without any winterkill or damage?" We certainly don't want to go into spring with any turf loss, but like the old saying goes, "If Mother Nature wants it, she's going to take it." Hopefully, member participation and member rounds will go up. Hopefully, we'll be able to grow the game a little more than we are right now, trying to come up with ways to get people more involved in the game.

—As interviewed by Sarah Webb

### **Jimmy Rodriguez**

**PRESIDENT**, Rio Grande GCSA

**DIRECTOR OF GOLF COURSE MAINTENANCE**, Towa Golf Club, Santa Fe, N.M.

### **Generally speaking, how was the golf season in your region?**

It was much improved overall. The courses in the state generally all received good moisture in the winter, meaning we had more snow than we had seen in the previous three to four years. Course conditions were a lot better going into the spring.



Jimmy Rodriguez

### **How was the weather for your area this year?**

**"I started using a lot more part-time summer help. We began employing more women this year ... That seems to be the possibility moving forward."**

**BRIAN BENEDICT, CGCS**

Moisture was a little more than what we (normally) see. For us, moisture is very precious, unlike in some parts of the country. I think the weather pressure played a good and bad factor. Because of the moisture, we did lose some rounds because it rained. We're very much like Colorado, where we can boast 300 days of sunshine, but when the rain comes, sometimes it comes all at once when the monsoons hit. The moisture overall for the year was continuously good. We didn't have big stretches where there was no moisture at all, like we'd had in previous years.

### **What was the disease pressure like in your area in 2019?**

Disease pressure is fairly low for us in the state in general due to the dryness. Most of the diseases are fungal diseases. Not that guys don't spray, we do, but we're not battling things like the East Coast often has to do.

### **What was the biggest challenge faced by your area this year?**

Generating consistent rounds overall is always an issue. We're in a situation where rounds aren't increasing really anywhere in the country, and in

our area, when you have a downturn, it's hard to fight back.

### **Were there any notable success stories from your area/chapter this year?**

In the area, Black Mesa had some issues with enough water and better-quality water. In the last two years, they got their water issues worked out, and their conditions greatly improved. It was a course that was in the Top 100 courses in *Golf Digest*. During those years when they were going through those issues, it affected a lot of us in this area. We're very grateful that they're doing better and helping everyone at the same time with their reputation as a *Golf Digest* Top 100 club. As for the chapter, we are very close to having our Best Management Practices (BMP) project done. I'm guessing we'll have that published within the next six months.

### **What are your expectations for 2020?**

Going into this winter now, it doesn't look like it's going to be as good of a moisture winter for the entire state. I think some pockets of the

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# STATE OF THE INDUSTRY

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state will get normal moisture, but others will get less than normal. The winter is the big trigger on how next year will start out for us.

— As Interviewed by Sarah Webb

## Craig Cahalane

**IMMEDIATE PAST PRESIDENT,**  
Colorado GCSA

**SUPERINTENDENT,** Pole Creek Golf Club, Tabernash, Colo.

### Generally speaking, how was the golf season in your region?



Craig Cahalane

From what I heard, numbers were up, definitely here in my specific region in the mountains. We pretty much lost all of June to weather; we also had snow, but we rebounded in July, August and September. We had a really strong last three months.

### How was the weather for your area this year?

We had rain in most of May and then a little snow in June, so it was pretty cold. We weren't turning on much irrigation in that time. And then it really dried out for us in July, August and September. It was too dry. October was unusually snowy, and now in November, we are back in a dry spell. In Colorado statewide, it was the coldest October in quite some time.

### What was the disease pressure like in your area in 2019?

Our biggest one was coming out of the winter. We had a lot of snow mold because a lot of our courses were under snow for over 200 days. The

only one we really deal with otherwise is anthracnose. We don't get much pressure up here (in the mountains). I think we all kind of spray similar fungicides for anthracnose, and I think it's pretty common around here.

### What was the biggest challenge faced by your area this year?

I would say the labor. Our biggest challenge up here where I'm located is housing for all of our laborers. Being in a resort town, the housing market is terrible. It's tough on those who aren't making as much money.

### Were there any notable success stories from your area/chapter this year?

Our biggest one is our BMPs just came out. That and we just had our third annual conference, and the numbers every year are growing, so that has been a real success.

### What are your expectations for 2020?

Hopefully, to have another successful season on all the golf courses, and hopefully, weather cooperates. That's the big one, getting weather to cooperate and continuing to have strong numbers.

— As interviewed by Clara McHugh

## Brian Roth, CGCS

**IMMEDIATE PAST PRESIDENT,**  
Idaho GCSA

**SUPERINTENDENT,** Oquirrh Hills Golf Club, Tooele, Utah

### Generally speaking, how was the golf season in your region?

I think the season was generally pretty good. Most years, the weather plays a significant part in the success of the season, and that was true for this year. We had a wet spring but

pretty good weather the rest of the way. We had a couple weeks of significant cold in October, but it has warmed back up, and we are getting some extra play now in November, which is a bonus.

### How was the weather for your area this year?

Overall, we had a pretty good weather year. The spring was wet. We had quite a bit of rain March, April and into May. At my course, we had a year's worth of precipitation in that three-month period. After that, it dried out for most of the rest of the summer. Many areas went 60-plus days with no rain, but we didn't get very hot. There is quite a wide variety of climate/temperature/precipitation in our area, from desert to mountain/desert to high-elevation mountain courses.

### What was the disease pressure like in your area in 2019?

This is one area in which we usually do not have too much trouble. Other



Brian Roth

than snow mold in the winter, not too many problems, other than maybe some localized microclimate issues. Low humidity levels and pretty good air movement seem to keep most diseases at bay.

### What was the biggest challenge faced by your area this year?

I am not aware of anything specific, challengewise. Usually water and water availability are significant concerns, but with our winter snowpack

*Continued on page SO18*

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# STATE OF THE INDUSTRY

*Continued from page SO16*

and wet spring, that wasn't any issue this year. My best guess would be related to revenue, growth of the game and having the funding available for equipment and capital improvement projects.

## Were there any notable success stories from your area/chapter this year?

We have been spending time working on our BMPs and are looking forward to completing that next year. There were some courses that I know had some success with junior golf programs and introducing young players to the game.

## What are your expectations for 2020?

The general feeling that I get from other superintendents and course managers is a quiet optimism. Most courses saw a slight improvement by year's end with revenue/play, and hopefully, that trend will continue. Several courses are looking at updating some equipment and capital improvements on the golf course.

— As interviewed by Clara McHugh

### Matthew Wharton, CGCS, MG

**PRESIDENT**, Carolinas GCSA

**SUPERINTENDENT**, Carolina Golf Club, Charlotte, N.C.

## Generally speaking, how was the golf season in your region?

Overall, it was another good year for golf in the Carolinas. There were four USGA Championships contested in our region in 2019 (U.S. Women's Open, U.S. Senior Women's Open, U.S. Amateur and U.S. Senior Amateur), and I think they definitely raised the level of excitement for golf

in North and South Carolina this year.

## How was the weather for your area this year?

The weather was definitely a major talking point again. The year started off wet, on the heels of a record-breaking fall the year prior. Summer was excessively hot and dry for some but still wet for others, me included. September saw a flash drought that lasted nearly 50 days, and we still had record-high temperatures in early October. We set an all-time record high of 99 degrees F on Oct. 2 in Charlotte.



Matthew Wharton

## What was the disease pressure like in your area in 2019?

We had some spring dead spot (SDS) like always on our bermudagrass fairways. We're assisting NC State University with some fungicide trials for SDS this year. I still manage bentgrass putting greens, and the hot and wet combination this summer kept me on my toes treating for *Pythium* root rot.

## What was the biggest challenge faced by your area this year?

Labor! Finding folks who want to work is a major hurdle.

## Were there any notable success stories from your area/chapter this year?

There were four USGA Championships conducted in our area this year. Also, our chapter raised a new record amount (\$61,000) in the Rounds 4 Research auction.

## What are your expectations for 2020?

I'm hopeful after a challenging year like 2019 that there is only one direction golf can go — up! Here's to a prosperous and weather-friendly 2020, fingers crossed.

— As interviewed by Christina Herrick

### Bill Keene

**PRESIDENT**, Virginia GCSA

**SUPERINTENDENT**, Blacksburg Country Club, Blacksburg, Va.

## Generally speaking, how was the golf season in your region?

The season for playing golf in our region was pretty good. There were very few rainy days and not too many periods of extended heat.



Bill Keene

Our rounds are up 18 percent over last year, we sold out our large-member tournaments and league play participation was up. I hope this is a trend that others around the state observed as well.

## How was the weather for your area this year?

The weather this year was interesting. We started off the year like we ended last year, wet. Then in June, someone turned off the spigot. We received 4 inches of rain for the entire summer, half of which fell in a one-week period. That's about 8 inches below average for that time period. During this time, much of the state was in some level of drought. Fortunately, some timely rains have fallen over the past couple of weeks, but there are still some areas that would



benefit from a good rain.

### **What was the disease pressure like in your area in 2019?**

Disease pressure was low. With a lack of rainfall, extended leaf moisture was not an issue.

### **What was the biggest challenge faced by your area this year?**

Labor! Finding, hiring and retaining all levels of our team was/is a challenge. As the labor pool shrinks, it has become increasingly difficult. And we are not alone. I have several members who are business owners that specialize in a trade, and they are experiencing the same issues.

### **Were there any notable success stories from your area/chapter this year?**

Our chapter has been very active with state government recently. There have been several pieces of legislation introduced during the last couple of sessions that were detrimental to our industry. We have been able to meet with the delegates and present our point of view. Now we are recognized by members of both the House and Senate in the Statehouse.

### **What are your expectations for 2020?**

In 2020, I expect more of the unexpected. Weather is always a crapshoot, and Mother Nature is undefeated. We are going to have to be even more creative to attract and retain labor. Policymakers are going to continue to introduce legislation that is related to our industry. It will be important to stay vigilant and keep an eye on bills coming out of the Capitol.

— As interviewed by Christina Herrick

**“I’m hoping that after a challenging year like 2019 that there is only one direction golf can go — up! Here’s to a prosperous and weather-friendly 2020 ...”**

MATTHEW WHARTON, CGCS, MG

### **Lydell Mack, CGCS**

Georgia GCSA board member

**SUPERINTENDENT**, Big Canoe Golf Club, Jasper, Ga.

### **Generally speaking, how was the golf season in your region?**

The peak golf season of April through October was terrific. We beat rounds numbers from last year in every peak month.

### **How was the weather for your area this year?**

After a wetter-than-normal start, the weather was incredible. Average or below-average rainfall in every month after April meant golfers had no excuses to not be out playing. The drought of late August to early October tested our irrigation system, but rains returned in mid-October, and everything is looking good again.



Lydell Mack

### **What was the disease pressure like for your area in 2019?**

Average. No severe outbreaks that were unexpected. Prolonged heat into September meant we extended our preventive treatments for a month longer than normal.

### **What was the biggest challenge faced by your area in 2019?**

Staff recruitment and retention continue to be a major challenge. Unemployment rates continue to be historically low, which is a good thing overall, but has meant fewer job seekers at the entry level. Also, the H-2B visas were tough to get, and that labor group was late to arrive and came in fewer numbers.

### **Were there any notable success stories from your area/chapter this year?**

One of the greatest achievements in our chapter this year was (Georgia GCSA Chapter President) Scott Griffith's leadership in accomplishing the production of our state BMPs. This was a large effort to tailor the BMPs to our state, and Scott was successful in making it a top priority for us as an association.

### **What are your expectations for 2020?**

I foresee a positive outlook for golf courses for 2020. There are ominous predictions for the country's economy depending on the outcome of the presidential election; some say we're due for a market correction, and flipping the federal administration might be the catalyst for a market plunge. This will have golf course operators

*Continued on page SOI10*

# STATE OF THE INDUSTRY

*Continued from page SOI9*

making course improvements and spending what capital they have early next year to pre-position themselves as a strong competitor if demand does dip in 2021.

— As interviewed by Christina Herrick

## Nick Kearns

**PRESIDENT**, Florida GCSA

**DIRECTOR OF GREENS AND GROUNDS**, The Oaks Club, Osprey, Fla.

### Generally speaking, how was the golf season in your region?

It was somewhat normal, nothing really out of the ordinary. Really, the big thing for us was when Dorian



Nick Kearns

was predicted to come at or over Florida. I know a lot of guys in the area put a lot of time and effort in to prepping for that potential

storm, and then it didn't end up doing anything. As far as the golf season is concerned, from what I understand and from other superintendents, it's been a pretty normal year, nothing really out of the ordinary for us.

### How was the weather for your area this year?

For Florida in particular, it's been very sporadic on rainfall. Some areas have received a bit more than other areas. In the Sarasota area, we're below average by about 2 inches in regard to rainfall. From the month of October, we've been abnormally warm for this time of year. Yesterday, I think we had a record high of 91 (degrees F) for Nov. 7. September and October, the temperatures have been much warmer than

normal. By now you would see a decline for having to mow as frequently, which hasn't occurred. So, we're still in summer mode. It has allowed golfers to play a little more. With the lack of rainfall, there have been not as many rainouts or cancellations. Up North, with it being a little warmer, it's not driving down the snowbirds from the North. I can't say we've seen the big influx of snowbirds that we usually see at this time. It's been a bit lagging. We'd typically see a bit more rounds by now.

### What was the disease pressure like in your area in 2019?

For my particular facility, dollar spot and leaf spot are standard issues. Really nothing out of the ordinary; it really comes down to nematode pressure (being) a big one for us in the whole state. With the minimal rainfall, a below-average rainfall, the disease pressure has been a bit lower than what we normally see. Once we move into the cooler months and we have a bit more rainfall, the superintendents throughout the state will have to keep an eye on disease pressure. Cooler weather and rainfall typically can show a lot more signs for developing disease pressure.

### What was the biggest challenge faced by your area this year?

Our biggest challenge really revolves around BMPs and water quality. With the new governor in place, he is focused on the water quality, improving water quality and ensuring certain steps take place. One of our big initiatives with our state is trying to get as many superintendents BMP certified. We're trying to get as many certified as possible, so we stay off the radar for any potential issues.

### Were there any notable success stories from your area/chapter this year?

With the month of March being the Florida swing, per se, you have four weeks of Florida courses that are holding a PGA (Tour) event. We continue to see more superintendents strive to be BMP certified. We had a record turnout for a class at Innisbrook. I'm happy to say we had an equipment manager become BMP certified. It's not just superintendents and assistant superintendents, we now have equipment managers who are taking the course as well. Part of that success is thanks to our executive director, Jennifer Bryan. She is great asset for the state association and for the superintendents within the state.

### What are your expectations for 2020?

A big thing for the state chapter, the Florida GCSA, with the BMP certification, is trying to get at least 65 percent of the state's superintendents certified. Another big one is increasing our overall membership of the chapter, really trying to emphasize the benefits that we as a chapter provide to the superintendents of the state. We've incorporated a couple of new research projects. (We're) trying to make sure we're fully aware and provide our members with as much data to make data-driven decisions for their facilities.

— As interviewed by Christina Herrick

## Brandon L. Reese

**PRESIDENT**, Louisiana-Mississippi GCSA

**SUPERINTENDENT**, TPC Louisiana, Avondale, La.

### Generally speaking, how was the golf season in your region?



The golf season in the Deep South was a lot drier than it's been in the last several years. Everything I've seen, I would think, there were definitely more rounds being played. It's a little bit different story for us. We've been closed all summer doing a renovation project. Rounds of golf were way down for us because we were closed. We closed down right after our PGA Tour event in April and we opened Nov. 1.

### **How was the weather for your area this year?**

Over the past couple of years in the Deep South, especially south Louisiana, we've had anywhere from 80 to 95 inches of rain in the last three years. This year, we're more on par with what our historical averages would be, 60 to 65 inches. It's really a breath of fresh air, not having constant rain. We dodged all the tropical weather in this region. It was nice. It was perfect for us, because when it's raining all the time, you can't get a whole lot done, whether you're in operations or you're doing a renovation project. It worked out well for us, but I'm sure it'll start back up at some point.

### **What was the disease pressure like in your area in 2019?**

We're so steadfast in our programs; I think that a lot of people stayed the course. They were probably able to skip an application or two, just due to the dry weather. It was a very hot summer, too, historically probably one of the hottest on record in south Louisiana. I'm sure some guys probably called a few audibles here and there, just looking at some long-range stuff. I know a lot of people — because it can jump up on you quick — stayed the course, especially with their

greens programs. We were on an accelerated growth program here, and it didn't affect us a whole lot. We didn't have putting surfaces for probably 60 to 80 days until we got them sprigged, then we dropped back in with the plan and moved forward once we got them grassed.

### **What was the biggest challenge faced by your area this year?**

Our biggest challenge was doing the amount of work that we had to do in a very tight time frame. We essentially have to come out of a renovation ready to host a PGA Tour event, (then) we go into shoulder season. Essentially, we've gone from summer to winter. It was 90 (degrees F) three weeks ago, and it's 50 today. There was no fall. We knew going in we needed to be ready because there wasn't a whole opportunity for growth with the construction schedule. The labor market is a very difficult thing. I think it's the same for everybody, the labor market is just very, very difficult.

### **Were there any notable success stories from your area/chapter this year?**

From our standpoint, we had a really successful renovation project. We were on budget and on time, which is what you want. We turned out a product that we're proud of. I'm the president of Louisiana-Mississippi Superintendents Association, and I feel

like we had a productive year. We're working on growing our membership. We're a very spread-out chapter with Louisiana and Mississippi. The golf course density across those two states is not something you see in Arizona or Florida. I thought we did a better job as a chapter of spreading for opportunities throughout our geographic region to all of our members. A lot of the golf course density in our chapter is in the Gulf Coast. That's where the majority of our group is.

### **What are your expectations for 2020?**

Our goals for 2020 as an operation are to try to build upon what we've done renovationwise. We're working on another project for the coming summer to continue to improve our property. We just need to continue to put one foot in front of the other and continue to work our master plan. We've got a good golf course that is constantly capable of holding a PGA tour event. As a chapter, we're constantly working on getting our BMPs complete for Louisiana and Mississippi. We've got a good group of guys who are working on that with cooperation from Mississippi State and LSU. Our goal is to get that wrapped up in 2020, and it goes along with GCSAA and its goal to get that wrapped up as well. Everybody is ready for a little

*Continued on page SOI12*

**“Essentially, we've gone from summer to winter. It was 90 (degrees F) three weeks ago, and it's 50 today. There was no fall.”**

**BRANDON L. REESE**

# STATE OF THE INDUSTRY

*Continued from page SOI11*

bit of downtime, looking forward to the holidays and looking forward to spending a little more time with my family. Our business never stops. It's a little bit of a slowdown, but not much. The grass has slowed down, but things don't slow down a ton.

— As interviewed by Christina Herrick

## Daniel Francis

**PRESIDENT**, Cincinnati GCSA

**SUPERINTENDENT**, Wildwood Golf Club, Middletown, Ohio

### Generally speaking, how was the golf season in your region?

If 10 was great, and 1 was not great, I would give it a 7. Mediocre at best. I'll get to the why with your next question.

### How was the weather for your area this year?



Daniel Francis

It was a terrible, terrible spring. We were oversaturated in many areas of greater Cincinnati, and the chapter I represent was under record rainfall. We conditioned, and nobody wanted to play. Surfaces did not perform the way we would like them to as superintendents and the way golfers would like them to. We then experienced a drought. It was the Sunday before Labor Day, so starting around Sept. 1, we experienced a 34- to 40-day drought. That's during the aerification season, the growing season. Time to renovate the golf course, and we're bone dry. August was way under as far as precipitation amounts. August was dry and (so was) the entire month of September. We had above-

normal temps, wind, all the things we don't like when there's no rain.

### What was the disease pressure like in your area in 2019?

In the spring, we were forced to manage our golf course. There were some days when we had to mow when we didn't want to. Anthracnose was prominent here. Because we were wet and snapped to heat, our backs were up against the wall with *Pythium*. We're in the Transition Zone, so dollar spot is always prominent here. Whether high or low pressure, it's always talked about. Wet mowing was very common this spring.

### What was the biggest challenge faced by your area this year?

Weather, 100 percent weather. I'm not going to talk about labor. Everyone knows labor is a problem. Weather was an issue here, and it's a few years running now that we can say that. (It's) more and more a common trend of extremes, no happy mediums. It's everywhere; it's becoming a reality. June, July and August aren't the hard time anymore. It's June, July, August, September and a splash of October. This spring, we could push that back to April and May because it was so wet. It's a six-month battle where we used to talk about the 90-day press.

### Were there any notable success stories from your area/chapter this year?

We had plenty. At least it feels this way in greater Cincinnati. There are four or five clubs making significant capital improvements, mine included. We will break ground at my course this winter for an 18-hole bunker renovation. That shows growth for our club and shows that we are mov-

ing forward in order to stay healthy. There's a club in Cincinnati that is closing for an 18-hole renovation. Another course is in phase one of four of an 18-hole facility of capital improvements. The market is strong.

### What are your expectations for 2020?

I will continue to be a superintendent. I will manage the golf course as best as possible, but I will find a way to manage my time and my family better. My golf course will be my golf course, but I want to take care of myself, my staff and my family next year. Though not necessarily always in that order.

— As interviewed by Clara McHugh

## Rick Lewis

**PRESIDENT**, Maine GCSA

**SUPERINTENDENT**, Willowdale Golf Club, Scarborough, Maine

### Generally speaking, how was the golf season in your region?

At our course and some neighboring courses, rounds were up a hair.



Rick Lewis

September was a really busy month here in southern Maine at our course and some of the public ones close by.

### How was the weather for your area this year?

I'm in the southern part of Maine by the coast. We had a wet spring. It was kind of similar to last year. Cooler-than-normal temps. Mid-June and on were really good — not too hot. September was good, and we had a wet

*Continued on page SOI14*

# Traction™

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### Q&A

**JASON FAUSEY**  
T&O Technical Services  
Director, Nufarm Americas

#### Q: HOW CAN TRACTION™ HELP ME MANAGE DISEASE RESISTANCE ON MY COURSE?

**A:** Because of Traction's unique formulation containing two different mode of action groups and two different plant location strategies, Traction is very effective for use in fungicide resistance management programs. Regular use in a rotational program with other modes of action or as a tank-mix partner will prevent or delay the development of disease resistant populations at your location.

#### Q: HOW IS TRACTION GOING TO OFFER A BENEFIT OVER SECURE® WITH THE SAME ACTIVE INGREDIENT?

**A:** Traction offers several benefits over fluazinam alone. Fluazinam is a broad-spectrum highly active multiple site contact fungicide, yet the addition of the DMI fungicide tebuconazole brings another broad-spectrum systemic active ingredient with a second mode of action for resistance management.

#### Q: CAN I BE COMFORTABLE APPLYING TRACTION IN THE SUMMER SINCE THE TEBUCONAZOLE IS A DMI?

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#### Q: WHY DOES TRACTION HAVE ONLY ONE LABEL RATE?

**A:** The single use rate for Traction is based upon the EPA mandated fluazinam rate per acre. The application rate for Traction maximizes the amount of fluazinam allowed per application and provides a proven rate of tebuconazole.

#### Q: WHERE IS THE BEST PLACE TO FIT TRACTION INTO MY ROTATIONAL SPRAY SCHEDULE?

**A:** Traction has the flexibility and spectrum of activity to be placed throughout the spray season. It makes a great product to use and ensures a broad range of foliar diseases are controlled prior to utilizing a more targeted fungicide with a different mode of action such as Pinpoint®.

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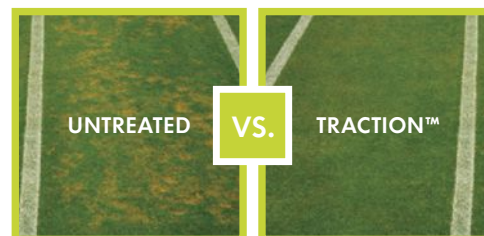
INGUAGIATO, J.C.  
UConn  
AUG 2, 2016  
INITIAL APP: JUN 1

**99%**  
DOLLAR  
SPOT  
CONTROL

R. LATIN  
PURDUE  
AUG 26, 2016  
INITIAL APP: JUN 8

**99%**  
DOLLAR  
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CONTROL

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OHIO STATE UNIV  
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AND TEES  
FAIRWAYS  
AND APRONS  
FOR ALL COURSE AREAS**

# STATE OF THE INDUSTRY

*Continued from page SOI12*

October. We had a few hot days this summer. It does fluctuate.

## What was the disease pressure like in your area in 2019?

Mild. Some dollar spot, and on my course, we usually have a bout or two with anthracnose on greens. Dollar spot on greens, tees and fairways — especially in the in late summer/early fall — was prevalent.

## What was the biggest challenge faced by your area this year?

I would have to say, as it is throughout the country, labor. Most people offer a golfing privilege, which is pretty standard. It's the wage. The state passed a law a few years ago; they went from a minimum wage of \$10 in 2017 to \$11 in 2018. This year, it was \$11, and next year it'll be \$12. That's kind of helped, but when you have landscape companies and general outdoor work paying \$15-17 an hour, a lot of courses around here aren't paying that for seasonal work.

## What are your expectations for 2020?

Weatherwise, I'm going to say we'll stay in the same pattern, maybe a moist spring and fall and everything good in between. Labor, I don't see changing. Diseasewise, we will probably be the same too — although that's a hard one to predict.

— As interviewed by Sarah Webb

### Ethan Shamet

**PRESIDENT**, Heart of America GCSA  
**SUPERINTENDENT**, Prairie Highlands Golf Course, Olathe, Kan.

## Generally speaking, how was the golf season in your region?

Golf started out a little rough due to the wet winter and then wet spring. (There were) not many days the course was open or had very enjoyable conditions.

## How was the weather for your area this year?

We had one of the wettest winters on record, then the wet spring. I believe we broke records for most moisture from Oct. 1, 2018 to Sept. 30, 2019. (The) only good thing was we didn't have to run the irrigation much or hand water greens. We maybe had one heat wave, but other than that, the temperatures were below average during the summer.

## What was the disease pressure like in your area in 2019?



Ethan Shamet

With the wet year, the disease pressure was high. Zoysia patch on fairways and tees, brown patch and leaf spot in the fescue roughs, and on greens, dollar spot to brown patch to *Pythium* root rot and on to anthracnose. This area had them all.

## What was the biggest challenge faced by your area this year?

Wet, wet and wet. The zoysia didn't like the wet, cold winter and then the wet spring. Many courses had winterkill and spent the whole summer sodding out those areas. Any course with bad drainage and shade got hit hard. We all wished we owned a zoysia sod farm!

## Were there any notable success

## stories from your area/chapter this year?

Our local HAGCSA chapter has been trying to host a First Green Program, and we are glad to announce that next April we will be hosting our first one.

## What are your expectations for 2020?

Expectations for 2020 is a better start to the golf season weatherwise and more rounds during the year. (We're) always interested in what Mother Nature has in store for us, but after a drought one year and too much rain the next, we will just have to wait and see!

— As interviewed by Clara McHugh

### Jeff Aldrich

**PRESIDENT**, Kansas GCSA

**SUPERINTENDENT**, Quail Ridge Golf Club, Winfield, Kan.

## Generally speaking, how was the golf season in your region?

Overall, I'd say it was tale of a couple seasons. It started out pretty good. The main topic I'm going to talk about is weather. In (Kansas City) they had a lot of winterkill on their zoysia. We started up in revenue in rounds in April and then went down in May. By the end of the season, we're down a little, but not as much as we could be. For the most part, the summer was mild; once we got done with May, we didn't have a whole lot to complain about. There was some residual stuff, but that all goes back to May. We had three floods in 26 days where the river backed up onto the golf course, which is a half mile away. And that wasn't unique to us. My buddy up in Hutchinson was closed for about a month. Our average rainfall is 37



inches, and we had 30 in May. Anything you had down, preemergence or insecticide, it was gone.

### How was the weather for your area this year?

It became normal after May. The summer by our standards down in Kansas was pretty mild. There were very few 100-degree days and we had timely rain. I have cool-season rough, and we mowed it twice a week all year long, which we don't normally do in July and August here. The fall started out hot. From Labor Day — that's about the time most guys are aerifying greens — it was unseasonably warm. Then it moderated. There hasn't been a fall, I guess. We had a couple of weeks of nice weather, and now it's cold. The weather is something I've noticed in the course of my career here. There is no normal anymore. We've moved from one extreme to the other.

### What was the disease pressure like in your area in 2019?

Obviously, it was above normal,

Rick Lewis, president of the Maine GCSA, is superintendent at Willowdale Golf Club. His chapter experienced a wet spring and cooler-than-normal temperatures.

and I attribute that to how much rain we got. If I could find a market for goosegrass sod, I would be a rich man.

### What was the biggest challenge faced by your area/chapter this year?

Weather. The disease pressure too, I guess. It just doesn't seem like it was that bad because we knew there was nothing we can do about it. We stake our claim on preemergence, and we didn't have enough money in our budget to address how bad it was.

### Were there any notable success stories from your area/chapter this year?

There's one that comes to mind. Several of our courses in the chapter are converting to warm-season roughs and fairways, and they have had great luck with that. With hybrid seeded bermudagrass and zoysia. Meyer Zoysia is what's prevalent around here, and one of the guys did some research and tried seeded zoy-

sia and it worked, and now three other courses have done it. Everybody's asking about it and talking about it. And I didn't hear of any winterkill on that. From Kansas City to Saint Louis, they had winterkill on the zoysia, but I'm in a different climate down here.

### What are your expectations for 2020?

I think most guys are optimistic. When you get done with a fight like this year you feel pretty good. It can't get much worse, can it? We're optimistic. We can't do much about the weather. Here in the southern part of the state, another course closed this year, which we hate to see, but it's the market correcting itself. There are several other courses in trouble, and we're one of them. But the fact that we're a municipal course has protected us. 📍

— As interviewed by Clara McHugh

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# Goodbye to all that

Three longtime superintendents share what life is like now that their days of superintending are done

BY SARAH WEBB

**W**hen the word “retirement” gets thrown around, some may fantasize about sleeping in, sitting around on the couch and eating bonbons.

Not so for Mark Kuhns, CGCS-Retired, John Hoofnagle, CGCS-Retired, and Chris Gaughan, CGCS-Retired — all of whom finished a 40-plus-year run in the turfgrass industry and retired within the past year and a half, from Baltusrol Golf Club, Eugene Country Club and Bookcliff Country Club, respec-

tively. Collectively, they’ve overseen extensive course renovations and played host to major tournaments.

It probably comes as no surprise then that a few months into retirement, their vacationing and relaxation regimens didn’t quite seem to cut it. All three men decided to delve into their next venture.

“You just need to have a mission on a daily basis when you’re retired, and also something to do,” Hoofnagle says.

*Continued on page 36*



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Retirement has opened up Mark Kuhns' schedule quite a bit, allowing him to travel and take on other activities.

*Continued from page 35*

Kuhns agrees.

"The first week you're retired, it's like you're lost. You wake up at 4:30 in the morning, and you think you should be going somewhere, and you miss all the great things you were doing on a daily basis: seeing your staff and your crew, and even the goose dogs — you become attached to them."

Kuhns now serves as vice president of business development for Turco Golf, a heavy construction company based in Pompton Lakes, N.J., and handles a consulting business on the side.

"Turco Golf has been wonderful to me," Kuhns says. "I go out in the field and develop business for (the company). I can work my own schedule, and I enjoy being out in the industry and sharing my experience with others ... and my wife and I still get to do all the wonderful things we want to do in this world."

Hoofnagle more than doubled the client base of his consulting business, and he mows grass at a course a mile from his house for about 25 hours a week during the summer months.

"It's been a good year, a busy year, but a good balance," Hoofnagle says. "I'm the kind of person who needs to be doing something ... Besides all that (work) stuff, I've still had some time do to more of the fun stuff. We did a little more traveling and skiing last winter, a little more hiking. And I've actually played more golf than I've played in a long time."

Gaughan took a completely different route — literally — and now works for about 25-35 hours a week as a driver for Lyft, Uber and the University of Oregon's

athletic department.

"It's been fun as heck because you meet all kinds of people. I didn't do it for the money, just for the entertainment value. You just put on the app when you get bored and you go on a new adventure," Gaughan chuckles, adding that he jots down the really good stories in a notebook, just in case he ever comes out with a book.

### Know when to go

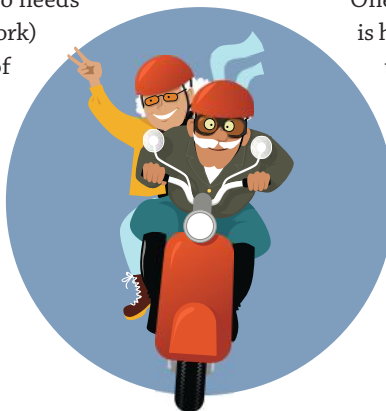
For Kuhns, retirement was spurred by Baltusrol's undertaking of a multimillion-dollar course renovation slated to take five to seven years. For Gaughan, it had a lot to do with the revolving door of labor when it came to crew members. And for Hoofnagle, it was his realization that at age 66, his finances had fallen into place and it just seemed like the right time.

At some point, all three men just knew it was time to get going and were satisfied with their decisions, although Gaughan says if he had it to do over, he would give his club the six months of notice that his contract required instead of the 18 months of notice that he gave.

"One of the things that I've always taught interns is how to get to that point in their career (where) they can make their own choice and retire with dignity," Kuhns says.

### Words from the wise

Kuhns, Hoofnagle and Gaughan all advise superintendents on the brink of retirement to make sure their financial ducks are in a row. (And for those who may not be near retirement, Kuhns says it's never too early to



start putting money aside, whether it's in a 401(k), IRA or other retirement account.)

"At first it seems a little daunting, but it really isn't that difficult to put that stuff together," Hoofnagle admits. "Make the right financial decisions, and of course, make sure you have your health care covered."

It's also important to acknowledge that things may feel different for a time. For example, Gaughan says he sometimes finds it difficult to return to Eugene Country Club, where he'd been for 43 years, despite the club granting him a membership.

"I'm just going to stay away for a couple years and then get settled in," he says. "I think that's the case when anyone takes the place of someone who had been there as long as I had."

Hoofnagle also concedes that stepping away from a head role can be challenging.

"I miss that you're at the controls as far as growing grass and seeing your programs and practices evolve," Hoofnagle says. "(But) I think more than anything, I miss the interaction with the guys on the crew, guys I worked with a number of years. It's not even so much on the professional side, but the personal relationship you build with them."

Overall though, retirement should be about seeking out hobbies and activities that bring enjoyment — even if that means a

*Continued on page 40*

John Hoofnagle says he's played more golf than ever now that he's retired.

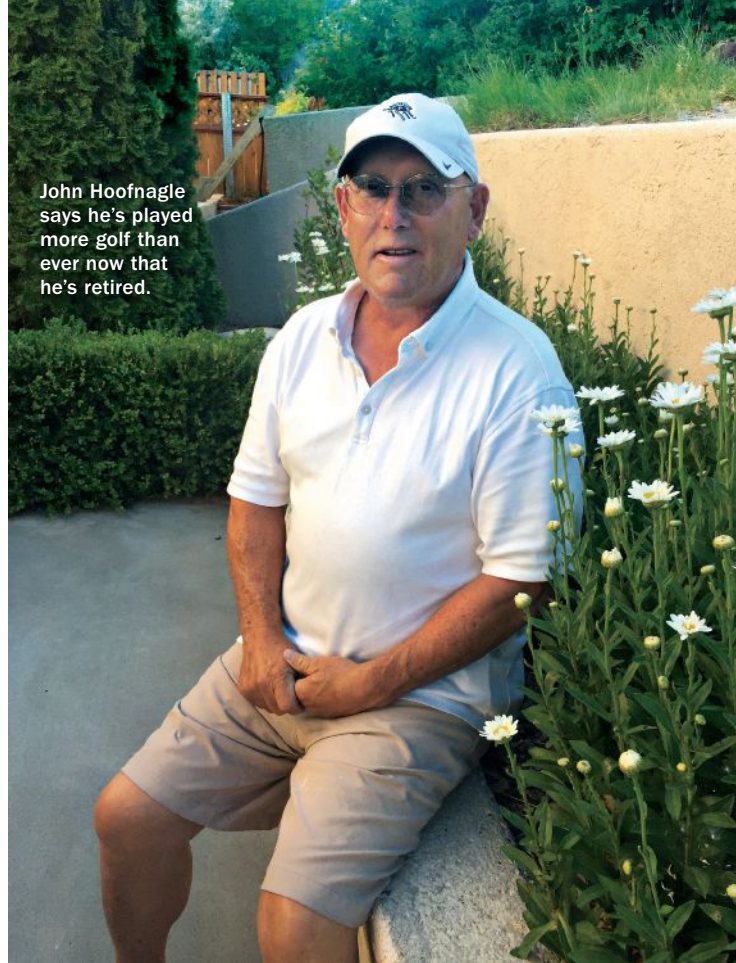


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# Girl on Fire(stone)

Ohio superintendent Renee Geyer reflects on 'life-changing' Bayer Women in Golf event, 10 years in the business

BY BETHANY CHAMBERS

Renee Geyer ducks into the storage room at Akron, Ohio's Firestone Country Club still in her snow-covered Carharts. She's as cheerful as ever, despite the change in plans this morning that came with an unexpected early November blanket of snowfall on the Tom Fazio-designed West Golf Course that Geyer oversees as superintendent.

"Today I would have loved to be doing soil amendment applications and leaf cleanup, but we got slammed with snow," she says, hair back in her signature ponytail and a smile on her red, wind-whipped face. "There's always next week."

It's only been a month and a half since Geyer was one of 50 women to attend Bayer's exclusive Women in Golf event, but this day feels a long way from those warm, sunny days spent in Raleigh, N.C., touring

Bayer's Clayton facility and learning from leaders of the GCSAA, USGA and more.

Geyer says she jumped at the chance to apply for Women in Golf "to meet other people who are like me.

"And it was not just superintendents necessarily, but other women who have a passion for this business, a drive," she explains. "The attraction was in getting to feel like I'm not the only one."

Geyer is nothing if not adaptable — think: tending to garden beds under 3 inches of snow on a day that should've been 50 degrees — but she's also spent a lot of time being the only one like her. Take, for example, how she started her career in choral music before shifting to turfgrass. Not exactly a linear move.

"I finally realized I didn't have to do something just because someone else said it was a good idea. I needed to set myself up to be happy and do something that would be fulfilling to me," she recalls. "I was the kid who toted my lawn mower around the neighborhood mowing lawns for \$10. My godfather Lew taught me how to play golf when I was 13, and I was hooked. Once I realized I could combine a love of the game with the work I had enjoyed doing for many years, it was a natural fit for me."

She's done a lot of thinking since returning home from Raleigh, she says, trying to determine which takeaway is the one to focus on from what she called the "life-changing" Women in Golf event.

"I've gone back and forth on



Renee Geyer

this, but I think the most important thing that I learned was that maybe we are the ones holding ourselves back. If we really believed in ourselves, our individual careers, we could be all these awesome things — lead sales manager for a chemical company, stand-alone superintendent at a great course. Here we were building on each other's confidence. This was the first time women like us were all in the same room," Geyer says. "My confidence has definitely gone up."

That's saying a lot coming from a superintendent who spent her first summer on the job at Firestone 10 years ago preparing for the World Golf Championship-Bridgestone Invitational, a tournament won by Tiger Woods.

"There was so much excitement on our team to perform our best for the best golfers in the world. To go out during the middle of a split shift and see people appreciate the work you've done and the high quality of play on the surfaces you prepared," she marvels, even now, "it blows you away."

Not to say that catering to the pros is her only motivator. Geyer is



**What a view.** Renee Geyer oversees Firestone's West Course, including the scenic 12th hole at one of the highest points on the course.

quick to mention that off the clock, she enjoys playing the 9-hole public course at Firestone that her crew maintains, as well as Ohio's other public courses — which she still hits with her godfather.

Carrying Uncle Lew's golf bag is just one more way Geyer proves her mettle. She prides herself on a quality of work that speaks for

itself, one that helped her rise in the ranks to become the only female supervisor on a 72-person crew.

Just don't mistake her for a woman with a chip on her shoulder.

"We're all humans trying to do our best, make a difference in the workplace and produce a good product. If you don't have an open mind and open heart, no one is going to want to work with you or for you. If you mow the straightest lines, people might admire that, but that won't make them want to go on this journey with you throughout the long season."

Geyer hedges a bit — "That sounds really nerdy, but I'm serious!" — and continues: "Even if my career were to end tomorrow, I could look back and say I did it and that I loved every minute it took to get here."



**Taking the lead.** Renee Geyer presents her group's ideas at the 2019 Women in Golf event.



Continued from page 37

second career path, like it did for Kuhns, Hoofnagle and Gaughan.

"You're going to have your ups and downs," Kuhns says. "There's going to be depressing moments in your careers and even in retirement, but always try to be positive, look up and see where it takes you. If you're negative in life, you're going to be negative in retirement. I think you just have to look at the things you want to do and enjoy." ©

## A tribute to turf

Longtime friend of the magazine Joe "Strib" Stribley, CGCS, reflects on the industry following his retirement after a 38-year career.

**T**hirty-eight years ago, I did not know there were universities that offered turfgrass degrees, much less consider career opportunities in turf management. That changed when Don Tolson, whom I had worked for as a night irrigator alongside Clark Throssell, suggested I work for him at Yellowstone CC in Billings, Mont. Don had a turf intern from Michigan State (*Golfdom* Managing Editor Clara McHugh's dad, Paul), and meeting him led me in the same direction five months later on



a course (excuse the pun) I have been on for 38 years: turfgrass.

I did not know how lucky I was to have gotten into the business when golf was about to have a great run of 25-plus years of growth.

I did not know the real challenge would be in employees, not turfgrass. The workforce is changing, and as I passed McDonald's today with a hiring sign offering \$12 an hour to start, I am harshly reminded. I believe that will change some, especially if increases are seen in wages for assistants.

I did not know we would take the turf and playing conditions to such a level. Mowing greens below an eighth and having consistent expectations in a hazard says it all.

I did not know the passing of metal spikes would be such an improvement. I will never forget, after the first day of a state competition where metal spikes weren't allowed, it looked as if no one had played.

I did not know that mowers would one day cost as much as I paid for my first house. Some of the improvements are great, but do we need computers on rough mowers as long as we still have operators on them? All this adds significantly to the cost of a round of golf and its sustainability. I should be careful, though, as technology may replace my retirement job: rough mower.

I did not know we would fertilize the turf and then turn around and suppress growth. All this technology requires superintendents to pay more attention and interpret what is happening. Mother Nature has a way of jerking our chain as to who really has the final say.

I did not know there would be so many experts at our facilities.

I did not know a golf professional and superintendent working at the exact same facility could be on different pages, and sometimes chapters. Communication is the key to this relationship, and we need each other to keep things running smoothly.

I did not know that the guy I partnered with night irrigating would become Dr. Clark Throssell at Purdue. He has become a longtime friend, fishing partner, turf confidant and my hero for dating the same gal for 20-some years.

I did not know 38 years would go by so fast. It is a great profession, and I am curious how the next 38 years will evolve. If you did the calibration, my tank will be empty, and the parts will be obsolete. ©

Joe Stribley is former superintendent at Yellowstone CC in Billings, Mont. This was first published in the Peaks and Prairies GCSA newsletter.

For the full version, visit [Golfdom.com/exclusive](http://Golfdom.com/exclusive).

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# The Golfdom

## FILES

FROM THE ARCHIVE

Who doesn't love a good argument? In the May 1932 issue of *Golfdom*, the editorial staff certainly didn't shy away from one when the publisher of a competitor accused the magazine of being "too thorough." Check out the article below to find out just why *Golfdom*'s "new playmate" thought the magazine was giving readers more information than they might want, and to see how the staff at *Golfdom* countered — in only three paragraphs, no less. To read the full version of the article below, visit [golfdom.com/exclusive](http://golfdom.com/exclusive).

## Hurray! An argument

*New playmate says Golfdom's thoroughness is wrong*

**C**lub managers, who are no strangers to the problem of whipping losses in some phase of their operations, know exactly what *Golfdom* is up against on this matter of manager circulation without advertising. Publishers of club manager papers ought to know from past history how agonizing it can be to accept a persistent loss as inevitable. In one instance, at least, inability to wrestle with the fact threw one good boy.

### WELCOME, STRANGER

But there's one of the new buddies in the cause of the club managers who obviously doesn't get the picture yet.

That respected and talented gentleman is C. A. Patterson, who now is publisher of *Modern Club*, via what the baseball writers call "the waiver route."

Pat, who confesses an abhorrence of "conceit and ego," makes the following frank statement as part of his editorial debut: "Its success (referring to another of his magazines) was due to my own ignorance of the field, \*\*\* I hope that this will be a saving grace with me in *Modern Club*."

Well, you can't quarrel with a fellow like that, and Pat on any and every score is a grand guy. But, in his ingenuous confirmation of his maiden flight remarks, Pat takes a slug at *Golfdom*'s letter to the managers, with the unfortunate result that he knocks himself out shadow boxing.

### IS THOROUGHNESS WRONG?

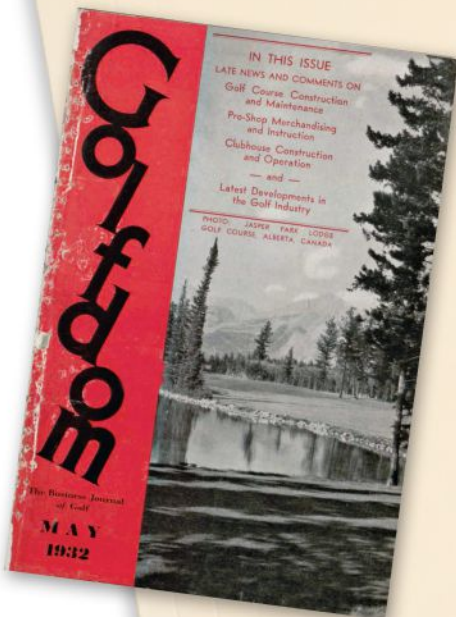
He says of *Golfdom*: "True, they have given some editorial consideration to the club manager, but the effect has been like that of carrying water on both shoulders. \*\*\* You can't publish one magazine for individuals whose interests

are too diversified."

An interpretation of the interests of the department heads of golf clubs as being "too diversified" is exactly one of the main reasons why there is such a heavy turnover of club department head jobs. When there is more realization of coordination's need between managers, course superintendents and pros, it will be better for the golf clubs and their players. And what is better for the game and its players is good for the managers, course superintendents, pros, Patterson and your humble servants, *Golfdom*'s publishers.

On every hand, there is evidence that the foremost department heads at golf clubs fully appreciate that the interests of each competent and confident operating chief must be broad so he can bring to the service of his club and his own personal progress a working knowledge of the troubles and triumphs of his associated executives. Pat's reference to department heads' interests being "too diversified" infers that his predecessor was wrong in advocating general management of golf clubs for, if it is a false alarm to cover golf business operation in one magazine, then it is wrong to have one man attempt to cover the operation.

But that's something for Pat to explain, and after all, what we were talking about was how to get some more advertising, in case the gentle readers are interested. This is set down not as a case of mean and picky rag-chewing with a fellow whose ability and character we admire and whose kind words about our own layout we reciprocate. What we do want to get across, though, is that coordination and cooperation rather than diversification is the keynote of the policy for clubs and their department heads, this year of all times. **G**



## //CROWN AND ROOT DISEASES

# Help your fungicide with post-application irrigation

By Wendell Hutchens, Travis Gannon, Ph.D., Dave Shew, Ph.D., Khalied Ahmed and Jim Kerns, Ph.D.

All turfgrass species can be devastated by crown- and root-infecting pathogens. Diseases such as summer patch (*Magnaporthiopsis poae*), spring dead spot (*Ophiosphaerella* spp.) and *Pythium* root rot (*Pythium* spp.) can decimate turfgrass stands. Cultural management practices are often employed to suppress crown and root diseases such as these, but fungicide applications are necessary to attain optimal control. However, fungicide efficacy has been inconsistent, at best, for various crown and root diseases. Post-application irrigation offers a way to mitigate this inconsistency.

Only one group of fungicides (phosphonates) applied to turfgrass systems is ambimobile, meaning they have the ability to move up and down the plant. Furthermore, the majority of fungicides superintendents apply to turfgrass for crown- and root-infecting pathogens have moderate to high K<sub>d</sub> (soil sorption coefficient) and K<sub>oc</sub> (soil organic carbon coefficient) values, meaning they are readily bound by soil particles and organic matter and are not highly mobile in soil (Table 1).

These two factors make it difficult for fungicides to reach the crown and root zone where pathogens infect. Therefore, any application method — or other management practices superintendents may employ to move more fungicide to the target sites — likely increases fungicide efficacy. Specifically, post-application irrigation potentially can move more fungicide to the basal and underground portions of the turfgrass plant, thereby increasing efficacy.

TABLE 1

K<sub>oc</sub> values and mobility of various common turfgrass fungicides

Class	Active Ingredient	K <sub>oc</sub>	Soil Mobility
DMI	tebuconazole	470-6,000	Moderate-Immobile
DMI	myclobutanil	950	Low
DMI	propiconazole	1,200-8,100	Low-Immobile
DMI	triadimefon	365	Moderate
DMI	difencconazole	6,120	Immobile
DMI	triticonazole	418	Moderate
Qol	fluoxastrobin	424-1582	Moderate-Low
Qol	azoxystrobin	207-594	Moderate-Low
Qol	pyraclostrobin	6,000-16,000	Immobile
SDHI	fluopyram	266-460	Moderate
SDHI	penthiopyrad	500	Moderate
SDHI	fluxapyroxad	496-1,424	Moderate-Low
Carbamate	propamocarb	619	Low
Qil	cyazofamid	736-2172	Low-Very Low
PA	mefenoxam	163	Moderate

## THREE STUDIES

We conducted two laboratory studies and one growth-chamber study in Raleigh, N.C., in 2017 and 2018 to test the effect of post-application irrigation amounts on fungicide distribution and efficacy. The laboratory experiments examined how post-application irrigation at 0, 0.125, 0.25, 0.5 and 1 inch affected either myclobutanil or tebuconazole distribution in a bare 90 percent/10 percent sand/peat moss soil column (Photo 1). We tagged each fungicide with a <sup>14</sup>C-isotope to track its movement through the soil column. We determined the percent <sup>14</sup>C-fungicide recovered per depth, and that data is presented below (Figure 1 and Figure 2).

We conducted the growth-chamber study with mature Penn A-4 creeping

bentgrass (*Agrostis stolonifera*) grown in cone-tainers (Photo 2). We inoculated the creeping bentgrass with *M. poae* (summer patch), treated with azoxystrobin (Heritage; Syngenta Crop Protection, Greensboro, N.C., USA) at 0.2 oz./1,000 sq. ft. in a carrier volume of 2 gal/1,000 sq. ft. and immediately irrigated with either 0, 0.1, 0.125, or 0.25 inch of water. We collected turf quality data on a scale from 1-9 (1=dead, 6=acceptable, 9=excellent) throughout the experiment, and plants were destructively sampled to measure root length on the final day of the study (Figure 3 and Figure 4).

## <sup>14</sup>C-myclobutanil movement study

In the <sup>14</sup>C-myclobutanil study, total recoveries ranged from 81 percent to

**“Post-application irrigation, specifically, potentially can move more fungicide to the basal and underground portions of the turfgrass plant, thereby increasing efficacy.”**

112 percent. Regardless of irrigation amount, greater than 51 percent of the  $^{14}\text{C}$ -myclobutanil remained in the top inch of soil, and no fungicide was recovered below 4 inches (Figure. 1). However, in the 1-inch to 2-inch depth, we recovered significantly more  $^{14}\text{C}$ -myclobutanil when we applied any amount of post-application irrigation compared with no irrigation.

We recovered less than 1 percent  $^{14}\text{C}$ -myclobutanil in the 2-inch to 3-inch depth with no irrigation, yet with 0.125 and 0.25 inch of post-application irrigation, there was 2 percent and 3 percent more  $^{14}\text{C}$ -myclobutanil recovery, respectively, than no irrigation. The 0.5-inch and 1-inch irrigation treatments yielded the highest  $^{14}\text{C}$ -myclobutanil recovery at this depth; however, these irrigation amounts are not feasible immediately after a fungicide application in a field setting. Finally, at the 3-inch to 4-inch depth, we attained the greatest  $^{14}\text{C}$ -myclobutanil recoveries with 0.25, 0.5 and 1 inch of post-application irrigation, suggesting that increasing a post-application irrigation amount will increase fungicide distribution.

#### **$^{14}\text{C}$ -tebuconazole movement study**

The trends in the  $^{14}\text{C}$ -tebuconazole study were similar to the  $^{14}\text{C}$ -myclobutanil study, with greater than 56 percent of  $^{14}\text{C}$ -tebuconazole retained in the

Continued on page 44



Application of post-application irrigation with a pipette to soil contained in lysimeters.



Creeping bentgrass growing in cone-tainers.

Continued from page 43

top 2 inches of soil, regardless of post-application irrigation amount (Figure 2). Also, we recovered no  $^{14}\text{C}$ -tebuconazole beyond 5 inches in the soil. The 0-inch to 1-inch depth

retained more than 77 percent of the  $^{14}\text{C}$ -tebuconazole with both no irrigation and 0.125 inch of post-application irrigation. All other treatments had significantly less  $^{14}\text{C}$ -tebuconazole in the top inch of soil. In the 1-inch to 2

inch depth, we recovered at least 9 percent more  $^{14}\text{C}$ -tebuconazole with 0.25 inch of post-application irrigation than no irrigation and 0.125 inch of post-application irrigation. The greatest recoveries at this depth were with the 0.5-inch and 1-inch irrigation treatments.

The trend continued in the 2-inch to 3-inch depth, with 1 inch of post-application irrigation moving at least 18 percent more  $^{14}\text{C}$ -tebuconazole to this depth than any other treatment. Finally, at both the 3-inch to 4-inch and 4-inch to 5-inch depths, we recovered detectable  $^{14}\text{C}$ -tebuconazole only with 1 inch of post-application irrigation.

## Azoxystrobin efficacy study

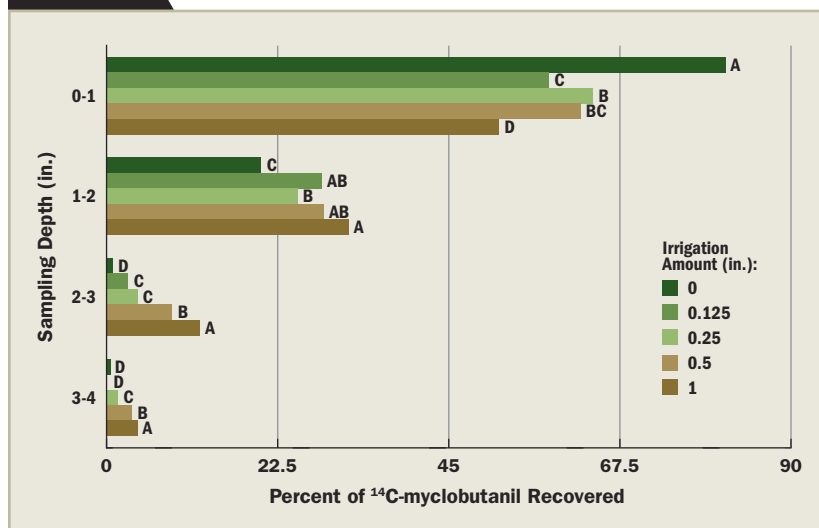
In this study, both 0.1 and 0.125 inch of post-application irrigation increased average turf quality by more than 18 percent compared with no post-application irrigation (Figure 3). Furthermore, 0.1 and 0.25 inch of post-application irrigation increased root length by more than 26 percent compared to no post-application irrigation.

## WATER WORKS

From the data, it's clear that post-application irrigation increases downward movement of fungicides in soil. Yet, 1 inch of post-application irrigation was not enough to move either  $^{14}\text{C}$ -myclobutanil or  $^{14}\text{C}$ -tebuconazole beyond 5 inches in the soil, suggesting that fungicide leaching in turfgrass putting greens is highly unlikely because of the high amounts of organic matter (~10 percent v/v) distributed throughout the soil profile. Our data also shows that fungicide efficacy against crown- and root-infecting pathogens is increased with post-application irrigation. This was evident in our last study, with the increased summer patch suppression when we watered in azoxystrobin after application.

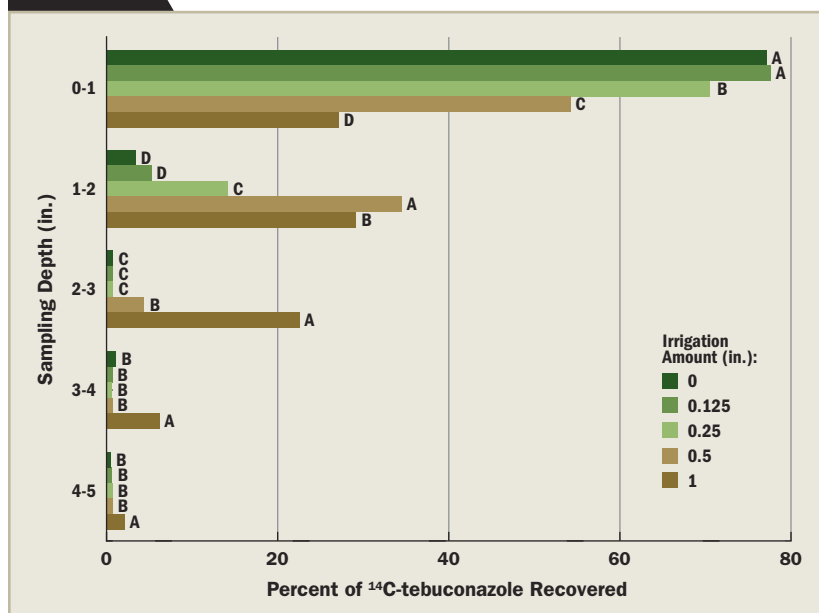
Turfgrass managers can employ other management practices to increase

**FIGURE 1**



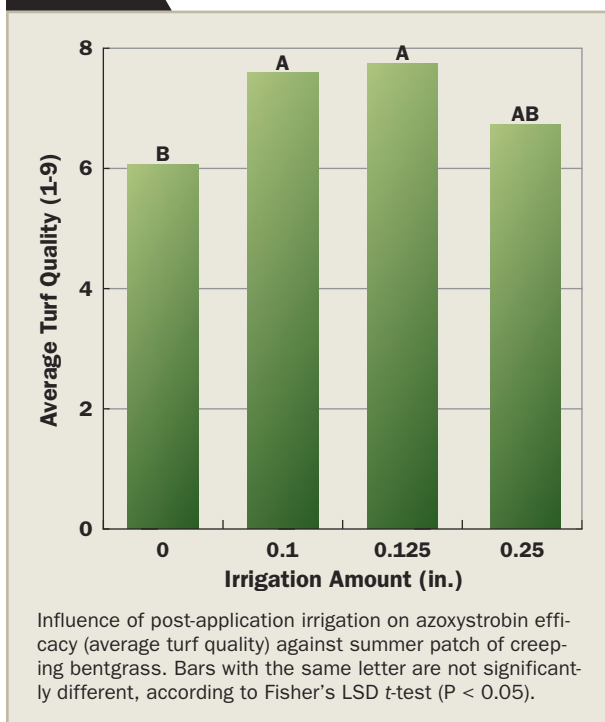
Influence of post-application irrigation on  $^{14}\text{C}$ -myclobutanil movement. Bars within each sampling depth with the same letter are not significantly different, according to Fisher's LSD *t*-test ( $P < 0.05$ ).

**FIGURE 2**

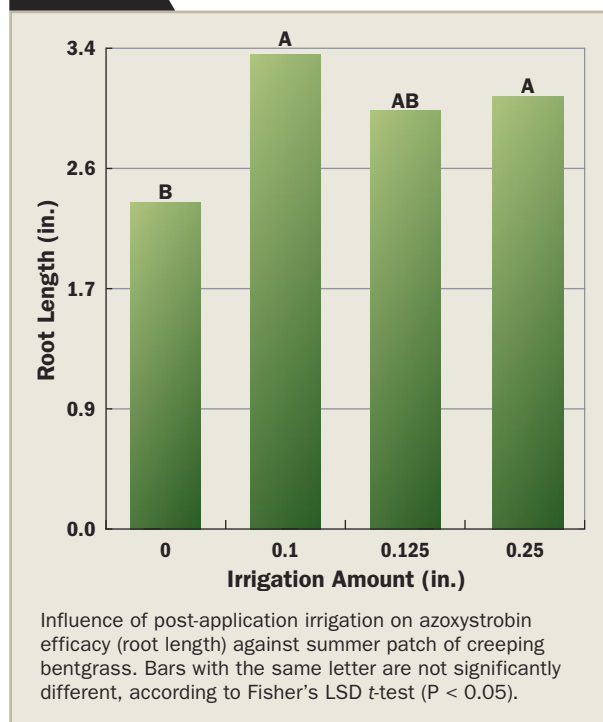


Influence of post-application irrigation on  $^{14}\text{C}$ -tebuconazole movement. Bars within each sampling depth with the same letter are not significantly different, according to Fisher's LSD *t*-test ( $P < 0.05$ ).

**FIGURE 3**



**FIGURE 4**



fungicide distribution and efficacy against crown and root diseases. These include spraying fungicides at high carrier volumes and regularly applying soil surfactants. We recommend that turfgrass managers targeting crown and root diseases apply fungicides at a carrier volume of at least 2 gal/1,000 sq. ft., tank mix a soil surfactant (include a soil surfactant in the regular spray program if possible) and irrigate with at least 0.25 inch of water immediately (within 30 minutes) after fungicide application. **G**

Wendell Hutchens conducted the research discussed in this article while earning his MS degree at North Carolina State University, and now is a Ph.D. candidate at Virginia Tech University. Travis Gannon, Ph.D., Dave Shew, Ph.D., Khalied Ahmed and Jim Kerns, Ph.D., are at North Carolina State University. You may reach Wendell at [wendelljh@vt.edu](mailto:wendelljh@vt.edu) for more information.

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Hutchens, W.J., Gannon, T.W., Shew, H.D., and Kerns, J.P. 2019. Effect of post-application irrigation on fungicide movement and efficacy against *Magnaporthe oryzae*. *Crop Prot.* 122:106-111. <https://doi.org/10.1016/j.cropro.2019.04.027>

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**Overseeding** can help golf course superintendents achieve vibrant green turfgrass, especially in the South during winter.

# Heed the overseed

Typically performed in October, overseeding is the planting of seed directly into existing turf. It serves as a way to help keep grass looking healthy.

“Overseeding is driven by golfer preference. Golfers in many markets want to play on vibrant, green turf during the winter months, and they’ll pay a premium for that,” says Clark Throssell, Ph.D., research editor for *Golfdom*. “It’s all about snowbird people getting away from winter up north, and they want to play on a green golf course during the winter months.”

Planning for overseeding usually occurs months in advance, and a one- to two-week window is chosen, based on agronomic factors and when there may be a lull in play.

It’s important to have materials on hand and ready to go

once that overseeding window approaches.

In some cases, superintendents can apply chemical treatments to help slow the growth of bermudagrass prior to overseeding; in other cases, superintendents may scalp the bermudagrass to some degree to help the seed filter down to the soil surface.

Whatever the case, Throssell says when it comes time to overseed, it’s important to ensure that the seed is distributed uniformly.


“Superintendents have gotten really good at making sure they have precise, sharp lines where there is a good stand of seed and not a straggler or stray seed here or there,” Throssell says. “That’s just practice and paying attention to detail.” 

PHOTO COURTESY OF BRIAN WHITLARK, USGA

## Knox Fertilizer Co.

### BOB HARTMAN

Director of sales and marketing



Overseeding of turf consisting of cool-season grasses is best done in late summer or early fall. In the fall, the germination — the new grass — will have several months to become established before air temperatures decline and the growth slows and ultimately stops. It's also best to kill summer weeds prior to seeding so new turf is not competing with summer weedy grasses. Always follow the label of the herbicide to allow for the proper time window from application to seeding. It's extremely important that the grass seeds stay moist throughout the germination process. It's a balance between under- and overwatering. Too much water can produce root rot, and too little water can dry out the young plants. Fertilizing during the overseeding process also can lead to higher germination rates and thicker established grass. Fertilizers that are high in phosphorus are ideal when overseeding or planting new grass.

## LebanonTurf

### CHRISTOPHER GRAY, SR.

Golf channel manager



One of the most common causes of failure with overseeding is fertilizer burn, which you can avoid by following a few simple practices. You'll want to apply a granular fertilizer application such as 16-4-8 with quick-release nitrogen such as ammonium sulfate, at 1 pound of nitrogen per 1,000 square feet immediately after seeding so you eliminate any chance of burning young seedlings. After the seed pops, light applications of nitrogen will help produce a healthy and dense stand of overseeded turf. You can accomplish this with either additional granular products with soluble nitrogen — like urea or ammonium sulfate — or with foliar-applied liquid products. With either option, I would only recommend applying no more than a 0.5 pound of nitrogen per 1,000 square feet every seven to 14 days. If you do choose to spray a liquid product, you also can include a fungicide in the spray tank to help protect the young seedlings.

## The Andersons

### ANTHONY GOLDSBY, PH.D.

Research agronomist



Overseeding with a cool-season turfgrass like perennial ryegrass is common in the southern U.S. during bermudagrass dormancy. This process will result in green turfgrass on the golf course throughout the winter months. One of the keys to success with a good transition is to completely stop fertilizing the bermudagrass four to six weeks prior to overseeding with perennial ryegrass. This will allow bermudagrass growth to slow prior to reducing the mowing height in preparation for seeding. Once the ryegrass has germinated and you have resumed mowing, it's time to make your first nitrogen fertilizer application. Ideally, using a quick-release source of nitrogen will help ensure your perennial ryegrass gets a good boost in top growth.

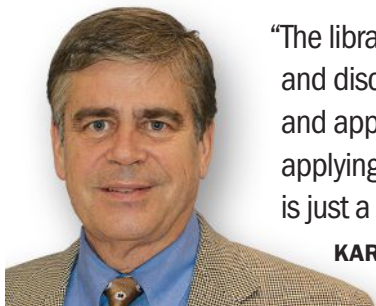
## Prime Source

### BRET CORBETT

Director of technical services



Overseeding is a common practice in areas where the warm-season turf goes dormant in the winter months. For superintendents, it's important to overseed to retain a green turf sward for aesthetics and playability. Preparation is a key to ensure seed germination. Healthy plants start in the soil. Soil testing eliminates the guesswork when applying nutrients. In early fall, I typically recommend a starter fertilizer to help promote healthy roots. Next, select the best seeds. Superintendents need to stay up to date with the National Turfgrass Evaluation Program to find the best new varieties and cultivars. It's always good to check the quality of the seed in each bag, including the germination rate as well as weed/seed percentage. Last, calibrate the spreader each year. This can ensure superintendents are applying the proper fertilizer and seed rate.



“The library is where students meet to gather and discuss the validity of data, usefulness and application appropriateness. Without applying rigor to data, all that information is just a table ornament.”

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

## What do *you* think?

**P**er my doctor's orders, I take a walk each day across campus. My walk takes me by Ohio Stadium, the physics building, the Ohio Union and through Thompson Library, the main library at The Ohio State University. Thompson Library is a stoic building that is core to the university.

Libraries are in the business of information discovery, guarding against fake news and strengthening critical evaluation skills. During the admission process, libraries are an important consideration in a student's decision to attend, actually ranking ahead of technology facilities, student unions and recreational facilities. Attracting the strongest possible students — graduate or undergraduate — is a strong predictor of an institution's rank and prestige.

Thompson Library opened in 1910. It went through an extensive renovation and expansion in 2009 that cost \$108 million. I wondered why we were spending so much money on a building that nobody was going to use. Google provides what we want to know without leaving the office, research laboratory or dormitory. It seemed that physical libraries were dated, and a virtual library was coming with terminals linking digital information within the halls of curated books.

Golf course superintendents benefit from information available online. Without leaving your office, you can

access a plethora of information on any topic. For example, I typed “winter overseeding” into Google, and it returned about 381,000 results. In addition, superintendents post on social media pictures and videos of real-time activities occurring on golf courses. Electronic devices are providing answers at the touch of a button.

However, a negative impact of individual information searches is the loss of personal interactions among colleagues. Directly or indirectly, the ease of obtaining information has led to attendance drops at conferences, chapter meetings and morning breakfasts with colleagues. Justifying the time is difficult, especially if I can find the answer at my fingertips.

As I walk daily through our renovated university library, the number of students in the library catches my attention. Regardless of the time, every chair, table, computer terminal and meeting room is jammed. I ask the students why they are there. The answers include working on class projects, data analysis and gathering background in-

formation. Much of this is difficult to do alone. The library is where students meet to gather and discuss the validity of data, usefulness and application appropriateness. Without applying rigor to data, all that information is just a table ornament.

Using my winter overseeding search as an example, thousands of articles came up focused on whether something is the best way or if there is a new way. For example, methods for winter overseeding in the western United States often are different from practices in the southeastern United States. Seeding rates and preseeding preparation often vary.

The information available often is difficult to judge. Is the data fake? What data are they using? Is this only one person's experience? These are just a few of the questions that arise. Searching for answers by yourself does not allow you to ask one important question: What do you think?

Attending conferences, workshops and seminars or inviting colleagues to your golf course or to breakfast allows you to interact on topics important to your operation and to get new perspective, experiences and knowledge. Video conferencing can substitute for personal interaction. The disadvantage of video conferencing is the lack of body language and facial expressions among the participants. I answer questions after a conference presentation. My answer makes sense, but observing my body language allows attendees to get an idea of how confident I am in that answer.

Back in the library, those students sitting at tables or in those rooms have the best — and factually correct — data available to them. The reason they are meeting there — whether for a project proposal or assignment — is to ask each other, “What do *you* think?”

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).

# DISEASE CONTROL, SAVINGS AND LONG-LASTING FRIENDSHIPS

## SHOAL CREEK'S DUANE SANDER PAIRS UP WITH QUALI-PRO SALES REPRESENTATIVE MIKE DAUGHERTY TO HELP HIS COURSE — AND HIS FELLOW SUPERINTENDENTS

By CHRIS LEWIS

In 2016, Quali-Pro sales representative Mike Daugherty, a former superintendent, began to discuss some of the formulation developer's unique products — along with the potential savings they provided — with his friend Duane Sander, a superintendent at Kansas City, Mo.'s Shoal Creek Golf Course.

At the time, Sander sought to reduce summer patch and dollar spot in Shoal Creek Golf Course's rough, while also preventing anthracnose and brown patch damage on its greens. To treat each of these diseases, he decided he needed only one product: Quali-Pro's Enclave, a broad-spectrum fungicide.

Motivated by his 10-year relationship with Daugherty, along with the fungicide's many positives that he frequently heard about from other superintendents, Sander made the purchase.

He was pleased with the results. Upon applying the fungicide at a rate of 4 ounces per 1,000 square feet, he noticed two- to three-week disease control. The condition of Shoal Creek Golf Course's greens and rough improved considerably — without an increase to expenses.



Duane Sander

The relationship Sander and Daugherty have goes beyond a simple sale. Sander, who caught up with Daugherty at the *Golfdom* Summit, says he can call him at any time if he has questions or problems.

"That support makes all the difference in the world," Sander explains. "I will not use a product unless I can trust the sales representative, and I trust Mike completely. After all, he's not only very knowledgeable; he also has years of experience as a superintendent."

Daugherty's and Sander's friendship has flourished



**Economical and efficient.** Shoal Creek Golf Course has seen improvements to greens and rough thanks to Quali-Pro's Enclave.

over the years. For the last two years, they have teamed up for the Wee One - Mark Pierce Memorial, a golf tournament near and dear to Sander's heart. Six years ago, Mark Pierce, a fellow superintendent and good friend of Sander's, was diagnosed with throat cancer. Sander reached out to the Wee One Foundation, which raises money for golf course management professionals and dependents who have issues paying medical bills.


When all was said and done, the Wee One Foundation sent Pierce a \$10,000 check to pay off expenses his health insurance didn't cover. After Pierce passed away, Sander began to host the tournament, which now raises up to \$15,000 annually for the Wee One Foundation.

Daugherty has been a big supporter of Sander's

endeavors with the foundation.

"I know the dramatic impact the foundation can have on a family," Daugherty says. "It's a great way for superintendents to come together and support their fellow colleagues."

And Sander has been a big supporter of Daugherty's work with Quali-Pro. Since moving to Enclave, Sander has gone on to purchase Quali-Pro's 2DQ herbicide, which has killed Shoal Creek Golf Course's weeds without any signs of regrowth.

"2DQ has been great for all of Duane's broadleaf weed control," Daugherty says. "It's offered low use rates, along with effective control, in cooler temperatures." 

# QUALI-PRO

# Managing organic matter in greens

*Roch Gaussoin, Ph.D., is a turfgrass scientist at the University of Nebraska-Lincoln. He has conducted a wide range of research projects on organic matter accumulation in putting greens. You may reach Roch at [rgaussoin1@unl.edu](mailto:rgaussoin1@unl.edu) for more information.*

**Q Please clear up the confusion surrounding a putting green root zone built with 80-percent sand and 20-percent peat by volume, yet when tested has only about 0.5-percent to 1-percent soil organic matter.**

We measure the sand and peat used to construct a root zone by volume, usually using the bucket of a loader. Soil organic matter is most commonly determined using a laboratory procedure called “weight loss on ignition.” The results from this procedure are expressed as a percent by weight.

Based on many measurements, an 80-percent sand and 20-percent peat root-zone mixture by volume has an organic matter content of 0.5 percent to 1 percent by weight.

**Q Where in the putting green profile should a superintendent be concerned about the amount of organic matter present?**

It’s all about putting green surface performance. Each superintendent must determine the desired surface performance of his or her greens by focusing on the characteristics of the mat

layer. The mat layer is that zone just below the green — living turf that is composed of a mixture of organic matter and sand.

Firm and fast are at one end of the spectrum, and soft and slightly slower are at the other end of the spectrum. It’s up to superintendents to determine where on this spectrum they want the greens to perform. It’s essential that superintendents develop and stick to a management plan that allows them to reach their goal.

**Q Where does the organic matter in a putting green come from, and what influence does a superintendent have on how much organic matter is produced?**

Turfgrass plants produce organic matter in the form of dead leaves, shoots, crowns and rhizomes, and stolons if the desired turf produces these structures. A healthy, actively growing stand of turf will produce organic matter naturally. And this is a good thing. A green with low organic matter often is not functioning as well as it should.

Excessive inputs of nitrogen and irrigation and a lack of golfer traffic often are associated with greens that

**“EACH SUPERINTENDENT MUST DETERMINE THE DESIRED SURFACE PERFORMANCE OF HIS OR HER GREENS ...”**

have a higher-than-desired organic matter content.

**Q Is there a single, specific target for organic matter percentage in the surface layer that a superintendent should try to achieve?**

No. There is no magic number for organic matter percentage to use as a guide. The desired amount of organic matter in the mat layer is golf-course specific, and superintendents know what works best at their golf courses.

Organic matter functions as a sponge. Too much organic matter at the surface holds excessive water, creating unhealthy conditions for turfgrass growth and less-than-desired putting green playability.

**Q Describe the sampling procedures needed to yield a valid determination of soil organic matter.**

Unfortunately, there are no accepted standardized sampling procedures for determining organic matter in a putting green. That said, in whatever sampling procedures you use, be consistent in all aspects. For instance,

use the same lab every time to determine organic matter and make sure the lab uses the same procedure every time to determine soil organic matter. Sample to the same depth, take the same number of subsamples from each green before combining them and sample at the same week and month each year (organic matter content varies by month of the growing season). Be consistent about leaving or trimming off the green living tissue. There is not complete agreement about whether the green living tissue should be submitted as part of a sample.

**Q Anything else you would like to add?**

In many instances, a solid tine will produce results as good as a hollow tine when trying to manage organic matter.

I would like to thank the USGA, EIFG, Nebraska Turfgrass Association, Nebraska GCSA, South Dakota GCSA and the Peak and Prairies GCSA for their generous financial support of my organic matter research. 🙏



Clark Throssell, Ph.D., loves to talk turf. Contact him at [clarkthrossell@bresnan.net](mailto:clarkthrossell@bresnan.net).



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



## John Gurke

CGCS // Aurora (Ill.) CC



### John, what are you having?

I'm a bourbon guy ... Knob Creek.



**How big is your family?** We're the definition of the nuclear family. Jen and I married two years ago. She has three daughters, Tanya, Jessica and MacKenzie. I have two kids, Tre and Taylor. Taylor blessed us with two grandkids, Jayden (5) and Juliana (5 months.) That's our social life now, having the grandkids over and having fun with them.

**Tell me about Aurora CC.** Aurora is the second-biggest city in Illinois, an old river town, working class. The club has been here since 1914, both Tom Bendelow and William Boice Langford had their hands on it. I have overhead photos from the 1920s, and there's hardly a tree on it. Now, we're a treed-in parkland-

style course. We've been working slowly but surely. I've been here for 30 years — I'm removing trees that I planted.

**What teams do you root for?** Bears, Cubs, Blackhawks and the Fighting Illini when they're not terrible. Thankfully, Lovie Smith has them playing decently this year.



### What's your favorite holiday treat?

I used to gorge myself on my mom's Christmas cookies. She made several different types, but the butterballs were the best. She's not with us anymore, so part

of it is the memory of her. Also, vanilla zingers, but those are an everyday treat.

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

We bought a used PlanetAir HD50 — it's a mad, crazy aeration device. We paired it with an old Cushman. Anything we want to poke holes in and not have people notice — that's what we use. It solves a lot of problems for us, and you can go as fast as you want.

### How long have you been playing golf barefoot?

Since my first round at Arrowhead Golf Course, age 8. My dad used to tell me that Sam Snead golfed barefoot, and he'd also stop to fish during his round. In my mind, that made it OK. Jen and I play barefoot together to this day. Now, if I ever get invited to play Skokie CC, I'm probably going to wear shoes.

### Do you have any fond memories of your first boss?

I have so many! Eddie Fischer hired me twice, at Butler National when I was in high school and during the Western Opens, then he hired me again when he went to Old Elm Club. Dave Blomquist (CGCS-Ret.) and I showed up late daily, especially on the weekends, because we were out partying. He would always find us on the golf course, look at us, look at his watch, shake his head and then just drive away. He never gave us too much of a hard time at that young age, and I think that's why we're both still in the industry today.

### // BEST ADVICE

**"PETER LEUZINGER, A LONGTIME SUPERINTENDENT IN THE CHICAGO AREA, TOLD ME THREE IMPORTANT WORDS: 'IT'LL COME BACK.' SOMETIMES, DOING NOTHING IS THE BEST COURSE OF ACTION. IF YOU'RE PATIENT, GRASS IS PRETTY INCREDIBLE STUFF."**



As interviewed by Seth Jones, Nov. 18, 2019.

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