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NO BOREDOM HERE

Larry Napora retired earlier this year.

A disciple of **Paul R. Latshaw**, Napora epitomized the quality of career and life somebody can have by committing themselves to the golf maintenance business. He's now playing more golf and experiencing more sunshine than ever as a Floridian.

Abundant sun should be good for Napora's soul, as he spent his entire career in two cloudy states: Pennsylvania and Ohio. He replaced Latshaw as famed Oakmont Country Club's superintendent when he was in his 20s. He ended his career in his 60s as the director of golf course operations at famed Firestone Country Club.

Anybody who interacts with Napora feels better about golf, life and themselves. He oozes positivity.

Napora revealed principles for golf maintenance longevity and prosperity during a late-2020 ride around Firestone Country Club's North Course, a hilly, hazard-riddled and peaceful **Robert Trent Jones Sr.** design. By that point in his career, Napora had mastered the art of deflecting praise, delegating tasks and avoiding complacency. At one point during the tour, he paused, scanned the vibrant landscape and quipped, "You just never get bored in this business."

With summer reaching its cruel apex, it's important to remember that busy and stimulated beat the alternative.

Busy can be intimidating. But it's also good for the soul when approached with the proper perspective.

Leading a golf course maintenance team responsible for maintaining vast acreage means skirting monotony. The weather always changes. Work teams are diverse. Hundreds of unique, enthusiastic customers experience the product every week.

Instead of working in confinement, a myriad of turf, plant and wildlife species dot the office. A drone would last 1.8 seconds and destroy dozens of ceiling panels if we attempted flying one in the middle of our workday. A purple martin has never fluttered into the *Golf Course Industry* headquarters.

Golf course maintenance touches nearly every aspect of academic and real life: biology, agronomy, psychology, botany, mathematics, economics, chemistry, history, mechanics, hydrology, anthropology and, yes, politics. One day it's porosity. The next day it's negotiations.

Overwhelming? Sometimes. Boring? Never.

This month's issue personifies why golf course maintenance is the ideal career and content fit for the curious and determined.

Drones and birds, the aerial topics comprising the cover package (page 20), represent a miniscule part of a superintendent's job, yet consider a sampling of questions they spark:

- How can drones improve a golf maintenance operation? Are they worth the time and money? If so, which drone works best for your course? What certifications do you need to fly one? What data or imagery do they generate? How can the metrics and visuals be incorporated into agronomic programs, construction projects and customer communications?
- Which birds fly above your course? When do they migrate? When do they stick around? How do you identify them? What do they eat? What noises do they make? Where do they build nests?

So many questions. Decades to explore them. No reasonable excuse for on-the-job boredom.

Becoming a savant in every topic is impossible. But great superintendents acknowledge the job becomes more interesting if they understand drones and birds, how to manage snakes (page 14), budgeting (page 18) and logistics (page 32), maintain quirky and bold architectural features (page 38), handle personal hydration (page 47), and have more than a feel for when to push turf (page 50).

Everything superintendents must know—and the different platforms they use to find and consume information — means our jobs also lack monotony. There's always another course to see, person to meet, topic to explore and storytelling distribution platform to learn. The industry we serve keeps us energetic, engaged, motivated and curious. Variety yields fulfillment.

Napora was an exemplary superintendent. He realized that the enormity of working at revered clubs like Oakmont and Firestone required more than basic turf knowledge. Avoiding boredom yielded incredible longevity, allowing him to disperse impactful knowledge to innumerable peers along the way.

Here's hoping he's not bored in retirement.

If post-retirement boredom emerges, we've heard Florida is a great place to watch birds.

Guy Cipriano

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To provide an independent, innovative and inclusive voice for today's — and tomorrow's — golf industry professionals.

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TSP GOLFDOM MAR23 R1_1-24

SUMMER SIZZZLE!!

July and August can be stifling and stressful for golf maintenance professionals. Enduring it requires perspective, respite and a reliable grill.

Pellets or hot coals. Grates or a griddle. Propane or electric.

Leave the conjecture for the pitmasters. They resemble agronomists deliberating turfgrass species and varieties. Coincidentally, their work also yields abundant joy.

As golfers — especially in cool-weather regions — experience the joys of your team's work this summer, consider leveraging the scents and collaboration of grilling to help push you and your crew through demanding periods.

We're here to give you a nudge — and perhaps some swag. *Golf Course Industry* and AQUA-AID Solutions are again partnering on the industry's tastiest program as Turfheads Grilling returns for its sixth season.

The first five seasons culminated in the Turfheads Guide to Grilling inserted in our December Turfheads Take Over issue. The program has turned dozens of your peers into published grillers.

We encourage you to keep and save each December's guide and give the recipes a try. This industry, after all, relishes peer-inspired idea sharing. We're confident you will be satisfied by what your peers concocted on grates … or griddles.

To gather content for this year's Turfheads Grilling campaign and experience a few laughs between tasks, we brought our team together for a midday cookout at our northeast Ohio headquarters. Our menu consisted of recipes from the 2025 guide: Rock's Famous Grilled Chicken and Cheesy Potatoes, Elote Mexican Street Corn and The Best Brownies Ever.

Beginning with grocery store runs and culminating with cleaning, every member of our team contributed to the cookout. Overindulgence on the brownies — a recipe submitted by **Danny McConnell** and prepared by our marketing specialist and baking savant **Katie Star** — induced temporary afternoon lethargy. Once the sugar malaise subsided, we all came back energized to execute short- and long-term tasks at desired levels.

We didn't miss a deadline or a budgetary goal because of our time by the grill. Collaborating on the meal deepened our connection with each other and the amazing industry we serve. We grilled with pride, knowing our beloved readers, scrollers and subscribers were part of the team-bonding experience. Members of high-achieving teams understand they're working for something greater than themselves.

One cookout doesn't define a workplace culture or change the weather. But the savory smells, lingering calmness and camaraderie of grilling offer solace amid the summer grind.

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Now about the swag …

There's ample time to gather recipes and images of your grilling favorites and submit them using **the QR code on this page** by Sept. 7.

Everybody who submits a recipe receives Turfheads Grilling swag. Published grillers receive a custom Turfheads Grilling-themed Hawaiian shirt and will be entered in a drawing for us to visit your course and cook for your team in 2027.

Sometimes there's a tangible result in temporarily emphasizing the intangibles.

TURFHEADS GUIDE TO GRILLING
GOLF COURSE NEWS — AQUA-AID
est. 2021

Scan the QR code to submit recipes by Sept. 7

INDUSTRY BUZZ

Syngenta launched a new digital weed identification guide, a free online resource designed to help turf professionals accurately identify weeds and make informed management decisions. … Fisher & Son Company was appointed as an authorized distributor of Plant Fitness products throughout the Mid-Atlantic. Plant Fitness also added D&K Products as a Midwest distributor … Quali-Pro launched its new end user rebate portal to make participation in the rebate programs easier and more convenient.

PEOPLE NEWS

GCSAA CEO **Rhett Evans** will conclude his tenure effective Sept. 29, 2027. Evans was promoted from COO to CEO in 2011. He'll depart as the association's longest tenured chief executive. … **Stephen Hicks** and **Jordan Kitchen**, both former golf course superintendents, announced the launch of HK Golf Services Inc., a specialist firm dedicated to supporting golf clubs through infrastructure projects. … Native Bird Boxes owner and former superintendent **Brian Beckner** received the Marie Roberts Lifetime Service Award from the Florida GCSA for his dedication to bird advocacy. … BASF hired **Marcos Heras** as a turf and ornamentals sales representative for the Western region. … **Scott DeBolt** is the new vice president of sales for Better Billy Bunker. DeBolt will also remain a strategic advisor to DLF and its Seed Research by DLF brand. … Landscapes Unlimited appointed 25-year golf industry veteran **Patrick McGuire** as the new development manager of its Project Development Group. … Sentosa Golf Club in Singapore hired **Brett Saggus** as its new superintendent.

Tartan Talks 120

Brandon Johnson is from North Carolina. He lives in Florida.

He's well-schooled on how record play is impacting golf courses in warm-weather climates.

"Overuse and cart traffic coming out of the pandemic was a big topic," he says on the *Tartan Talks* podcast. "Instead of two carts per group, there were four. You see a lot of wear patterns. That starts to reveal infrastructure deficiencies, whether it's turf that might be a little bit weak because of drainage or because of shade, or the effects of overuse on tees."

Concocting solutions to cart traffic and wear isn't a glamorous aspect of golf course architecture. But it's a key part of Johnson's renovation work across the Southeast.

"When I am going to clubs and talking with clients, you are looking for some of those situations where all of those things converge into one," he adds. "One of the reasons you have worn-out turf is that you might have a cart that's near a tree or two bunkers are there, and everyone walks into the same spot. And when some of these clubs are hosting 200-plus rounds a day, that's going to create a wear pattern and now you're going to have to renovate that."

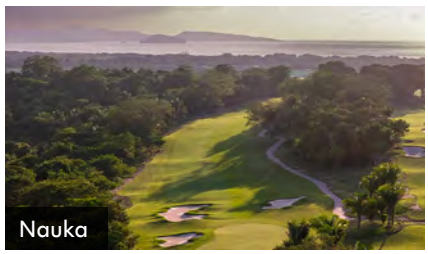
Visit the Superintendent Radio Network page of popular podcast distribution platforms to learn how Johnson melds improving infrastructure with enhancing playing strategy.

COURSE NEWS

Frenchman's Creek Beach & Country Club in Palm Beach, Gardens, Florida, started a renovation on its South Course aimed at improving the driving range, short-game facilities and the ninth hole. … Meanwhile, in Southwest Florida, construction started at The Club at Mediterra's South Course to enhance greens, bunkers and other features. Work is being guided by an evaluation conducted in partnership with the USGA and the Fazio Group. … Legends Golf Resort, a five-course facility in Myrtle Beach, South Carolina, is adding The Piper, a par-3 layout designed by **Ken Baker** and the Baker Golf Design team. The 9-hole course will cover 12 acres. … Sand Valley in central Wisconsin opened Commons, a 12-hole course inspired by the "common ground" courses and village greens of the British Isles. Longtime Coore & Crenshaw associate **Jim Craig** designed the 3,417-yard, par-45 course. … Old Westbury Golf & Country Club unveiled its renovated 27-hole course, a **Brian Silva**-guided project designed to elevate playability, modernize infrastructure and preserve the character of the Long Island club. … The Country Club of North Carolina started a renovation on its driving range and practice areas under the supervision of **Jim Harbin** of Spence Golf Inc. … Nauka Golf Club, a new private club in Riviera Nayarit, Mexico, featuring a golf course designed by **Tom Fazio**, opened for play. … Cabot opened Old Petty, its second course at Cabot Highlands in the heart of the Scottish Highlands. … Troon his now managing Wohali Golf Club in Coalville, Utah. … Concert Golf Partners added Pebble Creek Country Club in Texas to its portfolio.

Frenchman's Creek

Legends Par 3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1. Cool-season weed breakthroughs can ruin a good year. Late summer post-emergent control is critical to prevent nagging problems. **Pylex® herbicide** is a go-to standard for cool-season turf pros looking to keep fairways and roughs clean.

2. Growth of goosegrass. "Goosegrass is becoming more of a problem in the northeast," says Dr. Matt Elmore of Rutgers University. The good news is Pylex is highly active on post-emergent goosegrass. "People have really discovered how to use Pylex effectively in late July or early August."

3. Pylex works. "We've found just one application at ½ oz per acre can be effective when the plants are smaller," says Kyle Miller BASF senior technical specialist. "But if you wait you might need either a higher rate or two ½ oz applications."

4. Actively growing weeds. Avoid times when the grass and weeds aren't actively growing or are under drought stress, says Elmore. "If you have plants wilting in the early afternoon, wait till you get that area irrigated or you have some rain."

5. Bermuda is heading north. Dr. Shawn Askew of Virginia Tech University calls bermuda encroachment in bent fairways a "huge problem" in the transition zone, but his experience suggests it is controllable. "Pylex is the market leader for knocking out bermuda in bent. It gives you the best combo of price, selectivity and bermuda knockdown power."

6. Fall timing. Suppressing bermuda in spring or early summer can be effective, but it's hard to wipe it out. "The way to achieve mortality is a fall combo program of Pylex at 0.25 oz per acre plus Turflon® (triclopyr) at 0.75 oz per acre," says Askew.

7. Best results. He suggests timing the first application 6-8 weeks before the first hard frost and then doing at least one more. "If you're going to reseed, skip the Turflon® in the last application but if you aren't, keep it in the mix and you should achieve about a 95% reduction in the bermuda population."

8. Bleaching is an issue on bent fairways. "You have to be comfortable with the idea you'll likely have 5-10 days of bleaching," says Elmore. "You're trying to thread the needle with enough for control but not enough for bleaching." Askew suggests adding "a taste" of Turflon Ester to counter the bleaching.

9. Consider "PyleDriver." **Drive® XLR8 herbicide** is great for crabgrass in roughs and, in combination with Pylex, has broad spectrum impact. "The nickname for that is 'PyleDriver,'" says Miller. The standard recipe for "PyleDriver" is a quart of Drive XLR8 per acre and ¾ oz of Pylex per acre.

10. MSO matters. Using methylated seed oil (MSO) at 0.5% v/v or another quality adjuvant is critical. "We want maximum contact with the weed," says Miller. He also says not to let the idea of "oil" in your tank scare you. "As long as it's under 85 degrees you should be fine. Spray it in the morning."

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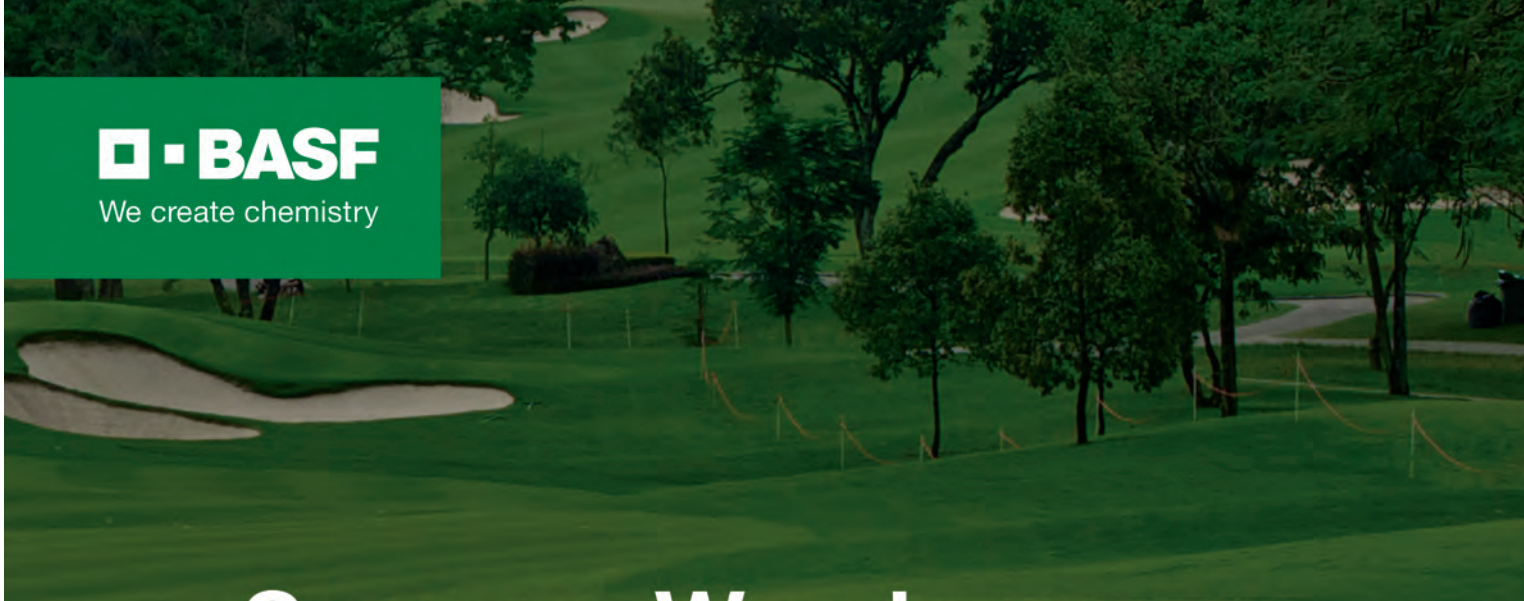

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Erin Wagstaff

JOHN DEERE

The Women in Turf movement is not confined to North America. **Erin Wagstaff** is helping lead an effort to bring more women into the industry in Australia and New Zealand.

Wagstaff is based in Crestmead, Australia, near the city of Logan in Queensland, and has worked for John Deere for seven years, the past two as marketing manager for Small Ag and Turf. In that role she works regularly with numerous organizations, including the Australian Sport Turf Managers Association, whose members maintain golf facilities and sports stadiums.

Appearing with host **Rick Woelfel** on the *Wonderful Women of Golf* podcast, Wagstaff talked about what prompted the effort to attract more women. Not surprisingly, it was sparked by a labor shortage.

"About four years ago, we were really getting a lot of feedback from our customers," she says. "It was really hard to find good, quality workers. At the same time, it was also quite a challenge; it was a really male-dominated industry. We weren't seeing a lot of female greenkeepers out there. Even when we were going around to other events and conferences, it was quite rare."

One theory held that many women were simply unaware of the career opportunities available in turf, in golf and beyond. From those conversations came the John Deere Women in Turf program, launched in 2023.

"It was run in conjunction with our local dealership down in New South Wales" Wagstaff says, along with Cobram Barooga Golf Club, the site of a Webex Players Series tournament, which features male and female professionals competing for the same purse from different tees.

"We got together and realized there was this real opportunity to provide career development opportunities for women in the turf industry, and it kicked off from there," Wagstaff says. "We found six ladies in the industry, not necessarily in the golf industry. Some of them came from supporting industries. They might have been service providers, or maintenance contracting companies. Then there were those working in horticultural roles at golf courses or sporting stadiums. At the WebEx Players Series, they got to prep the tournament, be part of that team and then go back to their home courses."

Two years later, John Deere brought on Envu as a partner. "Bringing them on board really enabled us to take this program to the next level," Wagstaff says.

The "next level" included a mentoring program.

"We added a mentoring component to the program," Wagstaff says. "The ladies were coming and getting tournament experience, but for the next 12 months they're getting a lot of career mentoring advice as well.

"We try to make this quite a well-rounded career development program to really help ladies get into the turf industry, get that experience they need and then know how to present themselves to future job opportunities within the industry."

Wagstaff notes that program participants are often startled when they find themselves in a tournament setting for the first time.

"I think for a lot of them, it's a really big learning curve," she says, "to walk into a tournament prep [environment]. There's a lot of people already working the course, they bring a lot of extra volunteers as well, and a lot of these courses, they make perfect [playing surfaces] for big tournaments. The level of attention is so next level. I think it's eye opening for a lot of them."

This year's program, which again featured six women, was held in conjunction with the Australian Women's Classic, a Ladies European Tour event, which was contested at Magenta Shores Golf and Country Club in Magenta, New South Wales.

Women have only a minimal presence in the Australian turf industry. According to the ASTMA, just 1.4 percent of the qualified trade workers in the industry are women.

Wagstaff notes that things are looking up.

"In Year One, it was really hard to find women in the industry who were in need of some career development," she says. "That's why we did end up pulling from so many supporting industries as well. But in the last couple years, we've found that pool of applicants to be getting bigger and stronger each year. I think that's really encouraging."

"In Year One, it was really hard to find women in the industry who were in need of some career development. But in the last couple years, we've found that pool of applicants to be getting bigger and stronger each year. I think that's really encouraging."

THE NOT-SO-MAD SCIENTIST

SECOND-GENERATION SOUTHERN INDIANA TURF PRO JEFF SEXTON FIDDLES WITH THE DETAILS FOR THE PERFECT *POA* APPROACH.

By **Matt LaWell**

Unlike his father, unlike his uncles, **Jeff Sexton** is a tinkerer.

The son and nephew of golf course superintendents, Sexton — who arrived at Evansville Country Club in southern Indiana to fill that position in June 2012 and has since been promoted to director of agronomy and, more recently, general manager — figures that, "if you're not changing, you're not getting better."

One example: His ever-evolving use of SePRO Land StriCore Herbicide, which he uses to control *Poa annua* across his zoysia fairways. Sexton first applied the maximum 48-ounce rate in October 2024. That single application provided fairway protection almost into the following March. Ever curious, Sexton adjusted his timing last season, turning to StriCore in January. "And that worked better," he says. So much better, in fact, that it carried his fairways almost into early May without a hint of *Poa* — a first during his 14 springs in Evansville.

"It's progress, right?" Sexton says. "A new tool was brought in and we tried it, and it helped. I think the surfaces look better. Clean zoysia is a beautiful thing — and ultimately it mows better because you're not bumping across a bunch of *Poa* clumps."

Good thing, too: Evansville Country Club is packed this season, with 20,000 rounds projected for 2026 —about 15 percent more than 2025. And, whenever play quiets again in late fall or early winter, Sexton says he might try *another* different approach: An August application of a similar herbicide, followed by two applications of StriCore — the first in November, the second in January or February of next year. A far cry from what his father, **Tony**, and uncles **Richard** and **Jerry** were doing decades ago. "Back then, that group was about routine," he says. "If it works, we're not going to change."

Another change at Evansville is Sexton's 2025 promotion to general manager in addition to his duties as director of agronomy. Sexton felt comfortable spending more time inside because of the rapid rise of **Eli Ziliak** — like Sexton, a Purdue turf graduate — who was promoted to superintendent in December after a year and a half as the club's assistant superintendent.

"Great kid," Sexton says. "Young, but has the brain of a superintendent. That's why I was very comfortable promoting him to superintendent. The club knew what I was trying to do for them, to allow me to do a couple other things I felt they needed to do up in the clubhouse. And he's just done a great job."

Still only 24 years old, Ziliak was raised on a farm in Haubstadt, about 15 miles south of Evansville. "He just decided to not go to the farm," Sexton says. "He wanted to try to do turf. He interned here with me, and he just gets it. … He's doing the day-to-day stuff and just doing a great job with it. He's got to learn how to manage people, but I got a very veteran staff that's doing a great job, and they were all part of the process. They're helping him be successful. It's rewarding."

It's progress, too. And change. And, every day, tinkering to get just a little bit better. ■

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SEPRO LAND

Slither away

A Florida superintendent and his team are removing invasive species and protecting the native land, one snake at a time.

Eagle Creek Golf & Country Club director of agronomy **Jimmy Alston** has one fear.

"I'm scared to death of snakes," Alston laughs. "That's the only thing I'm scared of."

But that fear doesn't stop him from helping protect wildlife on the Naples course. Alston and his team have been removing pythons from the property for more than 15 years.

Pythons aren't native to the state. They were introduced from the exotic pet world in the 1980s. Their population has spread all over southern Florida, making them an invasive species and a danger to the native land.

Neither is Florida a stranger to invasive species. In fact, it's home to more invasive animals than any other state. Invasive species are a danger because they disrupt ecosystems and can kill off native populations. Pythons have no known predators in the Everglades, and they are likely responsible for the area's severe decline in the Florida Brown Rabbit, whose population has essentially vanished. The large snakes will eat virtually anything, including small alligators, deer and small bears.

"They're putting a dent on any and all of our native wildlife," Alston says. "We're seeing deep effects."

The club works with the Florida Fish and Wildlife Conservation Commission on best practices and updated research findings. Eagle Creek staff and members have been instructed to notify Alston of any python sightings, no matter the time. When available, superintendent **Raymundo Gomez** (above right) is the dedicated snake wrangler. "He has no fear of snakes whatsoever," Alston says, "and he's usually the one that ends up catching and dispatching."

To capture the slithering predators, Gomez — and Alston, when needed — use an eight-foot pole with a rope tied to the end. Once captured and killed, the pythons are buried underground, which is a practice encouraged by Florida state laws. While some might find this practice cruel, Alston says it's quite the opposite.

"We're protecting other animals by dispatching this animal that's not supposed to be here," he says. "We have this circle of life here on our property and in our region that is being harmed by this aggressor."

Another species damaging the Florida ecosystem is the iguana. The species was first reported in the 1960s, and they pose a large threat to native vegetation and tree snails. Florida law allows the reptiles to be humanely killed without a hunting license at any time. Alston has removed more than 1,000 iguanas from the property in the last five years.

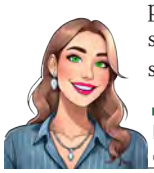
When it comes to combating invasive species, Alston advises other superintendents to just start picking away. "If we can all just do a little bit, that's better than doing nothing," he says.

Just as eliminating invasive animals is essential, so is the promotion of other native species that might be able to prey on those pests. Eagle Creek has a Targeted Harvest Area permit, which allows the club to grow and monitor the alligator population and prevent unnecessary removals.

Florida has a nuisance alligator hotline. "Any individual could call and say, 'Hey, there's a gator in the lake behind my house. It's scaring me,' and the state will immediately issue a kill permit, and that alligator will be destroyed and hauled off property," Alston explains. The THA permit bypasses the program on the property, so kill orders are not immediately issued. Instead, Alston meets with a Florida Wildlife Commission agent and possibly a biologist. The team monitors the alligator and decides after proper investigation whether the reptile poses a threat to humans on the property.

"Not only are we trying to mechanically remove [invasive species] ourselves," Alston says, "but then also encourage the native predators that are going to help battle those with us as well."

Large alligators can prey on both pythons and iguanas, which is just one reason why it's important to protect them.



KELSIE HORNER is *Golf Course Industry's* digital editor. To submit ideas about conservation-focused programs or actions at your course, email her at khorner@gie.net.

© COURTESY OF JIMMY ALSTON (2)

“Revolution is the only wetting agent we use at Shinnecock.”

Jonathan Jennings

Golf Course Superintendent
at Shinnecock Hills Golf Club

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The Aquatrols Company is proud to collaborate with Shinnecock Hills to help Jonathan Jennings and his team manage water inputs as effectively as possible on such an iconic property. Since 2022 Revolution has been a key component in maintaining consistent conditions across the entire course. Applied every two weeks from April through December, Revolution helps Jonathan optimize moisture levels, particularly with Shinnecock’s challenging windy conditions.

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Q&A

BRIAN AYNARDI PH.D.

Northeast Research Scientist • R&D Field Research

1. What are the symptoms of Pythium root disease?

Pythium root rot occurs on creeping bentgrass, mixed bentgrass/*Poa Annua*, and ultradwarf bermudagrass putting greens. Often found in push-up greens that hold a lot of moisture, Pythium root rot results in orange or bronze irregular patches, as well as brown, "sizzled," shortened roots that can't properly translocate water and nutrients.

Pythium root dysfunction occurs almost exclusively on newly established creeping bentgrass putting greens. Plants with Pythium root dysfunction lack root hairs but may otherwise appear somewhat healthy. Stand symptoms appear more as off-color circular patches.

2. How to control Pythium root diseases?

A preventive fungicide program is essential with any type of root-infecting pathogen, as these Pythium species damage roots before above ground symptoms manifest themselves. Initiate preventive applications when soil temperatures are ~60°F at the 2-inch depth and continue through the summer growing months.

Segway® Fungicide SC has been recognized as the industry gold standard for Pythium control for nearly a decade, and should be used in rotation with other products that control root Pythium pathogens. A 14-day alternating program of Segway (or Union® Fungicide SC, a premix product of cyazofamid + azoxystrobin) and Serata™ Fungicide, a new product from FMC, has demonstrated unparalleled Pythium root disease control in university research trials and on golf courses.

Fortunately, neither of these Pythium diseases typically result in death of a putting surface, and curative fungicide applications of Segway (cyazofamid) or Union (cyazofamid + azoxystrobin) fungicide result in recovery that is evident within 10-14 days after application.

3. What do Pythium blight symptoms look like?

Pythium blight is one of the most feared of all diseases in the turf industry, as it can kill large areas of turf quickly. Pythium blight often starts in small, dark patches about the size of a human hand, and is associated with aerial mycelia when the pathogen is active. Infected areas are bronze in color, and usually move in irregular patterns with topography due to the pathogen's affinity for water. Symptoms on bermudagrass include black lesions when the disease begins to develop. Scout for Pythium blight in areas where there is little to no air circulation when conducive environmental conditions exist.

4. How to control Pythium blight?

Preventive applications for Pythium blight are imperative, and Segway is the premier Pythium blight control product. Because Pythium blight affects the foliage, a carrier volume of 2 gal./1,000 sq. ft. is ideal. As with root Pythiums, control of foliar blight is best achieved on shorter intervals, such as 14-days.

Pythium blight occurs on cool-season grass when daytime temperatures exceed 85F, nighttime temperatures exceed 65F, and relative humidity is greater than 90% for 14 consecutive hours. Pythium blight does not require the same strict conditions to develop on bermudagrass.

On that host species, Pythium blight occurs when significant periods of rain, high humidity and clouds exist, especially during the shoulder seasons or during tropical storms, but does not require specific temperature parameters.

5. How to control Pythium damping off?

Damping-off is a disease of emerging or newly emerged seedlings. There are no specific environmental conditions associated with damping-off. However, due to the potential for seedlings to be killed, a preventive application at the time of seeding or at seedling emergence is critical. Apply Segway or Union fungicide in sufficient carrier volume (2 gal. carrier/1,000 sq. ft.) and repeat applications on newly emerged grass as needed.

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IT'S BUDGET SEASON … AGAIN

Now is the time to be planning for next year's budget.

Wait a darn minute! Seems like I just wrapped up this *year's budget. Now you're telling me it's time to start all over again? Have you checked the calendar? It's the start of summer, for cryin' out loud!*

We're not suggesting that you start from scratch because we're hoping that, after all our preaching over the years, you're convinced that budgeting is a year-round process. That you're always in one phase or another of the budget cycle. That you're researching new products and procedures. Preparing the photographic support your 2027 agronomic plan will rely on. Building alliances and support among different stakeholders. Beginning to make your case for upcoming capital needs.

Well, when you put it that way …

Planning the work and working the plan, as we like to say.

OK, so what steps should I be taking right now to start — or should I say continue *the budgeting process?*

Glad you asked. There are several things seasoned golf course superintendents are doing at this point in the year. It's the legwork that's going to smooth out the budgeting cycle, so it is less onerous in the final days and weeks leading up to your budget presentations and yields the results you want.

1. **Talk with your customers, the golfers who play your course.** Ease your utility vehicle up to a group and ask how the course is treating them today. If they were superintendent for a day, what changes would they make? Maybe their suggestions are things you're already working on. Maybe they're things you haven't thought of. Either way, it's valuable insight that helps you know your customers' priorities and feeds into the research portion of preparing your budget.
2. **Speak with your course owner, general manager and senior leaders**. After you have spoken with your customers, set up meetings with owners and management. Ask them about their impressions of the course through the first half of the year. See if their objectives have changed since you last spoke. This is the time to confirm that your standards — as described in your agronomic plan — are meeting expectations and presenting the golf course favorably. If not, what changes do they want to make?
3. **Meet with your accounting manager, controller or CFO**. This important step helps you better understand your facility's financial position. If things are humming along nicely, membership is strong and revenues are up year over year, you know that budget requests for additional personnel or equipment might be met favorably at year-end. Membership and revenues trending in the other direction send the opposite signal. If costs for your departmental needs are coming in higher than were forecasted in your budget, be prepared to explain why.
4. **Update your supply chain knowledge**. In uncertain times, staying informed of changes affecting your supply chain is a top priority. Limitations concerning fertilizers, fuel and other petroleum-based supplies must be top of mind for you as you plan your facility's future. If, as some forecasters predict, an economic downturn is on the horizon, or demand at your facility cools, make sure you have belt-tightening Plans B and C ready to roll out.
5. **Sharpen your meteorology skills.** There is no way to predict the weather, but you *can* become more knowledgeable about conditions that could affect your course and budget. The National Oceanic and Atmospheric Administration is forecasting a strong to potentially super El Niño event through the 2026-27 winter in the Northern Hemisphere. This warm-phase climate pattern is driving predictions of accelerated global warming and anticipates that 2027 could become the warmest year ever recorded. People whose work relies on the weather should know what Mother Nature might have in store for them.
6. **Ask yourself what you want to accomplish next year**. If you've spoken with your customers, with your finance and accounting folks, and with management, it's time to have a chat with yourself. What will it take to deliver the results they are seeking? Where will the current budget need the most significant adjustments? How many staff members do you need? What new technology and practices should be adopted? Who among the stakeholders and decision makers at your facility needs to understand your job better so they can offer the support you need?

OK, sounds like I've got some work to do to keep this budget process moving along.

Come December, you'll be glad you planned ahead. And one more thing?

Yeah?

Take some time off — it's summer, for cryin' out loud.

HENRY DELOZIER is a partner at GGA Partners, trusted advisors and thought leaders. He is currently Chairman of the Board of Directors of Audubon International.

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Turf and dirt from above

Are drones catching on in the industry? In some cases, yes. But skeptics also remain.

Agronomics of drones

By **Lee Carr**

Drones are used on golf properties in a variety of ways — they are great for aerial photography, and they help superintendents survey large areas of their properties quickly from a bird's-eye view. Drones can also be used for spraying and, when equipped with imaging and sensing technologies, can provide data that helps with moisture, disease and pest assessments.

There has been some success with using drones to improve the efficiency of crop production in agriculture, but how does that success translate to fine turf? Drones equipped with multi-spectral sensors create images using infrared and ultraviolet light, not visible to the human eye, to map the land. The soil and turf reflect these multi-spectral waves to create images. Actually, a variety of sensors can be used with drones to accomplish different goals.

Studying the maps created establishes a baseline for healthy turf, and superintendents will become familiar with readings that work for their properties. Understanding what is normal for a property then allows for deviations from that baseline to inform further decision-making.

Through the multi-spectral imaging, maps can show early warning signs for drought, disease or pest infestations, sometimes days in advance from what can be recognized on site without the imaging. Drones can also be used for thermal image mapping, which can help detect localized dry spots and irrigation leaks. But data doesn't solve problems independently. It's a tool to provide information that can be interpreted by someone familiar with the turf, reading trends over a reasonable period of time.

A popular use for drones in golf course agronomy is for spraying, usually for applying herbicides in caring for native areas. **Tim Reinagel**, founder of Hawkeye Spray Drone, is a former superintendent who works with clients to complement their agronomic programs. "We are a service business that is currently strictly spraying, and the only thing we spray are native areas," Reinagel says.

Baltusrol Golf Club, in Springfield, New Jersey, benefits from drone technology. "We outsource with a company to spray herbicides via drone," director of grounds **Greg Boring** said. "We treat our fescue areas on property in late July and early September. We started this practice three years ago and will continue with it this summer." The drone work has been very effective.

"Primarily, we use drones because we don't want to walk in those tall fescue areas and damage the grass while spraying by hand," Boring says. "Using the drone allows the team to eradicate weeds and accurately target specific areas of the property without compromising the aesthetic. We are considering the implementation of drone technology to regularly scan and evaluate moisture and turf stress throughout the property. We anticipate bringing this technology to Baltusrol but we're still evaluating options to determine the best fit."

Data sets, more conclusive when gathered regularly, can be detailed and objective, but to be optimized they need to be converted into practical care for the course. Operations building a drone program in-house will require a licensed FAA Part 107 pilot. Consider having multiple people on staff

© COURTESY OF HAWKEYE SPRAY DRONE

licensed, so if the main pilot is absent or takes a different position, other staff members can cover the work and it is still being legally performed. Being licensed is an attractive skill, and good for building confidence and résumés.

It's a popular debate to discuss how drones can be more heavily utilized across fine turf, and they can be, but it's tricky. For agriculture, drone data mapping makes financial sense due to its integration with prescription agriculture, where inputs can be reduced across vast fields because of the information gathered by the drone. With golf, that is more difficult—there simply isn't the same acreage where inputs are being applied. The economies of scale are reduced, making it harder to justify the investment in drone technology.

It's also been difficult to convert legislation originally designed for planes into practical direction for drones. "I will be helping people attain their 107 and 137 licenses," Reinagel says. "I can walk them through that process. Any spraying with a drone would require a 137 License and a 44807 exemption for being over 55 pounds. When you go over 55 pounds, total weight at takeoff, the rules become much more prohibitive." The Part 137 Certificate is for dispensing chemicals and agricultural products.

Increasingly, superintendents are choosing drones for spraying native areas, which makes sense. Spraying native areas with drones efficiently provides treatment for hard-to-reach places without damaging the vegetation and while maintaining the aesthetic. It's a straightforward practice with proven results.

The biggest hurdle, besides the FAA rules for drones over 55 pounds, is the lack of labeled pesticides for aerial application in turf. The amount of carrier required for the application hurts the efficiency. As drones become more popular, hopefully more plant protectants will be labeled as suitable for use to be applied aerially for fine turf.

"Spray drones with a spreader attachment would be a very valuable tool for golf courses," Reinagel says. "That's a fast and efficient way to apply fertilizers and other granular products, and there are very few label restrictions."

The potential is there for growth regulators, fungicides and more. Addressing regulation and expanding what drones are capable of offering — such as making more products available for application with drones — will increase their utility. Drone technology is theoretically fascinating and can be very effective. For now, superintendents must consider the needs of the property, and if drone technology can enhance its agronomics through applications or data mapping.

Lee Carr is a northeast Ohio-based writer and senior Golf Course Industry contributor.

MORE ONLINE
What do you need to become a certified drone operator?

Elevate to communicate

By **Kelsie Horner**

Communication is an essential part of relationships with family, significant others, coworkers and especially with members. By properly passing along information, members are more likely to trust you and respect you. Boards will have more knowledge of what's happening on the course and might be more likely to approve the appropriate budgets.

But pictures speak louder than words. By using drone photography, superintendents are able to give members the full picture from a new view.

Superintendent **Will Laine** had been using drones for photography long before he arrived at Pine Lake Country Club in suburban Charlotte. While working as an assistant superintendent at Daniel Island Club in Charleston, South Carolina, Laine helped director of agronomy **Joey Franco** take photos and videos for communication purposes.

MARCH EDITION with Will Laine

SUPERS CORNER

Unless you were on a Caribbean vacation during the entire month of February, you already know that it was very COLD & WET. Weather is the most important factor in the progress of any Golf Course Renovation. Despite the less than favorable weather conditions the contractors on site have been able to push forward. Silt Fence, Plastic Tarps and Sheets of Plywood were utilized by the contractors to protect the areas of disturbance from the rain and snow. In the photos below you can see the plastic tarps being laid out across #5 & #6 green before four inches of rain fell between 2/10-2/16

Laine would be given a deadline and spend time throughout the week shooting photos and videos to be used in newsletters for the membership.

"We would fly the drone up out in the water and take photos from up above and back towards the course with fog through the clouds, and it was really cool," Laine says.

Aerial photography is an especially helpful tool during course construction and renovation. The drone skills Laine gained at Daniel Island Club carried over to his role at Pine Lake, where he has worked since June 2022. The club recently underwent a 10-month course renovation project.

Through each phase of the renovation, Laine assigned his assistants to capture the progress. Because members were unable to use the course throughout construction, this was an engaging way to keep golfers in the know. Drone photos from during and after the renovation are now often used in the club's newsletter, the *Pine Needler*.

"I just wanted the members to feel like they were not in the dark about what's going on and keep them informed," Laine says. "Since they can't be out there in person, maybe they can be out there vicariously through me and the newsletters and the pictures and the videos."

Aside from construction updates, drone imaging can help explain course conditions for golfers. If a specific hole is cart path only, or a green is closed, images can help.

© COURTESY OF WILL LAINE

While working through a drought season, Pine Lake's irrigation ponds were running way lower than usual. Laine needed a way to explain to members why tee boxes and fairways were being hand watered during the day.

"I used a photo of that pond when it was full last year, versus a photo of it now, so they could see how far the level of the water has gone down," Laine says.

On-foot photography provides great marketing photos for a club. But the view from above, once only seen by birds, provides an unbeatable image.

Some members see the course almost every day, Laine says, "but they don't see it from 300 feet up in the air with the sun rising over the pines."

Kelsie Horner is Golf Course Industry's digital editor.

One superintendent's *lukewarm* view of **drones**

By **Ron Furlong**

Occasionally I get the question, "Why don't you use drones on the golf course?"

It's not the easiest question to answer, as drone use (right along with all the robotic mowers and gadgets) is on the rise.

For starters, let me say that I am not at all opposed to drone use for golf course maintenance, nor am I opposed to technology itself. Yes, I've been at this gig for a few decades now and, yes, I suppose, I am somewhat resistant to change sometimes. But not always. I feel the need to clarify that.

I do see the benefit to drone use on the golf course. Drones can easily (and usually quickly) monitor turfgrass health, the irrigation system's success or lack thereof, fertility needs, weed invasions and even give a view of storm damage the morning after a night of high winds.

But, for the counterpoint, I would say all these things can also be done without drones. If I'm relying on drones to determine where I need to fertilize, then, in my opinion, I'm not paying close enough attention to the golf course. I've heard the sales pitch that drones can help with determining bunker sand depth. Again, not to be a Negative Nancy here, but I know where we need bunker sand. This specific use seems more like a fun toy than actually providing functionality for the maintenance staff. It sounds like more of a sales pitch to me than anything I'd use a drone for.

And, as far as the storm damage assessment I mentioned, by the time you get the drone woken up and flying out on the course (also, no doubt, waiting for light) you could have had a couple workers cruise the course and report back probably a hell of a lot quicker.

Again, I'm not saying there aren't practical uses for drones on the golf course. I do see that. In fact, we used a drone last year to monitor the progress of the dredging we had done on one of our ponds on the course (see the photo above). To increase our water storage, we dug the pond back down to its original construction depth from 35 years ago. For that particular project, the drone was a useful tool for us and for the company dredging.

I also see that one of the biggest benefits to drone use is for monitoring the effectiveness of the irrigation system. This is actually an area that I think would benefit our particular golf course. Avalon Golf Links in Burlington, Washington, still has the original irrigation system installed in 1990. When I say original, I'm referring more to the PVC pipe in the ground. Most of the heads and valves, as well as the pumps themselves and the pump station, have been replaced over time, but that pipe is aging, and breaks are not uncommon. Every now and then we use low pressure at our pump station, which sends us scrambling to find a pipe break, which is not as easy as it sounds as we are a 27-hole course with a lot of irrigated acreage. A drone would be most beneficial in this particular instance. Also, although many of the sprinkler heads have been replaced over the years, many have not and are literally 36 years old. These heads, as you can probably guess, are not all that reliable anymore and often get stuck and don't turn. Drones would no doubt locate these spots of unirrigated turf before we would.

Although I have been somewhat reluctant to jump headfirst into drone-mania, I do believe drone use certainly has a place on golf courses. Like many courses, we will find out exactly how drones can help and even improve our maintenance. As no two golf courses are the same, I'm guessing the fit drones may have will vary from course to course.

Ron Furlong is the superintendent at Avalon Golf Links in Burlington, Washington, and a frequent Golf Course Industry contributor.

© COURTESY OF RON FURLONG

Above the trenches

By **Matt LaWell**

The first time **Forest King** used a drone, he was a twentysomething Alaskan river guide in search of adventure.

"It was an old GoPro drone and it was the coolest thing in the world," he says. "It had a removable gimble that you could take off for handheld use or you could just slap it on your helmet. But they cancelled that program pretty quickly because a lot of those drones flew away, never came back, crashed, landed on top of people. It was a disaster."

The tech has come a long way. So has King. No longer on the rivers, King is the first director of field technology for Landscapes Unlimited. Originally a project superintendent, he has used drones for almost all of his 11 years with the company, beginning with an early DJI Phantom during a 2016 project at Midland Country Club in west Texas. He's also used a SenseFly eBee X fixed-wing model that was so light it looked like it was made from beer cooler Styrofoam and often got tangled in trees, and a WingtraOne Gen II that takes off and lands vertically. The latter is the first model King deployed with a LiDAR sensor to accurately measure distances between objects and from above treetops.

King counts more than a dozen drones in his arsenal, with plenty of other tools for an evolving job. At least 20 Landscapes Unlimited project superintendents and assistants are licensed by the FAA to fly drones on site, with some flying once or twice almost every week. That allows teams to "compare from one date to the next and see exactly how much material went where," King says. "You can see if you're double-handling material, you can see how much trench is getting opened in certain time periods, and we can take those numbers and correlate them back to the estimate or the schedule."

In addition to drones, King and the rest of his 10-person team — including field technology manager **Abdiel Vélez**, field technology specialist and lead drone operator **Kade Stallard** (inset, left), geospatial systems coordinator **Dustin McCormick** and CAD manager **Denise Haake** — use "a minimum of six different softwares just for producing one type of deliverable. We want the software that's going to get us exactly what we need. You have to be an expert in multiple platforms and softwares."

Why use so many different tools? "We're essentially utilizing any type of technology, especially geospatial technology and data capture in the field back to the digital environment, and then providing that connection point," King says. Data makes everybody's job easier on site, from project manager to estimators. "Drones are one tool. My job is providing insights to the field or back to the office."

Elsewhere along the architecture and construction path from dream to done, **Brian Curley** is a more recent convert to the power and efficiency of drones. The architect uses drones throughout site prep, studying images ahead of his initial visit, then using them when figuring out what to clear.

"When you're carving something out of a dense forest, they're very, very helpful," Curley says. "They would fly it 10 foot high and the center lines were marked — tee, turning point, green — and I would take screenshots and mark, *take that tree, take that one, take that one, take that one.*"

The aerial perspective would have helped Curley when he was walking

© COURTESY OF FORREST KING

land in southern China at what would become the now-shuttered Stone Forest International Country Club.

"Crazy beautiful site," he says. "It had all these crazy rock formations and they didn't really show up on the [topography]. It was hard to see because it was solid eucalyptus trees. I spent a week trying to find golf holes. More time than I've *ever* spent, just trying to figure out a routing. I had to walk all over it, slashing through the bushes, trying to find stuff. I was climbing over rocks and cutting myself open. A drone would have been uber helpful on a job like that."

Curley has designed courses in almost a dozen different foreign countries, including the aforementioned China and Vietnam, where he is currently at work on FLC Golf Club Pleiku. He spends full days every month on airplanes — he estimates about 15 percent of all his sleep comes on planes — but drones might soon help him cut travel time.

"If you're working on the property down the street, no big deal," he says. "But if you have to go halfway around the world to go see something and you're doing an amount of work that doesn't take that long to review, … you could skip a month and during that month you get a lot of drone information so you stay on schedule and don't miss a beat. It doesn't mean you don't go, it just means you don't have to go as often during certain periods and you don't lack that quality control. You're on site and tell someone, 'Take that hill down 40 meters. I'll come back in a month.' You could have easily had a drone tell you that!"

Matt LaWell is Golf Course Industry's senior editor.

Emmy the eastern screech owl returns each year to her nest left of the 18th fairway at Olde Florida Golf Club.

Attract, identify, protect

Superintendents work each day to care for the land and wildlife at their feet. But what about the flying friends above their heads?

By **Kelsie Horner**

Superintendent **Darren Davis** believes golf course superintendents are environmentalists.

"We care for a piece of property," says Davis, the longtime turf leader at Olde Florida Golf Club in Naples. "We manage the property to make it better. We make it better for wildlife. We make it better for water quality."

They also make it better for birds.

Attracting, identifying and monitoring the wide variety of bird species on a golf course is an essential part of the superintendent role. A healthy bird population equals a healthy course.

In an ever-expanding suburban area of Naples, Olde Florida remains a haven for the large bird population in the area, providing a home for wildlife being pushed out of the city.

At Olde Florida, deer and raccoons make frequent visits. Alligators live in the ponds. But above the ground, in the trees, lives a wide variety of species. Identifying and protecting these species is of key importance to Davis.

That's why he hired **Brian Beckner**.

"He can educate me and increase my knowledge of bird species," Davis says. "I continue to grow every day—professionally and personally."

Beckner, a trained ornithologist, is a superintendent-turned-business owner. He owns and operates Native Bird Boxes, Inc. where he builds species-specific birdhouses to be planted on golf courses and works to monitor and identify the creatures that call them home.

When Beckner was contracted by Olde Florida, he helped implement these bird boxes. There are now three purple martin houses on the course, which Davis says are full each year. "Purple martins come back to the same nesting areas every year, so they have been

© DARREN DAVIS (LEFT); MATT KALWASINSKI (RIGHT).

fun to watch over the years," the superintendent says.

The purple martin success led to implementing seven eastern screech owl boxes. Multiple owls currently call the course home. This has been a fun and exciting project for Davis. The team has named the owls. Ginger, the longest tenured owl, lives behind the fifth green. Sleepy, named for her restful tendencies, resides on the driving range. Julia lives in front of the clubhouse. Her name is inspired by Davis's love for the movie *Runaway Bride*. Emmy lives left of the 18th fairway. Beckner and Davis monitor the boxes, opening them three times a year to check on the owls and their hatchlings.

The screech owl boxes aren't a necessity for the species. They likely would have found their own nesting spots on the property. However, these boxes provide a safe place for them to live, while also providing educational opportunities for Davis and the community. Davis posts photos of the birds on the club's Facebook page, which he says get more likes and comments than any golf photos.

"It's been fun," Davis says. "That's one thing that I have gained from bringing Brian in and installing boxes — talking with him and learning from him. It's been fun, and now I look forward to him coming by and checking the boxes and seeing who's in them."

Bird boxes have become a common find on golf courses, and they are available for a variety of species. Most common include purple martin boxes, bat boxes, duck boxes and eastern bluebird boxes. To implement these houses, superintendents can work with a company like Native Bird Boxes, Inc. or build their own. Some courses even work with local scout troops for the project. Whether there is one bird box on property — or 30 — each can make a difference.

BRING IN THE BIRDS

Aside from bird boxes, there are more natural ways to attract species to the course. Large habitat patches and corridors are one way to make the course more attractive.

At Olde Florida, every hole is surrounded by corridors — areas of natural land that connect between habitats and allow wildlife to move safely from habitat to habitat.

"They're just 18 holes that were carved out of the woods," Davis says. "The natural habitat for any species, including birds, was already here."

A patch is an area of land that differs in appearance from the areas around it. Think of a patch of wildflowers on the course. Birds prefer larger patch areas because they are better fit for breeding. If possible, protect large patch areas on the course. To build natural patches, plant a variety of native trees and shrubs in clustered areas, or create native grassland.

If looking to attract a specific species of bird, talk with an expert or research which trees or plants can bring them your way. For example, winterberry shrubs attract woodpeckers, blue jays, chickadees and northern mockingbirds. American sweetgum trees attract mourning doves and northern cardinals.

As superintendents, it's essential to know what's residing on your course. "We know that we manage a piece of property that's a sanctuary," Davis says. "A golf course is so much more than just a playing surface. It is home to not only birds, but home to a wide variety of species. We should embrace that — and we should not only embrace it, we should educate others on it."

Aside from implementing bird boxes on Olde Florida's property, Beckner also conducts a bird survey twice a year. Well over 100 species have been named so far.

There are many resources available for superintendents to begin identifying bird species on their properties. One option is to look to your community. "Reach out to others and bring them out to the golf course," Davis says. "Most people are envious of our office."

Daniel Augdahl, superintendent

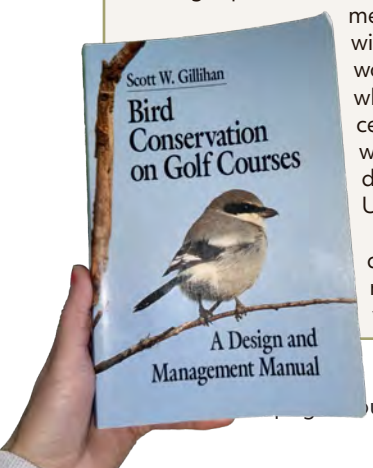
HIT THE BOOKS

There are plenty of resources available for turf pros hoping to increase their bird knowledge. "Bird Conservation on Golf Courses" by **Scott W. Gillihan** was written specifically for superintendents. "Golf courses are one of the few cases where human development can coexist with the natural community," Gillihan writes.

The design and management manual features eight chapters focused on the importance of birds on golf courses and how to protect them.

The book focuses on pros and cons of these golf course critters. Gillihan provides advice for dealing with waterfowl and nest defenders, advising superintendents to take appropriate measures when dealing with these species. His work also touches on which plants attract certain species, and which birds are found in different regions of the United States.

If you're looking for an information-packed read, consider Gillihan's work.



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From left, the dickcissel, the northern shoveler and the black-crowned night heron.

© MATT KALWASINSKI

of Centennial Park Golf Course in Munster, Indiana, was approached by a local resident. In 2022, **Matt Kalwasinski** saw a social media post about a dickcissel spotted on the 9-hole course. Kalwasinski is a bird enthusiast who lives a short drive from the course, so he headed over to check it out.

Centennial Park is built on top of an old landfill, and nearby grassland habitat is becoming more limited. The **Tim Nugent**-designed course sits on more than 100 acres of lowland wooded areas, prairies and water features. Kalwasinski recognized how unique the dickcissel's presence was. The golf course was providing a safe oasis for the bird species to reside.

Kalwasinski reached out to city employees, emphasizing how important this was to recognize. A city employee connected him with Augdahl, who was working toward getting the course certified through Audubon International. Birding, though, isn't Augdahl's specialty.

This started the partnership between Kalwasinski and Centennial Park. Kalwasinski began doing bird surveys three times a year, identifying species by sight and sound. He has identified more than 100 species on the property. The most common species found on the course include American robins, red-winged blackbirds, Canadian geese, mallards, song sparrows and killdeer. More rare species include the dickcissel, eastern meadowlark, Ross's goose and American bittern.

"Try to reach out and see if you can find a local Audubon chapter," Kalwasinski says. "There's probably someone else like me who would be happy to drive around a golf cart and go birding."

Augdahl also worked with a local resident Girl Scout, **Julianna Dodge**, who built and installed five bluebird houses and a duck house on the course. She monitored the box for several years, counting eggs and hatchlings.

TECHNOLOGY IS HERE TO HELP

Technology has advanced the turf industry in astronomical ways. It's also affected the birding industry. The website eBird is a free global database run by the Cornell Lab of Ornithology that allows users to record and track bird findings, while making data available to scientists worldwide. In addition, Cornell offers a free mobile app called Merlin Bird ID, which helps users identify bird species by photos and/or bird sounds.

"A lot of birders in the world submit their data to eBird, and that can drive conservation," Kalwasinski says. "It can help with understanding population trends.

"I always make sure that every time I go out to the golf course and bird, I'm submitting that checklist to the larger database. It's not just sitting for me to enjoy. It can actually be accessed by individuals that need to see population trends and conservation and where birds are going."

Also managed by Cornell and recommended by Kalwasinki is allaboutbirds.org, a free online guide for birding. The website allows users to identify species and gives recommendations for feeding specific birds.

"The good thing about that is you can type in any species you want, and it will tell you nesting information, it will help you ID the bird, it could tell you migration behavior, nesting behavior and habitat behavior, and it's free," Kalwasinski says.

By identifying the flying friends that frequent the course, superintendents are able to learn about the health of the land — and the health of the birds.

"I have learned that there are way more species of birds out here than you can imagine," Augdahl says, "and I've learned about the cycles of when they lay their eggs, and timing of that."

Birds are an essential part of the ecosystem, and they have many benefits for the golf course. Many birds eat insects, which can help with insect outbreaks and mosquito control. Larger birds also find prey in rodents such as mice and voles. And birding as a hobby is growing. According to the 2022 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, 96 million people engage in birding in the United States and nearly $108 billion was spent on the hobby in 2022. The golf course provides a new location for local birders to venture off.

As urbanization continues, golf courses remain. These green areas provide a safe piece of natural habitat for these flying friends.

Kelsie Horner is the digital editor of Golf Course Industry magazine.

NO SPIN REQUIRED

In our profession, precision and accuracy matter. Not just on the course you're presently working on, but when it's time to look for your next job. It's very easy to inflate your position or responsibilities, whether on a résumé or in an interview. But your credibility and personal integrity are as important to those doing the hiring as agronomic performance.

For hiring committees, a résumé is more than a chronology of jobs. It's a test of judgment. It can be tempting to polish a title, stretch the scope of responsibility, or present a project as more singularly yours than it really was. But in golf course management, where references are checked and reputations travel quickly, exaggeration rarely helps and often harms.

Clarify, don't inflate

One of the more common traps is title inflation. I've watched titles evolve through my years in the business, with many growing grander, broader and sometimes less precise. A more impressive-sounding title might feel like a competitive advantage, but if it obscures your true responsibilities, it can raise doubts instead of cultivating interest.

There is nothing small about the title *golf course superintendent*. It signals operational leadership, agronomic expertise, staff management, budgeting responsibility and the ability to balance golfers' expectations with environmental and financial realities. When candidates swap clarity for prestige by reaching for titles that sound bigger than the job itself, they risk weakening the professionalism they want to project. I'm seeing more *directors of grounds and golf course maintenance*, *vice presidents of agronomy*, even *czars of turf*, but honestly, I'm not sure what it is these people do. Your title should accurately represent the scope of responsibilities.

If your club uses an internal title that differs from the role most in the industry would recognize, be candid. Accuracy does not diminish your experience; it sharpens it.

Every hiring process eventually reaches the same question: Were you truly in charge? Search committees will ask whether you had final authority over staffing, scheduling, budgets, chemical decisions, course setup, capital planning or communication with management and members. They will verify what they can through references, background checks and industry conversations.

That does not mean assistants, senior assistants or second-in-command professionals should undersell themselves. Many assistants have significant leadership roles and drive meaningful improvements. But the most effective candidates explain those responsibilities honestly: what they led independently, what they supported collaboratively and where decision-making authority ultimately sat. Precision builds trust.

A title might open a door for a moment, but substance is what keeps it open. In a profession as connected as golf course management, reputation remains one of the stronger currencies.

Curb your cover letter

In this era of AI, anyone can make themselves sound like God's gift to agronomy. It's better to keep cover letters simple and to the point. Express your interest and how to reach you.

Your résumé is a professional credibility document

A strong résumé does not need inflated language to make an impression. It needs specificity. Hiring committees want to understand the scale of your operation, the scope of your authority, the challenges you faced and the results you helped deliver. They also want to know whether you can communicate, which is why your best strategy is to be concrete, not theatrical.

Stick to facts: The number of holes maintained, the size of the team supervised, the annual operating budget, the scale of bunker or irrigation renovation projects, water-use reductions, tournament preparation or successful transitions. These details give committees something they can understand.

Provide evidence, not hype

The best résumés and professional profiles *demonstrate* talent. If you are especially strong in water resources management, construction grow-ins or budgeting, prove it with examples. No computer and its polished language can substitute for judgment, experience or integrity.

Know the market

That's not to say there aren't times when adjusting your résumé makes sense. For example, sharpen your résumé based on region, facility type and hiring culture. In the Southeast, educational background carries extra weight, so if you're a Bulldog, Volunteer or Gator, make sure that's clear. At some clubs, the focus might be on tournament experience, warm-season versus cool-season turf expertise, water constraints or an ability to communicate with demanding memberships. Understand these differences and tailor your résumé and remarks accordingly.

Ultimately, that's the real goal: Not to make yourself look bigger, but to make yourself understood.

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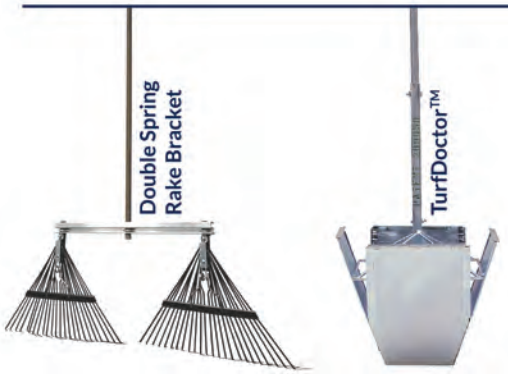


7
YAMAHA

OCEAN OF LOGISTICS

Nearly shuttered just two years ago, Catalina Island Golf Course is alive and thriving — albeit still relying on the barge to bring just about everything from the mainland.

By **Judd Spicer**

For Santa Catalina Island visitors, the allure of a mere 22-mile trip on the Catalina Express across the Pacific Ocean is the attraction, adventure and charm of arriving at a world away.

For Santa Catalina Island business owners and operators, the test has always been an assurance of guest appease via a unique set of coordination and coordinates.

In concert with the island's century-long destination menu of raw and rustic beauty for visitors, a penchant for play (in many forms) has stood the test of time at the venerable Catalina Island Golf Course. With the grounds' roots dating to 1892, it's the oldest track in golf-heavy California and one of the oldest courses west of the Mississippi River.

Debuted as a 3-hole play with oiled greens, the course's instant success saw it soon graduate to a 9-hole card. Chewing gum magnate — and island owner — **William Wrigley Jr.** expanded Catalina to a full 18 holes the year of the Great Crash before the course eventually returned to a 9-holer during World War II.

Along these fairways of yore, the course enjoyed all manner of jock, celebrity and military play, along with a revered Bobby Jones Invitational tournament. From fairways of history into modern day, Catalina Island's Junior Tournament (which debuted in 1967) has welcomed SoCal luminaries like **Tiger Woods**, **Amy Alcott**, **Craig Stadler** and **Corey Pavin**.

And yet, grass doesn't grow with the mere waters of history. For today's course operators, maintaining and evolving the grounds' renown and aesthetic is a labor of love and logistics.

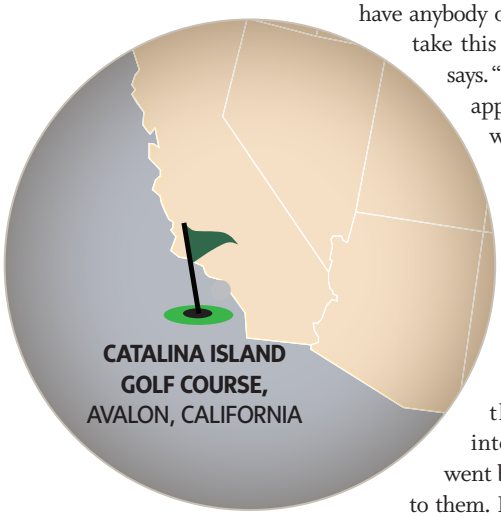
KNOW THY NEIGHBOR

The Wrigley family's Santa Catalina Island Co. owns the island, long having donated a vast wealth of Catalina's nearly 48,000 acres to the non-profit Catalina Island Conservancy.

A host of managers and overseers have run the golf grounds via leased operations over the decades until two years ago, when the course was under legitimate threat of transitioning to park space.

Enter **Steven Hoefs**, an island native (well, he moved in when he was four months old), a longtime firefighter and eventual Catalina fire chief who has since traded his hose for commerce.

"The Island Company reached a point where they didn't have anybody who wanted to come from the mainland to run it and they didn't have anybody on-island to take this on," Hoefs says. "When I was approached, I wasn't sure I wanted to take it on. But as months went on and there was talk of turning the course into a park, I went back to talk to them. It would be a tragedy to have all of this history, this asset to our community, go away."



CATALINA ISLAND GOLF COURSE, AVALON, CALIFORNIA

Owning and operating 16 island businesses ranging from restaurants to retail to a laundromat, Hoefs' esoteric knowledge of Catalina's unique ecosystem soon saw the course enjoy an aesthetic and agronomic rebirth.

Before he purchased fresh materials, bought a new Toro greensmower, brought over a Harrell's rep for team training (assessing core samples, insects, nutrients and more specified product application), etched pro shop relationships with Titleist and FootJoy and got the course on GolfNow.com (noting that the company really wanted the island dot on its course map), Hoefs' first operations ingredient was seemingly simple: Being present.

"On this island, people have tried to manage businesses from afar. Very difficult," he says. "You need to be in tune with your people, your employees. Being here, being around the team, getting them what they need to be successful—makes all the difference."

Catalina Island GC's team of 10 (five on the grounds staff, five more in the pro shop) echoes the importance of said presence. **Rigo Pedroza**, Catalina's course manager who oversees the grounds staff, has worked at the property for more than 26 years.

"When we've had owners from out of town, yeah, they care, but they're here to make money," Pedroza says. "But Steve is here to care for the course, and you can see the improvement."

Being neighborly on Catalina is very much a vibe. Being an actual neighbor, however, isn't easy. The island's populace numbers around 3,500 year-round—and swells threefold come summer's peak—and collects namely in Avalon, Catalina's only incorporated city. While an estimated 85 percent of island workers live on Catalina, a dearth of housing proves an omnipresent challenge.

Though a small percentage of the island's workforce commutes via the trio of ports and the hourlong trip on the Catalina Express, the majority—including all golf course staff—find a way to reside on the rock, namely by working multiple jobs.

"For employees, it's very difficult to bring people back and forth from the boat, timewise and cost-wise," Hoefs explains. "And that's combined with housing, which is really difficult here. We always have a housing shortage on the island. There are some really skilled people who come to Catalina, want to work and live here, and they just can't find housing and they're gone. So, for the locals, they need the proper training and they need the opportunities."

WORK THE PROBLEM

Catalina Island Golf Course's redeemed conditions have benefited not only from Hoefs' ethos of course-as-community, but also via his unique grasp of island commerce.

"Logistically, getting stuff here is a real challenge," he says. "And getting people to come over and do things always requires a lot of explaining."

Inverse to a mainland center or setting, problem-solving on island is a test for most businesses, with a reliance on materials coming via barge from the Port of Los Angeles in San Pedro, which arrives nearly daily in summertime but just three times a week come winter. If weather proves inclement, barge arrivals can be disrupted for as long as a week.

"Here, if a mower breaks, I can't call a guy to come right over and fix it," Hoefs says. "It's making a call and trying to troubleshoot or sending it out and waiting two weeks to get it fixed. We basically have one or two electricians on the island and one guy that does all the A.C. and locker refrigerators. Same goes with plumbers."

"It's more difficult to get stuff here on the island," Pedroza adds. "It's not easy just to go down the street to a store and get something. It's harder and more expensive for almost everything."

On-course and agronomic assets can enhance the challenge.

"The bunker sand? It's hard to get.

© COURTESY OF CATALINA ISLAND GOLF COURSE, THIS PAGE AND PREVIOUS

Even when we try to get it over in town [on the mainland], they don't want to sell us one truckload — they want to sell it in tons," Pedroza says. "And we don't need that much, so we try to buy as much as we can."

Among the host of historic facts and figures across the grounds' par-32, 2,100-yard layout and comely canyon setting, Catalina Island Golf Course's first, second and ninth holes border an active horse stable. In January, Hoefs and his team suffered a mane compaction, with escaped horses running free across the opening fairway and soon hoofing ample damage on the par-3 second hole.

"For this recent damage with the horses, I had to try four companies, then coordinate a barge and then coordinate people to come out and lay it," Hoefs says. "All told, that No. 2 green repair took me three weeks to coordinate and get done."

Riding a saddle of persistence and patience, Hoefs' Tetris of collaboration eventually found purchase.

"Finally, I found a [golf maintenance repair] company, and also a turf company," he says. "I brought four guys over, and they stayed at a hotel up the street from the course. Then we had to coordinate the grass — about 18,000 pounds, not cheap on a barge — arriving on a specific day, and hope the weather wasn't bad to disrupt the barge. And then we had to get it from the barge over to the course and to the green."

While Hoefs' reinvestment in equipment and materials has the greens rolling pure and a combo of Bermuda and Kikuyu grasses playing vibrantly, the operator acknowledges that grounds staff isn't wholly reliant on new tools.

"We had a roller that broke, and then I saw this 55-gallon drum sitting by the side of the [rebuilt] second green," Hoefs recalls. "I asked the guys why we had this barrel, and they told me they used it to roll the new green. I was like, 'OK …' But they just filled it halfway with water and they made it work."

And though Catalina Island Golf Course enjoys the benefit of its own well, the lead pipe irrigation system is estimated to be at least a century old. With an assessed price tag of approximately $1.5 million to replace, Hoefs (while in the process of acquiring a water truck) remains reliant on a veteran staff with course wisdom acquired only by time.

"Yeah, the piping is over 100 years old, and disintegrating," Hoefs says. "We probably have at least two or three leaks a week. And one of our guys, **Sal**, knows where every one of these pipes are and can go right to the leak and has these C-clips to stop the leaking. It's just a type of knowledge that you can't replace."

While the water finds a way to flow, the Catalina Island Golf Course constant remains community — both serving as an affordable island amenity for visitors and a fairway fulcrum for longtime locals.

"My messages to the guys here was simple: 'We're doing this for you, for the community and the visitors,'" Hoefs says about his operations overview. "We want people to take pride in ownership of the course. You see a piece of trash, please pick it up. You see somebody out there doing something they're not supposed to, please tell them to stop. I want everybody here to be a part of this."

Judd Spicer is a Palm Desert, California-based writer and senior Golf Course Industry contributor.

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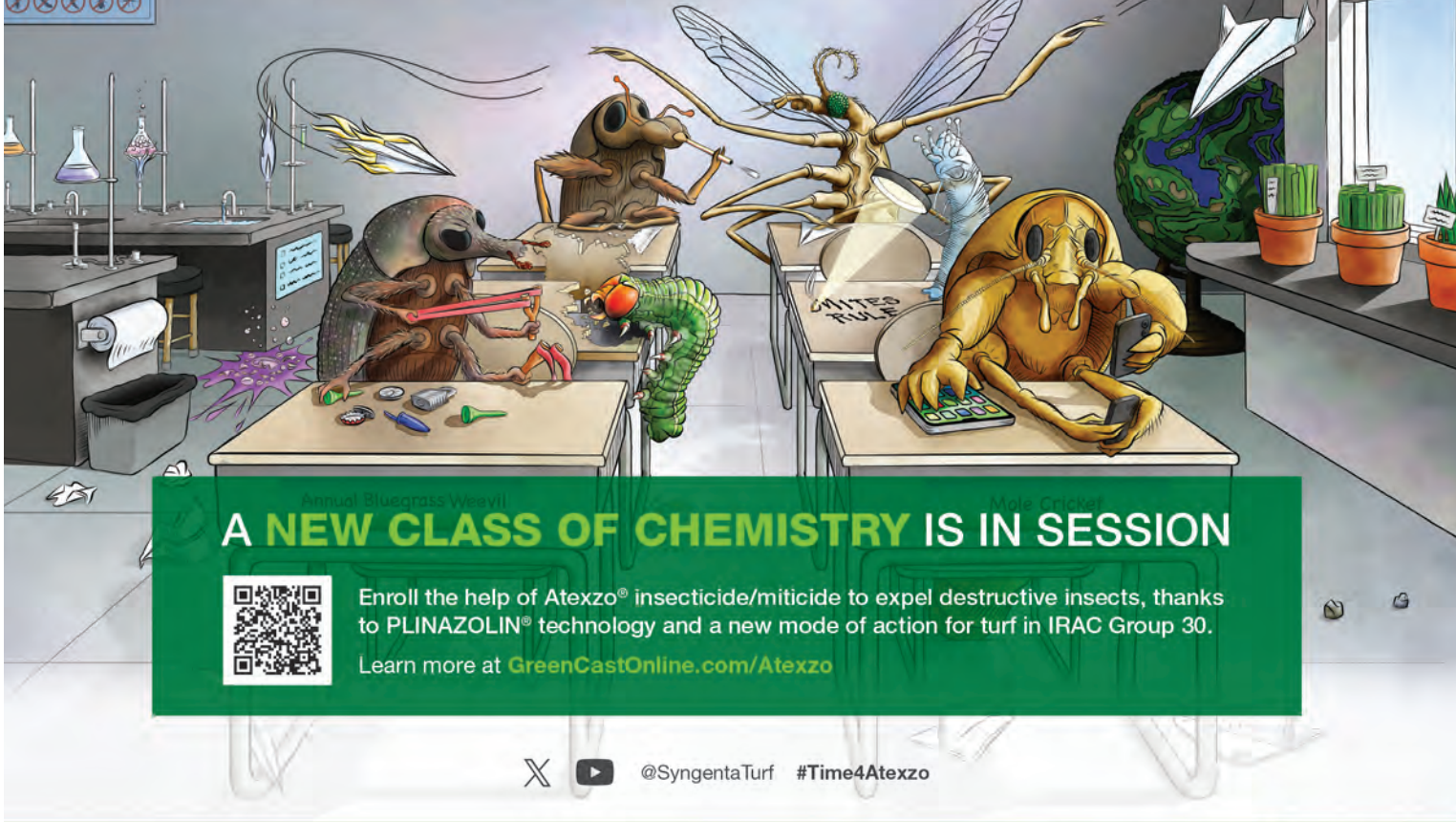

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Shots to remember

Golf courses foster casual and dramatic connections. The late **Mike Strantz** understood this — and because maintenance teams protect his work with integrity, his bold designs continue to captivate.

By **Lee Carr**

Mike Strantz envisioned seven original designs including Caledonia, True Blue and Bulls Bay in South Carolina; Tobacco Road and Tot Hill Farm in North Carolina; and Royal New Kent and Stonehouse in Virginia. He also extensively renovated Silver Creek Valley and the Shore Course at Monterey Peninsula Country Club in California.

He contributed to several other courses and, by all accounts, he was a really good man. Strantz had a profound influence on many people — a caring, creative soul, who is remembered and often missed. He died on June 10, 2005, less than three weeks after turning 50. His legacy endures more than two decades later in how his courses are played and maintained.

Royal New Kent Golf Club, in Providence Forge, adopted the tagline "Golf Ireland in Virginia," and the inland links course is complemented with rustic accessories and the hearty Strantz Pub, which contribute to the atmosphere. Strantz's third solo design is owned by a group of local investors and it's managed by Wingfield Golf. The maintenance team consists of three seasonal workers, four full-time employees and an equipment manager, with superintendent **Chad Karr** leading. The course motto is "Invicta," which means "undefeated" or "unconquered." It's a tough track.

"What makes Royal New Kent unique is the opportunity to blend traditional golf course architecture with a modern approach to agronomy," Karr says. "We're working to present a Mike Strantz design the way it was intended to be experienced, while using data and technology to make informed decisions day-to-day. With a lean team and limited resources, we're very intentional in how we operate and, in a lot of ways, that's made us better. Our focus is on consistency, playability and creating an experience that golfers can trust."

On the west coast, **Chris Dalhamer** is the director of grounds for Monterey Peninsula Country Club in Pebble Beach, California. There are two championship courses, Dunes and Shore, with **Conner Galea** promoted to superintendent in 2024. Strantz reimagined the Shore course in 2003, it reopened in 2004, and it has recently been renovated by **David Zinkand** from Zinkand Golf Design.

"The enhancements have been subtle changes to protect Strantz's vision and to showcase the unique features of the property," Galea says. "There are two completely different

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Sampling of Strantz

Monterey Peninsula Country Club, Shore Course

Pebble Beach, California
Year opened: 1960, renovated by **Mike Strantz** in 2003, renovated in 2025 by Zinkand Golf Design
Course: 18 holes, private
Turf Types: *Poa annua* (greens), fescue/bentgrass (tees, collars, approaches, fairways), ryegrass/*Poa* mix (rough)
Par: 72
Yardages: 6,969 yards (Gold tees) to 4,885 yards (Silver tees)

Royal New Kent

Providence Forge, Virginia
Year opened: 1997
Course: 18 holes, semi-private
Turf Types: Champion Bermudagrass (greens), Bermudagrass (tees), Bermudagrass and zoysia (fairways), zoysiagrass (maintained rough), fine fescue (native areas)
Par: 72
Yardages: 7,440 yards (Invicta tees) to 4,937 yards (Green tees)

Tobacco Road

Sanford, North Carolina
Year opened: 1998
Course: 18 holes, public
Turf Types: MiniVerde Bermudagrass (greens), Tifway 419 Bermudagrass (all other areas), Little Bluestem, Lovegrass, Wiregrass (native areas)
Par: 71
Yardages: 6,557 yards (Ripper tees) to 4,296 yards (Cultivator tees)

courses at MPCC, each with its own character, style of play and maintenance demands, including managing six different turf types. Helping maintain the Shore Course, Strantz's final property, is an honor and a privilege. He had a unique style and used the land masterfully. His design makes the player think about every shot."

Bud Hare, superintendent at Tobacco Road in Sanford, North Carolina, learned a lot about Strantz from **Morgan Stephenson**, who worked at Tobacco Road for more than 25 years and knew Strantz personally. "Morgan has lots of really neat stories to tell about Mike, and just how awesome of a guy he was," Hare says. "I do take a lot of pride in working on one of his courses as there are only a few. There's a buzz around them, and the expectations that all the golfers have."

The maintenance team has expectations, too.

"By 11 green, it's a 30-feet deep bunker. We can't keep sand up there all the time. It's going to be inconsistent," Hare says. "And around the 13th green is a natural area that they found and incorporated into the design. It has washed over the years, but it's kind of gnarly, and Strantz-looking, so everybody loves it. We get away with some of that because Strantz didn't design the edges to be perfectly maintained — he expected some gnarly little edges. I notice them, but the golfers don't expect to see perfectly kept sand, and they even expect a weed or two."

UNEARTHING SUCCESS

Strantz properties exude style and intent, so those are the guiding lights for how the maintenance work is executed.

At Royal New Kent, they only close when they have to cover the Champion Bermudagrass greens in the winter, and for three days in July for greens aerification.

At Tobacco Road, tee times stop at 1 p.m. on Tuesdays from April through October, to topdress, verticut and needle-tine the greens. Additionally, the property is closed for eight to 10 days for aeration from the last week of June through the first week of July.

There are 440 acres of maintained property at Monterey Peninsula Country Club handled by a staff of 60 including the landscape department, mechanics and the management team. They completed the Dunes renovation, in addition to the work done on the Shore Course. "It has been a few very busy years while we complete these projects," Galea says, "but the changes we have made have improved the properties tremendously."

One of the more impactful changes has been a maintenance facility renovation. "We expanded our facilities to grow with our operation," Galea says. "We installed upgraded electrical capacity to accommodate the recent California electrical mandate, forcing us to switch all new equipment under 25hp to electric." All 60 staff members now fit in the breakroom and the locker room, and they installed a proper mud room for rain gear.

After a less-than-ideal winter, they are keeping an extra close eye on water. Year to date, they have had average rainfall, but none for a six-week stretch, causing them to draw down the reservoir and shift their agronomic plans. "We will not run out of water," Galea says, "but we will have to ration it carefully through the summer to get to the next rainfall, hopefully in October."

Royal New Kent was renovated too, updating parts of the irrigation system in 2019, and replacing the pump last fall. This is helping them be more efficient and consistent with water management. The course, built in 1997, still has some

original irrigation elements, which need managing.

Karr feels a historic sense of responsibility. "You're not just maintaining turf, you're helping preserve a piece of golf course architecture," Karr says. "Strantz courses are bold, visually striking and strategically demanding, so our role is to support that and not take away from it. We've focused on restoring sightlines and removing overgrown vegetation so golfers can experience the scale, angles and visual presentation the way it was originally intended."

There are more than 100 bunkers, four acres of greens, more than 50 acres of fairways, seven acres of tees, and more than 60 acres of maintained rough at Royal New Kent. "Maintaining consistency is one of our biggest challenges," Karr says, "and when you're managing a property of this size with limited staff, consistency is earned through daily execution." Bunkers in particular require a lot of attention, not just raking, but maintaining edges and sand consistency.

They're embracing zoysiagrass encroachment on the Bermudagrass fairways and encouraging it through reduced fertility and water. "Zoysia provides an excellent playing surface, and it's both sustainable and more cold-tolerant in our region," Karr says. "We're also embracing a more data-driven approach to our maintenance practices. We've incorporated tools like Predict N7 to better manage plant health and growth, and we're using GS3 data to track putting surface performance. We're closely monitoring moisture levels and tracking clipping volume to help guide fertility inputs and topdressing frequency. That's allowed us to be more precise and consistent. We're moving in the right direction and I'm proud of the team."

Maintaining a Strantz-designed course means providing a memorable experience. "No. 11 on the Shore Course, with a unique shot and a view of the Pacific, is one of the most photographed holes on the property," Galea says. "We spend a considerable amount of time, daily, making sure that hole is presenting at the highest level."

No. 1 at Tobacco Road, where two tall, impressive dunes guard the approach, is another striking memory. "It's very visually intimidating. Strantz did that on a lot of holes," Hare says, "but once you play it, you realize it's wide open on the other side. If you can just get through it, he leaves you plenty of room to play."

After a big rain at Tobacco Road, the waste areas — a predominant feature — take some work. Technically, there are no bunkers. You can take practice swings in the sand, and the team uses sand pros on most of it, especially in the greenside waste areas. In the fairway waste areas, they use an 8-foot drag harrow pulled behind a John Deere tractor.

There are a handful of greenside waste areas where a liner might work, so they're testing a fabric liner there but many of the waste areas are too big, or bleed into wetlands, so liners aren't useful. The sand is all native, there's a lot of it and it adds a lot of character.

"We do have a couple of box blades behind tractors where we can pull

Evolving courses and careers

Morgan Stephenson met **Mike Strantz** while interning at Wild Dunes Resort in Charleston, South Carolina, where Strantz was a special projects foreman working for then-superintendent **Mike Fabrizio**. Stephenson continued to work at different courses, and Strantz's career in golf evolved. They again worked together in Virginia, and when Strantz designed Tobacco Road, Stephenson settled in as an assistant, and then the superintendent, for more than 25 years.

"I miss Tobacco Road, even though it was challenging, because you knew you were helping to take care of something special," Stephenson says. "Unique or different architecture requires thinking outside the box. The sand and waste areas were probably the most challenging given their size and scale, especially after large rain events. Sometimes mowing was difficult but with the proper equipment and technique, we were able to handle it. What I most enjoyed about maintaining Tobacco Road is that I knew how much Mike put into the design. It was important to me that we presented the course the way he envisioned it."

Stephenson and Strantz discussed how Tobacco Road was progressing. "Mike always said that golf courses evolve over time," Stephenson says. "Early on, after the construction of the course, the crew was concerned about some of the plant material that was beginning to grow in the waste areas. We felt a little overwhelmed trying to keep them looking exactly like Mike left them. Mike assured us not to worry about it, that the plants would seek their own level, so we just made certain that no overly large or obnoxious material was there."

People evolve, too.

"Mike was an important part of my life and career," says Stephenson, now superintendent of the Lakes course at North Ridge Country Club in Raleigh, North Carolina. "It was a joy to work with and be friends with Mike. Anyone who knew him and worked around him loved it because you knew how much he put into it. He treated everyone the same, from the owners down to the laborers doing the hardest work."

Mike Strantz, left, and design associate Forrest Fezler walk behind No. 14 green at Tobacco Road.

sand back up if we have big heavy rains and it washes," Hare says. "We mainly mine the sand back up ourselves, to put it back where it came from. There is lots of manual labor in that, lots of shoveling and pushing. It's not an easy job, but we get it done."

Hare picked up golf course maintenance after working for a cable company for 15 years, enrolling in the turf program at Sand Hills Community College to help with the career transition. Tobacco Road was the first course he worked on during school, returning later as an assistant and then being promoted to superintendent. He appreciates the work.

"It's just so peaceful," Hare says, "to be able to go out there and finish a job, and to have that instant gratification by seeing the finished product." He works with two assistant superintendents, **Matt Carriker** and **Aaron Chastain**, an equipment manager and an assistant equipment manager. They are seeking an irrigation tech and a spray tech, because finding labor is a challenge. During some summers the staff size has reached 22 people, but as of late spring they were operating with 10 and will likely bring in six or seven college students for peak season.

They are also making plans to replace the irrigation system, without closing the course. "We're not having major issues with the irrigation system," Hare says, "but it's getting to the point where we could have stuff pop up. We want to stay ahead of it." Tobacco Road opened in 1998.

© MORGAN STEPHENSON

Mark Stewart is the owner and the property is operated by Troon, hosting about 40,000 rounds annually with tee times starting at 7 a.m.

Hard-to-reach areas are handled with weed eaters and a four-wheel drive Ventrac with dual wheels that can handle the slopes. "That has saved us a lot of hours, just being able to mow those areas instead of having to do everything by hand," Hare says. "That's probably one of the more unique things that we do, all of our native area mowing."

They also grassed in a bunker where people practice chipping beside the driving range, instead of leaving it as sand, for quicker clean-up after storms. They have considered autonomous mowers and thought about drones, but these options aren't currently a good fit for the property. The Matchbox, a new short course, is under construction and will open this fall.

At Tobacco Road, "we have a local rule that you can pick your ball up, and improve your lie, just not your position," Hare says. "You can smooth the sand with your foot, or a rake. We just put rakes on the course last year for the first time. Fix your lie, put your ball back and take your shot." The courses that Strantz designed are evolving, as Strantz knew they would, but it's always been about taking your shot.

The maintenance teams supporting these Strantz designs take a shot every day, with recognition for the brand of golf that he created. Strantz committed to the land and the people who play there through his ideas, perspective and use of scale. He gave people a chance to do something different.

One of Strantz's quotes is shared on Royal New Kent scorecards: "Nothing in golf is more exciting than pulling off a shot you thought was beyond your capabilities, a shot you will remember the rest of your life."

People have the space to take those shots, make memories and connect with the land in the way that Strantz envisioned, because of the teams working to maintain these courses.

Lee Carr is a northeast Ohio-based writer and senior Golf Course Industry contributor.

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GOLF COURSE INDUSTRY

FANDOM

I get asked occasionally how many golf courses I've seen in my life. I'm not one to count them though I have to assume it's in the thousands. That's what happens when you've been chasing golf courses all over the country and the world for 55 years.

Perhaps it is strange that I don't know the number except as a wild guess. I base it on a youthful fascination, boosted in my 20s by summers spent caddying on the PGA Tour. Subsequent decades saw me as architecture editor of a golf publication in which my main jobs were visiting superintendents and managing a course ratings platform while traveling 150 days a year seeing golf courses.

What's really odd about the loose guesstimate is that I know precisely how many other sports venues I've visited to watch professional games: 38 major-league ballparks, 19 NHL arenas, seven NBA areas and five NFL stadiums. Counting ballparks is easier than counting golf courses because there are fewer of them. But I do admire those I meet personally or online who declaim a layout as the 791st course they've ever played.

There are also lots of places I have visited multiple times. I'm reminded of this as I think back to my involvement at Shinnecock Hills Golf Course, home of the 2026 U.S. Open. This latest engagement was my fifth U.S. Open there — the first one (1986) as a caddie for **Joe Inman** (who did not make the cut) and as a member of the press corps. After that, my role during U.S. Opens in 1995, 2004, 2018 and 2026 was limited to media work.

The last U.S. Open there was a real treat because I got to walk the course each morning with superintendent **Jon Jennings**. We met promptly on the first tee at 5:30 a.m., after his tent revival meeting with the 125-plus volunteers and staff members. Then we walked the entire course, 1 through 18, meeting and greeting all sorts of maintenance dignitaries and friends. It was like going back to summer camp — the industry's greatest gathering of talent and enthusiasm. It's something I've been fascinated by and written about extensively because it always makes me feel like a witness to a unique professional community. It provides a rare perspective on a highly technical trade that, even to most golfers, remains elusive and esoteric.

I've always thought of major golf events as akin to setting up a football stadium for a week: handling 40,000 fans, accommodating international media and finding the parking and merchandise areas and bathrooms and food stations for everyone while presenting a pristine playing field to the most discerning athletes at the height of their competitive power.

I love how the golf course is always the story in the run-up to the event and during practice rounds. That's where my job comes in. As soon as the rounds start on Thursday, what counts is the competition. If the golf course setup is still the story by the weekend, that doesn't bode well for the event's reputation. How strange, for superintendents to be charged with responsibility for setting up a playing field that, ideally, will fade into the background and allow the players to showcase their skills without the field being the cause of their undoing.

Along with being asked how many courses I've played, I often get asked what's my favorite golf course. To which I answer, somewhat cagily, "the next one I'm going to." That's because I always look forward to seeing what every place has to offer and how it creates its own identity and makes use of the landscape and topography it sits on.

The beauty of golf is that its playing fields are endlessly fascinating, linked together only by one simple rule about the diameter of the hole in the ground that is the object of one's efforts and attention. Everything else varies, including course length, playing texture, par, setting, width and sequencing of holes. With variety like that, how can anyone *not* feel excited when pulling up to the clubhouse and getting ready to see what awaits?

I might differ from other golfers in that I don't need to play the course to appreciate it. I only need to be out there, taking in its architectural elements and assessing how well the turf cover provides an adequate playing surface. Usually by the third or fourth hole I've settled into a judgment. I then end up using the rest of the holes to confirm the view I have formulated. One thing I have certainly learned is that my initial judgments, however sharp or direct, are usually more accurate and more to the point than my subsequent considerations, which always seem to get muddled with compromising qualifications.

There's nothing wrong with having strong opinions based on firm likes and dislikes. I'm a lifelong fan of sports playing fields, and none are more captivating than golf courses. In that, I share an affinity with superintendents.

No wonder I spend so much time with them.

BRADLEY S. KLEIN, PH.D. (political science), former PGA Tour caddie, is a veteran golf journalist, book author ("*Discovering Donald Ross*," among others) and golf course consultant. Follow him on X at @BradleySKlein.

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Memories at Mark's

A small-town Indiana course offers a welcoming environment for players of all levels while honoring the legacies of its past employees.

By **Kelsie Horner**

Mark's Par Three Executive Course wasn't intended to be the status quo. No dress code. No caddies. No collared shirts required.

It's not a country club.

"It's a club in the country," owner **Cliff Rigsby** says.

Located in Terre Haute, Indiana, just 30 minutes from the Illinois border, the executive course's first nine holes were built in 1962 by **Mark LaGrange**. In 1996, LaGrange purchased 70 acres that neighbored the course's east side. Soon after, the second nine holes were built. Lined with local sponsorships, the course's scorecard offers golfers multiple routes. The "OG 9" takes players through the original nine holes. Players can also opt to play on the new front nine and new back nine. The course features 13 par 3s and five par 4s.

When LaGrange built the course, affordability and accessibility were front of mind. Former longtime superintendent **Kenny Walsh** can attest to this.

"He was such a kindhearted guy, and he built this golf course to keep it inexpensive so people could play it," Walsh says. "He didn't want $40 or $50 green fees. He wanted to keep them cheap so that families could come out."

LaGrange died in 2008, but Walsh knows he would be proud of where the course is today.

Rigsby purchased the course in 2022, relinquishing fears that the property might turn into another housing development. He grew up playing the course with his father and didn't want future generations to miss out on the same opportunity. "It means a lot to the community, and I didn't want to see that go away," he says.

Prior to purchasing the course, Rigsby worked for Eli Lilly and Company. "They have a big quote that goes above their main elevator, and it says, 'Take what you have here and make it better.' And I've kind of kept that ever since Day One."

Rigsby sees the potential in the course, and big plans are in store to encourage continuous improvement. A new clubhouse is coming in the next five years, with hopes of expanding the cafe side and adding simulators. One of Rigsby's priorities has been amping up the pro shop's stock, building partnerships with brands like Srixon.

"The thing Cliff brought is his crazy mind," Walsh says. "Because he has so many ideas, and he's transformed the clubhouse into something I would never have believed would happen with our clientele."

While Rigsby has spent the last few years transforming the operations side of things, superintendent **Hunter**

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Wright has been dialed in on the agronomy. Wright is the only full-time maintenance team member. Everyone else works part time. The young superintendent was originally hired as a greenkeeper, but his drive and enthusiasm made him a candidate for the promotion.

"He took ownership in what he did, and he took pride in what he did, and he exemplified the same things that I would see in a superintendent," Rigsby says. "I knew he would fit into that role."

Wright taking over meant it was time for Walsh to pass the keys. Literally. "I gave him my keys, and I've had them on me forever. So that was the day that I knew that it was out of my hands."

Walsh started at Mark's Par Three in 1996 and worked as superintendent for 28 years. He dedicated his life to the role. "Just like I told the new superintendent, this is not a job," Walsh says. "This is a lifestyle, because you're at it every day."

Now that Wright has taken over, Walsh works part-time at the course while helping train Wright in his role. Despite no longer leading the agronomy team, Rigsby says Walsh still has a home: "I've always made it known to Kenny that, no matter what, this place is home to him as well. He's always welcome here. He always has a place to go because it's just as much his as it is anybody else's."

Wright is young and relatively new to the industry. He worked previously in the landscape business. Between Walsh, Rigsby and the community, Wright says he has "an army behind him."

Wright certainly needed that army after a greens mower was ruined, scalping the course's greens during a dry season. He and the team have spent countless hours recovering from the mistake. Multiple greens had to be ripped up, requiring a fresh start and many pounds of seeding and sand.

The course is built on dense clay soil, which brings its own set of agronomic challenges. The course is mostly tall fescue grass with Penncross bentgrass greens. The soil makes it difficult for grass to grow on bare spots, especially on fairways. When it's dry outside, some players even bring a hammer or a screwdriver to put their tees into the ground.

The property's large collection of mature trees also causes some difficulty. With most tee boxes covered in shade, Wright says it's nearly impossible to keep them in shape. "Grass don't grow where the sun don't shine," he says with a laugh.

The layout offers golfers four tee box options. Most don't use a driver off the tee, opting instead for an iron or a wedge, which leaves abundant divots.

"Nine times out of 10, the people out here are going to take huge divots because they don't really know what they're doing most of the time," Wright says. "It's a family course. People come here to learn."

Despite difficult growing conditions, Wright and the team are focusing on turning around the tee boxes. During the early season, tees are set up in grass areas, allowing tee boxes a chance to grow in. Wright focuses on topdressing, seeding and irrigation to revamp them.

To keep the community engaged, the course has started hosting events like glow golf and year-long scramble tournaments. "It's just doing things that keeps the community interested, keeping them active and keeping them coming out," Rigsby says.

With new ownership, a new superintendent and a legacy of past employees, Mark's Par Three is providing a welcoming, inclusive environment in western Indiana. The course isn't focused on handicaps or collared shirts. It's focused on family and accessibility — which is what keeps people coming back.

"You can come out here in cutoff jean shorts and a tank top and flip-flops. It doesn't matter to us," Rigsby says. "We just want you to come out and have fun and make some memories."

Kelsie Horner is Golf Course Industry's digital editor.

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Drinking Water Stations: THE NEXT GENERATION

Golf courses providing on-course drinking water to thirsty golfers has evolved over the past few decades.

Originally, potable wells with pump handles and spouts were used depending on the well water quality and availability. The next generation was potable galvanized or PVC piping, installed in select spots on the course to drinking fountains where the water temperature was not cooled. Then came the electric drinking fountain upgrades that cooled the water after appropriate underground electrical wiring was installed.

Newer and some established courses started using water coolers, placed in lockable enclosed stations throughout the course, with ice furnished from the maintenance building or clubhouse, using paper or Styrofoam cups. Warm-season courses installed electrically operated ice and refrigerated water dispensers with cup dispensers located at the on-course bathrooms/rain shelters and at the turn that are still widely used today. When COVID-19 occurred, water coolers were removed and drinking fountains, ice and refrigerated water dispensers were shut off, and many times no longer used, replaced with plastic bottled water.

The next and latest generation of drinking water stations have been installed at Noyac Golf Club in Sag Harbor, Long Island, New York, where **Brian Goleski** is the golf course superintendent, **Jim Geiger** is the assistant superintendent and **JR Wilson** is the equipment manager. "The goals and objectives were to no longer furnish plastic water bottles to the membership and their guests, replacing them with environmentally friendly cooled water stations," Goleski says.

This new technology involves installing 2-inch and 1.5-inch diameter polyethylene potable water pipes with bronze union potable water fitting connections installed approximately every 300 feet. The piping can be either "pulled in" or trenched in to a 14-inch depth.

Where adequate soil moisture and no rocky soils existed, the piping was "pulled in" using a rental pipe puller. Where there were tree roots or rocky soil, it was best to trench in the piping using a Toro TRX-250 Walk-Behind Trencher at a 4-inch width.

At the three potable water sources (each approximately 40 PSI) from the Suffolk County Water Authority, located at the clubhouse, training center and a club-owned house, respectively, a triple sediment/carbon potable water filter system was installed for obvious health and safety protocols, where separate

water meters already existed and were not required. The water filter cartridges were changed every three to four weeks throughout the spring, summer and fall golfing season, especially in June, July and August during peak rounds of golf.

The club sells metal water bottles in the golf shop or golfers may provide their own. Members can also acquire biodegradable paper cups at the halfway house or starters' booth.

Seven vandal-resistant outdoor stainless steel water stations, each with a combination drinking fountain and a water bottle filler, were installed throughout the course. The water stations each have a water filter cartridge that is changed every three to four weeks. The water stations are mounted on round poured concrete pedestals using a template provided by the water station manufacturer, each with three bolts placed in the concrete to mount the water stations securely. The water stations do not require any electricity.

To cool the drinking water, a chiller was installed adjacent to each water station in a hard plastic rectangular "vault" buried underground after an electrical contractor installed appropriately sized direct-burial electric wire. They were plugged into a duplex 110-volt electrical outlet and they are very quiet when they are operating. The chillers were initially overheating, causing the drinking water to be too hot because they were installed underground.

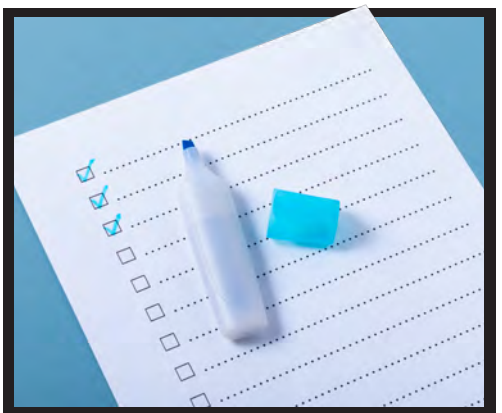
After some brainstorming, an electric fan system was installed along with a vent cap in the vault covers so the excessive heat was released from the vault and the chillers cooling the drinking water worked perfectly. The fan system works great and the chilled water temperature is approximately 43 to 46 degrees.

In preparation for wintertime, all piping is blown out with a portable air compressor from each of the three points of water connections, and chillers and water stations are removed and stored in the maintenance building complex.

There are other local golf and country clubs in the state that have also installed this type of water station and chillers with great success, and other clubs have taken notice and are also installing them.

"The Noyac Golf Club membership could not be happier with the cooled water stations that were installed beginning in November 2024 [and] completed in May 2025," Goleski says.

TERRY BUCHEN, MG, is president of Golf Agronomy International. He's a 56-year, life member of the GCSAA. He can be reached at 757-561-7777 or terrybuchen@earthlink.net.



The checklist

Parts, materials, labor and approximate costs for seven Noyac GC water station installations:

- ☐ (7) Haws Model 3611ADA Vandal-Resistant Outdoor Stainless Steel Bottle Filler & Fountain: $44,800
- ☐ In-house labor: $40,000
- ☐ Plumbing contractor, who provided (3) DP Big Trio 20-Inch Triple Potable Water Filters and installation: $30,000
- ☐ (7) Elkay Model ER101Y Remote Chillers, non-filtered, refrigerated (1 GPH): $10,000
- ☐ Contracted piping installation: $16,000
- ☐ Equipment rental: trencher, pipe puller: $12,000
- ☐ 3,500 feet of 1.5-inch diameter potable water polyethylene pipe: $20,000
- ☐ 3,500 feet of 2-inch diameter potable water polyethylene pipe: $30,000
- ☐ Pack joint union potable water fittings, bronze: $500
- ☐ (7) Nalle 4-inch Inline Duct Fan Radon Fan 50W 280 CFM Ventilation Exhaust Blower Fans: $315
- ☐ (7) Allvent 4-inch ABS Adjustable Air Vents for Valve Box Covers: $63
- ☐ (7) HOANK 14-inch x 19-inch rectangular valve boxes and covers: $196
- ☐ Electrical contractor wiring and installation: $60,000
- ☐ Miscellaneous hardware and fittings: $250

Total approximate cost: $264,124

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COURSES

Avalon Golf Links Baltusrol Golf Club **Bella Vista Golf Course** Bulls Bay Golf Club **Cabot Highlands Old Petty** Caledonia Golf & Fish Club **Catalina Island Golf Course** Centennial Park Golf Course **The Country Club of North Carolina** The Club at Mediterra South Course **Cobram Baroga Golf Club** Daniel Island Club **Eagle Creek Golf & Country Club** Evansville Country Club **Firestone Country Club** Frenchman's Creek Beach & Country Club South Course **FLC Golf Club Pleiku** Lake James Golf Club **The Piper at Legends Golf Resort** Magenta Shores Golf and Country Club **Mark's Par Three** Midland Country Club **Monterey Peninsula Country Club Shore Course** Nauka Golf Club **North Ridge Country Club Lakes Course** Noyac Golf Club **Oakland Hills Country Club** Oakmont Country Club **Olde Florida Golf Club** Old Westbury Golf & Country Club **Pebble Creek Country Club** Pine Lake Country Club **Royal New Kent** Sand Valley Commons **Sentosa Golf Club** Shinnecock Hills Golf Course **Silver Creek Valley** Stone Forest International Country Club **Stonehouse Golf Club** Tobacco Road Golf Club **The Matchbox at Tobacco Road** Tot Hill Farm Golf Club **True Blue Golf Club** Warwick Hills Golf & Country Club **Wohali Golf Club** Zollner Golf Course

NAMES

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AGGRESSION VS. DEFENSE

One of the more difficult skills in golf course management isn't growing grass, managing labor or operating equipment. It's knowing when to be aggressive and when to play defense.

Every superintendent faces this balancing act. There are times when conditions, weather, staffing and course expectations align and create an opportunity to push for exceptional results. There are other times when the smartest decision is to protect what you have, minimize risk and focus on consistency. The challenge is recognizing the difference.

Too often, our profession celebrates the aggressive decisions. We talk about tournament conditions, lightning-fast greens, intensive cultural programs and the pursuit of perfection. There is certainly a place for that mindset. Progress rarely comes from playing it safe all the time. However, aggressive management without awareness can quickly become reckless management.

A stretch of extreme heat, limited staffing, irrigation challenges or a demanding event schedule can change the equation overnight. What was an opportunity to push conditions one week might become a situation where preserving turf health is the priority the next. The best superintendents understand that every decision carries both agronomic and customer service consequences. They are constantly asking themselves a simple question: "What is the objective today?"

Sometimes the answer is to improve conditions aggressively. Sometimes the answer is to protect the golf course from unnecessary stress. Both approaches require discipline.

One mistake many of us make is viewing defensive maintenance as somehow settling for less. In reality, playing defense often demonstrates the highest level of professional judgment. The goal is not to win today's battle at the expense of tomorrow's golf.

This spring provided a timely reminder of that reality. Weather delays pushed back aerification schedules. Cool temperatures, excessive rainfall and saturated soils forced facilities to postpone cultural practices or adjust carefully developed schedules. In other cases, aerification was completed on time, but recovery lagged behind expectations because growing conditions simply weren't cooperating.

Those situations challenged superintendents to make difficult decisions. Do you stick to the original plan because the calendar says it's time? Do you alter the program to minimize disruption? Do you accept that recovery might take longer and focus on protecting turf health rather than chasing an unrealistic timeline?

There is rarely a perfect answer. Successful golf course management isn't about rigidly following a schedule. It's about evaluating conditions as they exist and making decisions that best serve both the turf and the golfer. Conditions, not tradition, should drive the decision-making process.

That leads to another critical part of the equation: communication. The best maintenance decisions can become problems if golfers don't understand why they're being made. Conversely, golfers are often remarkably understanding when they're given context.

Most golfers understand that weather affects the game. What often frustrates them is a lack of information. If conditions don't meet expectations for a few weeks, set those expectations early and honestly.

When you decide to aerify, topdress, raise heights, reduce traffic or protect a vulnerable area, communication matters. Explain the reason, benefit and timeline. Communication is an extension of course management. Members and customers don't need a detailed agronomy lesson. They just want to know there's a plan and that their experience is being considered. Perhaps, more importantly, communication creates trust.

Trust becomes especially valuable when difficult decisions must be made. If golfers have consistently heard from the maintenance team and understand the reasoning behind decisions, they are far more likely to support temporary inconveniences when circumstances require them. Most golfers are far more reasonable than we sometimes give them credit for.

That brings us to what might be the most important point.We must never forget why the golf course exists. Golfers aren't there to facilitate maintenance. Maintenance exists to facilitate golf. That doesn't mean golfers always get everything they want. Sometimes the right agronomic decision creates short-term disruption. Sometimes protecting turf health requires temporary compromises. Those decisions should be made with the golfer in mind.

Golfers must understand that certain practices are necessary to produce healthy, sustainable playing conditions. Maintenance teams must appreciate that golfers have invested their time, money and passion into the facility. Neither side succeeds without the other.

Knowing when to be aggressive and when to play defense is not simply an agronomic skill. It's a leadership skill that requires equal parts agronomy, adaptability and communication.

And in today's environment, that might be the most important skill a superintendent can possess.

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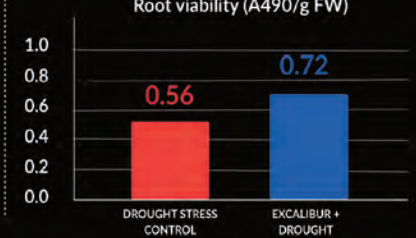
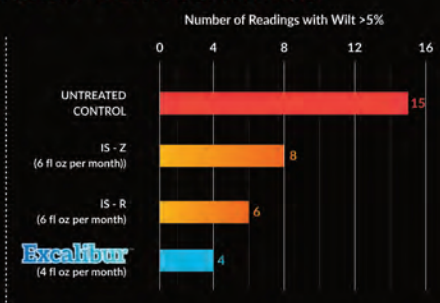


Plant Physiology Research, Zhang, Virginia Tech, Study 2, 2022

FEWER WILT EVENTS DURING DRY-DOWN CONDITIONS

70 %

FEWER READINGS WITH WILT >5% THAN UNTREATED TURF



Bigelow, Ph.D., Dry-Down Study, 2021

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