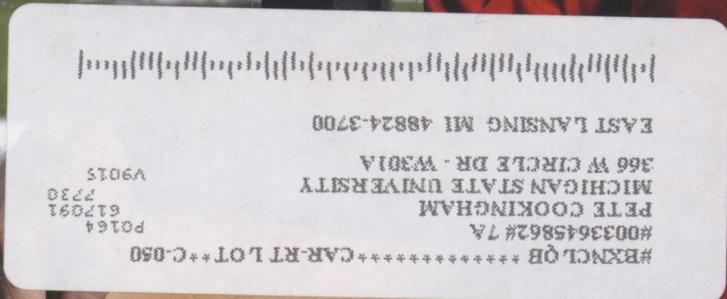


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BOND OF BROTHERS

Two superintendents, one email, a medical procedure and an example of personal sacrifice. How Brian Conn and Scott Dodson changed each other's lives.



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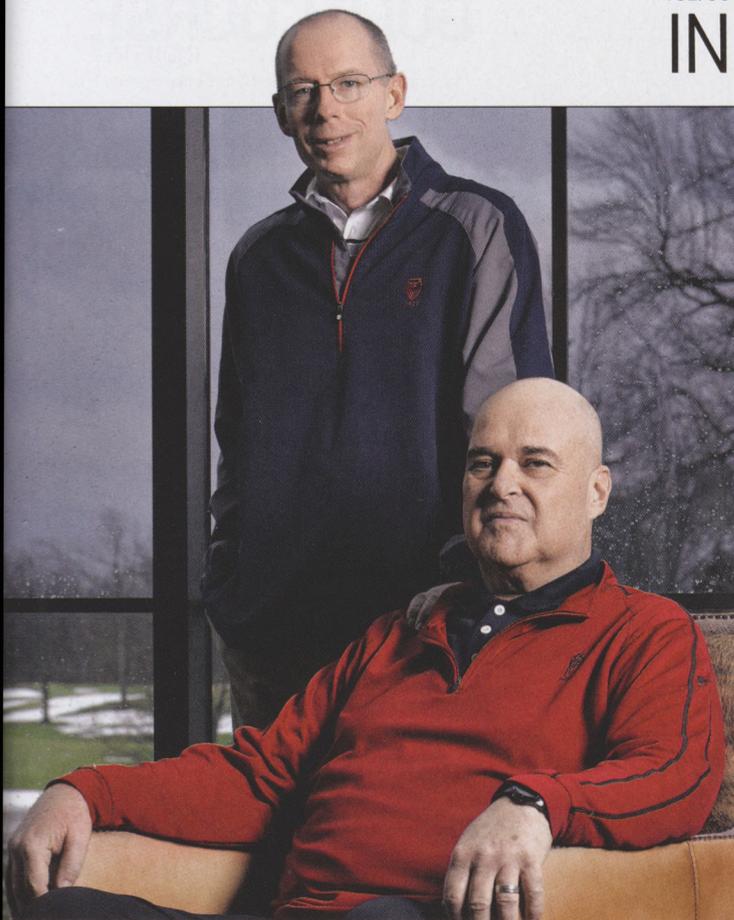


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THE STORYTELLER'S TALE

While touring a suburban Buffalo golf course last October, a superintendent of a neighboring club left a message on my cellphone.

His voice was feeble, the message concerning Scott Dodson was too sick to show me around Park Country Club, the middle stop on a three-day tour last October. I had never met Dodson, but he proved more than accommodating as I scheduled a fall swing through New York, agreeing to meet following my visit to nearby Brookfield Country Club. Park Country Club and Brookfield are five miles apart, a common separation distance between Buffalo-area clubs.

Welcoming superintendents and short distances between golf facilities make Western New York an ideal spot to visit courses. Natives call Buffalo "The City of Good Neighbors." I quickly discovered no municipality boasts a more appropriate moniker. Buffalo residents are genuine, charitable, humble, approachable and eager to show visitors what makes their region unique.

Even in illness, Dodson demonstrated incredible hospitality, alerting assistant superintendent Jim Frey, general manager Brad Pollak and head professional Eddie Suchora of my visit. The trio provided a neighborly vibe, enthusiastically staging a memorable tour of a classic course undergoing a renovation led by architect Ian Andrew. Everything about Park Country Club left an indelible — and delectable — impression.

I visualized thousands of spectators sitting on the hillside between the 18th green and the gargantuan stone clubhouse 83 years earlier, cheering Paul Runyan to the first of his two PGA Championship triumphs. Park Country Club has become a modern club without losing its Golden Age appeal, a source of pride among generational members and longtime employees. Pollak added sweetness to the day, handing me a half-dozen warm chocolate chip cookies as I departed. Mysteriously, all six cookies disappeared by the time I reached The Kahwa Club in Erie, Pa.

Still, something was missing from the experience: the opportunity to meet Park Country Club's longtime and engaging superintendent. I learned during the tour the reason behind Dodson leaving work earlier that morning: he was suffering from kidney disease and awaiting a transplant. I also learned Brian Conn, the superintendent at nearby Transit Valley Country Club, was the donor.

A powerful story. But one I wasn't prepared to tell. For starters, a confidential conversation revealed the looming donation. I place maintaining relationships above breaking stories, despite immense pressure, especially in the click-bait era, to be first. That philosophy has yielded access to personalities, places, information — and, yes, even a few scoops. Based on my experiences, quality relationships are the most important element to work success.

The patience was rewarded Jan. 23, when I returned to Park Country Club to meet Dodson and Conn, two weeks after the pair underwent a successful kidney transplant. The energetic tone in Dodson's voice contrasted last October's voicemail. The duo spoke for three hours about their lives before and after the procedure. Conn revealed to Dodson for the first time how a tragedy contributed to a personal metamorphosis that ultimately led to the donation.

I have interviewed hundreds, if not thousands, of subjects in my career for a variety of stories. Nothing has compared to sitting across from Dodson and Conn in Park Country Club's empty Runyan Room. A pair of superintendents shared an inspirational story with a stranger because they want to help others.

Score one for humanity. **GCI**



Guy Cipriano
Senior Editor

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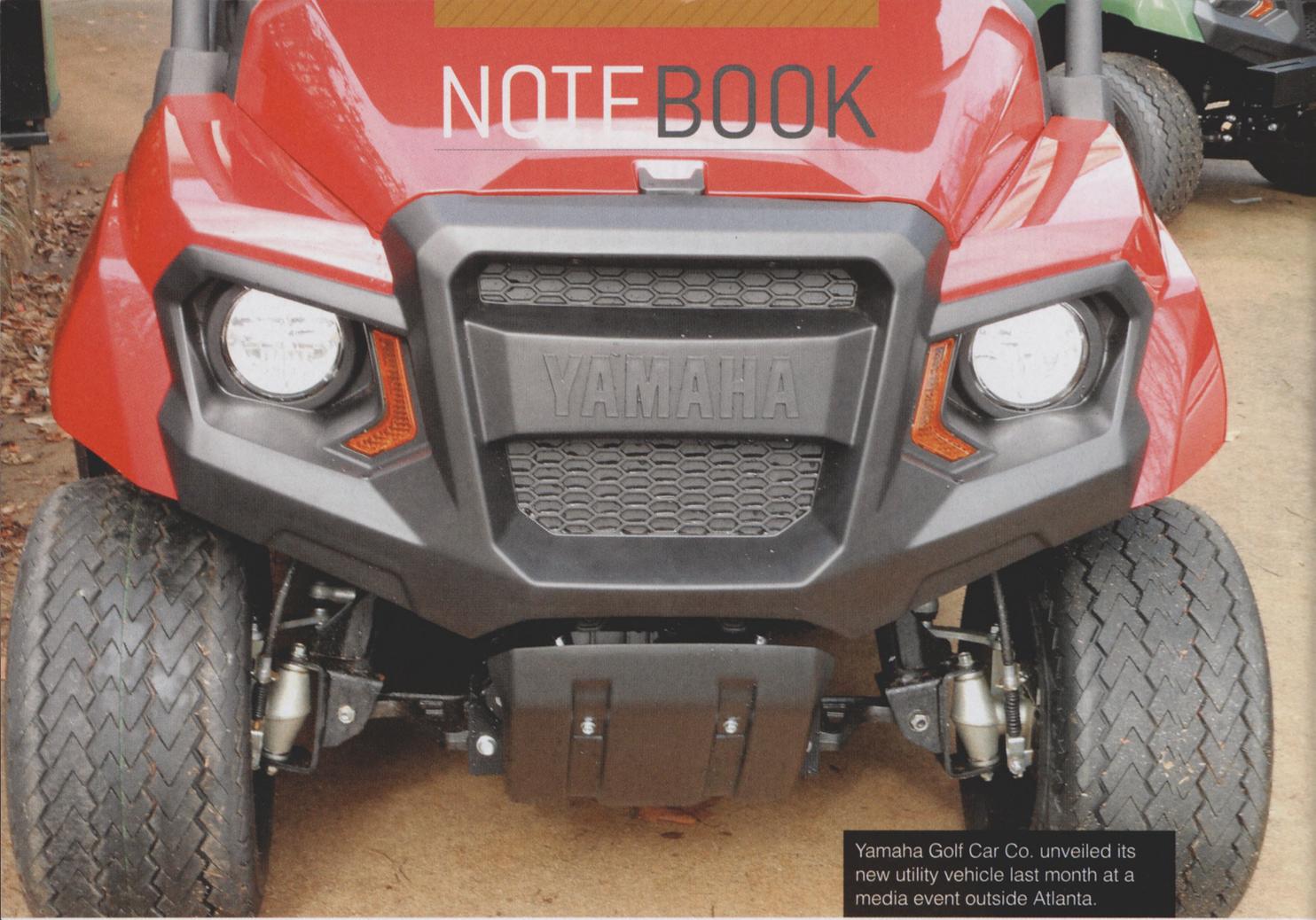
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NOTEBOOK

Yamaha Golf Car Co. unveiled its new utility vehicle last month at a media event outside Atlanta.

Tough enough

To impress golf course superintendents, Yamaha engineers styled its newest UMAX utility vehicle to have more grit, more guts and more power.

IT LOOKED LIKE the offspring of a heavy-duty pickup truck and a golf cart. It's a merger of brawn with beauty, and infusion of panache with performance, equal amounts of vroom and versatility.

Last month, Yamaha Golf-Car Co. unveiled the newest generation of its hard-working golf utility vehicles

with the technically advanced UMAX product line taking center stage during a special media preview at its production facility about 30 minutes outside Atlanta.

Yamaha engineers reached out to numerous golf superintendents, course operators and industry professionals to get their suggestions on

how to enhance its utility vehicle. The final product incorporates a number of those recommendations, says Tom McDonald, president of Yamaha Golf-Car Co.

"We hope the new look gets the vehicle into a number of maintenance barns," McDonald says.

Here are some of the other



PROGRESSIVE REAR COIL SUSPENSION SYSTEM

Traditional UTV rear suspension systems the smoothest ride when there is a heavy load in

features most likely to impress turf managers:

STYLING AND DURABILITY

The UMAX moves away from the look of a traditional golf car to more of an all-terrain vehicle, with rugged looks, increased durability and the substitution of aluminum for plastic panels.

UMAX also offers a larger 33-inch by 46-inch cargo bed that can manage a 1,000-pound load.

MORE POWERFUL ENGINE

The gas-powered version boasts a 12 percent larger, 402cc engine with noise suppression features derived from its new Drive2 gas golf car. Now a UMAX maintenance vehicle or beverage car approaching golfers is barely audible from 80 yards.

The electric vehicle features Yamaha's new alternating current-powered (AC) engine, which reduces battery amp hour usage and dramatically increases torque to better climb hills and travel faster and farther.

the cargo bed, making the ride stiff under regular conditions. UMAX features a progressive rear suspension system derived from Yamaha's off-road vehicles that features individual coil springs with dual compressions, or two distinct coil spacings on a single spring; a standard spacing on the top of the coil spring for lighter travel, and a tighter coil spacing on the bottom for transporting heavy loads.

EXPANDED STORAGE

UMAX features an under-hood storage compartment that opens like an auto hood and is sealed to keep water out. There are also two restyled in-dash storage pockets with anti-slip rubber mats, an added storage area near the cup holders, and new storage space between the seats, for a cell phone or tablet.

Yamaha dealers are taking orders now, with the first production vehicles available this fall.

Hooray for Hiers!

The Club at Mediterra director of agronomy Tim Hiers received the USGA Green Section Award during the organization's annual meeting in Miami Beach.

The award recognizes an individual's distinguished service to the game of golf through his or her work with turf-grass, including research, maintenance and other areas that positively impact the landscape upon which golf is played. Hiers, a golf course superintendent since 1976, stands at the forefront of golf's environmental opportunities and challenges, while also driving advances in golf course management.

"I learned to play golf on a cow pasture and I've been hooked on the game ever since," Hiers says. "In this business, you can never learn enough. There's always a challenge, and that's what I love about being a superintendent. It's a privilege to be recognized for just doing what you love every day."



Hiers

Tartan Talks No. 19



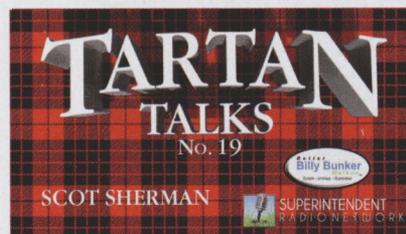
Scot Sherman possesses entertaining stories about every scenic and soothing place he's worked, and he shares plenty of them in a Tartan Talks episode.

In his current role with Love Golf Design, Sherman is working alongside the brother tandem of Davis Love III and Mark Love on a redesign of the Plantation Course at Sea Island, a Georgia resort that hosts the PGA Tour's RSM Classic. The project follows a successful renovation of the Atlantic Dunes at Sea Pines Resort in Hilton Head, S.C.

Sherman describes intricacies of both projects while introducing listeners to "Lowcountry" design features such as coquina and bulkheads. The Lowcountry is a seaside region along the Atlantic coast of South Carolina and Georgia. The PGA Tour makes two stops in the region – in the spring for the RBC Heritage

at Harbour Town and in the fall for the RSM Classic at Sea Island's Seaside and Plantation courses. Walking Harbour Town, a famed Pete Dye design, with his wife in 1989 sparked Sherman's interest in golf course architecture. Sherman eventually worked under Dye, affording him opportunities to interact with numerous talented architects, including Alice Dye and Bobby Weed. "I have just been very lucky," Sherman says.

Enter goo.gl/hy5PY9 into your web browser to hear the podcast.



BOND OF BROTHERS

Two superintendents, one email, a medical procedure and an example of personal sacrifice. How Brian Conn and Scott Dodson changed each other's lives.

By Guy Cipriano

Colleagues and supervisors use words such as pragmatic, cerebral and methodical to describe Brian Conn. Until last year, reason dictated nearly every decision in his personal and professional life, making him no different than thousands of other golf course superintendents.

Thinking with your brain is safe. Science-based decisions create job and personal security. Thwarting turf diseases and meeting budgets allow middle-aged managers to raise families in comfortable surroundings. A marriage spanning two decades, guiding children through the perils of grade school and maintaining steady employment are measures of superintendent admiration.

By any metric, Conn was a success, having ascended to the position of superintendent at Transit Valley Country Club, a venerable private club in East Amherst, N.Y., in 2015. His career included stints as a public course superintendent and assistant at one of Buffalo's revered private clubs. The Erie, Pa., native possessed a degree from Penn State University. He served multiple terms as president of the Western New York Golf Course Superintendent Association.

Conn developed a work-life balance that eludes people holding a similar job. He ate summer dinners with his wife, Jennifer, and children, Victoria and Noah, attended church and maintained hobbies away from the course, including running, canoeing and fishing. Superintendents working



Scott Dodson

Brian Conn

70-, 80- and 90-hour weeks were just stories to Conn. He never experienced a major surgery and replaced a tobacco addiction with training for races.

But, as 2016 ended, Conn was hurting. Last year didn't start any better. "I was yearning for something more in my life," he says.

Scott Dodson, the superintendent at neighboring Park Country Club, was also hurting. His right kidney was failing. Thirty percent, 20 percent, 7 percent. Every time Dodson visited the doctor, kidney disease, a result of being born with a scarred kidney, had eliminated more of the organ's functioning capacity.

Described as outgoing by everybody, including himself, Dodson kept the pain hidden as he guided Park Country Club through one of the biggest renovations since the club moved to its current Buffalo location in 1927. A pride over pain philosophy helped Dodson, the club's superintendent since February 1993, endure the demands of balancing regular golf course maintenance with project construction.

A year removed from a double-knee replacement surgery, Dodson showed abnormal signs as 2017 progressed. The perkier person on the grounds, with a toughness developed through playing and coaching hockey in his native Ontario, visited his office twice a day to shut his eyes. "I remember seeing him a few times on the course just sitting in a cart in one spot for 15 minutes," Park Country Club assistant superintendent Jim Frey says. Dodson admits to staying in wayward places even longer. "I spent an hour in one spot," he says.

Finally, in mid-September,

Dodson started dialysis, a time-consuming and emotional process of filtering waste and excess fluid from the blood, functions normally performed by a kidney. Dodson needed a new right kidney. A superintendent fighting his own pain was ready to give him his left one.

Dodson and Conn held similar jobs at private clubs separated by 5.1 miles – or to put it in Buffalo parlance, three Tim Hortons restaurants rest between Transit Valley and Park Country Club – and they were heavily involved in the same association. But, in the miracle world of living organ donations, they were almost strangers. "That's what amazes so many people," says the 48-year-old Conn, who donated his kidney to the 60-year-old Dodson on Jan. 9, 2018. "We were simply acquaintances."

THE BROTHERHOOD

Colleagues? Nope. Relationships among Western New York superintendents run deeper.

"Anytime I text anybody or call anybody or email anybody it usually ends with an endearment: thanks, brother" says Thad Thompson, the superintendent at Terry Hills Golf Course in Batavia. "Literally, every time."

Thompson and Dodson have blood brothers in the business. Thompson's younger brother, Drew, is the superintendent at East Aurora Country Club in suburban Buffalo. Dodson's brothers, Paul and Bruce, are superintendents in opposite parts of Canada. A shared last name, though, isn't required for Western New York superintendents to borrow equipment, visit a neighboring course or trade ideas. Professional and personal help is always a text,



Support and trust in the workplace

A supportive work atmosphere can help overcome a major obstacle involving an organ donation: temporarily stepping away from the job.

"Employers understanding the importance of helping their employees out is very important," says the University of Rochester Medical Center's Dr. Mark Orloff. "By and large, most of our employers are very positive about the impact of transplant on their employees' lives and they are very supportive of the time off. They understand the hardship a family goes through dealing with a major medical condition."

When Transit Valley Country Club superintendent Brian Conn mulled donating a kidney to Park Country Club superintendent Scott Dodson, he initially analyzed how the decision might impact his job. Meetings with Transit Valley's leadership made it easier for Conn to proceed with the donation.

"Brian, in typical fashion, was more worried about time away from the club and vacation hours," general manager/COO Mike Reilly says. "I said, 'Brian, what you are doing is just unbelievable and don't worry about a thing. Your team is going to cover you.' There are some strong guys that work under him who picked it up. One of the unique things about Buffalo is that part of their job is keeping the parking lot clean and clearing snow. His guys were very busy in his absence and they didn't miss a beat. That's a testament to his leadership."

Conn says the ability to trust his staff has helped him balance work and family through a nearly three-decade career. The trust in his current crew has expanded as he slowly returns to work following the Jan. 9 transplant. Conn is in his fourth year as Transit Valley's superintendent.

"I let people help me and work to get the most out of them," he says. "I'm kind of the opposite of 50 percent of our field, I think. They lack putting trust in people. Sometimes I'm on the other side to a fault – I put too much trust in people. But 99 percent of the time people come through for you. It's just human nature to want to do good for others. You reap what you sow. If you care for people, I think they care for you back, too."

Dodson received similar support from Park Country Club leaders and co-workers who observed his deteriorating condition because of kidney disease. But even in challenging and inspirational circumstances, a superintendent's prideful instincts can yield a reluctance to delegate.

"There was a point in time where I was one of those crazy guys that was nuts about working," Dodson says. "I have learned to kind of step back a little bit and get into the other part of my life, especially now with this happening. It changes your outlook. It changes your perspective. The job is obviously important, but it's not the end all and be all. You have to live your life."



PERFORM SOIL CPR™ TO OXYGENATE THE ROOT ZONE

In 2009 Timothy Strano, CPAg, inherited the greens at the Donald Ross-designed Brae Burn Country Club in West Newton, Massachusetts. Strano, who worked on two other pre-1900 courses in 23 years as a superintendent, knew these hallowed greens needed time and TLC to get healthy again.

Strano implemented an aggressive core aeration program that yielded some improvement on the greens, but the roots still weren't getting the oxygen they needed. Ideally, the ratio of water to oxygen in soil should be 1-to-1, Strano says, but when tested in July 2013, the Brae Burn soil fell closer to 4-to-1.

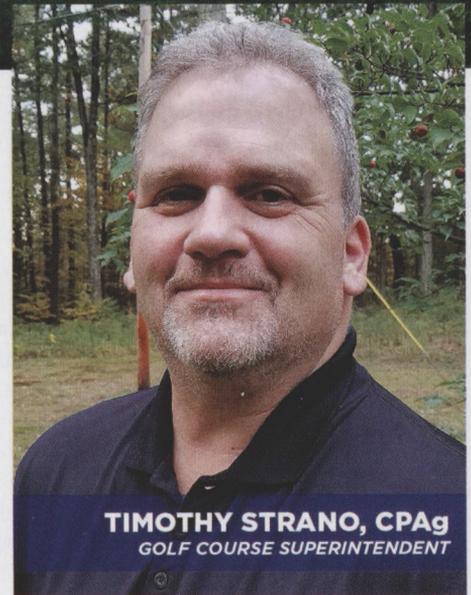
When Strano was pitched to try the Air2G2 Soil CPR machine, he was told it would improve drainage on his greens—but he found it helped with much more. The Air2G2 **Soil CPR** machine relieves **Compaction**, increases **Porosity** and enhances **Respiration** by laterally injecting air into the soil profile with minimal surface disruption.

After the first use of the Air2G2, the soil balanced out to the ideal 1-to-1 ratio. In just one day.

"It kicked up the oxygen content in my soil tremendously. I've got ISTRC reports that back this up," Strano says. "As a superintendent with more than 20 years of experience at that time, it was reassuring to have a Green Committee and Board of Directors who were willing to embrace and support an aggressive program to retain the original greens as well as being forward thinking enough to invest in the Air2G2 technology."

Immediately following the first use, Strano bought an Air2G2. A year later, he bought a second machine. Before using the Air2G2, his grass was susceptible to compaction, anthracnose disease and the bentgrass wilted easily on hot days. Now his greens are stronger, healthier and more resistant to stress, with no sign of anthracnose in two years.

"This machine is a game changer," Strano says. "The game changer part of this is oxygenating the root zone."



TIMOTHY STRANO, CPAg
GOLF COURSE SUPERINTENDENT

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Dodson needed serious help by last year. A dual citizen who lives in Fort Erie, Ontario, Dodson was placed on Strong Memorial Hospital's kidney donor candidate list in 2016.

Kidneys are the most donated organ, with close to 91,000 transplants occurring from Jan. 1, 2013 to Dec. 31, 2017, according to Organ Procurement and Transplantation Network data. But kidney demand far outpaces supply. The candidate list in the U.S. is approaching 100,000, with another 400,000 to 600,000 patients on dialysis, according to University of Rochester Medical Center nephrologist Dr. David DeWolfe. The average wait time to receive a kidney from a deceased donor in Western New York is around six years. Transplantation and dialysis are the two forms of life-sustaining support for kidney failure.

"Neither one of those completely replaces having normal, functional kidneys and no kidney disease," says Dr. Mark Orloff, the URMIC transplant surgeon who operated on Dodson. "However, transplantation is as close as you're going to get and that's a very, very big deal for society in general."

Thirty-one percent of kidney transplants in the last five years (28,340) involved an organ provided by a living donor, according to the OPTN. Although challenging to find, a living donation provides the best solution for a recipient because it can potentially prevent the need for dialysis, the new kidney is coming from a healthy individual and surgery can be accomplished in a "much more elective fashion," Orloff says. Historically, Orloff adds, "most donors come from a



The University of Rochester Medical Center's Dr. Mark Orloff, Dr. Randeep Kashyap and Dr. David DeWolfe were among the medical professionals who assisted in the kidney transplant involving golf course superintendents Brian Conn and Scott Dodson.

relative by blood or a relative by marriage."

Dodson couldn't find a donor within his circle of family and close friends. So, in a hallway at a regional turf seminar last March, he pulled aside Thompson, the then-President of the Western New York GCSA. Speaking to Thompson confidentially, yet like a brother, Dodson described the extent of his condition and his need for help. "I was totally shocked," Thompson says. "I don't think anybody had any idea he had kidney disease and he had been on a donor list for a year."

Once the emotion subsided, Thompson understood why Dodson turned to a fellow superintendent. "You go to your family when you need help," Thompson says. "That's the best way I can say it."

On his drive home, Thompson started outlining a letter in his head. He typed a draft into his computer, refining the letter multiple times over the next week. Thompson awaited Dodson's approval before sending the letter via email to a list consisting of Western New York GCSA, Finger Lakes Association of Golf Course Superin-

tendents and Central New York GCSA members. Thompson estimates between 150 and 200 association members received the following ...

To All Members of the WNYGCSA, FLAGCS and CNYGCSA

Scott Dodson, our friend and fellow superintendent at Park Club in Williamsville, needs our help and support. Scott has been privately dealing with kidney disease for some time. The disease has progressed to the point where Scott is in need of a kidney transplant. He has not been on dialysis yet, and the best course of action according to his doctors would be to go from this stage of the disease to a kidney transplant.

New York State has very few transplant hospitals, so consequently, a large number of potential recipients. Scott has been on the kidney donor list at Strong Memorial Hospital in Rochester, NY for over a year.



The best option at this point would be to find a "live donor," meaning an individual who is a match could donate a kidney to Scott. A simple blood test is all that's required to see if you are a potential match. To make an appointment, please call Strong/URMC at 585-275-7753, ask for the Donor Coordinator and tell her that you would like to be tested as a potential match for Scott Dodson.

**Thank you all,
Thad Thompson**

"When I hit the send button, I was proud as hell," Thompson says. "Just 15 minutes before that, I got a response from Scott. I wanted him to proof-read it. He called me and was very emotional."

THE DONOR

Conn received, opened and read the email. The message incited lingering emotions.

"It was all so fast moving," he says while sitting across from Dodson last month. "Seeing the email ... This is the part of the

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process I have only told to my wife and in my head so far. It's so hard to get out. But I was at a process in my life where I was searching for my path forward."

Victoria and Noah, who are 20 and 18, respectively, and attend nearby Erie Community College, were becoming adults. A lifelong Catholic, Conn started noticing different religious undertones being brought into the house by Victoria, whose boyfriend attended a Christian-based church. Victoria exposed Jennifer to the religion, and the pair urged Conn to give the church a try. Begrudgingly, Conn says, he attended services at the church, thus leaving a comfort zone to explore something different. Conn describes the services as "singy," which contrast his personality. "I'm not terribly outgoing in most cases," he says. But he found the sermons "rewarding" because they "filled you every week with what I think I was missing."

The personal metamorphosis continued when a pastor handed Conn the book "Engaged." One of the conversion steps, according to the book, which is guide to receiving more meaning from religious services, involved humbling one's own self. That step brought Conn to the most traumatic event of his life: the suicide death of his father, Ron, on Nov. 15, 2015. Ron turned 65 a day earlier, and Conn had chatted with him on the phone that day. Following the 2016 winter holidays and during the early stages of 2017, Conn and Jennifer entered what he calls "kind of a gray area of limbo."

"I started reading this book and come to find out, I was always trying to think with my brain and we always do that so much in my line of work,"

“It came as a revelation shortly after I saw the email. There was something that drove me. My brain would have told me, ‘You can’t do this. You don’t have time for this. It won’t work out. Analytically, it doesn’t work with what you have on your plate.’ Something pushed me and thank God it did.”

—Brian Conn, Transit Valley Country Club

Conn says. "We are analytical thinkers, everything is science and human resources. Everything is on the surface. I broke myself. They say you have to break yourself. I started to think with my heart.

"It came as a revelation shortly after I saw the email. There was something that drove me. My brain would have told me, 'You can't do this. You don't have time for this. It won't work out. Analytically, it doesn't work with what you have on your plate.' Something pushed me and thank God it did."

Conn quietly started the donor process last spring, which includes thorough mental health, blood and diagnostic tests. Conditions such as high blood pressure, diabetes and obesity eliminate thousands of interested donors. Not only is Conn a runner, he boasts an O negative blood type, making him a match for almost every other potential recipient. Less than 7 percent of the population has O negative blood. "Until this process, I didn't know how valuable my blood type is," Conn says. Dodson's blood is type A positive.

During the mental evaluation, Conn mentioned his

father's suicide to the donor team, which included a social worker. "Any one of those people could knock you out during the process if they see something they don't like," Conn says. "I brought up the death of my father and all the sudden the room got quiet. I was thinking, 'Crap, should I have brought that up?'"

Personal and financial stability are other necessary donor characteristics. A supportive wife and children, along with a management job, checked those boxes. A potential donor also must have a work schedule that permits significant time off following the surgery. For a superintendent in a cold-weather region, winter affords that opportunity.

"What we are looking for are healthy people," DeWolfe says. "This is the one procedure we do to somebody in medicine where they do not personally benefit from the procedure itself. We need someone who's going to be able to come through the surgery themselves without any issues; they are able to take the time off and not lose their job; and they can live out the rest of their life having only one kidney."

Dodson didn't know a turf neighbor was maneuvering to give him a kidney. The pair saw each other at Western New York GCSA events and board meetings – Dodson also has served multiple terms as president – and Dodson was one of the first superintendents to welcome Conn to the association when he moved from Erie to Western New York in 1996. Beyond perhaps a quick equipment exchange, neither Dodson nor Conn remember spending significant time alone together. They respected each other's work and commitment to the industry, but they knew little about the other person's life or physical condition. "I had no idea Scott was going through any of this until Thad sent out the email on behalf of the association," Conn says.

Because of its architectural history and status as a former PGA Championship site, Park Country Club's renovation sparked curiosity throughout Buffalo, so Conn called Dodson last August to arrange a tour. Dodson gladly showed Conn the changes, and the pair then chatted with a few other Park Country Club employees. When the conversation ended, Conn

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“Our relationship has already changed. We’re closer. I love him like a brother.”

—Scott Dodson, Park Country Club

asked Dodson if they could speak privately in Dodson's office. Conn revealed he had been pre-approved to donate Dodson a kidney.

"My first reaction was, 'Really?' Dodson says. "It wasn't even emotional at first. It was like, 'What are you talking about? No, you're not going to do that.' He just came out with it. Then I kind of regained my composure and literally looked at him, and remember this really, really, well ... It was like, 'Why? Why me?' The answer was so nonchalant: 'It's the Christian thing to do.' Those were his exact words."

Word started reaching others by mid-August that a donor stepped forward. Thompson says he was "overjoyed" when Dodson told him the letter helped.

"It was so surreal," Thompson says. "I had no doubt when we put out the letter that we would find somebody. Looking back on the research I have done since then, I found out that it was more of a miracle that it did work out. But at the same time ..."

Thompson's voice trails off. Why was he so confident the letter would help? "Because it's our organization. We're a family. People are going to step up in this business. That's the way it has always been."

THE PROCEDURE

Reaching a Rochester, N.Y., operating room, required Conn to pass dozens of physical, emotional and stress tests. Somehow, a person known for being thorough in every life and work decision avoided the gory medical details until retreating to a hotel suite bedroom the

Manage your lifestyle

Hypertension and diabetes are the leading causes of kidney disease, according to the University of Rochester Medical Center's Dr. David DeWolfe. Habits that lead to kidney disease are societal issues and not specific to a job or industry.

"Controlling stress is a very important part of health care in general," says the University of Rochester Medical Center's Dr. Mark Orloff. "There's not any one singular factor that is involved in driving people to in-stage organ failure. Stress is likely partly involved, so is lifestyle management of your diet, which really could come down to salt and eating healthy. Also, genetics are involved."

Park Country Club superintendent Scott Dodson was born with a scarred kidney, although a doctor didn't diagnose his condition as kidney disease until 15 years ago. Dodson also has type 2 diabetes. Meetings with dietitians throughout the organ transplant process are leading to revamped post-surgery eating habits. "It's nothing fanatical," Dodson says. "It's all about balance."

evening before the surgery.

With his wife and children in another room, Conn started watching an animated YouTube video of a kidney transplant. YouTube followed the video with an Oct. 30, 2017 "Today" show interview featuring popular entertainer Selena Gomez and actress Francia Raisa. The best friends used the public forum to reveal why Raisa, 29, donated a kidney to Gomez, who was suffering from the chronic autoimmune disease lupus. Complications stemming from flipped arteries required Gomez, 25, to undergo an emergency second

surgery.

"Watching that was the worst thing I could have ever done," Conn says. "Up until then I hadn't looked at anything or called anybody. I don't know what drove me to doing that. I look back on it and think, 'What the heck was I thinking?'"

Conn, surprisingly, slept well, rising around the same time a superintendent begins a work day. When Conn and his family arrived at the hospital at 6 a.m., they were sent to an unfamiliar basement waiting room. "You feel like you are in the castle of Dr. Frankenstein," he says. Conn closely studied URM's Strong Memorial Hospital layout on previous visits and figured they would be sent to a different room. He figured they would be the first people in the room, but they shared the space with 20 other people, including a pair of tussling teenagers. He also figured they would see Dodson and his wife, Brenda, who were staying in a separate hotel.

The donation was close to being cancelled in mid-November after a cardiologist detected what appeared to be a heart flutter while examining Dodson, nixing a scheduled stress test. An angiogram revealed no blockages, a major relief because Dodson's father, Arthur, a longtime golf course superintendent, experienced heart problems in his 60s. Conn encountered a similar pre-surgery scare when a chest MRI revealed spleen calcifications. Three weeks later, tests revealed a case of mononucleosis Conn experienced as a teenager caused the calcifications.

For Conn and his family, not

immediately seeing Dodson on the morning of the surgery felt different. Was Dodson involved in a car wreck? Did an alarm not beep? Did a last-minute medical situation develop? "We're 15 minutes from this," Conn says. "Just the pressure as it got closer and closer and just the mental burden of it not happening or getting pushed off ... You're so invested bracing yourself physically and mentally for this."

Tears filled the room as the Conns awaited Dodson and the surgery. The mood changed when Dodson, accompanied by Brenda, arrived and, in what many would describe as typical behavior, started cracking jokes.

Conn underwent surgery first, a procedure that lasted around three hours, according to Dr. Randeep Kashyap, the URM's transplant surgeon who operated on Conn. Dodson was placed in an adjacent room two-thirds of the way through the Conn's surgery. Once the kidney was removed, a 30-minute procedure Kashyap calls a "back-table operation" cleaned and prepared the organ for insertion into Dodson. "The goal is that the kidney should not stay on ice for too long," he says. "We kind of overlap both of these operations."

Donors at Strong undergo laparoscopic donor nephrectomy, a minimally invasive form of surgery designed to increase donor availability, while the recipient's surgery team performs an open procedure, Orloff says. A minimum of six, and potentially more than 10 trained Division of Solid Organ Transplantation professionals, participate in a transplant. And, in most cases, including Dodson's, the donated kidney

is placed below the diseased organ.

“The recipients’ kidney might be making some urine, but it has very little function,” Orloff says. “It might have a little blood flow. By and large, it’s a minimally nourished organ and it’s not causing problems. Sometimes there are reasons to remove that organ. For the most part, we leave those organs in place. It’s a fairly big deal to remove them unless there’s an infectious disease or blood pressure reason or cancerous reason to remove them.”

Neither Conn nor Dodson, whose surgery also lasted around three hours, grasped the magnitude of the procedure in its immediate aftermath. Conn spent four hours in a recovery room before seeing his family again and fielded a call from his grandparents in Florida. “I guess I had a con-

versation with them,” he says. “I don’t remember that.” Dodson, who has two children and a stepdaughter, asked Brenda to text two-third of his phone contacts, including co-workers.

The superintendents from neighboring clubs had their first post-surgery encounter the following day. Using a walker and receiving help from a physical therapist, Dodson shuffled into Conn’s room. “He was a bit annoying,” Conn says. “Because in Day 2, my pain level was way up and he was just the happiest guy you could be. I was like, ‘Just go away. Shut up.’”

Conn, a runner deemed in good enough shape to live without a vital organ, was humbled when Dodson lapped him during a therapy session. Two weeks following the surgery, while sitting next by a fireplace inside the Runyan Room of

Park Country Club’s castle-like clubhouse, Conn and Dodson traded barbs about their pre- and post-surgery conditions.

“He looked 75 before this whole thing happened,” Conn says. Without hesitation, Dodson glances at Conn and demonstrates his quick wit, “Oh yeah,” he jokes, “you looked 100 on that walk the first day buddy. I was lapping you. You were this old man walking on your walker.”

Consider the exchange a form of relationship building.

THE FUTURE

Somebody else’s kidney rests in Dodson’s body – and he couldn’t feel better. He juggled 14 pills in a container as he returned to Park Country Club two weeks after the surgery. He will gradually be weaned off numerous pills, although he must take three anti-rejection

medicines 12 hours apart – his alarm is set for 9 a.m. and 9 p.m. – every day for the rest of his life. Dodson must monitor his diet carefully and he faces temporary lifting restrictions.

But he’s no longer on dialysis, a taxing process that required three, four-hour sessions each week. When you’re on dialysis, you don’t always see the same faces in the clinic.

“It’s an eye-opener,” Dodson says. “You look at how many clinics there are, just in this region there are probably 40 alone. They operate six days a week, three shifts a day. I think at one time I’m trying to count the chairs at the one I was in. There had to probably be 30 chairs in there. The sad part is, you know what the end game is for 80 percent of the people – they’re not going to get a kidney. They’re older. That’s their life. There was one lady in there

Waiting list candidates by organ type



Kidney

95,555



Liver

13,876



Heart

3,939



Kidney/pancreas

1,691



Lung

1,373



Pancreas

907



Intestine

255



Heart/lung

42

Source: Organ Procurement and Transplantation Network data as of Jan. 18, 2018

who celebrated 20 years of dialysis. From the start, knowing what people were there on my shift ... By the time I left, there were four of them that weren't there anymore. You know where they are."

Dodson experienced less than four months of dialysis, undergoing his final session the night before the transplant. "There are very few people who can hold an active job and be on dialysis," Orloff says. "Yeah, there are some exceptions. But you're talking 15, 20 hours a week just shuttling back and forth. The majority of people on dialysis have to leave the workforce. Scott, because of his short time on dialysis, was in relatively good shape for somebody in kidney failure. You have to look at where he's going to be in six months or a year, and the reality is unlikely he would be working. He might be a couch potato."

The number of times Dodson must visit Rochester, a three-hour roundtrip drive, for blood work has already decreased. Doctors initially told him he wouldn't be driving for a month. He was cleared to begin driving less than two weeks after the surgery. He drove to Park Country Club, 20 miles from his home, to be interviewed for this story and an accompanying photo shoot. Following the nearly four-hour session, he drove to lunch at the nearby Creekview Restaurant, where he ordered a salad and bowl of chili. Conn sat in the passenger seat of Dodson's SUV.

Conn ordered a chicken wrap and coleslaw. His diet will permanently change because of the surgery. Once a go-to condiment at home, the Conns have removed salt from their

table. The donation cost Conn 30 percent of his kidney function, meaning he must drink at least three liters of water daily to protect his remaining kidney. He can no longer take anti-inflammatories because they can scar the kidney.

Like Dodson, Conn faces lifting restrictions when he returns to the work, which will represent a temporary change for an active superintendent who rakes, shovels and hauls alongside his crew. Neither superintendent is permitted to lift more than 10 pounds for the next three months.

Conn says he's been humbled numerous times since the surgery, including when he encountered two patients on the candidate list for a liver, in the emergency room. One of the candidates, a 5-foot-8 male, had spent 14 years on the list awaiting a deceased donor and was in the hospital to have 14 liters of fluid drained from his stomach. "It's just heartbreaking," Conn says.

Witnessing others endure extreme pain has turned the introverted Conn into an advocate for organ donation, a role that will likely expand when strangers begin learning his story. Orloff calls the donor community "tight-knit," with numerous organizations and associations conducting events such as golf tournaments and runs to raise awareness. Transit Valley is planning a charitable 5K, and Park Country Club and the Western New York GCSA will likely organize similar events. "It's kind of hard to do something heroic," says Jerry Lample, who served as Dodson's donor coordinator. "This is really something where you can change somebody's life on the micro level so intensely and



Types of organ donation

Deceased donation

You can declare your intentions to donate on your driver's license or by visiting the Donate Life America website (<https://registerme.org/>) to join your state's online registry. Letting your family and friends know about your decision is an important part of the process because family members are often asked to give consent for a deceased donation.

"We need to make sure everybody is registered to be a deceased donor," says the University of Rochester Medical Center's Dr. David DeWolfe. "If something should happen to you, you can't take it with you - but there's somebody that needs it."

Living donation

Most living donations occur when a close family member, distant family member or friend provides an organ for a transplant. Medical professionals and advocacy groups are working to expand the donor poll, thus the attention given to stories such as the one involving Transit Valley Country Club superintendent Brian Conn and Park Country Club's Scott Dodson. Conn and Dodson were golf industry acquaintances at this time last year.

"Historically in the past, most living donors were from a relative by blood or a relative by marriage," says the University of Rochester Medical Center's Dr. Mark Orloff. "The message we would like to convey is that it's really wonderful when you see two totally unrelated people receive transplants and when somebody that casually knows a fellow in their workplace, in their church, in their school, or in their town or village and says, 'I can help that person out. I can see what that person is going through, and I can really be a transformative person in somebody else's life.'"

The National Kidney Foundation website (www.kidney.org) provides resources for potential living donors.

Kidney donations since 2013

	Deceased	Living	Total
2013	11,163	5,733	16,896
2014	11,570	5,538	17,108
2015	12,250	5,628	17,878
2016	13,431	5,629	19,060
2017	14,037	5,812	19,849

Source: Organ Procurement and Transplantation Network



so quickly.”

After months of trying to match schedules, Conn and Dodson’s families met for the first time on New Year’s Day at Dodson’s house. The meal helped Conn’s family understand the reasoning behind his donation and marked the commencement of new friendships. “Our wives instantly hit it off,” Conn says. “They are two peas in a pod it seems like. It was like long lost friends – like we hadn’t seen each other for a long time.” Both families are eagerly anticipating future gatherings.

As for the husbands, Conn

“It was so surreal. I had no doubt when we put out the letter, that we would find somebody. Looking back on the research I have done since then, I found out that it was more of a miracle that it did work out. But at the same time ...”

—Thad Thompson, Terry Hills Golf Course

and Dodson have communicated daily since the surgery. Each conversation brings more understanding about the other’s life, family and career. “Our relationship has already changed,” Dodson says. “We’re closer. I love him like a brother.”

Conn voluntarily lost a vital organ on Jan. 9, 2018. The donation provided Conn with something greater. “Scott got a new kidney out of this,” he says. “Without that email, I don’t know if I would have gotten a new heart.” GCI

Guy Cipriano is GCI’s senior editor.

THE KEYS TO EVENT SUCCESS



Henry DeLozier is a principal in the Global Golf Advisors consultancy. DeLozier joined Global Golf Advisors in 2008 after nine years as the vice president of golf for Pulte Homes. He is a past president of the National Golf Course Owners Association's board of directors and serves on the PGA of America's Employers Advisory Council.

Ralph Kepple, superintendent at venerable East Lake Golf Club in Atlanta, has been preparing East Lake for major events, including The Tour Championship, since his arrival in 1992. That doesn't mean, however, that Kepple and his staff don't sweat the details leading up to the PGA Tour's crowning finale to the FedEx Cup playoffs.

The same goes for Rick Tegtmeier, who while hosting the highly successful Solheim Cup at Des Moines Golf and Country Club last autumn admitted to a panic attack a day before the biggest event in club history.

As planning for your most important competitive events of the year gains momentum, it's a good time to consider the insights and seek the advice of respected superintendents like Kepple and Tegtmeier.

"For me, every year – about three or four weeks out – I feel like we are never going to get everything done in time, yet every year we have managed to be ready," Kepple says.

"One of my goals was to put on a well-planned and well-executed event," says Tegtmeier, a 12-year veteran at the West Des Moines club, adding that he also felt the pressure of wanting to demonstrate that Iowa was a capable host for an international competition.

So even the guys with the prestigious events on their resumes feel the

pressure. Here are several lessons that Tegtmeier and Kepple have found to help them deal with the stress and ensure that no detail is overlooked.

Plan ahead and set realistic goals. "Our goal was not to have any white-line areas on the golf course," Tegtmeier remembers. He thought the goal was achieved until the LPGA rules team walked the course. "It was amazing to me that they found so many little things that needed to be fixed or repaired." A few simple plugs from the nursery – along with evening touch-ups during practice rounds and a few more plugs – helped the staff accomplish its goal before the first day of competition.

Kepple adheres to a strict prep schedule. "We have found it best for our team to avoid a seven-day work schedule until the week prior to the actual tournament, unless there is some weather event that forces us to start earlier. During this time, we can really hone in on detail work that has become very difficult to stay on top of with a very heavy outing schedule."

Ask for help. "I went to the Iowa GCSAA and asked members to volunteer," Tegtmeier says. "They responded wonderfully. It amazed me how resilient this group of professionals was."

Have confidence in your plan. On the Sunday of Solheim practice rounds – the first day with volunteers

and the club's crew working together – the work detail and assignments became confused. Tegtmeier admits he was in a panic when Steve Cook, a longtime friend and superintendent from Oakland Hills Country Club, gave him some advice. "He reminded me that this is what Sunday mornings are for. He said, 'It happens to us all. Your plans will work; just follow them.'"

Clarify roles and keep your team rested. Kepple advises, "Whenever possible try to give them some down time, especially closer to the event." He adds with emphasis, "Your assistants are your lifeblood because you will get pulled in many directions. Your assistants will need to take control in many areas."

Tear down as well as you build up. Kepple advises superintendents to have sole responsibility for infrastructure – service roads, bleachers, refreshment venues – both building and tearing down. "After the event everyone wants to get their stuff and leave." He emphasizes the importance of a designated individual or team for teardown and clean-up.

Understand the letdown. "The biggest surprise was the letdown after the event," Tegtmeier says. "Many superintendents had mentioned it, but I thought it was nothing I had to worry about. But when you are so focused for so many years on an international event, and then when it is over, everyone is gone, and it is just you and your staff, getting back to normal maintenance feels strange."

Whether hosting important club events or major international competitions and Tour events, superintendents share the common desire to make sure their course is in the best condition possible for the players and that their members and community are proud of the course under their care. Careful advance planning, mindful personnel management and postgame wrap-up are keys to making all that happen. **GCI**

COMING SOON ...



Tim Moraghan, principal, ASPIRE Golf (tmoraghan@aspire-golf.com). Follow Tim's blog, Golf Course Confidential at www.aspire-golf.com/buzz.html or on Twitter @TimMoraghan

Each January, the self-proclaimed “biggest tech show on earth” is staged in Las Vegas showing off the latest and greatest advances in geekdom. According to the many reports I followed, this year’s Consumer Electronics Show (CES) didn’t disappoint.

Among the highlights were an 88-inch 8K OLED television screen, Augmented Reality glasses and earbuds that offer real-time language translation. Reading about these futuristic devices, gadgets, and widgets got me to thinking about which contraptions superintendents might embrace so they’d never have to leave their offices – at least not on foot!

Absolutely you want to investigate drone technology. How about a two-person drone (octacopter) to take you and your assistant on morning rounds? Grab your coffee and discreetly check out everyone on the golf course ... and then some.

While cruising in your octacopter, launch a smaller drone to buzz in on “problem areas.” I don’t mean brown spots in the fairway or rough that needs mowing but staff members taking breaks ... again.

Personal-command devices were all the rage this past holiday season and even more refined versions were unveiled at CES. I expect it won’t be long before every cart has one so your already over-exercised golfers can

order another beer or complain about the slow foursome ahead of them. Personally, I’d mount an Echo right by the divot mix in hopes that golfers will use it to some advantage: “Alexa, repair my divots.”

Then there’s Buddy, from Blue Frog Robotics. He’s a personal robot – think of him as Alexa with big eyes – who can do many of the same things, like reading the weather or reading out great recipes. I’ve got an idea? How about teaching Buddy to read the greens and repair ballmarks? Or better yet, he can alert at the sloth-like foot draggers on your greens, “Please pick up your feet when you walk so the next group doesn’t have to putt through those craters you leave everywhere.” Followed by a high-tech “sheesh!”

There’s an even bigger robot, the NuAviations Hyperlift 200E, which can transport objects weighing 200 pounds at high speeds. That’s four 50-pound bags of fertilizer or topdressing being whisked from the maintenance area out to the crew in no time flat.

For those days when you feel the course doesn’t look its best – after too much rain or too much heat or just too much play – Augmented Reality glasses come to the rescue. Hand them out in the golf shop or put them on the cart allowing your customers to channel their inner Augusta and play the perfect version of your course

every time. Azaleas are extra.

A few other new CES toys caught my eye:

EmojiMe. These are headphones that contain a brain-wave scanner, which produces emoji symbols alerting others to the wearer’s mood. I’d give them to the ranger. That should speed up play. But don’t approach your mechanic if there are two poop Emojis shimmering from his headset.

D Free is a sensor system, designed for the health-care industry, that claims to be able to anticipate when elderly patients need to go to the toilet. Those might work for some of your elderly members, but I know precisely when golfers have to go: when they’re as far as possible from the comfort stations. “You’re not cutting that tree down, are you?”

Then there’s **Short Edition.** This terminal, placed in the golf cart, will print out short stories and poems (New Rules of Golf?) for people to read during times of slow play and overcrowded outings.

OK, those are a good start. Here are a few superintendent-friendly products I’d like to see at CES next year:

Rake Robot. As golfers depart the bunker – unraked, as usual – a sensor is triggered to engage a hydraulic lift system that shakes and settles the bunker sand for the next group.

Suggestion Blocks. Whenever the phrase, “Why don’t we do ___ to our golf course” is uttered by a member of the green committee, a voice-activated sensor hits that person with a low-level electric shock. But enough that he thinks twice about making another suggestion while discouraging anyone else from chiming in.

iGolfer. He smiles, fixes ball marks, repairs divots, rakes bunkers, drives his cart only on the path, picks up broken tees and other garbage he sees, doesn’t smoke, doesn’t eat, lets faster players through, stays out of roped-off areas, and tends the flag. Oh, and he doesn’t have an opinion on how to do your job better. **GCI**



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THE NUMBERS GAME

Gain a better understanding of soil test results and nutritional recommendations to grow stronger turf.

by **Rob Thomas**

Soil samples provide invaluable information when determining turfgrass issues. But what's the right way to harvest and how can a superintendent make sense of the data once it's delivered?

While the time of year samples are taken isn't extremely important, timing does remain a factor, says Dr. Eric Miltner, CCA, agronomist at Koch Turf & Ornamental. "Many turf managers target spring and fall, when weather is milder and things may be less busy," he says. "It does not necessarily make a difference from a soil chemistry standpoint, but it is best to give yourself enough time to interpret results and make decisions regarding your fertilizer purchases."

As for the physical act of testing, samples should be collected to the approximate depth of the root zone. "A general guideline is 4 inches for greens, and 6 inches for other turf," Miltner

says. “Check with your lab as they may have other recommendations. Either way, let the lab know the depth of your samples. Collect multiple cores to represent the area (eight to 10 per green or tee complex, more for fairways, depending on size). Remove the thatch and mix the cores before subsampling to send to the lab.”

Sample greens individually, on an annual basis, especially if they are sand-based. “Fairways or other areas with ‘native’ soils can be sampled less frequently to stretch your resources,” Miltner says. “You could sample six fairways per year, allowing you to have each fairway sampled on a

three-year rotation. Known trouble areas may need to be sampled separately or more frequently.”

Take soil samples from the top four inches of the soil profile, which is where most turfgrass roots exist, says Dr. Travis Shaddox, assistant professor at the University of Florida/IFAS Fort Lauderdale Research and Education Center. “Randomly take samples from the location of interest and separate the locations logically, such as No. 1 green, No. 6 fairway, etc.,” he says. “Do not mix soil from healthy turf with soil from unhealthy turf.”

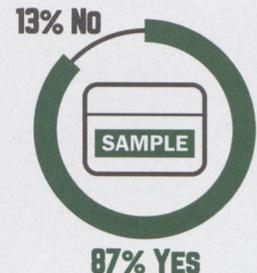
Because the “elements of interest do not change too

BY THE NUMBERS

Do you perform regular soil testing?



Have you been keeping soil testing records?



SOURCE: GCI RESEARCH

much over a year,” Shaddox says sampling time can be done prior to the start of the season. That said, he also suggests allowing sufficient

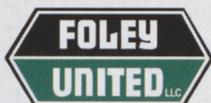
time so that superintendents can adjust their purchasing decision according to the needs of the test. This is probably one to two months prior to placing



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an order, he says.

As a superintendent, Bill Brown, CGCS, always sampled the majority of his property in the fall, typically before any fall fertility was applied.

"I didn't want to have a 'false' look at what my soils were doing," says Brown, AQUA-AID's director of brand development. "Throughout the year, if things looked a little off and common solutions weren't working, I would pull either soil samples or samples for paste extracts to help put the pieces of the puzzle together."

As a superintendent, he would use a standard soil probe that would pull about a ¾-inch plug.

"I would mark the probe with either duct tape or electrical tape to ensure I was pulling the same depth for each sample," Brown says. "[It's] important to speak with your laboratory first to understand if they want the top thatch and grass removed. Some want it all in the bag, some want the top removed so you are sampling just the soil."

Brown doesn't recommend holding onto any kind of samples. "If I was taking samples, it meant I wanted them right away, needed some answers," he says, adding he would usually receive results back from his lab within five business days of sending, which he called

"pretty standard."

"Typically, I would take soil samples to understand my level and balance of nutrition in the soil," he says. "Think of your soil as a savings account. You need to make sure you have enough nutrients banked at both the correct rations and levels. When the turf needs to pull from the soil because foliar feeding isn't sustainable, you need those nutrients available."

"If things weren't adding up, I would pull a sample to have a paste extract completed," Brown adds. "This type of test tells me what my levels of nutrients are actually in the plant. I have seen plenty of times where

soil samples come back near perfect, but past extracts are way out of balance. You have to understand what your turf is doing."

Test times – start to finish – can vary considerably. This is largely dependent on the lab, their capacity, and their current work load," says Dr. Grady L. Miller, NC State University professor and extension turf specialist in the Crop and Soil Sciences Department.

"I know our state lab posts on their website their 'current sample testing turnaround times.' They are usually two to three weeks," he says. "If [in] a low-demand time, they may be quicker, etc. They run

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PODCAST: WHAT ABOUT THE K?

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looking at numbers in their raw form alone can be a little daunting. Most soil testing reports have both numbers and diagrams to help the reader understand relative nutrient

content in the soil and then translate that to the probable response they would see by adding nutrients as they relate to the current soil content, Miller says.

For Brown, the report was only one tool in his arsenal for growing healthy turf.

“Often a lab tech would provide some recommendations, but to be honest they only get a small picture and snapshot with my samples,” Brown says. “I would evaluate and create some programs, but also relied heavily on manufacturing and distributor reps for input. They see hundreds of golf courses and facilities a month. They hear what is working and what

more than 300,000 samples a year through their lab so they can get backed up sometimes. There are some labs that have two-day turnaround times for rush services. This is generally a type of service provided by private labs ... and additional fees may apply for their rapid response.”

As for concerns about the time between taking the sample and having it tested, Miltner says the biggest risk of waiting too long is potential contamination of the samples if not stored properly. “If you are doing any kind of testing for biological parameters though, you do need to move more quickly,” he says. “Check

with your lab regarding their requirements.”

Soil samples can remain viable for a very long time as long as they have been dried, Shaddox says. “Fresh, moist samples should be sent to the lab as soon as possible to minimize any fermentation, which can alter the analysis,” he says. “Most laboratories can process a sample and return a report in one week. The actual process [is] 24 hours to dry the sample, 30 minutes to extract the elements, and around one hour to analyze the extractant.”

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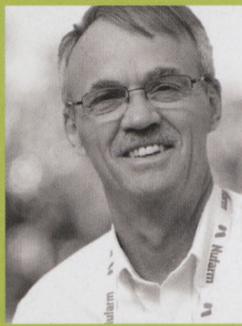
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isn't. At the end of the day, it was my decision, but I never shied away from anyone offering an opinion."

CHOOSING A FERTILIZER

Multiple factors determine the recommended fertilizer.

Soil test results are important, and these should inform the balance of nutritional content in your fertilizer, Miltner says. For example, sandier soils make the use of slow- or controlled-release fertilizers more critical (unless you are spoon-feeding), and turf species can have an impact. "The season and weather can also influence your decision on source, nutrient release rate and availability," Miltner says. "Utilize the 4Rs of Nutrient Stewardship when planning your fertilization program: apply the Right Source, at the Right Rate, at the Right Time, in the Right Place. It is important to balance these factors when choosing your fertilizer."

Then there's the decision between organic and inorganic fertilizers. There are advantages and disadvantage to both. "Regardless of the source, nutrients are taken up by the plant in inorganic forms," Miltner says. "Even if you apply organic fertilizers, they need to be converted to inorganic forms first."

"Organic fertilizers may improve soil quality by introducing organic matter (although in relatively minor amounts), and potentially providing food sources for microorganisms. Potential downsides are increased cost due to the low nutrient value and associated need to apply greater amounts of fertilizer. In addition, if you face phos-

phorus restrictions in your area, use of organic fertilizers may be impacted."

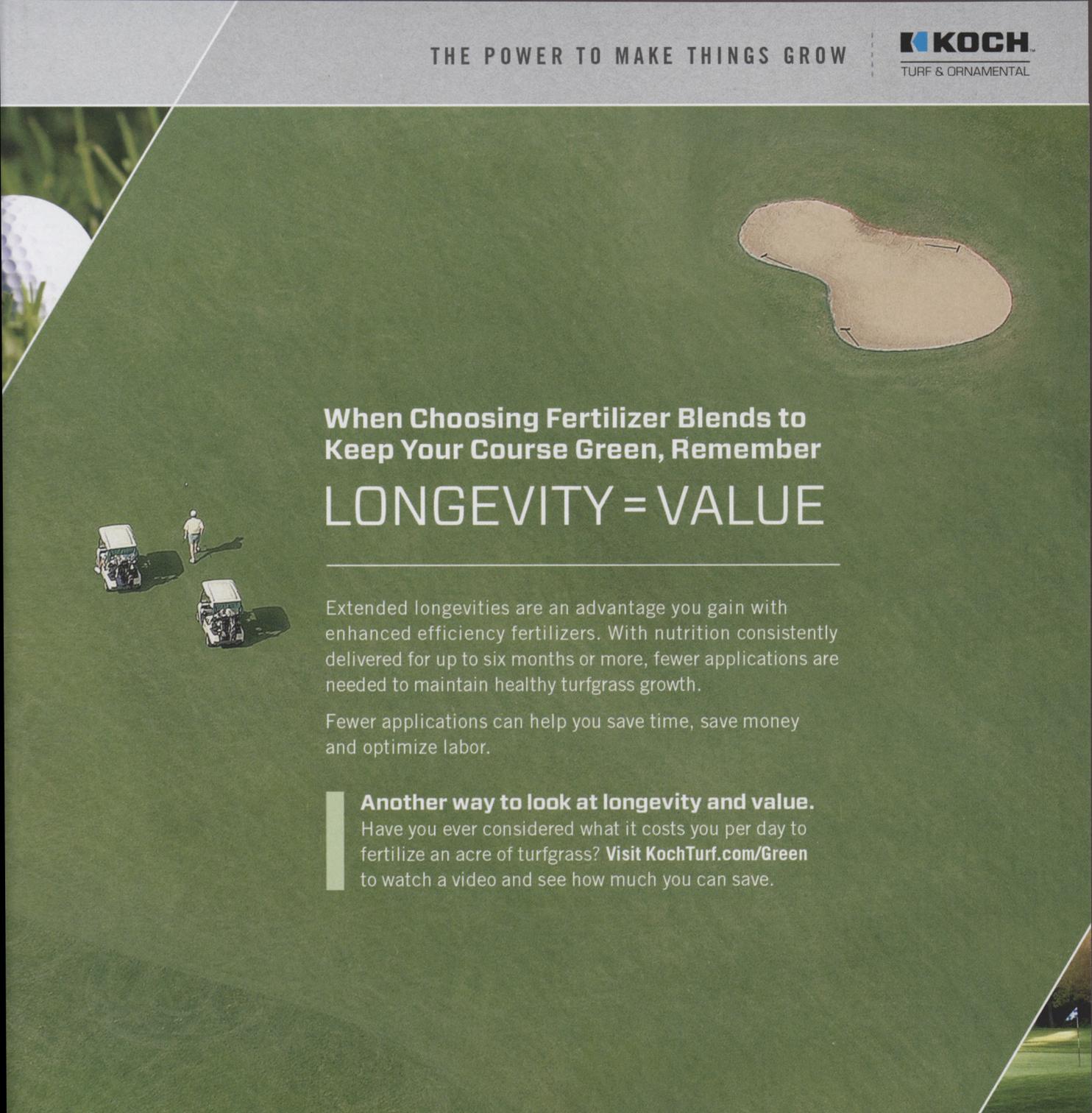
ON THE OTHER HAND ...

With synthetic fertilizers, there is a potential of putting down more fertilizer than is needed, Miltner warns. However, synthetic fertilizers offer a broader range of options for enhanced efficiency properties (stabilized nitrogen, slow-release, controlled-release), and blends can be customized to meet a turf manager's specific needs based on soil test results."

Brown shared advice he received in the past when discussing options. "There certainly are advantages and disadvantages to organic versus synthetic," he says. "I am comfortable saying you could probably host a weeklong conference on both philosophies and still leave scratching your head. For me it was what was best for my budget, my amount and timing of play. I was more of an organic granular feeder. I felt I got the best bang for my buck and good season-long nutrient bank and release."

"One of my mentors — the great Stan Zontek — used to tell me, 'Bill, the turf doesn't know how much you spent on that fertilizer. In the end, nitrogen is nitrogen. Just feed the plant!' I kept my foliar programs very basic with mostly single nutrient source products so I could keep control. It was also more cost effective with an ever-tightening budget." **GCI**

Rob Thomas is a Cleveland-based writer and frequent GCI contributor.



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LITTLE THINGS ARE IMPORTANT



Brian Vinchesi, the 2015 Irrigation Association Industry Achievement Award winner, is President of Irrigation Consulting, Inc., a golf course irrigation design and consulting firm with offices in Pepperell, Massachusetts and Huntersville, North Carolina that designs golf course irrigation systems throughout the world. He can be reached at bvinchesi@irrigationconsulting.com or 978-433-8972 or followed on twitter @bvinchesi.

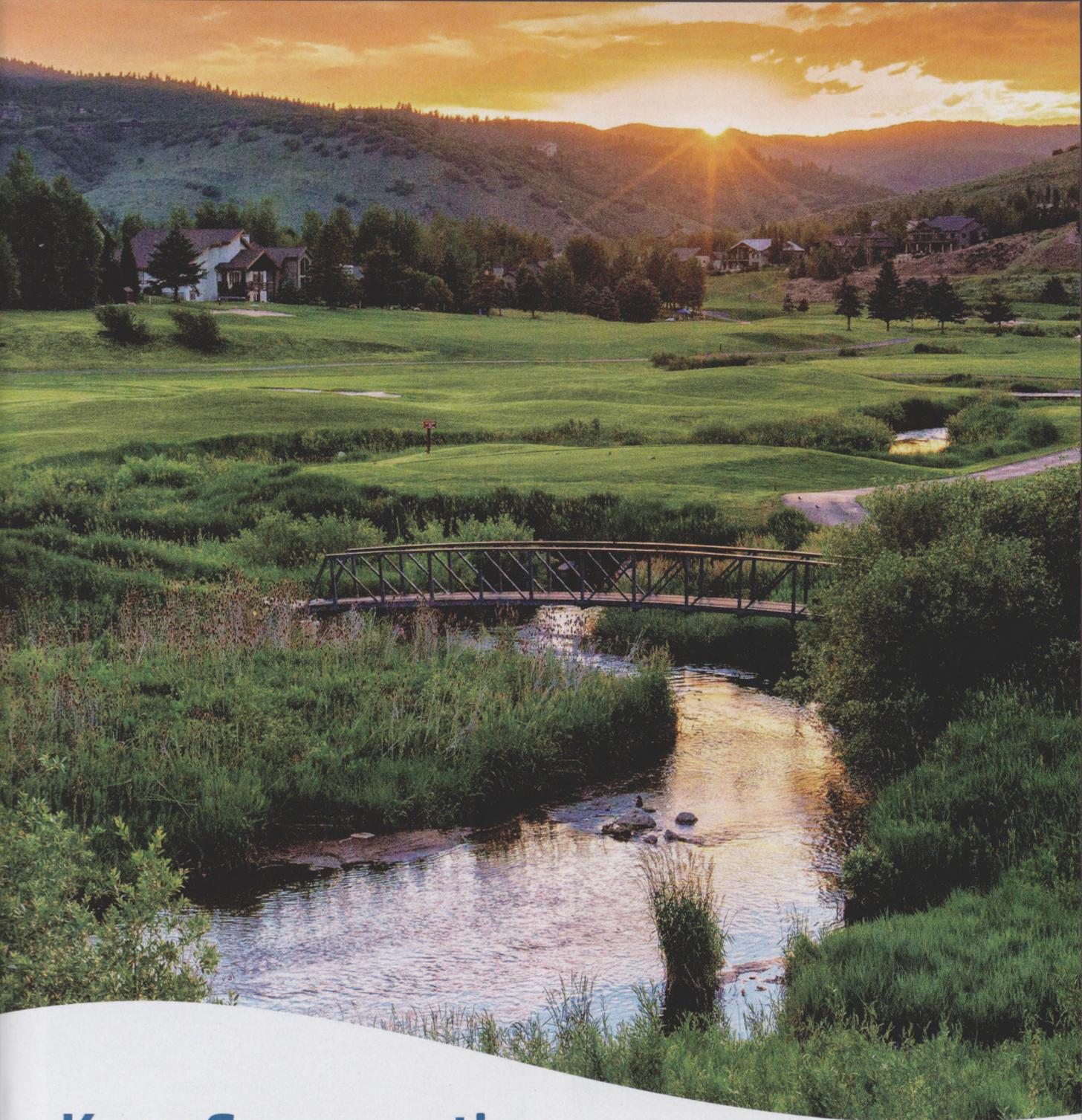


Below-grade components of an irrigation system can create risk management issues for a golf course.

A few months ago, I wrote about irrigation maintenance and how it can save you money and prolong the life of your irrigation system. The USGA Green Record also last fall had a feature article on developing an irrigation maintenance plan with a checklist. Many of you probably read one or both and said, yes, that sounds good, but I don't have the time, labor or budget to do those things. You may be taking care of the obvious items like pump station maintenance, arc adjustment, nozzle replacement and your central control computer service plan, but not the smaller things like sprinkler leveling and setting valve boxes and sprinklers to grade. They may not seem important to you and no one on your staff wants to do sprinkler and valve box leveling, but you can potentially get into trouble with a lack of irrigation maintenance.

I recently was made aware of a situation where a golfer was lining up to make a putt and as they backed up from their ball, they stepped in a valve box that was recessed about 8 inches below grade. As a result, they not only fell, but severely damaged their ankle. Of course, this quickly became a lawsuit. The cause was so obvious that it did not go to court. It went right to an immediate settlement. All that's left is how much it is going to cost. This is not the first personal injury case that has involved an irrigation system.

If you think about it, there are many aspects of an irrigation system that have inherent liability. In addition to sunken valve boxes, there are missing or broken valve box covers, sprinklers that are too high or low, sprinklers with missing or broken tops, electrical wiring, throwing water where it



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should not be such as on roads or off the golf course property, and sprinklers coming on without warning and hitting either players or going into carts distracting the operator.

Point is, small irrigation maintenance issues may not seem like a big deal and not high on your maintenance priority list. But they need to be on your radar as tasks that need to be completed. The question is how do you accomplish these tasks with a low budget and not enough help? It is difficult. One suggestion is to set aside a chunk of a staff members time each week, say four hours, to take care of these little things. You won't get it done quickly, but at least it will be accomplished at some point. Once you get all the boxes and sprinklers to proper grade, keeping

“ We live in a litigious world. All you need to do is watch the ‘lawyer’ commercials on TV. As a result, you better be careful to minimize potential situations that can cause injury to members, guests, players and even staff.”

up with them will not take near as much time. Once a month at least look to see if there are missing or broken covers so at least you can get the really bad stuff taken care of relatively quickly after it occurs. If you have many valve boxes and sprinklers that need to be addressed, then hire the work out and maintain them after that in-house.

We live in a litigious world. All you need to do is watch the “lawyer” commercials on TV. As a result, you better be careful to minimize potential situations that can cause injury to members, guests, players and even staff. One of my client was sued by a staff member because they twisted their angle in an irrigation trench that had settled. Don't wait for something to happen, be proactive, not reactive. GCI



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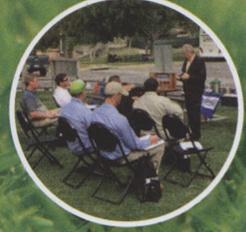


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A partner in success

Superintendent Brian Boyer considers his Target Specialty Products sales rep as more of a consultant than a salesman.

Brian Boyer has worked in the turf industry for 22 years, the last 12 of them as the superintendent at Cinnabar Hills Golf Club in San Jose, Calif. For much of that time Target Specialty Products has been an encouraging and supportive partner.

Boyer has worked with a number of sales reps in that span of time. Presently, he works with Perry Tarsitano. "Perry's product knowledge has been outstanding," Boyer says. "He's gone the extra mile for me to get me rates, cost per acre, for a variety of products, not just what the neighbors are using."

Tarsitano encourages Boyer to do his own product research and encourages Boyer to think outside the box when the situation warrants. "He allows me to research off-the-wall ideas," Boyer says, "and then does his own research."



BOYER

Apart from Tarsitano, Boyer says Target Specialty provides him with an ad-hoc support network. "I can talk to the counter, I can talk to the

warehouse guy, I can talk to the drive," he says. "They may not have the product knowledge but they're all extremely helpful."

Cinnabar Hills opened for play in 1998. It's a 27-hole daily-fee facility. Boyer oversees a staff of 19 and finds Target's support invaluable. "He'll help me research products that fit into my budget," Boyer says. He'll help me talk through products that may not fit into my budget but help me (consider) why I may want to be using them. And generally, I get competitive prices."

Boyer regards Tarsitano more as a consultant than a salesman. "I'm pretty confident in saying that's he's never 'sold' me anything," he says. "We discuss things, and I make intelligent discussions based on those discussions. It's made me a better superintendent."

Tarsitano gets Boyer what he needs, even if it's a product produced by one of his own company's competitors. "I'm sure Perry would be quick to point out another product that's better," he says. "Or if it's something he doesn't have, he'll talk to purchasing about getting it into their portfolio, as well."

Target Specialty Products is headquartered in Santa Fe Springs, Calif., near Los Angeles. The company serves the turf industry from 43 locations in the United States and Canada.



Understanding Nematodes is Critical Before Attempting Control

By Derek Settle, Ph.D.

Green Solutions Specialist, Bayer



Derek Settle is a technical specialist on the Bayer Green Solutions Team, which delivers best-in-class, solutions-based programs and tools to assist Bayer customers where they live, work and play. E-mail him with your comments at Derek.Settle@Bayer.com.

Nematodes that feed on the roots of turfgrass can negatively impact a golf course superintendent's ability to maintain healthy greens. Approximately a dozen nematodes are frequently associated with turfgrass roots and these include awl, cyst, dagger, lance, lesion, needle, ring, root knot, sheath, spiral, sting and stubby root. Nematode genera also feed on foliage (*Anguina* and *Subanguina*) and are detrimental to *Poa* greens in cool regions of coastal California and Washington. Initially, nematode damage results in off-color patches of turf in a range of patterns and shapes, which are easily confused with other common problems such as localized dry spot and nutrient deficiency.

Nematodes are currently a hot topic at educational meetings since there are now new solutions for their control. Three nematicides entered the market during an 11-month period starting April 2016. Though these products are effective and much easier to use than the previous generation of nematicides, a basic knowledge of nematodes and each active ingredient will help to create a long-term nematode management strategy (see table below).

Plant parasitic nematodes that damage turfgrass share an important characteristic: all have a needle-like mouth part or stylet and will be most injurious when other

stressors are present. Severe nematode damage in both cool- and warm-season turf is most likely to occur when high populations collide with temperatures that are unfavorable for root growth. At these times, additional biotic stressors are also thought to play a part in the damage to roots such as take-all root rot, *Pythium* root rot, and other root-related diseases. Though nematodes are often "the straw that breaks a [golf green's] back", managing the other stressors will help limit the progression of symptoms and can improve recovery if nematicides are used.

Sampling for nematodes is critical before using a nematicide. Nematode populations fluctuate month to month, often in response to root growth since more roots can support greater numbers. The best time to sample is from late spring to early summer and then again in fall. A Talking Turf post from the Bayer Green Solutions Team has more information at backedbybayer.com/ControlNematodes.

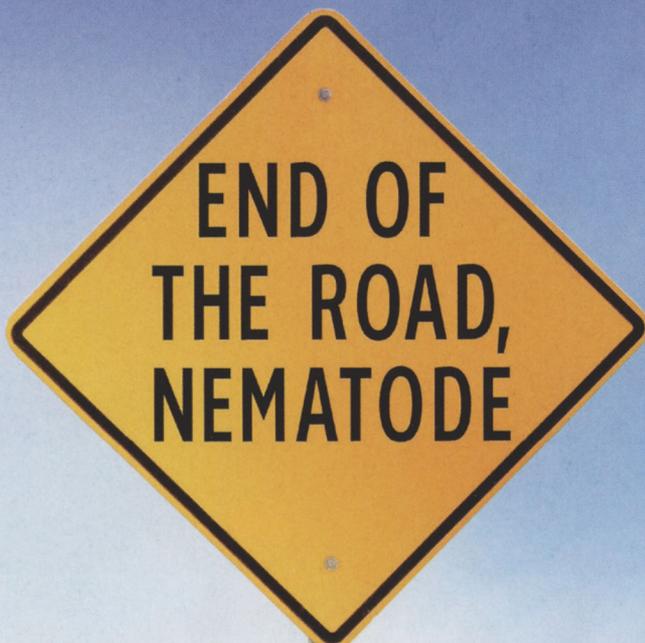
Diagnostic lab results will show nematode populations per unit of soil. For each nematode in turf, established population thresholds are used to help predict nematode damage and assist in determining if intervention is needed. Each nematode species in turf differs in their ability to cause damage. For example, sting nematodes are considered high risk and root knot nematodes rate as moderate-to-high risk.

The decision process to address nematodes can now begin. The nematology lab report is then used by the superintendent in conjunction with the long-term weather, turf-type, location, expectations, budget, etc. to determine if a nematicide is needed and which one is most applicable. The interaction between all these variables makes the decision to apply a nematicide highly specific to each course and there are many university and industry resources available to help.

New nematicides for commercial turfgrass use

Product	Manufacturer	Active Ingredient	Formulation	Signal Word	Half life ¹ in soil (days)	KOC ² Average	Launch Date
Nimitz*	ADAMA USA	Fluensulfone	G	Caution	≤17	187	April, 2016
Indemnify*	Bayer	Fluopyram	SC	Caution	>162	363	August, 2016
Divanem*	Syngenta*	Abamectin	SC	Warning	≤30	6,773	March, 2017

¹ Half Life provides an estimate of the duration of the active ingredient in the soil. ² Larger KOC number indicates stronger adsorption of the chemical to soil.



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Pair strong cultural maintenance with rotating fungicides to stop anthracnose.

Keep it GUESSING



By Kurt Kleinham

D

ealing with anthracnose basal rot can feel complicated, especially when combating resistance issues. But careful cultural practices and a varied approach to fungicides can control the disease.

Anthracnose, also known as *Colletotrichum cereale*, focuses on weakened or stressed turfgrasses, says Dr. Mike Agnew, Syngenta's Northeast field technical manager. *Poa annua* and creeping bentgrass are at particular risk for infection, as it attacks the crowns of both plants.

The first stages of anthracnose are easy to miss, say Todd Hicks, The Ohio State University's turfgrass pathology coordinator, and Joe Rimelspach, turf pathology extension specialist. Several factors that cause stress on turf can mimic similar symptoms, making them harder to spot before anthracnose progresses.

As the disease progresses and the crowns are damaged, symptoms

of decline become more apparent. Turf starts to lose color with chlorosis, and the leaves may yellow, or even have an orange color starting at the tip until the entire plant is affected, Hicks says. There may be a general thinning of *Poa annua* or small spots and patches showing symptoms, as well as larger irregular areas covering sections of a green. "On creeping bentgrass, there is usually less yellowing and orange color, and more of a thinning of the stand and a brown appearance," he says. "Infected plants have a blackening of the base and necrotic tissue."

On *Poa annua*, look at the lower stem and crown for blackening and discoloration, and

for bentgrass, look for discoloration and necrosis at the base of the plant and stolon, Hicks adds.

The reddish-brown discoloration and thinning will show in the summer to early fall, Agnew says. The fungus becomes dormant in cold weather, but "severely affected plants may turn yellow during mild winters or winter thaws."

A quick diagnostic look at the stolon with a hand lens is one reliable way to determine whether turf is under attack by anthracnose or just heavily stressed, says Dr. Chuck Silcox, AMVAC Environmental Products product development manager. "One of the key diagnostic features that anthracnose produces is a spore structure

called acervuli,” Silcox says. “It’s small, kind of globular and black. If you see that structure, then you know you’re dealing with anthracnose.”

CULTURAL APPROACHES

While not always an option, one effective way to get ahead of anthracnose is to encourage the adoption of bentgrass putting surfaces because the turf type is more tolerant of the disease than many *Poa* biotypes, says Hicks.

Aggressive cultural practices should already be in place long before the disease strikes to lessen its impact, especially if the superintendent has gone rounds with anthracnose on the course before. Any course using highly susceptible grass, facing frequent weather patterns conducive to anthracnose or handling intensive maintenance of greens to meet golfer expectations should be wary, Hicks says.

Mowing heights should be maintained to at least .125 inches, and single or double rolling can be used to keep up green speeds, says Dr. Zac Reicher, Bayer Green Solutions team specialist. Use frequent sand topdressing that’s light enough to be watered in or brushed in with one pass.

Rutgers University research shows regular topdressing is an effective tactic, Silcox says. Originally, topdressing was thought to contribute to the disease, but “it was just the opposite,” he adds.

“It’s thought that the sand protects some of the vulnerable parts of the plant,” Silcox says. “It’s functionally like raising your mowing height, because you’re keeping the growing point of the plant covered. Frequent topdress-



One key diagnostic feature anthracnose produces is a spore structure called acervuli. It’s small, kind of globular and black. If you see that structure, then you know you’re dealing with anthracnose.

.2 pounds of a quick-release nitrogen about every two weeks.

Starting a soluble nitrogen program in April or May at about .4 to .8 pounds can build up nitrogen in turf as it heads into summer, reducing the severity of later anthracnose. Granular nitrogen fertilization should focus on the early months of the season at rates of 1 to 3 pounds to slow down anthracnose.

Potassium levels should also be monitored, and soluble potassium applications maintained at a 1:1 or 2:1 nitrogen (N) to potassium (K) molar adjusted-ratio every 14 days, according to Rutgers’ research.

“Maintain greens with a sound fertility program for healthy turfgrass. Soil tests may be helpful in determining details for the program,” Hicks says. “Do not under-fertilize the greens to achieve speed, but fertilize for turf health. In most cases, a combination of granular applications and applying light rates of soluble

ing every two weeks is good management.”

Another option to manage ball speed instead of a low height of cut is double-cutting greens along with a rolling program, says Dr. Brian Aynardi, PBI-Gordon’s Northeast research scientist.

Even slight increases in mowing height can greatly reduce the severity of the disease, according to Rutgers’ guidelines. Using solid rollers as compared to grooved rollers at the same bench height setting could also be helpful, and rolling every other day can decrease disease severity.

Anthracnose preys on weakened turf dealing with excessively wet conditions or wilt stress. Manage excess mois-

ture, running irrigation at 60 to 80 percent evapotranspiration rate to prevent moisture stress to already shallow-rooted *Poa annua*, Reicher says. Plant growth regulators can be used to control seedheads, manage growth and preserve carbohydrates for use later in the summer to limit anthracnose, he adds.

Research indicates PGRs are safe to use around turf affected by anthracnose, Silcox says. It even improves the turf’s ability to resist the disease by making it more low-mow tolerant.

Nutrition is also a key part of the maintenance approach, starting with regular doses of nitrogen through the summer to keep levels up, Silcox says. That comes out to about .1 to

fertilizers to improve plant health is most successful.”

When an infection does happen, start by trying to relieve whatever could be causing stress to the plant to give it the best chance to fight back, Agnew says. “Anthracnose is a stress-related disease,” he adds. “Alleviating plant stresses will help with recovery. Therefore, make a slight change in mowing height and avoid severe wilt and excessive wet conditions.”

Use walk-behind greens mowers and divert traffic away from affected areas by moving cups frequently, Hicks says.

“All those management techniques you can utilize essential-



Several factors that cause stress on turf can mimic similar symptoms, making them harder to spot before anthracnose progresses.

ly sets your fungicide program up for success,” Silcox says.

BEATING FUNGICIDE RESISTANCE

A superintendent’s fungicide program should start about a month before they expect symptoms to show up, with many researchers usually aiming between May 14 and Memorial Day, Silcox says.

“Since disease outbreaks can occur at different times of the year even within a small geographical area, keep records of when and under what conditions the disease occurs,” Hicks says. “Use that information as a guide for application timing.”

Another way to gauge when applications should begin is by soil temperatures, Reicher says. When 2-inch soil temperatures average 65 degrees for five consecutive days, it’s time to start fungicide applications.

Make certain fungicides are labeled for the control of anthracnose, and keep the pathogen’s location in mind. Since it’s located inside the crown, and many fungicides are only systemic upward or local penetrants, the fungicides must be placed at the base of the plant, Hicks says.

Aim for a fungicide application program of about 14-day intervals, and go in planning to rotate active ingredients

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PESTS & DISEASE

regularly to cut down on resistance, Silcox says. "The challenge, then, is picking active ingredients that in your region have proven efficacy against anthracnose," he adds. "Then what you want to do is use as many of those as you can in a program."

Rutgers' research shows QoIs, DMIs, chlorothalonil, benzimidazole, iprodione, phosphonate, polyoxin-D and phenylpyrrole fungicides all as effective against anthracnose, though some might be more effective than others in different regions.

The goal is to not use any two active ingredients in a row, says Silcox, though it's a good strategy to pair up two active ingredients together in each application to get the strongest effect. When rotating fungicides, it's important to choose products that use different Fungicide Resistance Action Committee codes, as well as modes of action and use of phosphites, Aynardi says.

Even if fungicide resistance isn't a problem in a particular region, that makes it even more important to get started on a multiple-approach program, Silcox says. "The counterpoint I make is that if you don't have resistance, then you need to start using other products now," he adds. "Not that you can't use them while they're still working, but don't just continue to rely on them. We know what history is going to tell us: If you keep putting pressure on the pathogen population, you're going to have resistance."

It's recommended to tank mix a multi-site fungicide while applying a single-site fungicide, Agnew says. Look at the active ingredients being paired, and match fungicides to get the most out of each application. If a superintendent is applying for anthracnose, they might as well also get coverage on other diseases, Silcox says. Plan for six to eight applications until anthracnose conditions are less favorable with shortening day lengths and less heat intensity. But continue to keep an eye on problem areas through the season. **GCI**

THE PASSING OF A MENTOR



Jeffrey D. Brauer is a veteran golf course architect responsible for more than 50 new courses and more than 100 renovations. A member and past president of the American Society of Golf Course Architects, he is president of Jeffrey D. Brauer/GolfScapes in Arlington, Texas. Reach him at jeff@jeffreydbrauer.com.

On New Year's Day 2018, we lost two veteran golf course architects – Jeff Hardin and Dick Nugent. Dick was my first (and only, along with his partner Ken Killian) golf course architecture boss and mentor.

I learned most of what I know about the theory and business of golf course architecture from Dick. I am still influenced by his design style. In 1993, I told *Golf Course News*, “I find my work going right back to what Nugent told me, that Robert Bruce Harris told him in 1959.” My proteges probably are telling their staff what I told them in the 1990s, that Nugent told me in 1977, that Robert Bruce Harris told him in 1949.” His legacy is extending the theories and methods of the “Chicago School” of Architecture.

That legacy includes design variety and consistent design quality. After splitting with Ken Killian, he experimented extensively, styling courses in homage to Pine Valley, Dunes Club in Michigan, Scotland, the Golf Club of Illinois, and modern design (with whimsey, at Harborside International in Chicago). While most often designing reasonable cost municipal courses, he also designed one of the world's toughest courses, Koolau in Hawaii.

It equally entails treating everyone with respect and generosity, and

“ Dick believed subtlety was ‘lost’ on modern players. He inspired our creativity by exhorting that ‘no architect ever got famous by being timid.’ He encouraged numerous wild design ideas, figuring one in a hundred would be good.”

acting as a mentor to the many who worked for him. Most of us view him as a father figure, who influenced us professionally as much as our own fathers influenced us personally. He was a great mentor to many aspiring golf course architects, and many who went on to success on their own.

While I started with Killian and Nugent upon graduating college in 1977, our relationship started when I was 12. I went home from my first golf round wanting to be a golf course architect. My father searched for information about golf course architecture as he could – no small feat pre-Google – and found, among other things, that there was a golf course architecture firm, one stop down the train tracks. I wrote them, and Dick invited me for an office visit, where he encouraged and guided me to study drafting in high school, land-

scape architecture in college, including surveying, agronomy, construction management, ecology, business practice, aerial photography interpretation, all supplemented with summer jobs on golf courses or landscape construction.

I followed his advice and they probably felt obligated to hire me to an entry-level position, despite a sluggish economy. I wondered if golf architecture would be a profession when I was his age. He scoffed, “Golf has been going strong for 500 years, it will last the next 50!” That was the first of many memorable stories and sound bites. I still recall (and quote) his design rule to “Avoid sharp dog-legs in only two situations ... where there are trees, and where there aren't.”

My education only accelerated once there. Dick made all young associates work in construction for several months, to enhance their design knowledge.

He allowed young associates to be involved in design, if we adhered to his basic style, which was big and bold. Dick believed subtlety was “lost” on modern players. He inspired our creativity by exhorting that “no architect ever got famous by being timid.” He encouraged numerous wild design ideas, figuring one in a hundred would be good.

My first design experience was a par-3 hole, where I sketched in a forced water carry. He walked off in silence, and I thought I might not see a fourth day. He came back later, explaining that they “tried a forced carry once, and the ladies couldn't play it, so he avoided them ever since.” He also changed my convex green surface (great for drainage!) to a concave one, gently explaining that “average golfers need all the help we can give them ...”

Through experience, Dick had developed many design rules. He loved to break those rules occasionally to (BRAUER continues on page 56)

REVIEW, RENOVATION

An Arizona director of agronomy offers insight into what to expect when overhauling bunkers.

By **Scott Krout**

PHOTO COURTESY OF SUPERSTITION MOUNTAIN GOLF & COUNTRY CLUB



TE, REFLECT

Bunkers are the rarely loved, often hated, yet defining aspect of numerous golf courses around the world. As a significant feature of any course, general managers, superintendents and course owners must eventually face the proverbial music and give these course hazards some TLC. Small or large, bunker renovations are no simple feat and require a few essentials. As the director of agronomy at Superstition Mountain (Ariz.) Golf & Country Club, I recently guided our staff through a massive overhaul of the bunkers on our two courses. Having been with the club since the beginning and involved with the original course design, the recent bunker renovation was my second large-scale project with Superstition Mountain. Let's walk through this undertaking through the lens of our private club for a firsthand account of what to expect during a bunker renovation.

PLANNING

Though the project broke ground in May 2017, planning for the renovation began more than a year prior. The process involved countless meetings with club ownership, the Hladky Family, to sell them on this renovation. Projected to cost \$2 million, it was imperative the renovation was presented as an investment to our owners who successfully run Superstition Mountain Golf & Country Club as an efficient business.

With the green light, members of the club staff, Phil Smith Design and the Nicklaus Group reviewed each bunker on both courses. Having worked with the Nicklaus Group on the initial design of Superstition Mountain back in the 1990s helped streamline the evaluation process as we critically analyzed the bunkers and surrounding slopes. Our survey also identified surrounding landscape that would need to be adjusted for optimal playability and view.

Lastly, Jack Nicklaus himself reviewed each bunker blueprint and provided his approval or written feedback and recommended alterations prior to breaking ground.

CONSTRUCTION

The multimillion-dollar project allowed us to simultaneously renovate all 175 bunkers on our two 18-hole courses. Construction crews worked day in and day out to com-

pletely overhaul each bunker – removing existing sand, installing state-of-the-art Capillary Concrete, updating surrounding greens and upgrading the drainage system. While each hole required its own unique

TLC, the majority of holes required the following repairs.

RESHAPED BUNKERS

- Based off evaluations, bunkers were combined or separated to enhance playability
- Bunker floors were adjusted to improve drainage
- Surrounding slopes were increased or decreased to provide more accessible entry and exit into the bunkers
- Reset bunkers to original dimensions
- After 20 years of edging and play, out-lines were reset to original specifications
- Installation of Capillary Concrete reinforces and defines bunker outlines, and will help control and reduce this migration for years to come
- Upgraded drainage

Construction crews discovered blocked, crushed or nonfunctioning drainage on one-third of bunkers.

Over the five months of construction, crews installed more than 1,440 tons of concrete and more than 4,500 tons of new sand. Despite the size of the project, Superstition Mountain Golf & Country Club continued offering members 18 holes of golf every day. At times, this meant combining holes from both courses, but the project was carefully mapped to limit player disruptions as much as possible.

CHALLENGES

No project, large or small, is completed without its fair share of challenges. From inclement weather to grass literally not being green on the other side, we overcame bumps in the process. However, our attention to detail and problem solving has left us even more confident in the integrity of the work accomplished.

WEATHER

Arizona summers feature triple digit temperatures and intense, sudden thunderstorms during the monsoon season from July through September. Bringing heavy rain and strong winds, these powerful thunderstorms were an impromptu, real-world test for the new bunkers. Despite multiple storms, the Capillary Concrete drained rainwater effectively and the

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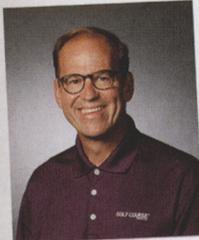
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Pat is a veteran green industry communicator and marketer who previously held senior positions with the Golf Course Superintendents Association of America, Barkley-Evergreen Public Relations, Advanstar Communications and his own company, Flagstick LLC. Jones is an award-winning writer and a regular guest speaker at industry events. He earned degrees in journalism and liberal arts and sciences from the University of Kansas in 1984.



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and on social media.

newly fortified bunkers had zero washouts.

VENDORS

While irrigation and drainage were being repaired on the bunkers, in the heat of summer, some portions of the surrounding sod began to brown. To begin repairing the damaged areas, replacement sod was ordered – and rejected. The sod we received was as brown as what we were trying to replace. Luckily, the second shipment was in better condition and was utilized in the repairs. The agronomy team continued to monitor other surrounding greens for health and did whatever was needed

BUNKERS BY THE NUMBERS

The **\$2.2 million bunker renovation** at Superstition Mountain Golf & Country Club included:



Renovation of all **175 BUNKERS**



Removal of **4,000 TONS** of sand



Installation of **4,500 TONS** of new sand and **1,440 TONS** of concrete

to protect the high standard of quality the club is known for.

CONCLUSION

The year-plus project has finally come to an end, and our club and membership could not be happier. Our successful renovation

was the result of many factors, with communication being high on the list. From groundbreaking to renovation completion, we kept our staff and membership in lock-step through transparent communication which included weekly

newsletters and a dedicated page on our website where visitors could view bunker progress. By keeping everyone in the loop, Superstition Mountain was able to reduce frustration and make membership and staff a part of this large undertaking. By renovating our bunkers, we have provided an exceptional place to play golf for years to come, signaling the health of the club and the Hladky's commitment to their business and the sport of golf. **GCI**

Scott Krout is the director of agronomy at Superstition Mountain Golf & Country Club in Gold Canyon, Ariz.

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Fighting with Tekken

PBI-Gordon's new broad-spectrum fungicide tackles dollar spot, anthracnose and nearly 20 other problematic turf diseases.

Last month, PBI-Gordon announced today that Tekken Broad Spectrum Fungicide is now available to golf course superintendents.



Aynardi

Approved for use on greens, tees and fairways only, Tekken features one convenient rate to control Dollar Spot, one of the top disease issues for turf managers. The fungicide also can be used to treat anthracnose, brown patch, and 18 more of the most problematic diseases for cool- and warm-season turf.

PBI-Gordon's Brian Aynardi, Ph.D., Manager, University and Contract Research — Northeastern U.S., answers a few questions about the impact Tekken will have on both cool- and warm-season golf courses, as well as how turf managers can utilize this fungicide chemistry as both an agronomic and labor-saving solution.

What's unique about PBI-Gordon's new Tekken Fungicide active ingredients?

Brian Aynardi: Tekken's proprietary, patent-pending blend of active ingredients isofetamid and tebuconazole provides preventative, systemic control for up to 28 days per application. It also features one convenient rate for all diseases.

Is it effective for both cool- and warm-season grasses and the



problematic diseases that impact these types of turf?

Tekken can be used on both cool- and warm-season turf. It offers protection from the diseases like dollar spot, brown patch and anthracnose that blemish—or worse yet—kill a course's aesthetics and hamper playability.

How is the fungicide best used, especially during times of peak summer stress?

Tekken is a FRAC Group 7 + 3 flowable suspension concentrate. It should be used in a regularly scheduled preventative spray program and rotated with products that have different modes of action. Though it can be used at any time during the year, extensive testing by universities and end users has shown that Tekken is particularly effective at controlling summer stress diseases like brown patch and anthracnose.

Superintendents have a lot of concerns about fungicide resistance.



Does the new Tekken address this?

Tekken utilizes two active ingredients with different modes of action representing FRAC groups 3 and 7 to control pathogens of turfgrass.

Labor savings is another issue with turf managers. How does the new Tekken help superintendents more effectively manage the time of the maintenance crews?

Tekken helps golf course superintendents with labor savings in two ways. First, it is a premix formulation that saves time in the mixing process by not having two separate products to add into a spray tank to achieve multiple modes of action for broad spectrum control. Second, the patent-pending formulation in Tekken of-

fers up to 28 days control on the key diseases golf course supers are most concerned about. Having control for 28 days means less time on a spray rig and more time tending to the other issues on the course.

28 DAYS 21 DISEASES 1 RATE

New Tekken™ Broad Spectrum Fungicide from PBI-Gordon uses two modes of action to deliver dependable control of 21 diseases, including anthracnose, dollar spot, and brown patch. The patent-pending formulation increases turf quality while reducing the risk of turf damage compared to stand-alone DMI applications, and Tekken controls listed diseases for up to 28 days with the same rate, eliminating the guesswork.



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Travels with Terry

Globetrotting consulting agronomist Terry Buchen visits many golf courses annually with his digital camera in hand. He shares helpful ideas relating to maintenance equipment from the golf course superintendents he visits – as well as a few ideas of his own – with timely photos and captions that explore the changing world of golf course management.



Terry Buchen, CGCS, MG, is president of Golf Agronomy International. He's a 41-year, life member of the GCSAA. He can be reached at 757-561-7777 or terrybuchen@earthlink.net.

ICE DAMAGE PREVENTION ON GREENS

Ice damage on the putting surfaces at the Seven Oaks Golf Club, owned by Colgate University in Hamilton, N.Y., is a thing of the past. Superintendent Jon McConville noticed that ice would disappear at a more rapid pace anywhere the greens were located under the groves of spruce trees. After occurring ice damage on some of the other greens in 2013, McConville had his staff cover the worst ice damage areas the following December with spruce tree cuttings. The entire greens were not covered, just the portion where the ice damage would likely occur such as bowls, depressions and collar dams. The 2014 spring produced no ice damage on the areas covered with the spruce cuttings, as the boughs did not allow the ice to form in a solid state because there were lots of air pockets. The spruce cuttings range from 2 to 4 feet long and they were spread out to not smother the surface – but they definitely overlap each other and sunlight could still reach the putting surfaces. They have 20 greens total and they started covering three greens and increased it to six greens that were in open areas. It took three employees one day collecting the cuttings, with two employees covering the greens in about two hours and it took about a day cleaning up the branches and needles in the spring. Nick Weaver, Brandon Frederic, Lucas Ryde and Doug Marcellus did a great job on this very successful project.



MEMORIAL BRIDGE

The 20 feet by 8 feet “Jerry Brey Memorial Bridge” located adjacent to No. 18 tee was built in-house at the Cape Girardeau (Mo.) Country Club. It was built entirely by Brad Twidwell, superintendent. The main metal framework uses two 4-foot by 8-foot by ½-inch by 20-foot angle iron; three 1-inch by 4-inch by ½-inch by 20-foot flat bar; four 1-inch by 24-inch by 24-foot expanded metal; one 1 ½-inch by 1 ½-inch by ½-inch by 20-foot angle iron; three 3-inch by 3-inch by ½-inch by 20-foot flat steel all welded together. See-through type metal grating in four 2-foot by 8-foot by 1-inch sections is then installed and welded over the top of the framework, primed and painted medium black. The four stone columns were made using 200 7-inch by 10-inch by 4-inch Tumble Paver Stones that are held together using Liquid Nails in a caulking gun. There is a bronze plaque with laser-cut letters honoring Jerry Brey. It took approximately 70 hours to build at a cost of approximately \$3,750.



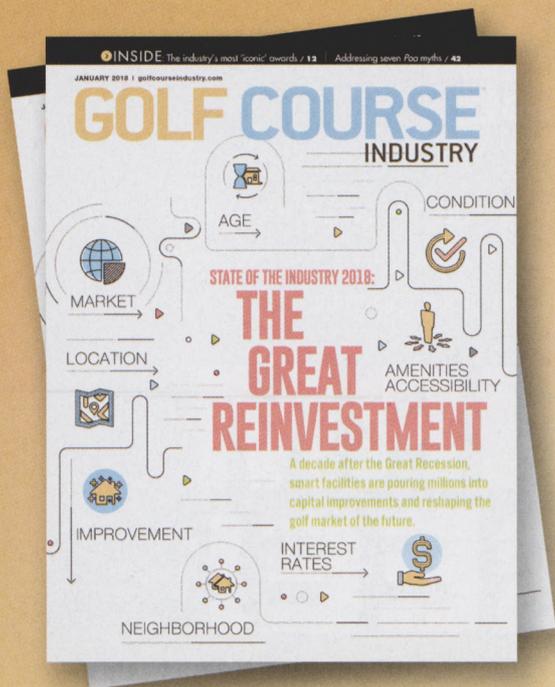
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DESIGN CONCEPTS

(BRAUER continued from page 45)

enhance design, but cautioned that breaking established rules too often quickly turned a course from playable to unplayable and unbearable. Worried about being typecast, he strove to utilize a few completely new design ideas on every project to avoid becoming stale.

His roots included high doses of engineering and he believed that “cost/value engineered plans” were part of an architect’s duty to the owner. We drew extensive grading, irrigation and drainage plans. Most firms claim to produce the “best plans in the business,” but Dick’s claims were legitimate. He left little to chance in the field. Say what you want about his design style, Dick Nugent courses drained!

To him, detailed grading plans were golf course design, and he thought architects should be able to draw what they imagined. We were often instructed to survey good design features, so we could draw them more accurately. Our grading plans also calculated cut and fill. Our grading was efficiently balanced for the entire job, but also on individual holes to reduce the contractor’s haul lengths and save the owner money.

Cut and fill imbalances can be easily corrected by lowering or raising entire areas. However, when our “first run” showed imbalances, Dick reviewed the plans to eliminate unnecessary cuts or fills to balance and reduce earthmoving quantities, a process that often entailed a second and even third try. When an associate left for another firm, he reported back that our earthwork methods “were a revelation” to his new bosses.

Dick saw the value in small projects. When I complained about designing a low budget project, he said I was doing “more for golf” by designing a good, affordable course in rural Wisconsin than by building an expensive country club in Chicago.” That project was Lake Arrowhead in Nekoosa, Wis., and it’s proven popular for 38 years, and at reasonable prices. Sand Valley is now next door, and doing well, but I think Dick was probably right.

Personally, he was affable and generous. His primary team building method was the office lunch. Dick paid for lunch, and for trips to famous courses to expand our design horizons. He paid for our memberships in ASGCA, knowing we would probably leave the firm upon attaining full membership. And we did.

Over the years, I have nothing but fond memories of working Dick. I still use the methods he taught me in my own work. If the sign of a great mentor is long lasting effect, no one should doubt that Dick Nugent was one of the great mentors in a game filled with great mentors. **GCI**



Dick Nugent

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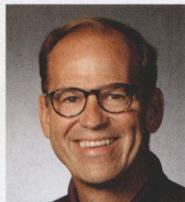
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THE BOND



Pat Jones is editorial director and publisher of Golf Course Industry. He can be reached at pjones@gje.net or 216-393-0253.

I am often asked to talk with marketers and suppliers about the demographics of the golf course maintenance business. Basically, they want to try to understand who you are and how you think so they can figure out your “pain points” to sell you stuff more effectively.

I throw a lot of data at them: average age, average pay, average tenure, average budget, average staff size, etc., etc. They take copious notes and nod a lot.

And then I say this: the most important thing I’ve learned in 30 years of working with golf course superintendents is that they share a special bond that transcends the averages and the demographic data.

I’ll try to put it in words ...

I’ve learned that there are unique rewards to the job that “outsiders” just don’t get. Being out alone on a gorgeous piece of land at daybreak. Nurturing the property along and knowing that you’re making it better than it was. Passing along knowledge to the next generation. Getting those rare but deeply felt compliments about “your” course.

There are also shared frustrations: golfers are idiots; people think I’m Spackler; the GM’s priorities are all wrong; activists hate us because they don’t understand how carefully we manage our land; millennials suck.

Very few of you will ever get rich yet there’s vast wealth in the fringe

“Balancing work and family doesn’t happen without effort. Your passion for your profession must always be viewed in the context of the quality of your homelife and your own health.”

benefits. The connectivity of golf is extraordinary. I often find myself someplace spectacular – Cypress or Merion or Seminole – and I just shake my head in wonder that golf has taken me there. Do you feel that too?

Because the profession of green-keeping is 150 years old, it’s been a family affair literally and figuratively. It’s not unusual to find third- or even fourth-generation turfheads but we also have the unofficial clans of Latshaw, Williams, Graves, Maples or Mangum that tie hundreds of today’s best back to a common “ancestor.” We are a band of brothers (and increasingly sisters) with common roots and values.

Knowledge is shared generously – far more so than in other professions. I honestly can’t think of another industry where individual businesses (clubs) compete ferociously for revenues yet their employees (superintendents) would drop everything and help the person across the street if

disaster struck or they simply needed some extra help or equipment.

Mother Nature is everyone’s boss.

Balancing work and family doesn’t happen without effort. Your passion for your profession must always be viewed in the context of the quality of your homelife and your own health. It’s heartening to see this becoming more of the norm, but wives and girlfriends still suffer too often because your 150-acre mistress is always calling.

Achieving quality conditions and avoiding risk often trumps cost. Yes, you’re frugal. I often say that if I ever won the lottery, I would hire a superintendent to manage my money because you are amazingly careful with other people’s dough. But, when push comes to shove, you’ll spend what’s necessary to do the job up to standards.

So those are the “hidden qualities” behind all the averages and data about you and our happy little industry. Yet, there’s still something intangible that’s impossible to capture. Something really hard to put your finger on.

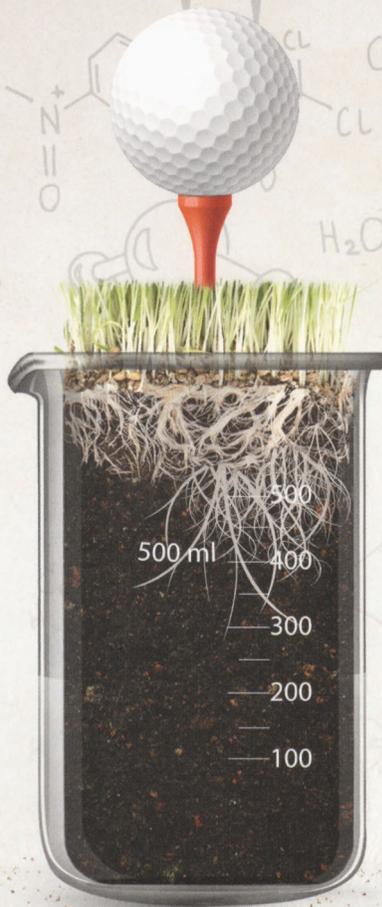
It’s that special thing that unites us so closely that sometimes miracles result. One example: our cover story on my friend Scott Dodson whose life was quite literally saved by fellow superintendent Brian Conn.

The story itself is astonishing. Please, please read it. What you will learn is that the bond that defines our profession can sometimes be deeply personal in ways that go far beyond turf. The bond is just the beginning of something bigger and vastly more important. There is great humanity among us. And humility. And love. And grace. And I’m crying again just thinking about listening to the recording of Guy Cipriano’s interview with Brian when he talks of faith and family and changing his life by saving another.

God, I love this community. I’m so, so grateful to be a part of it. I hope you are too. **GCI**

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TEXTRON GOLF

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HAULER 800

HAULER 800X

HAULER 1200

HAULER 1200X

HAULER PRO

HAULER PRO-X

