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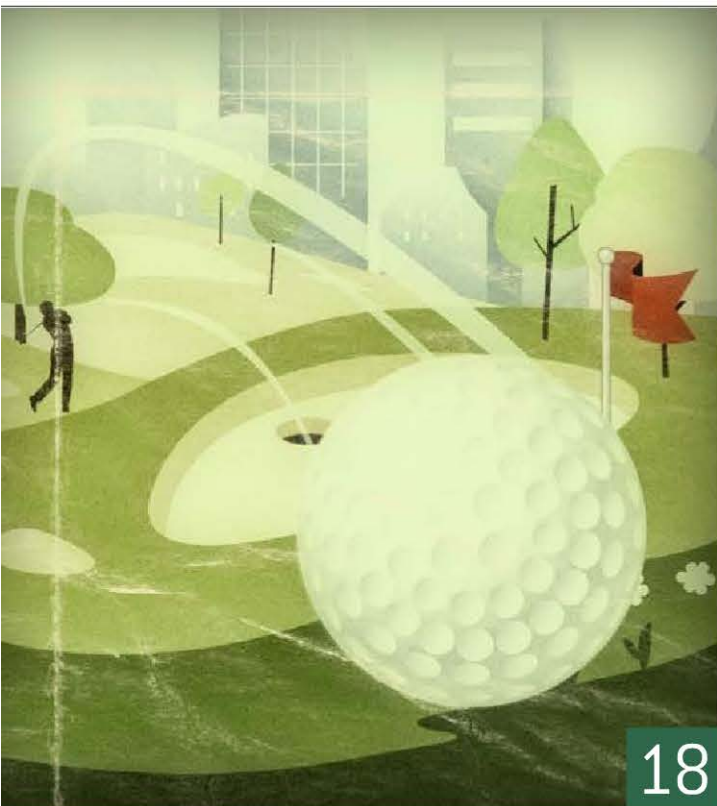
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TEERING OFF

WRAPPING UP

In early 2011, I was starting a new editorial job, eagerly trying to track down superintendent Ian Elko at the Princeton Golf Course to ask him about protecting a growing badger population on his course.

Though the job title has evolved since then, not much has changed directly. Recently, I lost track of time researching the potential for using predatory wasps to slow the emerald ash borer threat.

But there is a big change on the horizon: I'm moving on from Golf Course Industry.

Don't get me wrong, I'll still be working on a magazine focused on grass, and I'll even be in the same office. But I'll be leaving the Superintendent Radio Network and other projects in the incredibly capable hands of Mike Zawacki and Guy Cipriano, while they work to carry out Pat Jones's vision.

In preparation for the change, I went back to the very first editor's note I wrote back in 2011, and thought about what I've learned about the industry since then. Here are a few highlights:



Kyle Brown
Associate Editor

TURF IS AMAZING. Golf turf, sports turf, lawn turf – it's all incredible when we treat it right. When I started, I was astounded to learn just how many different types of turf there were, and how each was adapted to a specific environment. It took a little longer for me to really appreciate what strong turf means not just for the game, but for our larger community. I never anticipated how much I would come to love all the science and hard work that goes into making that plant grow.

From the outset, I was an advocate for turfgrass, and for the professionals who take care of it. You have a responsibility to the game of golf, sure; but as I see it, that responsibility goes far beyond the greens. Professional turf care supports the environment by working with native grass and responsible use of inputs. It means understanding and communicating about the big issues that have fallen out of focus with the average homeowner, like water use.

SUPERINTENDENTS ARE PRETTY COOL, TOO. That responsibility I mention extends to the people superintendents work with as well. Professionals have to work with labor issues and diverse teams that come from many different backgrounds, and they have to be able to explain the practice to board members and everyday players. Oh, and also be a spokesperson for the course and the entire game in general to any media looking for a story.

But superintendents also know how to build support groups better than so many other industries, whether it's over social

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TEERING OFF

media or at a conference. Knowing one superintendent means knowing a dozen more, and each of them is ready to help when dollar spot catches the crew off guard a few days before the big event.

And one of the best parts of working on SRN was getting a chance to hear the personal stories of superintendents facing big, life-changing moments, and having the support of their colleagues to help. You all do some amazing things sometimes. I don't think I'll ever forget getting off the phone with Bob Kohlstedt after he told me the incredible story of his risking his life by diving into a flood to save his course dog. I knew people couldn't just read that story – they had to actually hear it. And working on stories about superintendent health and West Coast water issues only made the point stronger: These aren't people who are just passionate about a game, but professionals who care about the turf and the people who surround them as family, friends, crew members and players. When the golf community comes together, it knits together tightly for better or worse.

“I don't think I'll ever forget getting off the phone with Bob Kohlstedt after he told me the incredible story of his risking his life by diving into a flood to save his course dog. I knew people couldn't just read that story – they had to actually hear it.”

GOLF COULD STILL STAND TO GROW. As great as the industry is, you don't have to look far to see aspects that could use some focus. Water is the easy one to notice, even at courses where the resource is plentiful now. Then there are input concerns and pollinators to consider as well, and the constant managing of expectations of a public trained on long, challenging courses with oversaturated green turf.

Turf concerns aside, I think the game's best chance is to prove itself more inclusive to families and players of all types. That tight knitting I mentioned before can seem imposing to some groups and keep them from having the opportunity to experience the work of turf professionals. Working toward a course that is as fun for the new player as the experienced will go a long way to bringing in resources and interest.

So thanks for letting me be part of the golf industry, and giving me a chance to help tell your stories. I've had a lot of fun doing it, and I learned so much in the process. One thing I never did learn, however, was a proper swing. To the few of you who got stuck golfing with me once or twice: Oh man, I am so sorry. **GCI**

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O-H... Turfgrass!

GCI editors don't mind taking notes and sifting through research like post-graduate students. In fact, we enjoy reliving the academic portions of our college days.

On a perfect mid-August day, we visited Columbus, Ohio, for the Turfgrass Research Field Day presented by The Ohio State University and Ohio Turfgrass Foundation. We weren't alone. The event attracted more than 250 industry professionals to the OTF Research and Education Facility and university research plots. Ohio Stadium, home of the inaugural College Football Playoff champion Ohio State Buckeyes, lurks in the skyline. GCI, though, isn't a fan of artificial surfaces and we will never publicly announce an allegiance to any college program.

We do profess an admiration for turfgrass research, and we saw some fascinating things in Columbus. Highlights included:



Todd Hicks, program coordinator for The Ohio State University department of plant pathology, describes results of fungicide trials during a field day last month presented by Ohio State and the Ohio Turfgrass Foundation.



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- A demonstration by the United States Department of Agriculture's Barry Allred and Luis Martinez on using ground penetrating radar to determine subsurface features and map soil water content. The USDA has a soil drainage research unit on Ohio State's campus. GPR trials have been conducted on multiple Columbus-area golf courses.

- An update on Dr. Karl Danneberger's USGA-funded greens brushing study. This marks the second summer of the study, and Danneberger has observed improvements in leaf texture and reductions in morning dew and leaf clippings through brushing five times per week. "For us brushing continues to be an effective method to improve turf quality," he says.

- Results of a USGA-funded Bermudagrass in Northern climates

study. Four cultivars – Patriot, Northbridge, Riviera and Latitude 36 – are being examined for adaptability. The winter of 2014-15 was mild by Central Ohio standards, but the plots needed to be reestablished via sprigs in July because of damaged caused when temperatures dipped below 32 degrees on consecutive days last November.

The plots weren't covered on either day. Researchers will now use covers whenever overnight lows are expected to dip below 35 degrees.


During a hands-on part of the field day, attendees passed around annual bluegrass weevil samples found at a




Luis Martinez, right, of the United States Department of Agriculture demonstrates how to use ground penetrating radar to collect subsurface data.


Northeast Ohio course. We asked Dr. David Shetlar, the witty "BugDoc," about the spread of the pest. We turned our conversation into an entertaining Superintendent Radio Network episode. Listen to it by typing bit.ly/1TRDKS8 into your web browser.

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Free golf!

Here's a daring try-this-at-your-course idea courtesy of Great Parks of Hamilton County: Free golf.

Put your balance sheets away before chuckling. Great Parks, the subject of our cover story about municipal golf (page 18), celebrated its 85th anniversary on Aug. 1 by offering a slew of free activities, including free green fees on all seven of its courses. From a golf perspective, the event, which also offered free range balls, FootGolf and miniature golf, was gutsy. Aug. 1 was a beautiful Saturday in Southwestern Ohio. The idea stemmed from departmental planning meetings held in March, and represented the first time PGA golf manager Doug Stultz, who has worked in the industry since 1987, heard of a municipal system attempt-

Great Parks of Hamilton County offered free green fees on seven golf courses as part of its 85th anniversary celebration on Saturday, Aug. 1.

ing such a wide-scale free golf event.

Filled tee sheets defined the day. Great Parks attracted 1,700 golfers to its seven courses. An average summer Saturday attracts 1,200-1,300 golfers, according to Stultz. "It was a busy day," he says. "It was a typical Saturday up until 2 p.m. and then after 2 is when we saw a lot of new faces or maybe people that didn't come out and play golf that much, or it may have been a reason to come out and try the game because it was free."

Stultz entered the day with three major concerns: revenue losses, dismal pace of play and alienating loyal customers. The Great Parks Foundation sponsored the 85th anniversary celebration. Stultz says food and beverage and merchandise purchases were "definitely up" and cart revenue increased by \$4,500 compared to a typical summer Saturday.

Stultz visited all seven courses throughout the day, and he didn't observe six-hour rounds. "Surprisingly, the pace of play was pretty good for the day, which I can't figure out," he says. "We had no issues." Advance notice and frequent reminders from golf shop personnel helped Great Parks communicate logistics to loyal customers. "I wanted to take care of core golfers as a thank you to them in addition to bringing maybe some new people out," Stultz says.



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INSIDE THE MAPS

A former TV weatherman and PGA Tour caddie finding fulfillment — and a business niche — by establishing relationships with superintendents.

By **GUY CIPRIANO**

He has an Edward Murrow-like voice, stories from inside the PGA Tour ropes and the swing of a former college golfer. Herb Stevens also possesses a skill to help superintendents prepare for a major part of the job they will never control.

Even when he leaves his Rhode Island home for an industry event like he did for the annual Golf Builders Association of America summer meetings in Colorado Springs, Stevens spends significant time analyzing climatic data. Stevens is the founder of Grass Roots Weather, a forecasting service for superintendents.

Stevens, who caddied on the PGA Tour and played on the Penn State golf team, might be the only former TV meteorologist with a client list that includes Baltusrol, Congressional, Medinah, Merion, National Golf Links of America, Oakmont and Winged Foot. Using a meteorological background that helped him become one of The Weather Channel's first on-air personalities, Stevens provides superintendents with advanced forecasts, videos and podcasts designed to aid agromomic decisions.

His entry into golf's underbelly stemmed from his experiences at Potowomut (R.I.) Golf Club. The desire to land the club a quality superintendent in 2003 resulted in Stevens plugging into the Paul Latshaw network. The search ended with Oakmont assistant Brent Palich accepting the head job at Potowomut. It didn't take long for members to realize they hired the ideal person. "Brent came to work with us and quickly rescued a very sad golf course in short order," Stevens says. "He did a fantastic job."

Palich received personal and technical support from Stevens, perhaps the only greens chairman who provided his superintendent with advance weather forecasts. Palich, though, didn't reach his two-year anniversary at Potowomut. He returned to his native Ohio as the leader of the golf course maintenance operations at the Sand Ridge Golf Club in suburban Cleveland.

Before he left Rhode Island, Palich asked Stevens if he had considered offering his services to superintendents. The goodbye lunch ended with Palich becoming Stevens' first client. Palich referred Stevens to other superintendents, and Grass Roots Weather now has nearly 100 clients. "We're just about maxed out," Stevens says. "I love working with superintendents. I have said this 100 times, but I don't know how they weed out the jerks, but they seem to be very effective at doing that." Stevens says he strives to "simplify" the information he provides clients, the majority of whom maintain courses in the Northeast and Mid-Atlantic.

"I have attempted to educate the guys on how the weather works," he says. "The more I know about what they are trying to do, that helps. The more they know about how the atmosphere works, that helps as well. It's been a symbiotic relationship where I have learned a lot about turf management, which I find interesting. It wasn't my chosen field, but I have been in the game so much I have an interest in it. They are in a business that's heavily sensitive to weather, and I would like to think they have learned some weather stuff from me along the way. So it's been mutually beneficial."



From THE FEED

The start of the high school and college sports seasons make August a challenging month for superintendents with athletic crews. Instead of moping over personnel losses, we asked our followers what athletes are best equipped to work on a crew. We received numerous sporty answers.



Eric Bice

@e_bice

I have had amazing luck with wrestlers. Once you have wrestled everything else in life is easy. #DanGable



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Albert Bancroft

@alban3074

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Roy Mundy

@roymundy77

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Brian Woods

@BWoodsTurf Aug 14

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GOLF COURSE SEXCAPADES



Monroe Miller retired after 36 years as superintendent at Blackhawk CC in Madison, Wis. He is a recipient of the 2004 USGA Green Section Award, the 2009 GCSAA Col. John Morley DSA Award, and is the only superintendent in the Wisconsin Golf Hall of Fame. Reach him at groots@charter.net.

The August 2015 issue of *Golf Digest* was a keeper because of Ron Whitten's excellent articles. Ron shared his list of the most cheerful golf courses in America, a list that makes you want to hit the road and visit the closest one to you. His second piece featured Whistling Straits and the PGA Championship. The Kohler golf course manager, Michael Lee, worked for me years ago, even before his turf undergrad years at UW-Madison, so I really enjoyed the story. Whitten has authored, I'd guess, thousands of articles in his long career in golf, and any I have read are among the best reading you'll get in golf literature.

But *Golf Digest*'s Peter Finch offered a real eye-opener in this issue, musing about "hooking up" on a golf course. It was fun reading and represents how much things have changed when the topic is so comfortably and openly discussed. It was risqué when, decades ago, *Playboy* would print a cartoon centered on the idea of getting lucky on a golf course at night. In one especially funny (and full page) cartoon, the superintendent's wife was a participant (although he wasn't!).

I feel like I am sort of an expert on the subject — not because I've been a participant, but because for about 25 years of my career I was either an occasional night waterman or supervised and trained them. I could write a book about my experiences. And I say I wasn't a participant because I wasn't interested in going back to where I worked to engage in an activity intended for a more comfortable and private location!

Our course was open on the sides. There were homes on three sides and railroad tracks on the other border. We were right in the middle of town, and our course was close to the UW-Madison campus and its almost 50,000 students. It doesn't take a vulgar or vivid imagination to guess what some of those old oak and hickory trees have seen since early last century. The other two courses I worked at were similar — private, little or no fencing and manual irrigation. I'm sure I'm not the only older, keen observer who can share a few stories about golf course sexcapades!

Although our course was posted "No Trespassing," nighttime lovers ignored those signs. One couple was angered when the night waterman confronted them and asked why they were ignoring those signs. The answer was obvious to them

— it's too dark to see them!

I always cautioned these night workers to be careful and not to be confrontational, advice I followed myself. Face-to-face encounters could lead to threats. The advice was followed with "drive away and call the cops."

Mostly we left them alone to enjoy the experience. I expect it was unnerving to see a Cushman truckster with bright headlights coming around at short intervals to move sprinklers. Those expecting solitude and quiet likely were surprised and frustrated.

One night a couple ran for cover to a shelter house that had a latch that accepted a padlock. The male slammed the door shut as he was cussing the kid. Quick thinking led the kid to jam a screwdriver into the latch, locking the lovers in the bathroom. Of course, he heads to the shop to call me about what to do next. While this is going on, lots of areas are getting overwatered.

"Let them out and drive away fast," was my answer. Thankfully, that was the end of it.

Sometimes an irrigation tech would get bored and entertain himself by waiting until the action got hot and then set a sprinkler close enough to soak Romeo and Juliet and their blanket. That would only happen a time or two before the couple moved off the course. But for the most part, we knew that leaving people alone was the best policy. If there was a price to be paid, Mother Nature had a way of doing that with revenge from bugs, mosquitoes, rough ground and maybe some wildlife.

More than once, a couple who felt put out by having a vehicle around when they wanted privacy, pulled our Rain Bird 808 sprinklers from quick coupler valves and pitched them into the rough. That would ruin a night of watering.

Trespassers were one thing, but clubhouse employees and even play- (MILLER continues on page 64)

“Sometimes an irrigation tech would get bored and entertain himself by waiting until the action got hot and then set a sprinkler close enough to soak Romeo and Juliet and their blanket.”

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What muni golf is doing to save the industry.

By **Guy Cipriano**

The 84-acre lake doesn't come into play or require any golf-related maintenance. It does make eyes wander, whether they are supposed to focus on a mowing pattern, shot or speaker.

Once gawking concludes, veteran customers of Miami Whitewater Forest Golf Course, one of seven courses operated by Great Parks of Hamilton County (Ohio), begin noticing this isn't the eighth hole they played as children.

Under the direction of respected Ohio-based golf course architect Brian Huntley, a crew consisting of Great Parks employees rebuilt the tees to provide playing options from 134 to 174 yards. To make the hole more enjoyable for a diverse clientele, Huntley had crews replace one expansive right greenside bunker with three small, easy-to-maintain bunkers. The peripheral of the hole also has changed, with course managers deciding last year to allow native grasses to emerge.

The well-coordinated tweaks unveiled in 2012 turned a solid hole flanked by a scenic lake into a symbol of a successful municipal golf operation. The hole has something for everybody: a natural view, open routes to the green, enough bite to test a low-handicapper and customer value created through efficient maintenance practices.

West District superintendent Jim Westendorf is standing on the eighth

PEOPLE!

AFFORDABLE ★ NATURAL ★ PLAYABLE



tee watching a pair of regular customers play the hole. After they hit their tee shots, Westendorf walks 20 yards up a slope to the seventh green. He looks at the fairway below and points out the bentgrass fairways to a visitor. Westendorf, who has spent 36 years with the park system, says the fairway didn't always look this tidy. In his early days working for the parks, the fairways were bluegrass – and they weren't irrigated.

Veterans of solid municipal golf systems such as Westendorf are perhaps a bit more bullish on the industry's future than many others. Westendorf remembers what now seem like primitive times, when using technology to combine maintenance resources across an expansive park system, filling managerial positions with candidates holding turfgrass science degrees, using ASGCA members to properly alter a course and, yes, irrigating fairways seemed like far-fetched ideas.

The progression creates value. Playing the eighth hole as part of an 18-hole weekend round via foot equates to \$1.39. The value creates an affordable golf entry point in the 2.1-million resident, three-state Cincinnati metropolitan area.

"We try to get as many people involved that we can playing," Westendorf says. "One of the things that shows that is our value and our price. We're not looking to be a \$100 greens fee golf course and we're not trying to deliver a \$100 greens fee golf course."

Great Parks attracted 202,310 golfers to its courses in 2014. The combination of daily fee players and golf merchandise pumped nearly \$6 million

of revenue into a park system that receives 56 percent of its funding through taxes. Exact golf expenditures are difficult to determine because of shared labor and equipment throughout the system, but by all accounts the presence of golf raises the profile of the parks and lowers the burden on taxpayers.

"It connects a lot of people to what we do as a park district," operations superintendent Jackie

O'Connell says. "They might come into the parks for golf, which is part of our mission as far as recreation, but they might stay and do other things. We are getting them out, we are getting them exposed to the game and we are giving them a good value for their dollar. We are also turning a profit on it and there aren't a lot of municipal courses that are able to do that effectively. It helps in the whole mix of things. Some of the golfers that get to our courses associate the quality of our courses with who we are as an organization."



SNAPSHOT OF GREAT PARKS OF HAMILTON COUNTY

NUMBER OF COURSES:

7 (Shawnee Lookout, The Mill Course, Meadow Links & Golf Academy, Sharon Woods, The Vineyard, Miami Whitewater Forest, Little Miami Golf Center)

LONGEST 18 HOLE COURSE FROM THE BACK TEES:
The Vineyard, 6,790 yards

SHORTEST 18 HOLE COURSE FROM THE BACK TEES:
Shawnee Lookout, 6,000 yards

ACRES OF MANAGED GREENS, TEES AND FAIRWAYS
WITHIN THE SYSTEM:
159

ROUNDS IN 2014:
202,310

GREENS FEES:
\$17.50 (lowest), \$33.50 (highest)

GCI spent an entire day in early June touring Great Parks facilities and meeting employees. We saw and heard numerous things that can benefit everybody concerned with the industry's future.

BE WHO YOU ARE

For Great Parks, golf is part of something bigger, which makes a municipal system similar to a country club. Great Parks operates 21 parks, with entertainment options such as multi-use trails, playgrounds, recreational fields, campgrounds and fishing/boating. How many successful country clubs operate on a golf-only model? We're guessing where you work is

more like East-side Country Club than Sand Hills Golf Club. The same concept applies for successful resort and public courses – most offer attractive options outside of golf.

Within that diverse structure, Great Parks maintains its golf courses accordingly. Greens are kept at moderate speeds to appeal to customers with wide-ranging skills, rough is maintained at comfortable heights, and bunkers, tees and fairways always look presentable. When changes are made, they are done with the natural settings of the parks in mind. You're not going to see artificial rock walls or water features

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installed along fairways. Three words immediately resonate when visiting the Great Parks' courses: affordable, natural and playable.

"I hope customers realize we aren't going

to be Muirfield Village or some of these TPC courses as far as budget-wise, but I think the product we deliver to golfers here in Cincinnati is great," PGA golf manager Doug Stultz says. "We are medium-priced

with our pricing. I think these courses at other locations of the country would justify a lot higher rate, but you have to look at the market we are in. Cincinnati is a conservative market and there's a lot of competition here from other golf courses. So we have to take that into account with our pricing."

A defined niche means district superintendents and park managers aren't working 90-hour weeks to make their courses resemble what customers see on Golf Channel. The highest green fees are found at the Michael Hurdzan-designed The Vineyard Golf Course, and they don't eclipse \$33.50 on weekends. "We all want to deliver something that looks like Muirfield Village, but we have to kind of have an expectation of what it should be and what our golfers are expecting so we can match that in our pricing and what we can afford," Westendorf says.

SOMETHING FOR EVERYBODY

Think about the programs your facility offers. Do you have an offering for every potential customer? Are gaps in your programming driving customers elsewhere?

Escorting a visitor and group of park managers through Meadow Links, Stultz, a 25-year PGA member in his 14th year with Great Parks, rattles off the programming offered at Meadow Links, arguably the most important piece of the Great Parks golf collection.

The facility features a pay-by-the-hour, pick-your-own-experience grass practice range, synthetic turf mats, covered bays heated for winter use, secluded bays to operate instructional programs, short game practice areas, putting greens and a 2,210-yard, Hurdzan-designed course tailored for novices. Practice areas are expansive, and satisfy the needs of time-crunched low-handicappers who make six figures and beginners requiring donated clubs to try the sport.

Meadow Links doesn't have an 18-hole course, but it does provide access to Sol-oRider carts, pieces of equipment Stultz proudly showcases to visitors. The one-seat carts, which are considered turf friendly, are leaner than the standard golf cart and they allow Great Parks to offer programs for disabled golfers.



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COVER STORY

Great Parks courses also host high school tryouts and matches, middle school tournaments, and family events. More than 6,800 children annually participate in a formal instructional program or event.

"What we have done is look at all the programs that are in place and adjusted and modified kind of based on what the demographics are like today and what the people are expecting today," Stultz says. "Some of those programs have been modified to a degree to include families more. It's not just a kids' program, but a family program. We have to adjust with what people are asking for and getting a feel for people. I feel like we have some sort of program for everybody."

The programs aren't a mystery to park managers. Stultz's staff, which includes 15 PGA members, provide weekly calendars to park managers. And park managers provide daily maintenance reports to members of Stultz's staff. "Something like aerification, we do one course at a time and we plan that a year in advance," says Jason Rahe, an assistant park manager who works on The Vineyard. "We make sure the course schedule is clear and they can tweak that schedule as they move forward throughout the year."

SHARE YOUR RESOURCES

The seven courses include 159 acres of managed greens, tees and fairways. The overall system employment swells to 1,050 staff members during peak season, and at least 200 of those employees will work on a golf course at some point.

The management structure includes an operations superintendent, superintendent of projects, three district superintendents, six park managers and four assistant park managers. Superintendents, park managers and assistant managers aren't only responsible for overseeing golf course maintenance, they are responsible for all 17,000 acres operated by Great Parks. Crews split time between golf courses and other areas of their respective parks.

"You're probably doing some course setup, changing cups, moving tee markers, working your way up to mowing greens, tees and fairways, roughs, those sort of things," North District superintendent



Sharon Woods is one of seven courses operated by Great Parks of Hamilton County. The course has hosted 2.7 million rounds since opening with a ceremonial first tee shot by golf legend Bobby Jones in 1938.

Dan Shaw says. "You would also have a healthy dose of janitorial trash collection, park mowing, string trimming, weed eating, because a lot of the same things we do in the park happen on the golf course as well, so we need string trimmers everywhere, riding mowers everywhere."

Shaw, a 32-year Great Parks employee, says mentalities have changed as the operation evolves. Specialization exists when needed – he calls full-time spray technicians "highly specialized positions" – but employees are willing to contribute wherever needed within the parks. The labor situation also remains stable compared to many golf facilities. Full-time employees work past retirement age because of continued fulfillment and seasonal employees return to positions with little coaxing.

Seasonal employees aren't fiercely competing for the same jobs. When Shaw, Westendorf and East District superintendent Carolyn Pottschmidt started with the system, a clear hierarchy existed. "In terms of the old days when we were mowing with Parkmasters, the top dog was the person mowing fairways," Shaw says. "Everybody aspired to get that level and would think, 'I want to be mowing fairways because that's the best thing out there.' That's not the case any longer. It's not just the turf has improved every year, the equipment

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we use to maintain the turf and the things that are available have improved dramatically over the years.”

Openings for full-time positions attract widespread interest from qualified candidates, and Pottschmidt, a 27-year Great Parks employee, says “a lot of good turf backgrounds are coming our way.” Miami Whitewater Forest park manager Andy Grau and assistant park manager Tim DesJardin, for example, joined Great Parks after working at private golf courses. Employees with turf backgrounds observe stark differences between Great Parks and their previous stops. “You might have a golf course in private industry and that’s it,” says DesJardin, who has worked at Traditions (Ky.) Golf Club and Long Cove (S.C.) Golf Club. “You focus all of your time and all of your personnel into a golf course. Here, you have a wide array of what you do on a daily basis. You’re always doing something new every day, and that’s very enjoyable to me. It’s refreshing and challenging.”

Great Parks features many characteristics of its own golf management company, according to Stultz. Personnel and equipment exist to perform projects such as bunker and tee renovations without hiring outside contractors. Unforeseen problems are often solved through internal phone calls, emails or visits.

“Some of the municipalities that have management companies ... the choice has been made because they don’t have the right people in place to run it themselves,” Stultz says. “When you look at our organization, we are our own golf management company with what we do and everything we



Great Parks of Hamilton County employees 1,050 workers during the peak season and at least 200 will spend at least some time working on the golf courses each summer. Pictured, from left, are Tim DesJardin, Jim Westendorf, Jason Rahe, Dan Shaw, Doug Stultz and Jackie O’Connell.

offer. Why would we ever go to the outside for somebody to come in to do what we are already doing?”

LOOK FORWARD

With a table of loyal Mill Course customers chatting behind him and co-workers sitting to his right and left, Shaw grabs a device that symbolizes the evolution of Great Parks’ golf operation: an iPad. Shaw flips the cover, opens an app and begins describing a sophisticated project illustrating how effective communication, technology and resolve are solving a problem affecting numerous parts of the parks, including the golf courses.

Great Parks has embarked on a comprehensive emerald ash borer management plan. The app shows users, in this case superintendents and park managers, trees that are slated

for treatment and removal. The Vineyard, one of the most popular courses in Southwestern Ohio, efficiently removed 800 trees and treated 152 more from 2012-14 with little fuss.

“That was a total team effort,” Stultz says. “It was a huge project. You have golfers in and out, contractors in and out, park staff in and out. The communication to the guest to what was happening was flawless.”

Scenes like the one he witnessed at The Vineyard are among the many reasons why Stultz expresses confidence about the viability of well-organized municipal golf. “I don’t have any worries to be honest with you,” he says.

Annual rounds played from 2011-14 hovered around 200,000 after surpassing 277,000 in 2002. Irrigation systems are aging, and O’Connell says there isn’t a huge reserve

to pursue full-blown replacements. Customers seeking major course renovations – or a new Tom Doak-designed course in the Cincinnati suburbs – are looking at the wrong place.

Skeptics looking for signs of municipal golf’s demise are also looking at the wrong place. Sharon Woods, the oldest course in the system, has hosted 2.7 million rounds since Bobby Jones hit a ceremonial first tee shot before the Board of Park Commissioners in 1938. Calculated operational and maintenance decisions ensure Great Parks will continue to offer viable options for golfers of all levels.

“I don’t see us moving to the ‘Wow’ factor or, ‘We can build it because we can,’” Westendorf says. “We’re going to be about playability, we are going to be about fun, we are going to be about making it accessible to everyone that we can.” **GCI**



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THREE KEYS TO MORE BUDGET DOLLARS



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.

The saying "Speak now or forever hold your peace" is common at most weddings. But it also applies at this time of year to golf managers with budget responsibility. It's budget season at most clubs and courses, and now is the time to speak up. Because what you say and communicate during the budget cycle will go a long way in determining how successful, even how enjoyable next year will be for you and your team.

Many seem to think that budgeting is purely a financial function, filled with numbers, numerical assumptions and calculations. However, our firm's experience is that budgeting is more about communicating than it is adding and subtracting. To prove the point, here are three steps in the budget process that rely on communications.

1. ESTABLISH OBJECTIVES. Begin the budgeting process by having discussions with your management team to make sure you understand the larger goals of the course and club. Next, review last year's objectives to see which ones were achieved and which need to be reflected in next year's plan. Now it's time to write objectives for the coming year.

State what you want your operating department to achieve in next year. Set aggressive but realistic goals for yourself and your management team.

Remember, objectives should be specific and time bound so they can be measured. "Improve course conditions" is neither specific nor time bound. A better way of stating a goal like this is: "Improve course conditions to achieve a 10 percent increase in 'excellent' ratings by club members by the end-of-the season member satisfaction survey."

Do not equivocate or hypothesize. State clearly what you will accomplish. Align the intended achievements to the goals and objectives provided by your board of directors or ownership. State the outcomes in simple and measurable terms, such as:

- "The club will generate a positive cash flow of \$ x."
- "We will recruit x net new members."
- "We will increase rounds played at the course by x%."

Ensure that your expected outcomes are supported by facts and are tied directly to prior year performance, the realistic capacity of your facilities and the potential of the programs and actions your plan proscribes.

Simple is better in all writing, and that's especially true of budgets. If you cannot describe your objectives in simple terms, management and the board will be confused and you won't get the budget you need. Here are three examples of simply stated objectives:

- Increase non-weekend food-and-beverage revenues by 15 percent by year-end.
- Reduce temporary labor costs by 3 percent in the first and second quarters.
- Recruit new members and reduce attrition to achieve a net growth of 50 members during the fall membership campaign.

This is not the place where you state how your objectives will be achieved. Those are the tactical details that come next.

2. SHOW HOW OBJECTIVES WILL BE ACHIEVED. Link your objectives to well-defined programs and actions that will deliver the desired results within the stated time frame. Taking two objectives from above, below are examples of how your tactics could be expressed.

- Increase non-weekend food-and-beverage revenues by 15 percent by year-end.
- Recruit new members and reduce attrition to achieve a net growth of 50 members during the fall membership campaign.
 - Create new marketing campaign focused on families.
 - Institute member survey that identifies dissatisfied members before they leave the club.

3. IDENTIFY THE RISKS. Risks abound for private clubs and public facilities, including local business downturns, road closures, long periods of bad weather and agronomic crises. An effective budget plan identifies the risks and measures the potential impact — in dollars, time and missed opportunity — if risks become reality.

Excellent planners also describe the cautionary steps and preventive measures to minimize the unfavorable effects of business risks. Now is the time to speak up and make the case for the budget dollars you need to do your job effectively. Speak now or forever hold your peace — at least until the next budget cycle. **GCI**

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DON'T LET IT FALL APART

By **Rob Thomas**

Summer might be over, but that doesn't mean you should keep your guard down. We offer a region-by-region look at diseases that might surface this fall.

While the end of summer brings relief from oppressive heat to some and dread from the approaching snow to others, all superintendents must turn their focus to controlling potentially harmful fall diseases.

Based upon the summer we've had and the weather forecast, Dr. Jill Calabro, plant pathologist at Nufarm, says much of the country should know what to expect. Good news for most, but potentially mixed news out West.

"Most regions of the United States have had a mild summer overall, meaning that temperatures have not been as hot and oppressive as normal," Calabro says. "The forecast for the remainder of the summer and in to fall, according to the National Oceanic and Atmospheric Administration, is for the drought in the West to continue, above average temperatures out West and along the Eastern seaboard and Gulf states, and slightly below average temperatures in the Midwest. That means it's likely that the usual suspects of fall turf diseases will be out and about ... except out West."

With relief on the horizon, other issues may present them-

selves to the parched West.

"Given the drought conditions, most diseases are not likely to be a concern," Calabro says. "NOAA recently released a statement that an El Nino event is expected to continue into this fall and winter, and that this particular El Nino is predicted to be one of the strongest on record. This has the potential to impact the weather dramatically. During winter El Ninos, weather across the U.S. is historically milder, and the drought in California may be lessened. Milder conditions enable some fungal pathogens to persist throughout the winter, therefore, this fall it is especially important to be proactive in disease control programs."

Patrick Gross, director of the West Region of the USGA Green Section, says rapid blight and summer patch are a concern during the late summer/early fall on *Poa annua* greens, especially in areas with saline soil and water conditions.

Courses that overseed their Bermudagrass with perennial ryegrass, such as those in Palm Springs, Phoenix, Tucson and Las Vegas, have to be wary of pythium blight. According to Gross, most courses already treat preventively in conjunction with their overseeding program.

Dr. Kathie Kalmowitz, technical specialist, BASF Turf and Ornamentals, looked at issues related to overseeding, as well.

“For the Far West Arizona and California, the drought may make for a difficult rapid blight overseeding season,” Kalmowitz says. “In areas of California where greater rainfall events occurred, the soil profile may have been flushed of salts and the *Poa-bentgrass* greens may not be as susceptible this season. However, for those courses in Southern California and Arizona that overseed, the extended drought means the rapid blight season will be difficult.”

The West’s diverse topography and myriad climates presents unique challenges, according to Gross. “Courses with *Poa annua* greens along the Pacific coast with a cool, moist climate are on the lookout for microdochium patch/pink snow mold throughout the fall and winter,” he says. “Many treat preventively when daytime temperatures are consistently between 50-65 degrees Fahrenheit.” Courses in the high elevation mountains treat greens preventively for gray snow mold in the fall as they blow out their irrigation systems and prepare for winter, Gross adds.

Derek Settle, technical specialist on the Bayer Green Solutions Team, has his eye on large patch prevention, which begins as soon as soil temperatures cool. “This pathogen, *R. solani* AG LP, is driven by saturated soil conditions and cool temperatures in the fall and spring,” Settle says. “When cool, wet conditions prevail, this is an aggressive disease on most warm-season turf.”

“The weather-based model that is used relies on average soil temp at 2 inches depth,”

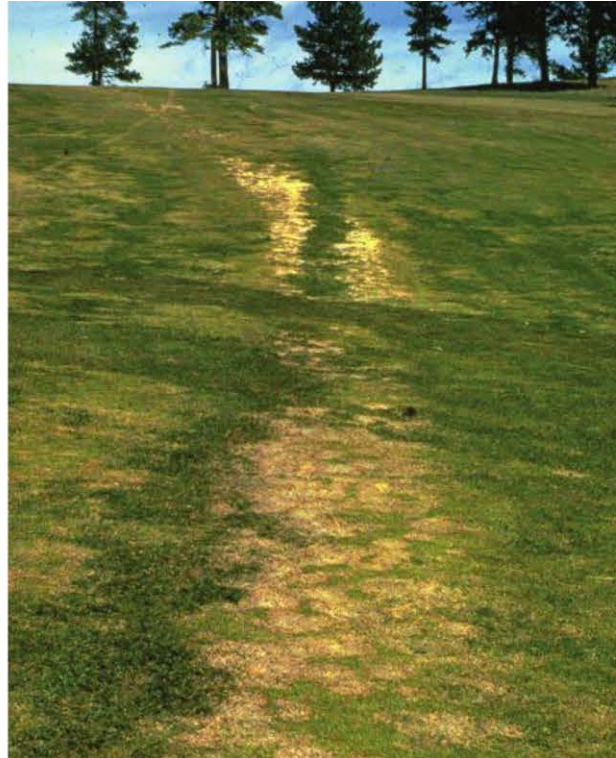
he adds. “When we drop to between 72-75 Fahrenheit, the first app begins. Typically two fall apps are required for good control. A third spring app will provide near blemish-free control.”

Calabro echoed Settle’s concern over large patch and added spring dead spot and take-all patch to the watch list.

“For all of these diseases, a preventive approach to disease management is the best,” she says. “For spring dead spot (on Bermudagrass) and zoysia patch (on zoysiagrass), fall applications are far more effective than spring applications. Target applications for spring dead spot during wet weather with daily temperatures below 60 Fahrenheit. Large patch favors sites with a high level of thatch and becomes active when soil temperatures fall below 65 Fahrenheit.”

The Southeastern states see more rainfall than the Southwest in general, but late summer often ramps up precipitation, which will affect a superintendent’s approach.

“If there is a strong tropical season in the Southeast, many courses may see fairy ring prob-



Zac Reicher, a technical specialist for the Bayer Green Solutions Team, suggests continue mowing in the fall until the grass stops growing to control snow mold.

lems again coming back for the fall if greens are low in fertility and if a greater thatch layer has developed,” Kalmowitz says. “Getting ahead of rings just as you observe the signs will help with quicker healing. If you see rings or mushrooms, check to determine where the infection is occurring – how deep and how extensive by taking some profile samples. This helps you make a better fungicide application with the spray volume that

gets down into these hydrophobic areas.”

Extreme heat in July won’t help heading into fall, either. Kalmowitz says high temperatures were stressful to courses with bentgrass greens, fearing some turfgrass may have been lost. *Rhizoctonia solani* and large patch aren’t unique to the Southwest, according to Kalmowitz.

“The Transition Zone South – those courses with zoysia or seashore paspalum – will need to be thinking about their applications (two in the fall, possibly more for Florida and Texas if wet and warm) for large patch caused by *Rhizoctonia solani*,” she says. “If the weather remains warm and dry, then at least the first application into September should be planned, and additional application(s) later in the fall or in early spring right at green-up should be anticipated. For those areas of the South where the seashore paspalum will not be going dormant, then the late fall/winter applications will be necessary.”



Nufarm plant pathologist Dr. Jill Calabro has spring dead spot on her fall disease watch list for Bermudagrass. She recommends a preventive approach to management.

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A strong tropical season in the Southeast could mean fairly ring problems in the fall if greens are low in fertility and a significant thatch layer has developed.

With that said, the paramount concern for the Transition Zone this fall is spring dead spot. “Those who have converted in the last couple of years to the ultradwarfs Bermudagrass after this last winter should protect from spring dead spot, especially if they are in areas that are more susceptible to winterkill from the lower temperatures,” Kalmowitz says. “Greens are not the only areas that may need protection, since north-facing slope areas on fairways are highly susceptible and other history area on fairways/roughs where the course has had prior problems.”

“With the drop in evening temperatures, dollar spot will come back into some bentgrass greens,” she adds. “Dollar spot prevention in the fall for the Transition Zone bentgrass is essential. A couple of preventative applications with a broad spectrum product continues to control the brown patch but also controls the dollar spot.”

Settle says spring dead spot prevention parallels the timing for large patch prevention, but an exact temperature model isn’t needed. Instead, at fall’s

start superintendents will put out two applications timed a month apart. The fungicides used are always at the high label rate and must be watered in to get contact into the root zone. A harsh winter and this disease can have devastating effects on Bermudagrass from tee to green.

“Two fungal pathogens responsible, *Ophiostoma korrae* and *O. herpotricha*, are root rotters,” Settle says. “What’s interesting is that a cold winter is also needed. This is the primary disease of Bermudagrass in the Transition Zone where cold winters can occur. The disease gets really bad if a harsh winter occurs, equaling winterkill of Bermudagrass. We’ve had a string of those kinds of winters as of late in the Midwest and Southeast, so spring dead spot has been a big problem wherever Bermudagrass is grown in areas where turf dormancy occurs. For ultradwarf Bermudagrass greens, newer fungicides will offer good to excellent control.”

Zac Reicher, technical specialist on the Bayer Green Solutions Team, carefully monitors

from Indianapolis to Seattle and is watching for dollar spot, which can be nasty if the northern part of the country has a prolonged warm fall. Snow mold also is a major concern.

“If left unchecked, it can kill 100 percent of the turf in the spring,” Reicher warns of snow mold, adding that many superintendents are currently repairing areas affected by summer stresses. “A lot of guys are installing new turf and new seedlings are much more vulnerable.”

To control snow mold, Reicher suggests superintendents continue mowing until the grass stops growing in the fall. If it gets too high, it “flops over” and creates humid spots where snow mold can thrive. He also recommends continued spoon feeding nitrogen or moderate nitrogen fertilization programs into the fall, but to avoid heavy rates of nitrogen mid-fall, as it may limit hardening off.

Limiting snow collection and improving drainage on susceptible areas also helps. Lastly, fungicides should be applied in the late fall. “Some will require multiple applications, especially if heavy rain occurs after

application and/or extended snow cover is present,” Reicher says. “Combinations of active ingredients produce the best control of both pink and gray snow molds.”

Gary Myers, CGCS, BASF project leader at Pinehurst, also has dollar spot on his fall radar.

“The No. 1 concern for the Midwest and Northeast regions will be dollar spot control,” Myers says. “Dollar spot can be active late into the fall and damage from dollar spot can be evident throughout the winter if preventative applications are not applied. A couple of preventative long-lasting applications with a broad spectrum product will control dollar spot late into the fall. There are several products on the market that will give control of dollar spot for 21-28 days and these products are perfect since most superintendents are not spraying on a 14-day rotation anymore.”

For courses in the upper Midwest and Northeast, winter damage is always a concern, Myers adds.

“Proper timing of snow mold applications with several products that have different active ingredients and are from different classes of chemistry is very important,” he says. “Those courses that sustained considerable winter damage on fairways may consider a blanket application or at least target spraying where winter damage was most prolific. Golf courses in the Midwest have been experiencing excessive rainfall early in the summer with drier conditions that followed. This could lead to shallow root systems leading into the fall months. Agronomic practices will be essential this fall such as aerification, fertilization and topdressing.” **GCI**

WEEDING OUT PROBLEMS

We aren't forgetting about the other problems your turf might encounter this fall.

In addition to this disease guide, we are offering a region-by-region fall weed and pest breakdown. Tips and updates from multiple experts, including researchers, technical specialists and USGA Green Section agronomists, can be found by entering bit.ly/1LRzvXL into your web browser.



A MAGELLAN MOMENT



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@jeffreymbrauer.com.

Peter Lynch is well known as the wildly successful manager of the Fidelity Magellan Fund from 1977-90. In that time, Magellan's holdings typically doubled average market indexes. In his writings and books, he noted that good investments were usually found right in front of his own eyes, rather than in investment research, charts and formulas. Specifically, he found many great investments when he was out with his family or at the mall. For instance, if his kids ate at a certain fast food place, or purchased clothes at a particular store, he bought that stock.

I was reminded of the Lynch story recently, while playing golf with some fellow architects. One of the architects managed to reach a par 5 green in two shots, and made birdie. High fives all around. In the 19th Hole, he revealed that when he got to the green, he was thrilled that the putt was reasonably flat, giving him a small chance for eagle, and a near certain birdie.

We all realized that if we saw that reachable par-5 hole as designers working with a greens committee, we would instinctively recommend something to "toughen it up" and "defend par." After a moment of silence, what occurred next could only be described as a "lightbulb moment."

Why do architects focus on preventing birdies, when they are exactly what golfers want? Overhearing other bar conversations, golfers around us were clearly reliving their successes, and certainly not their bogeys and bigger disasters, unless they were truly monumental.

As we continued the discussion, we realized our design ideas came not from average play, but from old architecture books. If Ross, Tillinghast or even more modern architects like Robert Trent Jones, Jack Nicklaus and Pete Dye wrote it, who are we to argue? But, we forget that they got famous by designing championship courses, and less so for designing courses average players can enjoy every day. And, to my knowledge, those design theories haven't been scientifically been measured for popularity.

At the bar, we proceeded to cite other examples of players telling us what they like, starting with Internet course reviews, where average golfers always mention conditioning, and rarely mention design and difficulty. Then, it was personal experience, like the 36-hole renovation, where we were first asked to "restore" a longtime championship course. However, for the second course, the members forcefully told us, "Make it easier."

Or the routine sights of:

- Golfers take 3-5 attempts to get out of bunkers.
- Approach shots:
 - Falling short into frontal bunkers, or

- Missing the green short and right,
- Hitting, but not holding the green,
- Approximately one of any average foursome on each hole:
- Topping tee shots less than 100 yards
- Losing tee balls in the woods or native areas, despite 70-plus yards of open turf.
- Missing greens and finding hazards on approach shots.

On many of those shots, the golfer lamented, "But, I hit a great shot!" For most golfers, a "great shot" is one that gets airborne and flies nearly full distance, generally in the right direction.

For most, however, when it comes time to design or re-design a golf course, owners, committee members and architects nearly always start with a "design brief/program" incorporating these (mostly imaginary) premises:

- A PGA Tour event will be played here
- Advertising as the hardest course in town will boost rounds/memberships
- High rankings are a must.

And, in reading the "philosophy" sections on many architectural firms' web pages, they design for the best players, and at best, are merely accommodating the far larger "average player" contingent. So, it must sell, and maybe they are giving those who sign their checks what they want.

Large management companies — who hear numerous front line golfer complaints — are on board with easier golf, and usually add that to the design program statements. As one told me, before starting a redesign project, "No one has ever complained to us about us making a course easier."

There may be some lower limit to how easy courses should be, as most golfers do like a reasonable challenge, but with architecture that focuses on them, not the pros, and reward their good shots, with hazards tailored to their skills, not the pros. **GCI**

RENOVATION EDUCATION



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

Although there aren't a lot of new golf courses being built these days, numerous renovation projects are in the works or being planned, giving needed work to architects and builders. But they aren't the only ones affected. Wherever a course is being reworked in any way, a superintendent and a membership will be involved, inundated and inconvenienced. Patience and flexibility are the key words for those groups.

I've seen firsthand the problems renovations can cause. To help you reduce their severity, here is a very biased list of considerations for the membership, and the superintendent and crew.

Start by understanding that the process will not be as neat and easy as anyone trying to sell it to you is saying. It will be messy, time-consuming and disruptive. I hope the following will help make your lives easier.

- First and foremost, have a plan. And make sure it is agreed upon by the membership, as well as supported by a timeline and a budget. Renovations take months, possibly years, of planning and decision-making before the first shovel goes into the ground.

- Conduct a total-course assessment looking for other things that need to be repaired, upgraded or removed. It's better to do one big project rather than a series of smaller, drawn-out jobs that will most likely cost more and take longer – and cost more not only in dollars, but also in goodwill.

- The members' best friend before and during a renovation is the superintendent, who is on your side, not that of the architect or builder. If that isn't the case, you might need a new superintendent, or at least sit down with him for a serious conversation.

- If members have questions or concerns before the work begins, make sure they are heard. If there are areas of the course and its infrastructure you feel need work, speak up. You may never have a better chance.

Before the bulldozers, dump trucks and dirt piles show up, ask the following questions:

- Have the club and superintendent identified an architect and builder? Do you know who you are working with? Have you seen and played some of their recent renovation efforts?

- Is the renovation being done for the right reasons? Does the majority of the membership agree or are a few squeaky wheels pushing this through?

- Is the renovation designed to fix problems like drainage, irrigation, greens and bunkers? Or is the renovation just fixing some members' bruised egos?

- Has the club set aside an adequate budget to complete the work?

- Is your superintendent capable—both in attitude and time—to oversee the renovation, or do you need to handle a separate project manager?

- While the course is under repair, where will the members play? Have arrangements been made for reciprocal privileges? And is the club prepared to

offer reciprocity in return at a later date to other clubs?

- How much revenue will be lost while the renovation goes on?

- Is the timeline realistic? When will the work be done? Turf doesn't grow in the off-season, so anyone who says the disruptions will be minimal is lying or misinformed. Or both.

- Who is responsible for regular communication to the membership about timing, progress, rules and regulations, and everything else affected while the work goes on?

You'll probably come up with questions of your own. Ask them before agreements are made and contracts signed.

Some other realities you and your club should face:

- Those fancy drawings, diagrams and models in the clubhouse lobby are depictions, not reality.

- Renovation work is noisy and goes on from dawn to dark.

- It might make sense to close the club while the work is being done rather than trying to keep open, certainly for play.

- Outside workers have not been trained, as your regular maintenance staff has, to stop and allow members to play through. But you don't want them to stop because that makes the job take longer and cost more.

- Expect heavy equipment on the grounds at all times, making noise and traffic issues. And with these big toys, come big damage to the course and big safety concerns.

- Supplies like greens mix, bunker sand, gravel, sod and pipe will need to be delivered and stored somewhere. That will mean cars can't park where they usually do, food deliveries and other normal operations have to be rerouted, and other day-to-day operations will be affected. **GCI**

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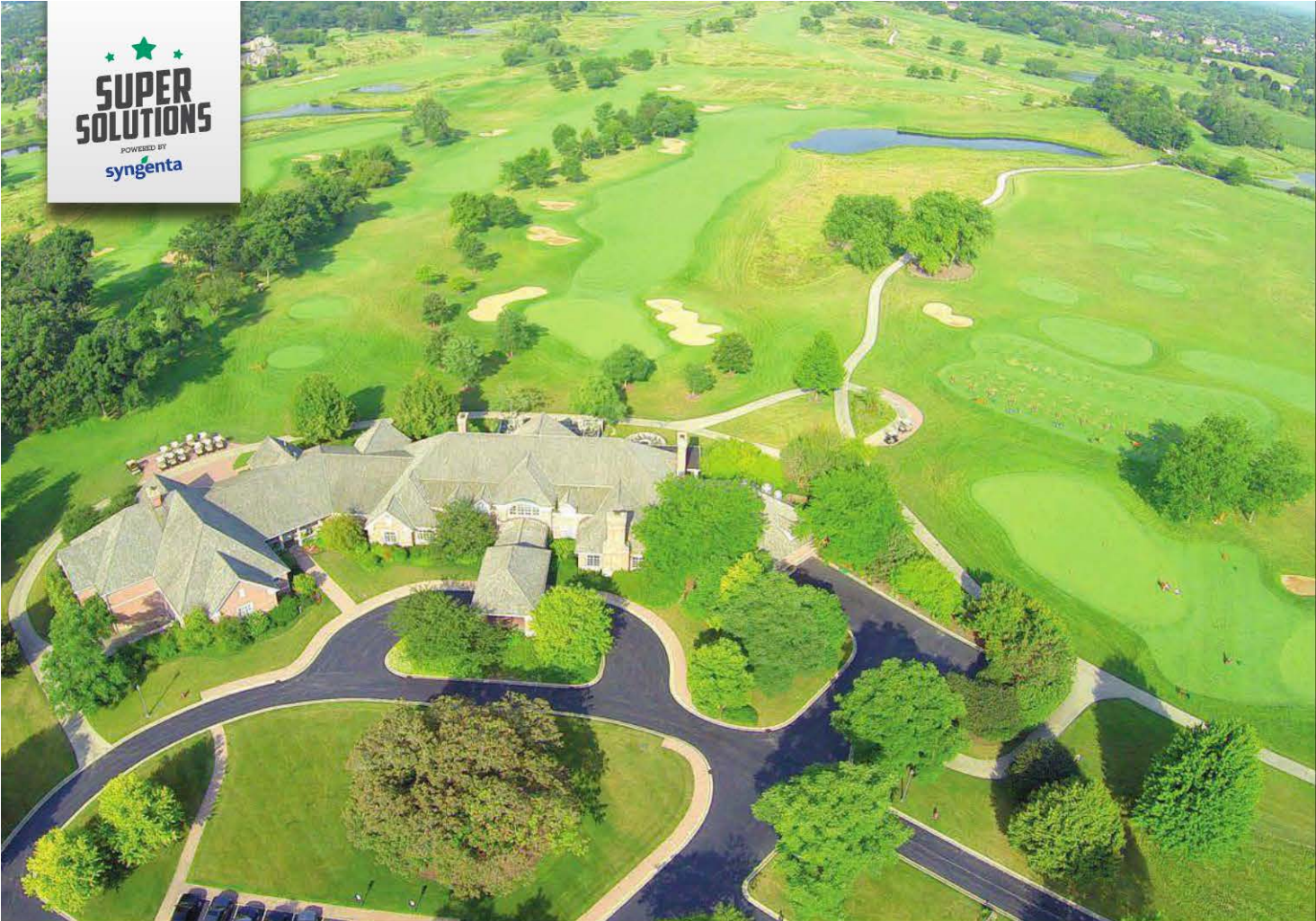


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Experimenting on familiar turf

Trying new things and trusting outside experts is helping John Nelson take a prestigious Chicagoland club to new heights.

By **Guy Cipriano**

The prairies, trees and, yes, the bentgrass. One of the many benefits of participating in the development of a new course is that moment when you are asked to reflect on the property's evolution. This is when it becomes apparent the connection between John Nelson and the Merit Club runs deeper than most superintendent-course relationships.

Needing a job after moving back to Chicago from Florida in 1990, Nelson visited a former boss whom he heard was involved in building a course on the North Shore. Oscar Miles was seeding the 11th hole at the Merit Club when Nelson, who worked under Miles as an intern at Butler National Golf Club, entered the property.

"I saw John walking down our service road. I recognized him,



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®

The Merit Club hosted the 2000 U.S. Women's Open. The club was founded by Bert Getz Sr. and the Bob Lohmann/Ed Oldfield-designed golf course opened on July 4, 1992.

and I said, 'Hey, John, what are you doing out here?'" Miles says. "He said, 'Well, actually, I came back from Florida. I was an assistant in Florida and I'm looking for a job up here.'" Miles didn't have any open assistant jobs. But he needed bodies to help seed the course. "I told him, 'I would be glad to give you a job if you don't mind breathing the dust and getting your shoes muddy,'" Miles says. "He said, 'No, I would be glad to do it. I need a job.' I said, 'Come here tomorrow morning. Be here at 6 o'clock ready to go.'"

Nelson arrived early the following morning and started seeding the rough on the 15th hole. Growing – and then maintaining – the Merit Club's pristine turf has been the sole focus of Nelson's working life since he reunited with Miles.

When assistants above Nelson in the Merit Club turf hierarchy received head superintendent jobs, Miles promoted Nelson. When Miles, a member of the Illinois Golf Hall of Fame, retired in 2006, Nelson was the logical choice to continue what his legendary predecessor started.

The Merit Club, whose founder Bert Getz Sr. wanted a natural setting in a bustling slice of suburbia, opened in 1992 following a methodical and thoughtful grow-in process. Thoughtful also describes Nelson, a rare example of a superintendent who has seen nearly every stage of his course's history.



Nelson calls maintaining a property he helped build "very, very fulfilling." "It's the best thing for me, and I think most people would like to be in a situation like that," he adds. "You have a pretty good idea of everything that's below the surface and above the surface on the golf course."

The familiarity, though, has never yielded complacency. "John has done some creative things," Miles says. Creativity is needed to help the Merit Club stand out in a competitive market. Fifteen facilities, ranging from public courses with \$15 greens fees to private clubs with initiation fees approaching six figures, are within 10 miles of the club. Despite being a relative newbie among elite Chicago clubs, the Merit Club, which was designed by Bob Lohmann and Ed Oldfield, hosted the 2000 U.S. Women's Open and Getz's vision allowed the club to lure Miles from Butler National, which hosted



John Nelson replaced the legendary Oscar Miles as the superintendent at the Merit Club in 2006. Miles hired Nelson in 1990 to join a talented crew of turfgrass managers.

the Western Open from 1974-90. Miles, who estimates 75 of his former employees have landed head superintendent jobs, brought a slew of talented workers from Butler National.

Nelson, who became the Merit Club's first assistant by 1993, fits the template of a Miles protégé: goal-oriented, self-motivated, adaptable and inquisitive. Those characteristics allow him to display more flexibility than many would expect from somebody who hasn't strayed from his property in 25 years. Nelson understands experimenting and adapting can further strengthen the Merit Club, which includes 140 acres of highly maintained turf and 100 acres of serene prairies, or

solve turf issues.

"I'm constantly changing as the companies evolve and put new products out," he says. "I have no problem being one of the first few to try new products. If it's something that I feel will fit on the golf course and eventually do a better job and cost cheaper or the same as I was paying before, I will definitely try new products. They are making new ones better, so it has to be better for us."

Chicago weather can fluster, frustrate and even depress those who make their living maintaining turf in the region. It gets frigid, windy, soggy, humid and dry. Plants get stressed during the summer. Some wilt.

Nelson has the ideal place to experiment with new products

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“If it’s something that I feel will fit on the golf course and eventually do a better job and cost cheaper or the same as I was paying before, I will definitely try new products. They are making new ones better, so it has to be better for us.”

-- John Nelson, Merit Club

The sun rises over the Merit Club’s 15th hole. Maintaining healthy turf in Chicago can be challenging because of weather extremes. Superintendent John Nelson has successfully handled this season by using a greens spray program he constructed with the help of Syngenta technical manager Matt Giese. “The program got me to where I should be, rotating products more efficiently,” Nelson says.

and programs. The Merit Club features a three-hole practice course, with holes A, B and C ranging from 160 to 440 yards. The holes are maintained to the same playing standards as the 18 regulation holes, which include Pennlinks greens, Penncross tees and Penneagle II fairways. Four target greens, two practice putting greens and two chipping greens are also part of the practice facility. The presence of an expansive practice area helped Nelson handle a tricky situation last summer.

In preparation for an industry event called Turf Science Live conducted at the Merit Club last August, Nelson used a chipping green for a trial. Knowing part of the regulation course was suffering from anthracnose and bipolaris leaf spot, Nelson split a chipping green in half. He treated one half of the green with his existing spray program and used a program constructed by Syngenta, one of the event’s sponsors, on the other half. The results piqued Nelson’s curiosity.

“Their half was clean,” he says.

The image of the clean half sparked multiple conversations involving Nelson and Syngenta’s Matt Giese and Brian Winkel. Nelson and Giese, a technical manager, had never met until Turf Science Live. With help from Giese last fall, Nelson altered his spray program for greens. Nelson added some different products to his rotations, including Briskway, Daconil Action and Medallion. A cold spring, damp early summer and a dry period

that stretched from mid-July into August made Chicago a ripe spot for anthracnose. As of mid-August, Nelson saw no signs of the disease on the greens, and he says he’s “confident” the new program will allow the surfaces to remain anthracnose-free throughout the season.

“The program got me back to where I should be, rotating products more efficiently,” he says. “It didn’t lessen the number of apps or products. It didn’t increase them compared

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to what I was doing. It got me back into a better rotation and a more timely application of certain products to head off disease pressure before it came. Instead of chasing it, I was preventing it more."

Nelson arguably knows the Merit Club turf better than anybody, but his willingness to develop professional relationships with outside experts such as Syngenta's Giese are helping him achieve lofty conditioning goals. "That's what it takes sometimes, especially when you're dealing with somebody whose job and passion is to help us as superintendents find cures and help us prevent these things," Nelson says. "When they see them, they want to find a way to fix it right away. That just helps us as golf course managers."

Giese, who covers 15 Midwest states for Syngenta, says Nelson sets a solid example for other superintendents trying to enhance their courses. "It's extremely refreshing to see somebody who has that seasoned experience yet is willing to look and say, 'Maybe there is a way that I can better myself,'" Giese says. "I took a lot from that and really tried to utilize



The Merit Club provides a natural setting in a heavily populated part of Chicago and excellent playing conditions allowed it to quickly establish itself as one of the elite courses in a competitive golf market. "I feel if you walk onto the course today, we are as near perfect as we can be. That's my target, and that's what I like to maintain," superintendent John Nelson says.

that moving forward whether it's a program approach with what Syngenta offers or in a personal setting. I thought it was a great example for others to follow when you think about what you accomplished in your life, but there are always things

you can learn from. It's a great example of being able to utilize some new technology to do your job a little better."

The tweaking never stops at the Merit Club. Constant communication with general manager/director of golf Don Pieper allows Nelson to try new products, such as Velsita, a fungicide Syngenta released this year, on the practice holes. Nelson considers himself a planner, meaning he's already focusing on 2016. The early start allows him to take advantage of early order programs. "I'm open for change," he says. "I'm not one to repeat year after year. I feel you get kind of stagnant that way and the golf course shows it over time."

Over the years, Nelson has seen native trees mature and dirt become major-champi-

onship turf. He ushered the Merit Club into a firmer era when he implemented a heavy fairway topdressing program in 2009. The membership accepts the aesthetic and playability changes associated with dry fairways. Greens are always managed for perfection.

Even when he was seeding for Miles, Nelson envisioned big things. And his expectations have only heightened since the Merit Club opened on July 4, 1992. "Everything we try to do is to give our golfing members the best conditions possible," Nelson says. "I feel if you walk onto the course today, we are as near perfect as we can be. That's my target, and that's what I like to maintain." **GCI**

Guy Cipriano is GCI's assistant editor.



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WHEN IT ALL GOES WRONG



Brian Vinchesi, the 2009 EPA WaterSense Irrigation Partner of the Year, is president of Irrigation Consulting Inc., a golf course irrigation design and consulting firm headquartered in Pepperell, Mass., that designs irrigation systems throughout the world. He can be reached at bvinchesi@irrigationconsulting.com or 978/433-8972.

It seems there is always one product failure or another in our industry. A new piece of maintenance equipment comes on the market, you buy it and then you find — despite exhaustive testing (the manufacturer's words, not mine) — there are several flaws in the parts, features or operation. Irrigation is no different and probably even worse than maintenance equipment.

I cannot remember a time when irrigation equipment manufacturers haven't had one product problem or another. Whether it is circuit boards in controllers, bottom valves or pilot valves in sprinklers, solenoids, fittings or whatever, it always seems to be something. Over the last few years, it seems product problems have been abundant, and that in the manufacturer's haste to bring out new and innovative equipment — to get a leg up on the competition — that extensive product testing, at least in the field, does not always get completed. So what do you do when you have an irrigation product problem?

Unfortunately, there is a hierarchy in how product problems are treated. It can be very frustrating and it is hard to circumvent the process. Normally you contact your distributor. If it is a newly installed system, you start with the contractor who then contacts the distributor adding a layer of communication. The distributor will usually send out someone to examine the issue and possibly collect samples. The distributor will then contact the manufacturers, who will want the samples for testing. Many times you will hear that it is the first time they (the manufacturer) have heard of your issue. Rarely is that the case. The manufacturer will look at the product and report back as to whether it is a product problem or some other issue. Many times it's labeled as an installation problem caused by "dirt and debris" even if you know better. But let's say it is actually a manufacturing problem, what can you expect?

First, the defective product should be replaced at no cost. If it is a major issue, all of the same product should be replaced whether it is giving you issues or not. For example, if you have 50 bad pilot valves, all of the pilot valves on the same model sprinklers should be replaced, not just the 50. You do not want to end up with a mishmash of different products on your course especially with new equipment. Next, the manufacturer decides who is going to make the repairs; an outside contractor or your maintenance staff. No matter which one, the manufacturer should be paying for the labor work. Many times this "replacement" or warranty work is negotiated, so make sure you are being treated the same as

everyone else. The manufacturer may want a certain contractor to do the work due to cost, but if it is warranty work or replacement of components on a new system, insist that the work be done by the installing contractor (unless you didn't like them) so that you do not mess up the warranty on the rest of the system. Many times that will cost the manufacturer more money, but that's not your issue. History shows that different clubs are treated differently, as well as different contractors. Make sure you are being treated fairly. Also, make sure the replaced components and parts get a new or extended warranty. Make sure the warranty does not start until you are satisfied the replacement components actually work. Again, history shows sometimes replacement components are as bad as or worse than what was being replaced.

You will also need to deal with the politics of the work with your membership/clientele. For example, you install a new irrigation system in the fall of 2014 and here you are in the fall of 2015 digging up sprinklers. People will notice that the brand new irrigation system that cost millions of dollars is being dug up. You will need a response when asked what is going on. The best way to deal with the disturbance to the course with members and others is before the work happens, but it will vary between a private and public facility. Make sure your staff and the contractor know the appropriate response.

Product problems are a reality and issue on new irrigation systems. Make sure if you have an issue, the manufacturer, distributor and contractor treat you fairly and with respect. On the flip side, the club or facility needs to treat everyone involved with the work with respect as long as they are working toward rectifying the problem. **GCI**

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RESISTANCE IS **NOT** FUTILE

by **John Torsiello**

Nothing sours a superintendent faster than disease that fails to react to the fungicide regimen. Learn how to prevent resistance on your course.

Fungicide resistance is on almost every superintendent's mind. Recent research of 279 superintendents conducted by GCI in partnership with AMVAC Chemical Corp., found 74 percent of respondents were most concerned with dollar spot resistance issues and 19 percent report the same trepidation when battling anthracnose resistance.

Superintendents are considering new modes of action essential in fungicide resistance management, says Dr. Charles Silcox, AMVAC product development manager. "This clearly shows that the topic of resistance has the attention of superintendents," he says. "In terms of resistance by dollar spot and anthracnose, the situation is worse now than it was five or 10 years ago, or longer. We have had some fungicides with new modes of action come into the turf market, but we have also lost some options due to resistance development."

Part of the reason is dollar spot and anthracnose are active for relatively long periods of time and are exposed to many fungicide applications during the course of the year, Silcox says. This places pressure on the populations to develop resistance. Many other diseases do not receive this amount of selection pressure, so the time for them to develop resistance is longer.

In the Midwest, these two diseases are the most sprayed for diseases that the golf industry strives to manage, says Todd Hicks, program coordinator of The Ohio State University's Turfgrass

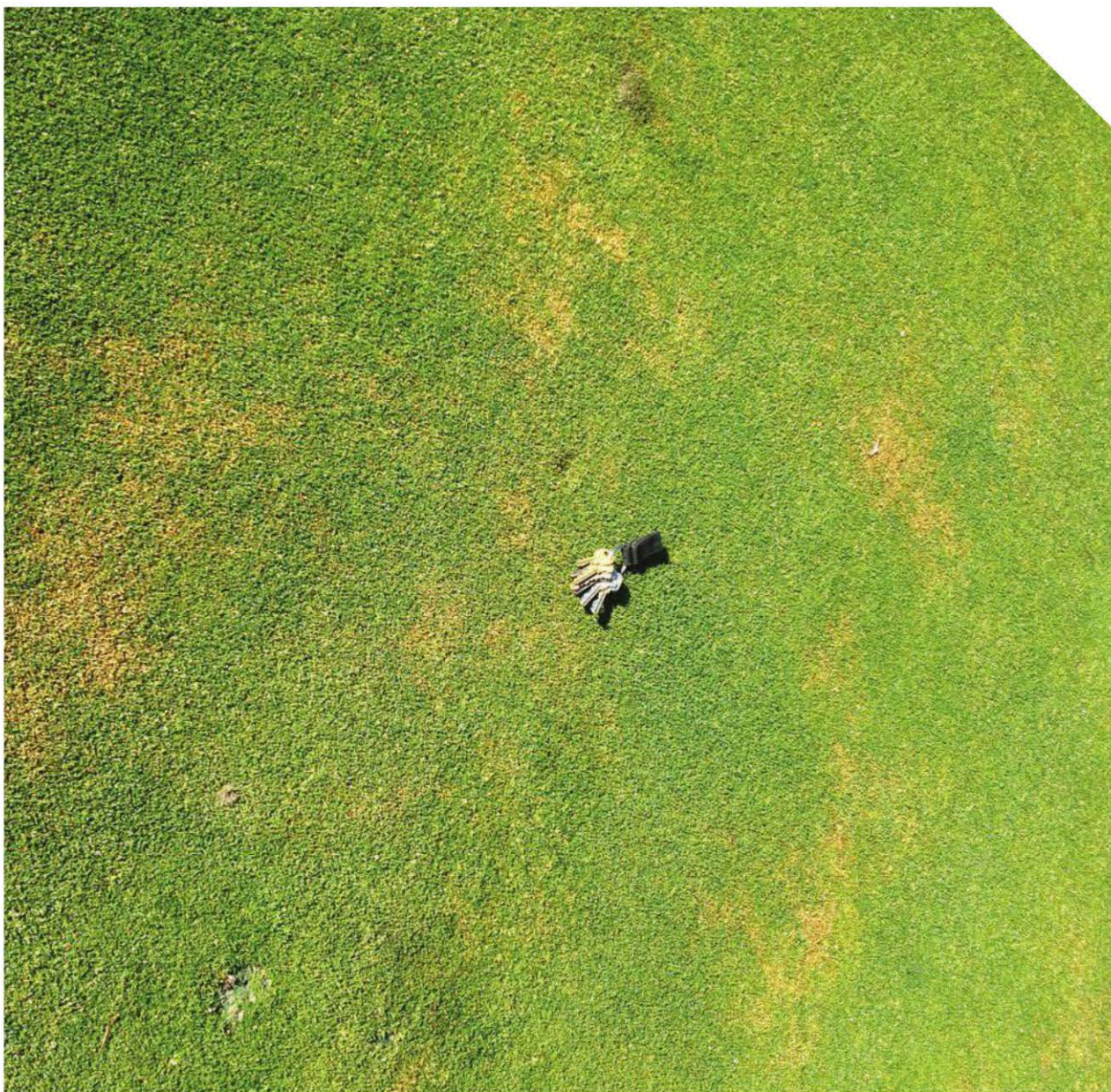
Pathology Program, Department of Plant Pathology. With more applications being made, there is more chance for resistance issues to develop.

Paul Culclasure, superintendent at Kilmarlic Golf Club in North Carolina, has seen resistance issues in the past to mancozeb and a DMI (demethylation inhibitors) fungicide that had been heavily used in the past. This was coupled with some overlooked fertility issues and water mismanagement.

"At the same facility we found some anthracnose on the '50/50' Pennncross/*Poa* greens. There were occurrences on both species and I also had trouble getting control with a strobilurin that is typically very effective on this particular disease," Culclasure says. "Dollar spot has been demonstrating resistance issues for many years now, though with the introduction of new fungicides as well as awareness to the issue, I feel the industry has done a better job of control."

Culclasure adds anthracnose "is just now becoming a player in my area," and resistance issues will be a "hot topic" for this disease in the very near future.

Resistance issues can be regional in nature, and weather in certain regions will often dictate how many fungicides are applied targeting a certain disease, says Dr. Paul Koch, assistant professor in the Department of Plant Pathology of the Molecular and Environmental Toxicology Center of the University of Wisconsin-Madison.



Continuous heat and humidity can lead to aggressive anthracnose that develops fungicide resistance becoming a problem for superintendents managing golf courses in the Northeast. Eighteen percent of superintendents have experienced fungicide resistance issues when treating for anthracnose, according to research conducted by GCI in partnership with AMVAC Chemical Corp.

“For instance in the Midwest, nearly every fungicide that goes out in the summer has at least one component that targets dollar spot, which means there are lots of opportunities for the fungus to develop resistance,” Koch says.

In other areas of the country, it actually gets too hot for dollar spot in the middle of the sum-

mer, and more applications are targeting pythium and brown patch as opposed to dollar spot. In the Northeast, the continuous heat and humidity make for much more aggressive anthracnose that could develop resistance, while the lower humidity in the Midwest has led to fungicide-resistant anthracnose being less of a problem.

Midwest weather is an issue when trying to prevent or treat the pathogens during the summer, says Frank Sutter, superintendent at Indian Springs Golf Club in Illinois. “The hotter or more humid it is cuts your control time,” he says. “I normally spray on a preventive basis. I feel if nighttime temperatures stay above

75 degrees that I have lost two days of control for every 24 hours.”

Resistance issues with dollar spot in the Pacific West Coast of Canada are relatively new, says Josh Webb, assistant superintendent at Quilchena Golf and Country Club in Richmond, British Columbia, Canada.

"Originally being from Ontario and moving to Vancouver over six years ago, dollar spot was always something we were dealing with, as we saw resistance to propiconazole," he says. "Once I was out West, colleagues claimed they had never seen dollar spot so severe until the year I arrived in 2009. We have been battling it ever since." His plant health program provides "excellent" control of dollar spot through the use of phosphites and constant rolling.

"However, where we do not roll on a regular basis (tees and fairways) the dollar spot is much more prevalent and hard to control. In 2010, we lost nearly 75 percent of our north/south running fairways to dollar spot because of shade issues from trees," Webb adds. "Since then, we have increased our use of phosphites and wetting agents and have seen a significant and compounded decrease in dollar spot each year. We have not used any fungicides to combat dollar spot on tees or fairways, only Daconil (chlorothalonil) on greens and approaches on a preventative basis."

Anthracnose control on Quilchena Golf and Country

Club is also on a preventative basis, however, Webb stresses, not with the use of fungicides. "Some of our greens were affected pretty severely this year," he says. "We started with a new phopshite product at the beginning of last season and the response on greens for suppression of diseases was remarkable. Research has shown that the use of phosphites in a sound routine plant health program should preventatively protect the plant, however, this year was not the case."

One of the biggest mistakes turf managers make is not making sure they rotate chemical families, Hicks says. Just because a product has a different name and active ingredient, doesn't mean you are using a different chemical family.

Koch concurs. "I think the most common mistake is rotating amongst products but not rotating amongst chemical classes," he says. "While there are several differences between propiconazole and other DMIs like triticonazole, from a resistance standpoint the fungus basically sees them as the same thing."

Superintendents should develop an agronomic plan that will minimize the likelihood



Dollar spot leads the list of diseases that experience fungicide resistance, according to research conducted by GCI in partnership with AMVAC Chemical Corp.

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of disease development, Silcox says. "Researchers at Rutgers University have developed an excellent working outline of best management practices for anthracnose," he says. "Similar information is available for dollar spot. A sound agronomic program will allow fungicides to perform better and will also reduce the pressure for resistance." Also, he advises superintendents to incorporate as many fungicide modes of action as possible into an annual control program. Include both contact and systemic fungicides and use a mixture of active ingredients with modes that have been proven effective against the target disease.

David Beanblossom, superintendent at Chariot Run Golf Course in Indiana, has battled dollar spot at the 15-year-old course. "In 2013, we had re-

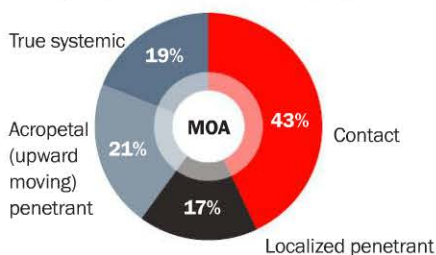
sistance issues with a number of different fungicides we sprayed. I have since changed my fungicide rotation and the last two years we have been very clean," Beanblossom says. "We have rotated of fungicides and used some of the new chemistries that are now on the market. Without sounding like I am doing a commercial for Syngenta, my spray program is centered around Daconil, Secure, Velista and Briskway."

Culclasure also rotates fungicide classes and/or modes of actions; tank mixes when possible ("I like to use a contact and a systemic together when I can," he says), and checks nitrogen levels, cation levels, and pH in his soil, which he believes can all play a factor in disease management.

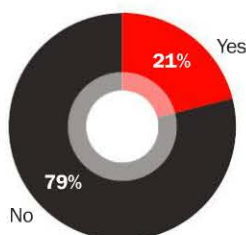
Superintendents should use the right product at the right

BY THE NUMBERS: Fungicide Resistance

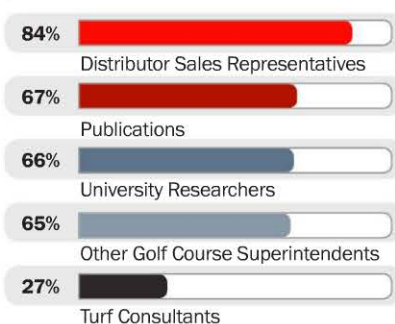
Modes of fungicide action (MOA) used in the average superintendents' disease programs.



Experienced fungicide resistance issues with the last three years



Where do you get your fungicide product information?



SOURCE: GCI RESEARCH/AMVAC

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time for the right issue, the right volume and right placement, Hicks says. "Remember, if there is a case of anthracnose-basal rot, the fungicide must be placed at the base of the plant to be most effective," he says. "Most systemic fungicides only move upward. Secondly, make sure your spraying is working the way you think it is. Check the nozzles, pressure and application volume."

With the economy and industry the way it is, all superintendents have to do more with less. Therefore, Webb believes trying new methods of controlling diseases, while staying within the constraints of tightening budgets year after year is causing "a lot of the problems." He adds, "If you have the budget to preventatively control dollar spot and/or anthracnose, then you're doing well. However, sound cultural practices play a huge part in controlling any diseases, and this is what most superintendents have been forced to collaborate, along with curative applications, to

control diseases."

Webb says if superintendents are using fungicides to preventatively control dollar spot and/or anthracnose, avoiding sequential applications of the same chemical family is prudent. Rotating fungicides reduces the risk of disease resistance of certain chemicals, which in turn will not limit your ability to spray chemicals that may have gained some resistance from overuse.

Developing a fungicide program can be perplexing because it must take into account multiple pathogens over the course of a long season, from early spring to late fall. Silcox says the sheer number of stand-alone and pre-mixed fungicide products in the turf market can make it very difficult to devise a sound program to control a disease that may be present for an extended period of time.

He talks about an experience he had with anthracnose this year. A superintendent in Ohio wanted to start his anthracnose program with a tank-mix of Autilus and Mirage.

"This treatment got him off to a great start and then he went into his normal rotation. He called me in early August saying that he was having anthracnose show up in certain areas," Silcox says. "His last application went on about two weeks prior to our conversation and when he told me what he had applied, I had never heard of the product. I asked what it was and he told me it was a premix of active ingredients X and Y. Well, active ingredient X is no longer effective against anthracnose due to resistance, and active ingredient Y never had anthracnose activity to begin with, thus he created an ideal gap in his program that anthracnose could exploit under conducive conditions. To get him back on track, I suggested three products for him to consider and recommended that he tank-mix two of the three and make an application as soon as possible." The approach worked.

Silcox says, "It is always exciting to find new modes of

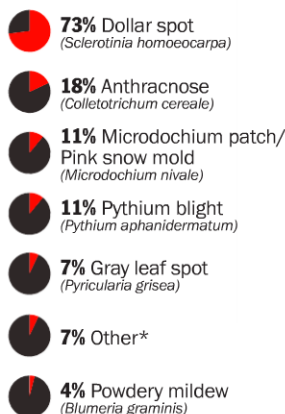
action on key turf diseases, but it is becoming more and more difficult to identify new modes of action and bring them to market." Two new modes of action for anthracnose control were introduced this year, penthiopyrad (Velista) and PCNB (Autilus), which have shown excellent activity and may be introduced into an anthracnose management program. Autilus is best used early and late in the season. Velista also is very good controlling brown patch activity, which makes it a good choice during the heat of the summer.

Being aware of resistance issues on your course, taking steps to rotate product to avoid pathogen resistance and, perhaps most important of all, taking steps to prevent the conditions where dollar spot and anthracnose may occur are all vital factors in keeping your turf healthy and disease-free. **GCI**

John Torsiello is a Torrington, Conn.-based writer and frequent GCI contributor.

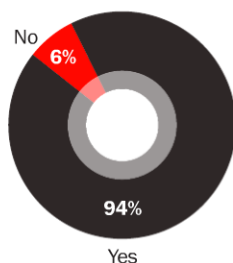
Problematic pathogens

Which have you been experiencing resistance issues?

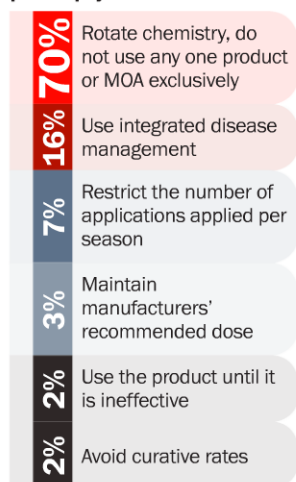


*Editor's note: "Other" responses included: fairy ring and brown patch

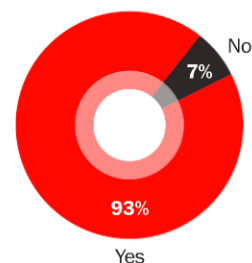
Did you change your fungicide program after you noticed resistance issues?



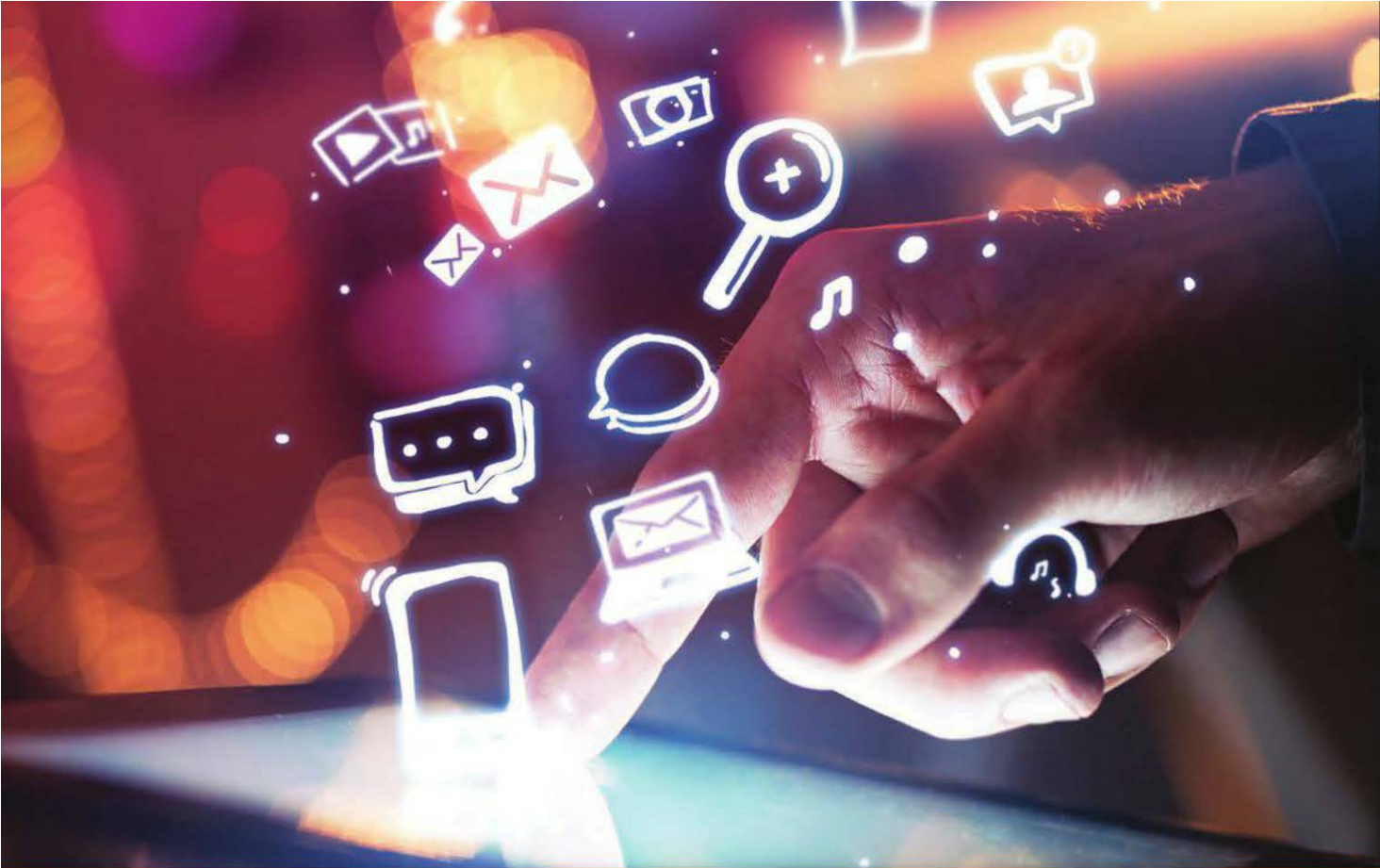
Describe your fungicide use philosophy



Do you tank mix your fungicide applications?



SOURCE: GCI RESEARCH/AMVAC



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BEST PRACTICES



Paul F. Grayson is the Equipment Manager for the Crown Golf Club in Traverse City, Mich., a position he's held for the past decade. Previously, he spent 8½ years as the equipment manager at Grand Traverse Resort & Spa. Prior to that, he worked as a licensed ships engine officer sailing the Great Lakes and the oceans of the world.

Heading into the fall season, here are a few best practices I've observed and adopted along the way. Now is as good of a time as any to share them with you as you prepare to either put your equipment to bed for the season, or to kick start your equipment maintenance program for the months to come.

GREASING

Greasing is an art that costs a lot of bearings to learn and is time consuming to do. A fairway mower typically has 57 zerk grease points. If I spend one minute on each zerk, refill the grease gun and replace bad zerks, the greasing task takes over an hour for one mower. Manufacturers suggest that the mowers should be greased periodically and after each time they are washed. Since the mowers are washed every day after mowing, they should be greased every day — an impossible situation in a one-man shop.



Plastic bushings can be used to replace greased bronze in low speed parts.



Sealed bearings are an alternative in high speed parts.

Luckily, maintenance is changing. I have been switching to lifetime-lubricated sealed bearings for high speed rotating parts and to plastic bushings for low speed parts eliminating the need for greasing. Some manufacturers are making the same changes. Eliminating greasing also prevents the two most common causes of bearing failure: under greasing and over greasing. The lifetime of a bearing varies depending on how it is used and abused.

Plastic bushings are a blend of plastics and fibers that act as a solid lubricant that cannot be washed away or affected by water. This is ideal for the mowing environment which is wet with grass juice, dew, wash water and rain. Plastic lasts longer than greased bronze bushings.

AIR AND OIL

Some mowers came with "clogged air filter indicators" that worked so well I ordered more as repair parts and added them to other mowers. The indicator lets me know when it is time to change the expensive air filter based on perfor-



Clear markings for the hours of operation required before an oil change, and location of the oil drain and wrench size can help extend the life of equipment.

mance rather than appearance. The indicators pay for themselves by eliminating unnecessary air filter changes.

After reviewing the maintenance manual for every mower in my motor pool, it looks like the best plan is to change their crank case oil and filter every 100 hours. I also found that 10w30 was an oil option they had in common, so I streamlined the inventory by becoming a one-oil shop.

Some mowers reach 100 hours in a little over a week, others every couple of weeks, which means I am doing oil

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A 400-page worklog allows a mechanic to create specific daily records and eliminates the confusion caused by random sticky notes.

changes almost every day. To deal with this flow of used oil, I built a 55-gallon roll around oil collector with a large funnel, a drain board top and a pump to transfer its contents into the 300-gallon tank outside. A used oil dealer empties the big tank for “no-credit, no-charge.” I get the new oil and filters from NAPA at a special price. Their quart bottle price is actually lower than buying oil in bulk.

REPAIRS

Parts wear out over time and need to be replaced or built up with weld. Weak spots in the mowers are discovered and need to be reinforced. Hydraulic hoses age and need to be replaced. Fortunately, the hose shop makes them while I wait. When steel lines fail, I replace them with hoses for a fraction of the cost.

MINIMALIST RECORDS

Because there are no departmental reporting requirements, the only records I keep are the ones I need for myself. They include a large cardboard master list of each machine I am responsible for and its equipment number, my worklog where I write each maintenance action along with



Using blue tape can make it easy to determine a mower number from an equipment list and inform operators of the height of cut setting.

the engine hour meter reading when it happened, a phone list and a strip of blue carpenters tape stuck next to the engine hour meter on each machine. The tape says when the next oil change is due. In the engine compartment of each mower, I have marked what filters it uses, how many quarts of oil it takes, which side the drain plug is on and its wrench size.

Oil filters I stock are arranged on the shelf by NAPA number and are marked with what mower they are for. Each time I use one, I put it on my shopping list.

My worklog is my personal record of what I do each day. I buy the book out of my own pocket so that it is not company property. It is a 400-page record book, and I have a page for each day. Having been lost in a sea of sticky notes, I have made it a personal

rule to not use them anymore. Instead, I write everything that I would have written on a sticky note into my worklog. The pages are numbered and dated so specific pages can be referenced. Each phoned-in parts order is written in my worklog.

PARTS ORDERING

I keep very little inventory in stock since we are close enough to our vendors to get most parts “next day” and some of them “same day” without additional charges. A hardware store is conveniently located on the corner of the golf course so we have created a trail to reach it by golf cart. **GCI**

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STEFFIE SAFRIT

The Responsibilities

As TPC Piper Glen director of grounds, Steffie Safrit is responsible for the property that includes about 180 acres of maintained turf on the golf course and another 25 acres of clubhouse grounds including the pool and tennis courts. There is also the 50- to 60-acre lake, parking lots and non-maintained areas. The facility is open year-round and, except for some football Saturdays, fall is their busiest season. They average about 150 rounds a day on the weekends.

A strategic partnership with **BASF** helped superintendent **Steffie Safrit** improve deteriorating turf at a famed Charlotte-area course.

It has happened all over. A once pristine golf course falls on hard times and lacks needed maintenance. Membership and play tapers off and before long it closes. Thankfully, that isn't always the final result. This story is about a course that fell into the first three parts of the scenario, but it has a much happier ending. Just maybe, you'll pick up a few ideas that can help you provide the type of course that keeps moving up in quality and invites continued use.

TPC at Piper Glen was established in 1988, just south of downtown Charlotte, N.C. The Arnold Palmer-designed course was a mainstay on the PGA Tour for many years. It was sold in 2007 but retained the TPC branding. Unfortunately, things didn't work out as planned. Among other things, there was a downturn in golf. There was a recession. There were other factors. The important part is what has happened since April of 2014. By that time, membership had dipped below 200. Weeds and disease were more prevalent than pristine turf. It was not



Using Lexicon helped eradicate fairy ring on the fifth green at TPC Piper Glen.

very inviting. Then, ClubCorp took it over. They have a team of dedicated professionals in place and they have invested about \$5 million in course and clubhouse improvements.

Steffie Safrit is director of grounds at TPC at Piper Glen and has been in the business since 1998. He received his degree from North Carolina State University. He grew up in North Carolina and, except for about four years in the Nashville area, he has spent most of his life there. He joined ClubCorp in 2010. ClubCorp offered Safrit the challenge of reclaiming the previous greatness of the Charlotte-area course. Because of his North Carolina roots, he jumped at the chance.

When Safrit arrived at TPC Piper Glen, things looked pretty bleak.

"I no way want to reflect badly on anyone who was here before me," he says. "I don't know all the circumstances and what they did or did not have to work with. I just knew there were lots of problems that needed to be addressed."

There were problems with the irrigation system, drainage

problems, bunkers in disrepair and equipment in dire condition. There were so many varieties of weeds that a textbook on weed identification could have been produced. And fairy ring ran rampant, especially in the greens.

"One of the first things we did was check the foundation by sonar through all the greens," Safrit says. "We found the cleanouts, cleaned them and made sure what was there originally worked as it should, or was repaired to do the job."

The irrigation system was the next priority. It was a low-pressure system with all of the lateral pipe for the heads on 1 1/2-inch pipe.

"There were tons of heads on the loop line, 2,000 feet of 8-inch mainline that was supposed to be connecting the front and back nine, and connecting them both with the pump station," Safrit says.

The water source for the course is reclaimed storm drainage and is pumped from a 15- to 20-foot deep, 50- to 60-acre lake on the 18th hole. "We added all new 8-inch PVC and started going after the irrigation heads," Safrit says. "Many were buried in the turf and soil. When we took over, there were 452 heads that were working. We now have 1,772 heads working and still have a couple more holes to go."

The Staff

Besides Steffie Safrit's superintendent, Justin Hudson, the summer staff consists of at least 16 to 18 people. Many of them are students and interns, and they are gone when school starts. The current staff now totals about 10. Safrit has kept in close contact with personnel at North Carolina State, his alma mater and uses interns from there. He also has access to the local Piedmont Community College and had two interns from their turf program. He has started reaching out to other schools, including Clemson, Ohio State and Penn State. "The ClubCorp family can provide excellent experience for interns from all over," he says. "In turn, we get young people eager to learn and do an excellent job."

Safrit has cultivated a great working relationship with BASF, especially representatives, Brian Thompson and Willie Pennington.

"I showed a photo of the fairy ring to Brian and he gave us a trial sample of Lexicon," Safrit says. "Where we applied it, we have not again seen fairy ring. We treated the rest of the areas with a Lexicon and Insignia program."

While Fairy Ring is the main disease pressure, Safrit has some Pythium and root destruction. Safrit is now on a preventative program with Lexicon on what he calls his "holiday schedule," with treatments around Memorial Day, July 4th and Labor Day. The final treatment will be made at the end of September or early October.

Safrit's relationship with BASF started in the early 2000s when he first met Pennington.

"I can call [Pennington] anytime about anything," he says. "He is just a great guy to work with. I was at a course in Raleigh and [Pennington] worked with me on some trials on Tower before it was labeled. That experience really helped with the weed problems I was facing at Piper Glen."

While not the only ones, the biggest weed issues were with Virginia buttonweed, goosegrass, crabgrass, nutsedge and Poa. While Tower is the main gun in his holster, he also uses Drive. Safrit uses FreeHand to treat his entire 25 acres of ornamental beds on the course, and around the clubhouse, pool and tennis facilities.

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Steffie Safrit gives back to his profession by putting on demonstrations at TPC Piper Glen for Charlotte-area superintendents.

Pennington has found it fulfilling working with Safrit and seeing the transformation at Piper Glen.

"I don't want to cast any aspersions on any of his predecessors—budgets play a major part in what a superintendent can and can't do—but Steffie has done a tremendous job, not only at Piper Glen, but everywhere he has been," Pennington says. "He is a very intense young man, likes what he is doing, has a great assistant in Justin [Hudson], and we have worked together for a number of years."

On superintendents in general, Pennington says the superintendent makes their job a lot better. "As a manufacturer, we have many tools to offer," he says. "They are able to choose from those tools and can put into action those that will make their course better."

On the equipment side, Safrit has a great relationship with Toro and their Charlotte distributor, Smith Turf & Irrigation. On the bunker situation Safrit reports, "We redid all the bunkers last summer, all 90,000 sq. ft. using the Better Billy Bunker system."

The soil type is clay loamy and Safrit says the one characteristic is it has almost a stringing kind of rock in it. If it is not moist enough, it will almost seal off like concrete.

To correct the problem, they have been applying a wetting agent through the irrigation system. They have also done a lot with soil nutrition and pH. They have added gypsum and calcium as needed and hit it with fast-acting nitrogen once a month. They have also been verticutting and aerating to help everything move through the soil.

The renovations and maintenance improvements are aiding a strong rebound. Membership has gone from 190 to around 1,000 with the need for a waiting list in some membership categories.

"I'd say we're hitting on seven cylinders very hard and on eight sometimes," Safrit says. "We've seen some weird things — and we don't know the history that caused them. I tell my crew, 'Let's not worry about the why; let's fix it the right way and go about our business of making it the way it should be.'"

It's been a struggle, but it's been a good one, Safrit says. "We can now ride out and see a row of 12 heads operating well where they didn't work at all and instead of sparse or non-existent turf we see lush grass wall to wall." **GCI**

Steve Trusty is a Council Bluffs, Iowa-based writer and frequent GCI contributor.

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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.

FAIRWAY DEW DRAG SYSTEM

For three hours labor and about \$300 Canadian (\$229 U.S.), a unique way to drag dew on the fairways was created using the 2-inch receiver hitch that came with the 2015 John Deere Gator TX Turf Vehicle. One ½-inch square tubing, 2-inch by ¼-inch and ⅛-inch thick flat stock, four ⅝-inch bolts used for pins, four clips, two 8-foot long 1-inch by ⅜-inch galvanized chains, two 3-inch PVC irrigation elbows and 35 feet of 1 ½-inch diameter heavy duty marine rope were used to create the 20-foot wide fairway dew drag. The two wing booms lift up easily in an inwards vertical position and the rope is put in the bed of the Gator TX Turf when crossing two bridges spanning the highway, and driving between holes and on cart paths or service roads. The two chains and flat pieces of steel offer stability when the booms are in the lowered position and the PVC elbows protect where the rope ends were attached to each boom. Bob Pruneau, equipment manager, and Chris Wallace, superintendent, are a big part of the great team at The Links at Brunello, Timberlea, Nova Scotia, Canada.



STINGER GREEN'S MOWER TRAILER

The concept for this simple but very effectively designed and built trailer was accomplished after watching the staff strain to get the mowers up a ramp onto a trailer — and the mowing height calibration was compromised in the process. This trailer was developed so there was no lifting or pushing and both front and rear rollers were not touching anything. Each trailer is 58 inches wide and 6 feet long, and made out of rectangular and square tubing for strength. They have been in service for five years, holding up quite well and cost about \$300 each. Recycled golf cart rims were used to cut costs and it takes about six hours to produce one trailer. Flat stock is used to build half-moon shaped saddles for the mower transport wheels to rest in. There are two chains that hold the mowers in place using retaining clips. The "tilt-pin" is pulled. The shock absorber lowers the mower and it rolls out onto the turf. When loading, the mower is backed onto the saddles and the operator pushes down on the "pedal-arm." The retainer clips are re-inserted and the "tilt-pin" is placed back into the trailer tongue. Shawn Emerson, director of agronomy, and Bob Voita, mechanic III, of the Desert Mountain Club in Scottsdale, Ariz., are part of the great course management team for six Jack Nicklaus Signature Design golf courses.



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(MILLER continued from page 16)

ers were an entirely different animal. What was a golf course employee supposed to do when a bartender and a lady in high heels headed out of the clubhouse and headed for the course? One waterman did the right thing – he asked the gal to take off her high heel shoes!

For the life of me, I cannot imagine lying buck-naked on a putting green with no idea of what may have been sprayed on its surface. But greens were the favored sites, as evidenced by footprints, knee prints and cheek prints on the closely cut turf. Back when it was legal, a 14-year-old was mowing tees with a walking mower and came across a used condom. It was left to me to fill in the bit of missing information in his sex education. I would guess that by summer's end the older kids had pretty much answered any other delicate questions.

Splendor on the turf doesn't define all of the sexual activity found on our local courses. Glo ball tournaments can lead to natural diving areas from a golf course pier into an adjacent lake or river, au natural of course. Worse have been cases I heard about of diving into small golf course ponds and coming out with a case of swimmers itch and a distinctive blue color from the pond dye. How romantic!

There are funny stories, like the one about a couple performing their magic on a practice putting green they thought was out of sight of the clubhouse. Only it wasn't, and they put on a heck of a show for the audience gathered at a clubhouse window. And it wasn't uncommon to get a report or a call about couples sneaking onto the course from a neighbor's house. I always wanted to say, "Why don't you pull up a lawn chair and watch?"

It seems to me that in future years, just like the past twenty or so, we are going to have to depend on confessions and bragging rather than the actual sightings of golf course sex. And if there is anything that gets exaggerated (by men, at least), it will be their prowess, especially on the grass! **GCI**

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HIGH TIMES



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

If you're a normal front-to-back reader of GCI, you probably already saw the farewell editor's note from the fabulous Kyle Brown.

Kyle, who's been a key part of our editorial team for five years and the driving force behind the brilliant Superintendent Radio Network podcasts, has been promoted to become managing editor of a new magazine we're launching here at GIE Media. Which new magazine, you ask?

“We will always use our megaphone to cheer for superintendents and heap ridicule on any fools who want to harm our industry. We also support the companies who support us. We hope you will too.”

It's called *Cannabis Business Times*.

Yes, you read that correctly. And, no, I'm not high.

Our company, which kicks butt in nearly every nook and cranny of the green industry, will now be serving the information needs of folks who grow marijuana legally in about 30 states. And pretty much everyone expects cannabis to continue to become legal in more states and federally over the next few years. In short, weed is rapidly becoming a

giant legal industry in the U.S. and globally.

The agronomic part of the legal pot equation is closely tied to the greenhouse business (which we serve via our *Greenhouse Management* group). But, growing a highly regulated crop like cannabis brings with it other challenges like security, banking and legal affairs. Protecting cultivated pot from insects and diseases is a particularly knotty problem since there are exactly ZERO pesticides labeled for cannabis at the moment. It's a fascinating and complex business and we're excited to be – as always – on the cutting edge of an emerging market.

Kyle's move over to the wacky tabacky world is not the only change we've had here lately. The other bit of news is that my job changed recently as well.

For the past several years, I've been responsible for running both GCI and our flagship turf publication, *Lawn & Landscape*. The two publications have very similar business structures (lots of companies that advertise in both to reach turf pros) but are quite different in terms of editorial focus and scope. Where GCI is focused on the relatively narrow world of managing very short grass, L&L covers lawn care, landscape design/build, fleet operations, snow and ice removal, and all things related to small business management and profitability. It's also a much larger market than golf and L&L, as part of GIE Media's business, is a substantially bigger enterprise than GCI.

As much as I loved trying to manage both markets, it was increasingly apparent to me that we needed somebody to be focused 100 percent on running L&L every day. My boss agreed with that assessment. So, I'm delighted to say we promoted Dave Szy, our longtime associate publisher and national accounts manager, to become publisher of L&L. You can expect big things from Dave and his team in the coming months and years thanks to his market expertise and passion for that business.

My passion, as always, is right here. And now I have the time to focus on GCI and what we do best:

EDUCATE:

My mom was a schoolteacher for five decades and even though I didn't pursue that noble vocation, I've always felt our first priority is to help readers educate themselves on timely topics.

PROVOKE:

Nothing would ever change unless new ideas and opinions were introduced. That's why we give free reign to provocateurs like Kaminski, Moraghan, DeLozier and yours truly.

ADVOCATE:

We will always use our megaphone to cheer for superintendents and heap ridicule on any fools who want to harm our industry. We also support the companies who support us. We hope you will too.

ENTERTAIN:

Hell, it's not brain surgery. You need a sense of humor to put up with Mother Nature and idiot golfers. Part of our job is to lighten things up every once in a while and puncture the stress bubble that squeezes in on all of us.

So, it's high times for all of us around here. What kind of craziness will we dream up next? Come along for the ride and find out. It's gonna be fun. **GCI**

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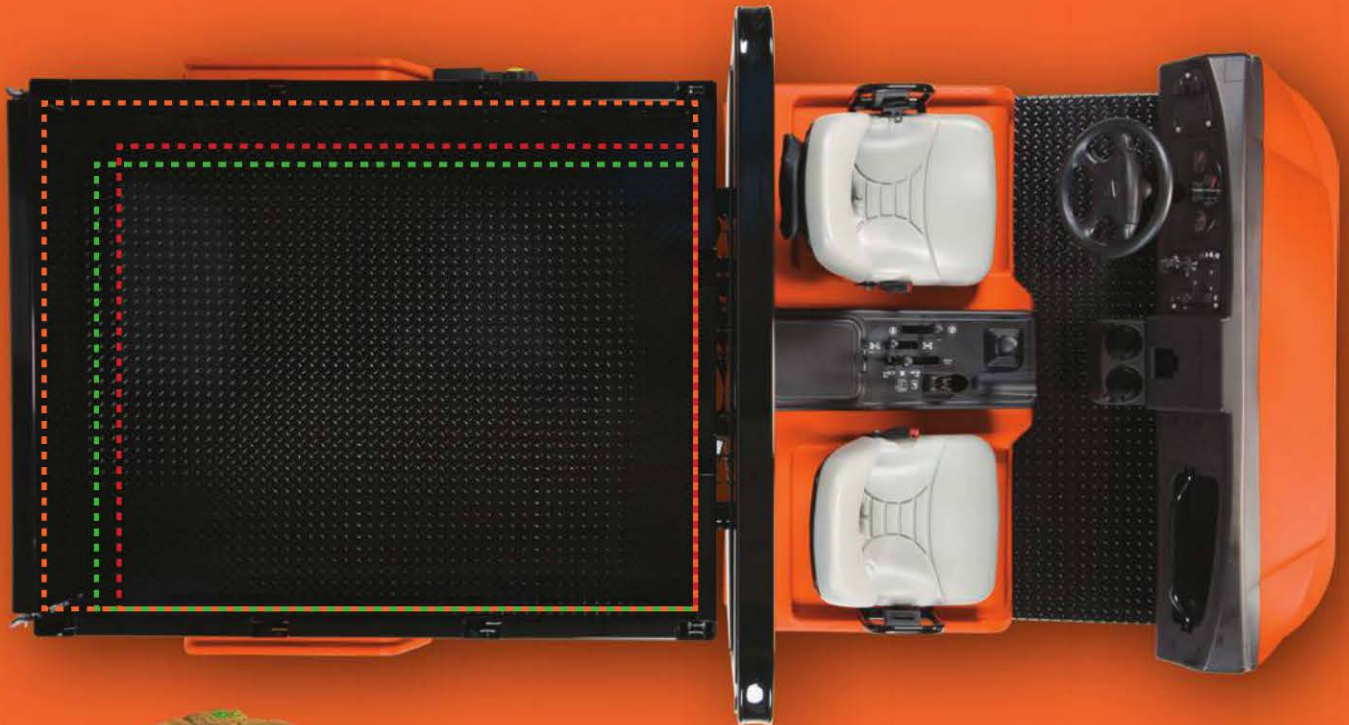
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