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## EVERYWHERE MAN

A CHALLENGING  
2014 HASN'T  
STOPPED GEORGIA  
SUPERINTENDENT  
**ANTHONY WILLIAMS**  
FROM BEING AN  
OMNIPRESENT FIGURE IN  
THE INDUSTRY.

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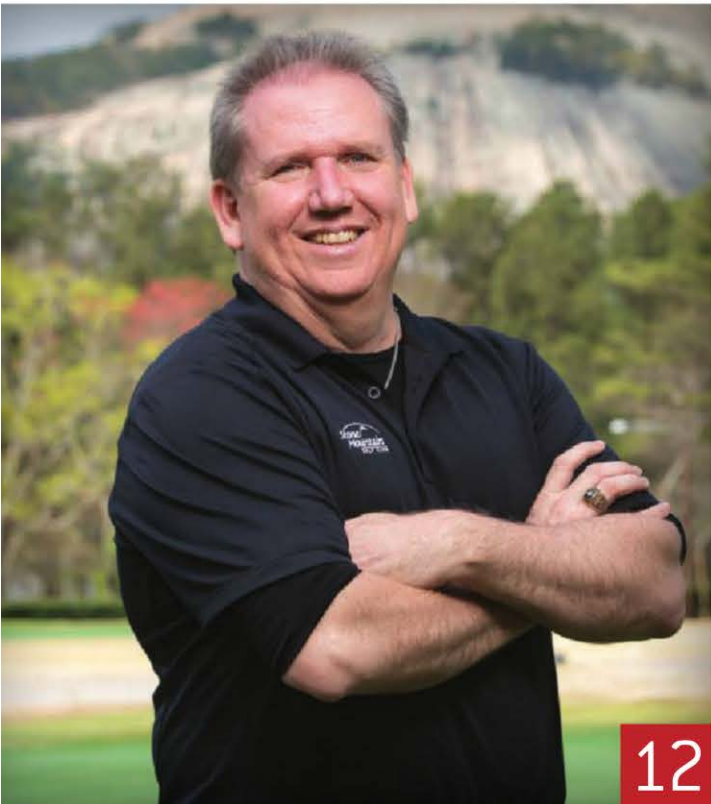


**ON THE COVER**

CHRIS HAMILTON VISITED SCENIC STONE MOUNTAIN GOLF CLUB TO PHOTOGRAPH SUPERINTENDENT ANTHONY WILLIAMS.

VOL. 27 NO. 4

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TEERING OFF

## SPECIAL

There are, technically, about 15,000 “superintendents” in the United States. At every one of our facilities, there’s someone in charge of the maintenance and playability of the golf course. Over 30 years of doing what I do, I’ve found that if you dig deep enough, you’ll probably find a great story about that person.

You don’t have to dig deep to find a great story at Stone Mountain GC. Even the most cursory of looks will immediately reveal special things going on at this business/resort course on the outskirts of Atlanta. And all of it comes back to one special person: Anthony Williams.

I won’t rehash all of the awards he’s won or all of the lives he’s touched in wonderful ways...I’ll let you read our cover story and get the full picture for yourself. Instead, let me share with you the tribute I was asked to write when Anthony was named the Georgia GCSA Superintendent of the Year last December:



**Pat Jones**

Editorial director and publisher

“The first time I met Anthony Williams a couple of decades ago I walked away thinking how impressed I was with the things he was accomplishing environmentally at Stone Mountain. The next time we met, I learned what a fine speaker and communi-

cator he was. Later, I was awed by the fact that he found time to write and publish a book! After that, I found out about his remarkable accomplishments in martial arts. Then I watched in person one day as he joyfully taught a group of giggling children about turf and wildlife. But, best of all, after many times together over many years, I have learned what a fine human being he is. Anthony could have been successful in any vocation. We’re so lucky he chose this one.”

Anthony has been a leader at his facility, an innovator within Marriott Golf, a committed association supporter, a cheerleader for sustainability, a rock-star communicator and someone who meets adversity with enthusiasm and grace.

He faced plenty of adversity last year when first his wife and then Anthony suffered major heart ailments. Yet, when I ran into him briefly at GIS – just a few months after he’d been hospitalized – he was cheerfully asking me how I was doing and thanking me for something small I’d done. He’s just one of those outward-facing people who’s all about what he can do for you.

At this stage in his career, it’s getting less likely that Anthony will ever host a major or decide to run for the GCSAA board. But, those accomplishments pale in comparison to what he’s done as an ambassador for the profession. He is the Johnny Appleseed of goodwill towards turfheads...and because of that, we are honored to help tell his story. **GCI**

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## Midwest milestone

**GCI's Guy Cipriano visits a hospitable biennial show staged by a venerable Wisconsin-based company.**



The Reinders Inc. team gathered in Waukesha, Wis., for the 22nd Reinders Green Industry Conference.

to one thing,” says Craig Reinders, the company’s president. “In seeing my ancestors’ history play out, they pursued opportunity where it was and when the time was right.”

Today’s opportunities rest in the green industry. The 160-page turf, irrigation and grounds maintenance catalogue Reinders displayed at the conference included more than 1,000 products. Geographic and product diversity and a mix of revenue originating from the private and public sectors helped Reinders endure recent slides in the golf and landscape markets, according to Craig, who actively started working for the company in 1988. “It forced us into coming to terms with our strengths and weaknesses,” he says. “We were challenged incredibly like a lot of distribution was during 2008-09. I have good friends in the business. ... Who would have thought that multi-generational businesses would just collapse overnight? But the market was disappearing underneath them. Had we not been the diverse company that we were, we would have collapsed.”

The current version of Reinders features 205 employees, including many with extensive golf and

Cozy. Folksy. Friendly. Consistent. Adaptable.

A slew of Midwest-inspired concepts were on display during a stop in Waukesha, Wis., for the 22nd Reinders Green Industry Conference. From the domed Waukesha Expo Center, which featured the aroma of coffee and homemade donuts on the mornings of March 11 and 12, to floor staples such as red machinery and Skee-Ball competitions, the biennial event resembled a turf family reunion. In many ways, it was.

Reinders is a family-owned Wisconsin-based distribution company celebrating its 150th anniversary. Think of how many companies in this business don’t last 150 weeks let alone 150 years? Reinders, which started selling general merchandise and groceries at a location outside of Milwaukee, evolved as the business world around it changed. Products recently used on many Midwest golf courses were handled by someone associated with Reinders.

The company, started by John Reinders, is on its fifth generation of leadership. It has weathered prosperous and turbulent times. “We have not stuck



Homemade donuts are one of the staples of the Reinders Green Industry Conference and the aroma filled the domed Waukesha Expo Center.

works for the company. This year, Vargas dispelled pesticide myths and analyzed bentgrass vs. *Poa annua* characteristics. Kershasky, the former superintendent at Westmoor Country Club and University Ridge, offered

landscape backgrounds. The people selling products for Reinders know their stuff. "There are no bargains in people. Literally," Craig says. "I know that's a cliché, but you have to hire the best people you can get your hands on."

The first and final speakers in one crowded conference room demonstrated the familial feel to the conference. Michigan State's Dr. Joe Vargas has presented at all 22 Reinders' conferences while Jerry Kershasky

do's and don'ts for green renovations. Many of the attendees listening to Vargas and Kershasky personally knew the pair.

Craig uses a familiar business word to describe the conference. "I think it's more of an opportunity for us," he says. "I think we are fortunate to be able to produce a show like this. I don't know if you can start something like this today and do it." Or for that matter, start a company and watch it last 150 years.



## GREENKEEPING AROUND THE GLOBE

**Our Bruce Williams identified — and attended — four major industry conferences outside of the U.S. this winter. Besides accumulating thousands of frequent flier miles, Williams filled a notebook with a collection of stories about the events.**

**Dispatches from his travels can be viewed by entering [bit.ly/1HX60RH](http://bit.ly/1HX60RH) into your web browser. We're confident this is the only place to read about conferences in England, Korea, Thailand and China in one click. Even if you never consider attending events such as the SKY72 Winter Seminars and Training Center, you can glean something from Williams' description of the value Korean management places on employee training. Williams also offers perspective on the condition of the mysterious Chinese golf market.**

## PART OF THE SOLUTION

Superintendent Radio Network isn't afraid to explore issues away from the course. Tom Werner isn't afraid to discuss his past problems with alcohol.

As part of SRN's "Superintendent Health" series, Werner, a territory sales manager for Jacobsen, provides a detailed account about the alcohol troubles he experienced during his career as a Texas superintendent and the decision he made six years ago to live an alcohol-free life. "As you get older, you realize it takes a toll on you," he says.

To hear more from Werner, enter [bit.ly/19ZRRp4](http://bit.ly/19ZRRp4) into your web browser. The episode is one of 14 produced by SRN through the first three months of this year. To view the entire 2015 collection of SRN episodes, enter [bit.ly/1tETFis](http://bit.ly/1tETFis) into your web browser.



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## NOTEBOOK



### From **THE FEED**

Bob Estes is different than many PGA Tour players. The 49-year-old Texan has strong opinions about everything associated with golf, including course conditions. After a brutal, windy start to the Valero Texas Open, Estes questioned whether the PGA Tour should have heeded advance warnings about strong winds and decreased the speed of the slick TPC San Antonio greens. We retweeted Estes' thoughts and asked our followers whether projected high winds alter how they prepare greens. Estes responded almost immediately.



**Bob Estes** @BobEstesPGA  
@GCIMagazine The Tour knew that the high winds were coming. The greens are probably a ½ a foot to a foot from calling 'em off the course.



**Terry Davio** @terrydavio  
@GCImagazine @BobEstesPGA not here but membership doesn't want speeds over 10', so I maintain around 9' 6" and let the slopes be the speed.



**Bob Estes** @BobEstesPGA  
@terrydavio @GCImagazine That sounds perfect, Terry!



**John Gall** @GallJgall4  
@GCImagazine @BobEstesPGA Hard to alter ball roll in 12 hours with today's growth regulators and maintenance methods #turnthelial



**Joshua Hicks** @AlexandriaSuper  
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# GO, LEAD. YEAH, YOU.



**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.

**M**any remember the "Back to the Future" movies that were popular in the late '80s and early '90s. They starred Michael J. Fox as Marty McFly, Christopher Lloyd as Dr. Emmitt "Doc" Brown and a DeLorean time machine.

What you may not remember is in the sequel — "Back to the Future II" — Marty and Doc travelled forward from 1955 to 2015. Well, here we are — 2015. The future has arrived.

Some of us may wish it were 1955 and we could alter history. I was a history major in college — I know that's not possible. I also know it's naive to think some dramatic turn of events is going to bring back the three-martini lunch and guilt-free Saturdays and Sundays at the golf course. Or that prospective new members and customers are going to magically start lining up outside your door, anxious to pay rack rate. If you're nostalgic for those days, watch "Mad Men."

I also know golf often talks a better game than it walks. We lament the predicament we find ourselves in. But talk is cheap — and it's not going to do anything to address golf's challenges.

So what is? I think there's a better question: Who is? Who will do something about golf's biggest challenges?

Golf is a business — like any business today — starving for leadership.

I'm not bemoaning golf's leadership at the highest levels. Pick your association and combination of letters — USGA, GCSAA, PGA, NGCOA. I think the gentlemen leading those organizations are doing a pretty good job. I wish each of those associations had more women and minorities in leadership roles, because golf needs more diversity more than about any business I can think of. But that's another column for another day.

My concern is with leadership at the mid- and upper-management levels, where most of us reside. In any organization, that's where most of the innovation comes from and where most decisions are made.

But I don't think our crowd is doing enough. We're not doing enough to find innovative, out-of-the-box creative ideas that help more people discover and enjoy the game. We're not doing enough to identify and train smart, energetic young people whose perspectives we so dearly need. We're not doing enough to speak up for golf in those circles where it needs defending. ... With city councils, state legislatures, Congress and at the Saturday night parties we attend.

The challenges golf faces are too big for any association or any of the smart people running them. They are our challenges, too.

I'm a firm believer that leadership qualities are in each of us. And that each of

us has the talent and ability to make tomorrow a little better than today for our members, our customers, our families and ourselves.

How do we do that? By no longer waiting for someone else to come up with a good idea and implement it. Smart leaders know each person plays a role in the organization's success. Successful leaders make sure each person knows what that role is.

People don't help companies or courses achieve goals they don't share. People don't execute plans they don't see. People don't value principles they can't name.

So leadership is about all that ... information, communication, vision. But it's not necessarily about perfection. You don't have to have all the answers. Or all the brilliant ideas.

Take innovation. We're always saying that's what golf needs more of. But here's a news flash — not all people in golf are innovative. I mean it took more than 400 years before someone came up with the idea of making the head of the club bigger, so hitting the ball would be easier. ... Duh.

So, if your IQ — your innovation quotient — is not off the charts, find someone whose is. Maybe that person is already inside your organization. Maybe that person is outside your four walls.

Hogan said the answers were in the dirt. I think the answers are in your dirt, at your course. National programs will never be as effective nor as important as what facilities do at the grassroots level to bring in women, couples and young people.

That said, anything that positions golf as fun and helping to improve fitness is working. Footgolf? Who woulda thunk?

So, my advice and my hope is that you will decide that it's your responsibility to lead us out of the wilderness and into a better place. Maybe it won't be a new Golden Age. I think most of us would settle for a new Titanium Age. **GCI**



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longer service intervals that save time and money, Carryalls do things no other utility vehicles in my fleet can.” See for yourself that Carryalls are more than just a pretty face. Watch Don’s video and learn more at [clubcar.com](http://clubcar.com).







# EVERYWHERE MAN

A CHALLENGING 2014 HASN'T STOPPED GEORGIA SUPERINTENDENT **ANTHONY WILLIAMS** FROM BEING AN OMNIPRESENT FIGURE IN THE INDUSTRY.

## By Trent Bouts

A common tenet among the martial arts is that when the student is ready the teacher will appear. Anthony Williams remembers being “quite ready” by the time Mrs. Tarkenton stepped forward one day at tiny Palmer Stone Elementary School in Oxford, Ga., in the early '70s. Rain that morning kept Williams and his classmates cooped inside during recess. To keep them amused, Mrs. Tarkenton, the teacher, pasted white paper across one wall telling her pupils to draw who they wanted to be when they grew up.

When they were done, the mural was dominated by firemen, policemen, doctors and farmers. Williams' depiction of a karate master stood as a conspicuous stranger. The movie Billy Jack and the TV show Kung Fu may have elevated martial arts in the American consciousness of the time but in rural Georgia most young boys still imagined growing up more like their fathers.

So much so that Williams soon found himself surrounded and defending his outlier ambition against the crowd. Fortunately, Mrs. Tarkenton “stepped into the fray” delivering a message that Williams took to heart and keeps there to this day.

“She told everyone that if you worked hard enough and were willing to make sacrifices, you could be whatever you wanted to be,” Williams recalls. Decades later, Williams would attend a Palmer Stone reunion, not merely as a karate master,

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but as a grand master. Teaching karate helped pay his way through Abraham Baldwin Agricultural College.

That anecdote may be an overly literal interpretation on the student-teacher precept but it illustrates how early Williams began drawing lessons from life, through the lives of others as well as his own. It didn't hurt that by then Mrs. Tarkenton had a certain son (Fran) living his own dream playing quarterback for the Minnesota Vikings. "I remember thinking 'Wow, I really can be anything I want to be,'" Williams says.

In the years that followed, Williams put that lesson to good effect, even adding his own twist to it. If he could in fact "be anything" by working hard enough, why then couldn't he be many things? Growing up on the family farm in Indian Creek he'd certainly learned how to work.

So by the time Williams, now 50, was named Georgia Superintendent of the Year last December he hadn't just added golf course maintenance to his string of expertise. Along the way, he also became a world-ranked archer, a master gardener, a certified arborist, author, speaker, association leader and more. But he very nearly didn't make it to St. Simons Island to accept this latest honor at the Georgia GCSA's annual awards banquet.

Last October, just 18 days after his wife of 29 years, Phyllis, suffered and survived a massive heart attack, Williams woke at about 4 a.m. with a tightness across his own chest. Even though his older brother died of a heart attack in August, something told Williams he was not having one. Still, he



Teaching karate helped Williams, who has earned the title of grand master, pay his way through Abraham Baldwin Agricultural College.

knew something wasn't right.

"I felt diminished, like I was only operating on about two-thirds," he says. "But I was breathing pretty well." Because of that latter fact, he still went to work that day with an "aggressive agenda" as director of grounds at Stone Mountain Golf Club by Marriott in Stone Mountain. It's no secret now – not when you are as widely known as Williams – that he was late getting home. His return route came to include an ambulance ride, a battery of

tests and eventually a helicopter flight for emergency open heart surgery.

Along the way there were some, let's say, earnest debates with doctors who were certain Williams wasn't having a heart attack but were unable to locate the source of his by-now considerable discomfort. Then a doctor off-site, examining some of Williams' test results, saw something the others had missed, an aneurysm on an enlarged valve. He was in imminent danger. "It was a miracle I

didn't die on the treadmill (during testing)," Williams says.

By some measures, it was equally miraculous that he could be at the podium as nearly 200 Georgia GCSA members stood applauding in his honor just two months later. Indeed it was only after son, Luke, agreed to drive his mother and father on the 10-hour round trip that doctors agreed to let Williams travel. And Williams desperately wanted to be there.

At this point, it's important to note Williams had no idea he was getting any award, let alone the big one. But as chairman of the Georgia GCSA Hall of Fame, he wanted to be there to welcome a trio of new inductees. Launched in 2011, the Hall of Fame is something of Williams' own baby. He is passionate about maintaining the links between generations of the superintendent profession and honoring their legacies.

"People like Palmer Maples, Jr. and Ken Mangum and so on, they left a very clear message of what it means to be a professional golf course superintendent," he says. "I hope to leave a similar trail of bread crumbs for those coming along to be able to follow. You owe the people who came before you and you those coming after you too."

“People like Palmer Maples, Jr. and Ken Mangum and so on, they left a very clear message of what it means to be a professional golf course superintendent. I hope to leave a similar trail of bread crumbs for those coming along to be able to follow. You owe the people who came before you and you those coming after you too.”

—Anthony Williams, Stone Mountain Golf Club



That's a mindset that pre-dates Williams' arrival in golf, and Mrs. Tarkenton, too, for that matter. It was in his raising and maybe in his blood. Learning to work alongside his father and his grandfather as soon as he could walk, Williams says he was "blessed with a great childhood." "My father would get up 3:30 every morning to go and work a 10- or 12-hour shift at General Motors then come home and do whatever was needed on the farm," he says. "We were constantly working."

Through that toil and the talk that went on around it, Williams absorbed many lessons from his father and grandfather. "If you take care of the land it takes care of you." "Character is important." "What you do and why you do it makes a difference." "Perseverance really matters."

Williams also attributes his part-Cherokee heritage to his love of the natural world. His great-great-great-grandmother was Cherokee. In 2010, the Atlanta Journal-Constitution wrote that Williams' connection to the earth was "a legacy of her wisdom of natural rhythms for planting and conservation. His drawl makes "soils" into "souls," and for him both are connected. "Passion for the land always came easily to me," he says. "It feels like it comes from something pretty deep."

It also goes pretty far.

Over a 30-plus year career Williams hasn't so much achieved milestones as he has amassed them. In 2014, he received GCSAA's Excellence in Government Relations Award. This time last year he received GCSAA's Excellence in Government Relations Award. In 2010, he received GCSAA's

President's Award for Environmental Stewardship and was the overall winner of the GCSAA and Golf Digest Environmental Leaders in Golf Awards in 2006. He was twice a winner in the chapter category. In 2012, he published a book "The Environmental Stewardship Toolkit," a collection of best practices and ideas for the environmental management of golf courses. He has served on the Georgia GCSA board of directors since 2001 and was president in 2010-11.

And that is merely a snapshot of a resume that continues to grow. Just last year, Williams signed on as one of the GCSAA's grassroots ambassadors to establish and enhance relationships with legislators. He can't help himself helping others. "If it's carrying the boxes when the show is over or if it's



Pictured with his wife, Phyllis, Williams was named Georgia Superintendent of the Year last December.

his association, for this profession, and for golf as a whole, establishes a new standard that stands as inspiration and motivation for the rest of us."

That's how Williams himself feels about the men he helped induct into the Hall of Fame

was one of the first people in the profession to reach out to the young Williams.

"This association has been my career," Williams says. "To be standing there that night when two months earlier I didn't know if I would live to

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“Anthony Williams personifies the maximum of every criterion we weigh when we consider the Superintendent of the Year Award. The work he has done for his facility, for his association, for this profession, and for golf as a whole, establishes a new standard that stands as inspiration and motivation for the rest of us.”

—Mike Brown, President, Georgia GCSA

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cleaning the bathrooms, I want to be that guy," he says.

"Anthony Williams personifies the maximum of every criterion we weigh when we consider the Superintendent of the Year Award," Georgia GCSA president, Mike Brown, from The Standard Club in Johns Creek, says. "The work he has done for his facility, for

earlier at the awards banquet and why he was so desperate to be there. There was no pun or exaggeration when he said it "would have broken my heart not to be there." It's also how he feels about the man who helped present the Superintendent of the Year. Frank Siple, CGCS of Corbin Turf and Ornamental Supply,

see the next day is about as far on two ends of a spectrum as I think you can be. It's been a very trying year in many ways but it has been very rewarding too . . . which is kind of what life is I guess." **GCI**

*Trent Bouts is a Greer, S.C.-based writer, editor and frequent GCI contributor.*

# ADAPTING TO CHANGE



**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](mailto:groots@charter.net).

The following took place on a turfgrass website managed by the director of the UW-Madison research station. I did some editing and disguised the identity of those chatting. All approved the use of their thoughts.

**TO: NOERNETTERS**

**FROM: BOGEY CALHOUN**

**RE: DREADED BIG CUP TOURNEY**

Help!! I need fortification for why I don't want any part of this perversion of golf on our course. I've heard these events stink. Who out there can enlighten me? I have several questions and concerns. I'd appreciate some input on logistics.

**TO: NOERNET**

**FROM: JACK MORLEY**

**RE: BIG CUP**

We started doing this a bunch of years ago. Big cups were put out once a year during one of the men's year-end tournaments. We'd set the cups in extremely difficult locations. It was a slight pain to set up, and the day after was a little worse because of the attention needed to get the plug back correctly. All in all, it was not a complete pain but a little uncomfortable. We're not doing it this year because players have grown tired of it and believe it was too "mini golf-like." Good luck!

**TO: NETTERS**

**FROM: STEADY EDDIE MIDDLETON**

**RE: BIG CUP TOURNEY**

I'd also call it a pain and it is extra work, but we've been having them for over 20 years and they're very popular with our customers. We do three events a year.

We use commercially available cup liners and put each plug in its own numbered Tupperware container. We replace the plug and green mix back where it came from and tamp it with a 12-inch by 18-inch tamper. Despite hand watering and care, the plugs are visible for weeks.

It takes skilled labor to cut the cups, and care must be taken when mowing. You can use 8-inch circles with a lip you lay over the normal cut, but our players don't care for them. I would avoid the Big Cup Tourney, but have fun with it if you cannot.

**TO: NOERNET**

**FROM: SCOTT FENNIMORE**

**RE: BIG CUP TOURNAMENT**

I echo their comments. It's giggle golf at best. A member said, "If you want to play games, go to a casino." I like his attitude but haven't been able to avoid big cups or footgolf events. It's only a matter of time before Ringling Brothers pitch the Big Top.

**TO: NOERNET**

**FROM: TOM MORRIS**

**RE: BIG CUP TOURNEY**

Call me a resistant old crank, but why all the efforts to re-invent a game with such a rich heritage? I know – I've read about making it more fun.

Maybe golf courses got over-the-top difficult, even with game improvement clubs. What if golf courses were 6,000 yards instead of ego-driven 7,000-plus yards? What if trees weren't planted in every void between holes in the interest of "beautification?" What if greens rolled nine feet? What if playing anything less than 18 holes was still considered golf?

Difficulty, expense and time requirements are problems. There are golfers and there are people who play golf. We have no shortage of well-intended people who play golf with ideas and inventions on how to improve the game and how you play it. That's how we end up with today's courses and "total" club facilities.

Got to get back to work. Looking into the cost of adding paddleball courts, resurfacing tennis courts adding a hot tub and calculating the return on those investments.

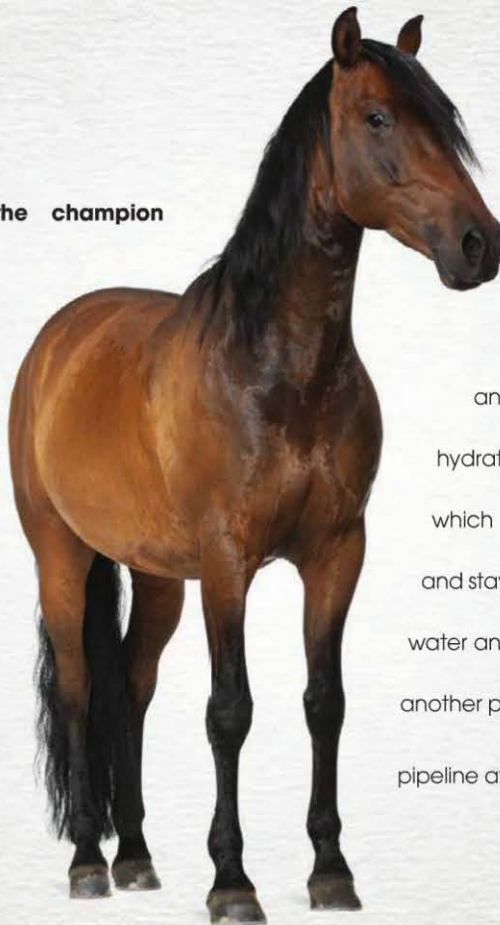
My guess is conversations among superintendents like the one above are happening all the time. Desperate times require desperate measures, and golf may be getting close to that. But we are not there yet, in my opinion. We are in a sifting and winnowing stage, figuring out a path to some prosperity. Some goofy ideas will be tried and likely rejected. But it is difficult to argue against trying, no matter how aggravating it can be. **GCI**



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# Covering the basics

Superintendent David Dickson's no-frills yet adaptable agronomic philosophies are helping 120-year-old Allegheny Country Club enhance its reputation.

By **Guy Cipriano**

**D**avid Dickson spent part of a recent Monday morning in his office speaking about the agronomic practices at Allegheny Country Club.

With his dog, Mosley, at his side, and the club's respected pro, John Aber, across the table, Dickson pulls a book from a shelf to show a visitor. The book documents the Western Pennsylvania

club's first 100 years. It was published in 1995.

Yes, Allegheny is *that* old. Dickson shifts the book and a visitor and Aber continue their discussion. Dickson lays the book on his desk. He positions it so pages run parallel with the edges of his desk. He then straightens a few other papers.

"I'm a very detailed guy," says Dickson, Allegheny's veteran superintendent. "Straight line, straight corner, straight everything. Rakes have to be placed right. My guys give me a lot of grief for that. I have a thing on the board: rakes have to be in the right place every morning. They always tease me that after the first group goes through the rakes are bad. But that first group sees it. I'm kind of crazy about stuff like that." Dickson pauses and looks at Aber and the visitor, knowing his point is bigger than something as mundane as rake placement. "But," he adds, "that's another thing that sets us apart are those details."

Putting equipment – and more importantly people – in the right spots matters because Allegheny rests in a region saturated with private clubs. Two clubs are less than two miles from Allegheny's entrance in the affluent Pittsburgh suburb of Sewickley. Famed Oakmont and highly acclaimed Fox Chapel are also nearby. Upstart clubs emerged during the boom. Once flourishing clubs shuttered during the downturn.

George Shannon has known Dickson for two decades and has worked closely with the superintendent the past four years as Allegheny's greens chairman. He says the condition of the golf course has become "much more important than ever before." This is where

a detailed-oriented superintendent such as Dickson fits into the club's goals.

"Everybody is competing for membership and our membership comes from a very small geographic area," Shannon says. "There are a couple of other golf courses in our immediate vicinity. We have a great golf course. But if it's not conditioned properly, it loses its luster. It's really important to our marketing plan right now to have the supreme golf course in our area. The new trend is fitness centers and swimming pools. We have that, but it's very important to our membership to have a really nice golf course."

Dickson, who arrived at Allegheny in 1993 as an assistant superintendent and assumed the top agronomic post in 2000, has ushered a Tom Bendelow-started, Donald Ross-enhanced and Gil Hanse-renovated course into a prosperous period amid industry peril. His secrets are neither subtle nor glitzy. "He just talks about the fundamentals," Aber says. "He says, 'If we do the right fundamentals day in and day out and have the right equipment, then it works out.'"

Aber, one of the best golfers in the Pittsburgh area, calls the golf course Dickson maintains Allegheny's "biggest asset." When the weather cooperates, the fairways are firm, the greens are as slick as the topography allows and the rough is lush. The course tests low-handicappers yet offers a forgiving venue for high-handicappers and beginners. "The biggest thing I have noticed is the conditioning," Aber says. "Many of the golf courses in the area the last five or six years have struggled and we have been put in the top of



**“We didn’t have a lot of money to spend on extra stuff. We wanted to make sure we got the most for our money.”**

—David Dickson

the class because our golf course has been at the top of the class.”

Dickson sounds like a coach when describing his methods. His office, coincidentally, features multiple pictures of memorable Pittsburgh teams, athletes and sports facilities. Allegheny is like the city's sports franchise: a steely presence without the biggest budget on the block.

"My big philosophy is cover the basics," he says. "If you have a good, sound agronomic approach ... I know technology and science and things like that have really changed this industry. But there is a lot of snake oil out there. My thoughts as somebody without a whole lot of budget to work with to try those new and different things are that we have to concentrate on the basics. Good, sound chemical program. Good, sound fertility program. Aeration. Topdressing. All of those things. It's worked out fine for us."

Consistency and adaptability

are other pillars of Allegheny's agronomic program, which originated as a Syngenta program based on the records of Dickson's predecessor. Following the recommendations of Syngenta technical manager Dr. Mike Agnew, Dickson decided eight years ago to perform applications on two-week rotations. "We have been spotless ever since," Dickson says.

Agnew visits Allegheny each year, and the agronomic program is tweaked based on the results of the visits. Dickson treats regularly for dollar spot, which he traces to the presence of old bentgrass and *Poa annua* cultivars. Controlling summer patch represents another big part of the program. Allegheny has escaped recent problems caused by anthracnose and bacteria wilt in Western Pennsylvania, and Dickson says he hasn't recently observed annual bluegrass weevil damage "for years." "On the insect side, annual bluegrass weevil is a hot-button [issue] now," he

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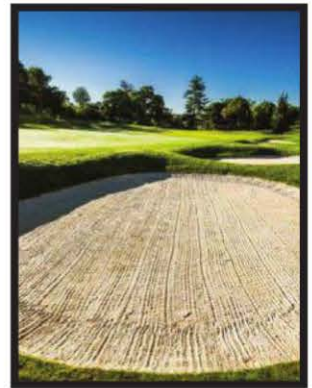
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Allegheny Country Club, which moved to its current Sewickley, Pa., site in 1903, has been transformed from a wooded venue to one featuring numerous open vistas since David Dickson was promoted to superintendent in 2000. Dickson has played a critical role in communicating elements of architect Gil Hanse's master plan to the membership.

says. "I remember years ago we used to treat a horseshoe ring around the green and that was our only treatment that we did and that evolved into the spring. We started doing greens, tees and fairways. We had maybe only one year when we had some damage from it.

Other than that, it has been under control. I haven't seen any annual bluegrass weevil damage for years, but it's pretty devastating when you get it and it's very easy to misdiagnosis for drought stress. By the time you see it, you have a big problem."

Dickson admits that when

he arrived at Allegheny his knowledge of chemicals lagged behind his expertise in other areas of managing a golf course. Experience and his interactions with Agnew increased his comfort level. "One size doesn't always fit all and you have to be careful in this business,"

Dickson says. "That comes with experience. You kind of understand where you should be and it's nice to have somebody like Dr. Agnew validate what you're doing and to hear him say, 'Yeah, you're on the right track.'"

His philosophies – in his



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own words – are “old school.” Budgetary considerations and the importance Allegheny places on course conditions are reasons Dickson gravitated toward proven solutions. “We didn’t have a lot of money to spend on extra stuff,” he says. “We wanted to make sure we got the most for our money.” Shannon lauds Dickson for maximizing the resources the club allots toward golf course maintenance. “We basically have 20 people through the summer and a lot of clubs have twice that,” Shannon says. “He’s efficient, he’s disciplined, he’s knowledgeable and he gives his people a lot of credit.”

Dickson’s handling of personnel complements his agronomic practices. Allegheny’s maintenance crew worked a Monday-Friday schedule when Dickson became superintendent. In order to maximize resources and provide consistent, high-quality conditions, employees work 40 hours per week over the course of six days. The schedule emphasizes peak golf days, with the entire crew working four hours on Saturdays and Sundays. At first glance, the schedule appears demanding, but Dickson says employees grow accustomed to it. The staff treats every day like it’s the final round of the men’s invitational.

“It’s very important to have this club looking good on a regular basis,” Dickson says. “Years ago, at the green committee level, we decided we don’t just want the golf course to be good for the invitational week, but we wanted it consistent every day. We changed our thought process. When we have the men’s invitational, we do nothing out of the norm as far as preparing the golf course.”

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**“We have a great golf course. But if it’s not conditioned properly, it loses its luster. It’s really important to our marketing plan right now to have the supreme golf course in our area.”**

—George Shannon, greens chairman, Allegheny Country Club

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Dickson and his crew are maintaining a golf course with an extensive history. Established in 1895 on Pittsburgh’s North Side, Allegheny moved to hilly and leafy Sewickley eight years later, a fact Dickson describes by modestly saying “we have only been here since 1903.” The club conducted its first men’s invitational the year it opened, and by 1898 the USGA grumbled because the event was staged on the same day as the U.S. Open, hurting the quality of the national field. Allegheny considers its men’s invitational the oldest event of its kind in the country and the tournament is still played on Father’s Day weekend, although exceptions are made when the USGA brings the U.S. Open to Oakmont. Dickson is the just the fifth superintendent in club history, a feat that suggests Allegheny empowers its superintendents more than other clubs.

A generational storm in 1999 destroyed 500 trees and damaged another 400. The ninth green was buried in fallen trees, a scene Dickson says resembled one found at a “lumberyard.” A year later, the club promoted Dickson to superintendent, and he quickly found a way to

meander the club politics associated with a tree situation. “At that point, we started cutting trees down out of necessity because of the damage,” he says. “It really opened up some vistas out there and members got excited about it. It went from a bad situation where they were upset that we lost all of those trees to a situation that turned out to be very good because they saw what the trees had been hiding all of those years.”

Dickson played a big part in changing the mentality. “It’s the way Dave handles everything,” Aber says. “He’s kind of calm and low-keyed and he gets that across to his chairman. That just helped our whole process. Once it was started and got done, I don’t know one person who now complains when trees are going down behind the old range or something like that.”

The tree removal rapidly altered the golf course, and the club’s mindset shifted from removal to renovation. After performing small-scale projects with Ron Forse, the club hired Hanse to perform a long-term master plan. Dickson represented a key cog between the membership and Hanse, one of four architects interviewed

by the club. “Gil said, ‘If I do my job, you won’t even notice that I was here,’” Dickson says. “That really carried a lot of the weight with the board. That’s exactly what we want to be at Allegheny. We’re not a flower golf course. We’re not a showy, picturesque golf course like some of the newer golf courses today. It’s just a good, solid golf course. Everybody that plays here gets off the golf course and says, ‘I never knew the place was like this.’ It’s kind of a hidden gem and it keeps getting better and better.”

Dickson uses an example from Pittsburgh sports to further illustrate the point about course conditions. His desk faces framed photographs of Forbes Field, the Pittsburgh Pirates’ home from 1909-70, and PNC Park, the franchise’s home since 2001. Faded green turf and numerous brown spots dot Forbes Field while the PNC Park outfield and infield are lush, green and mowed in a meticulous pattern. Allegheny has experienced a similar transition in playability and aesthetics.

“When I got here, we mowed fairways at  $\frac{3}{4}$  of an inch and never aerified,” Dickson says. “Now we are aerifying twice a year and topdressing with 10 tons of sand per acre twice a year. The change is unbelievable. That’s just the evolution. It’s unbelievable the difference turf quality and what we can do today vs. what they could do years ago. The changes in this place are unbelievable.” The changes are helping an old club thrive in the modern era. “The results Dave has shown in the last 10 years are just spectacular,” Shannon says. **GCI**

*Guy Cipriano is GCI’s assistant editor.*

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# THE BIG 4-0!



**John E. Kaminski, Ph.D.** is an associate professor, Turfgrass Science, and director of the Golf Course Turfgrass Management Program at Penn State University. You can reach him at [kaminski@psu.edu](mailto:kaminski@psu.edu).

I recently decided to adjust how I use Facebook and all of my social media. Instead of talking turf all of the time, I figured I would integrate some of my hobbies and passions into my posts, as well. This includes my photography, which has taken over my personal time away from work. The post (at the moment I wrote this) had 108 “likes” and 38 “comments” which is way more than I normally get. Perhaps it was because I put the image of me on the cover of this magazine from about four years ago.

As I read the comments on my post, I came across one from a good friend who lives in St. Andrews and is roughly the same age. Andy’s comment was, “Sounds like a midlife crisis JK!!” Not only did he call me out for going through a midlife crisis (I turned 40 in February), but he also gave it not one, but two exclamation marks!! This was probably the first time those words had ever entered my mind and I knew I’d need a few days to formulate a response.

What better medium to share my thoughts with all of you young, middle-aged and old people out there than to spill my guts as I normally do in my column. Some of you probably have hobbies outside of work and some of you probably need them. For me, this came in the form of photography.

I’ve been shooting since 1997 when I bought my first SLR with the money I made from working as a Congressional Country Club intern. At that time, I used it to shoot landscapes, golf courses and a few other miscellaneous things. Upon entering graduate school in 1998, I convinced Dr. Peter Dernoeden to get a digital camera and my focus became disease images...many of which are still used in my classes and published in “turfnerd” industry books.

As I went from a graduate student to a faculty member at the University of Connecticut, I found the demands and expectations for a young, tenure-track faculty made it too difficult to dedicate the time necessary to shoot as much as I used to. Besides, I had already built up a decent collection of images for work that seemed to accommodate my needs.

Jump to 2009 and my move to Penn State. In taking over the two-year turfgrass program, I found my photography skills translated into excellent promotion for my students while in the program and during their internships. Combining photography with social media has made the program even more visible than it was before. I continued to shoot for work and at times it felt just like that... work. Then I submitted my tenure packet.

The tenure packet is a crazy document that tells a group of people, many who have no clue who you are, all of the great things you’ve done that makes you deserving of tenure. As I finalized my packet, I thought 1) this is damn good and 2) holy [insert expletive] I haven’t had much of a life outside of turf for the last 14

years. It was then I decided photography was going to be my outlet.

So for the last few years, I have continued to use my insomnia, travel schedule and free time to learn as much as possible about photography. As a data nerd, I studied lighting. As a gadget geek, I bought equipment. As someone who gives 110 percent in everything they do, I focused on getting better. Although most of my knowledge was gained from YouTube tutorials and my own trial and error, the last six months have been more focused. I now shoot more, attend workshops, submit to contests and joined an online Master & Apprentice community called The Arcanum.

So back to Andy’s comment. I thought, “Maybe he’s right. Maybe this really IS my mid-life crisis.” Then I realized the benefits I’ve seen in the last six months. Since focusing my free time on photography, I’ve had two manuscripts accepted for publication and a third ready to be submitted, retained two new grad students, received a new grant, secured a \$500,000 Early Career Professorship, and arranged funding to take my senior students to the GCSAA National Headquarters last December and East Lake in September for the Tour Championship. The benefits from focusing time on my passion hasn’t only made me a better photographer, it has increased my productivity and focus in my work.

Likewise, I have drastically improved the quality of my photographic creations, overhauled my photography website, published several images in magazines and a book due out this month, and most recently been selected to educate others as a “Master” in the very online community that started me down this path.

If this is a midlife crisis, then I wish it would have set in two years ago. I’m more focused than ever and look forward to seeing what that is going to translate to both in my work life as well as my other passions. **GCI**

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# THE 5 MYTHS OF GOLF COURSE MAINTENANCE



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

Spring means the armchair experts are sharpening their wedges and taking aim at the superintendent, looking to place blame for conditions they don't like. Forget the fact that Mr. Haversham is a 24 handicap who doesn't know how to chip: The problem, he says, nearly sticking his finger in your chest, is the grass in front of the green is cut too short. (As much as you'd like to suggest that he take a short-game lesson from the pro, you wisely hold your tongue.)

Another new year, another new chance for the public to misunderstand what we do and the constraints we're under. The following myths are offered for two reasons. First, to anticipate the negative comments sure to come. Second, to arm you with some ammunition should you decide to respond. I'm not saying you should, but if nothing else, I hope busting these myths makes you feel better.

## 1. THE SUPERINTENDENT OVERWATERS

How often have you heard: "The course is too wet!" Well, golf is played outdoors, on grass, and every round tears up the turf. Would they rather have it too dry? We're all at the mercy of Mother Nature. To say nothing of local water conservation ordinances, effluent water dumps, the distribution co-efficient of your aging irrigation system, the flood plain your course sits on, as well as the daily misinformation provided by the Weather Channel. Explain that the last thing you want to do is overwater because you know, far better than anyone else, how much damage it does to a healthy golf course.

## 2. THE GROUNDS CREW HAS NOTHING TO DO IN THE OFF-SEASON

When was the last time you were told to take the rest of the year off? Thought so. We're on the job 24/7, 365 days a year. Even when the course is closed, we're working. Of course, golfers don't see us then, so they think we're drinking coffee and playing cards in the maintenance facility during the off-season. Our public doesn't see us in the office creating budgets, taking educational seminars, fixing equipment and getting ready for the coming season. I don't have to tell you that the "quiet" months actually are the most productive of the year.

## 3. GREENS GET AERATED SO THE GOLF COURSE – AND WE – CAN REST

Every golfer hates aerification, accusing us of instituting this "invasive practice" exactly when the greens are at their best. How do we educate that aerification is a necessary evil? By explaining what happens if we don't aerify. It's simple: If golfers want healthy greens that withstand the onslaught of high-season play, we need to aerify just before play reaches its peak. Otherwise, greens become soft, wet and unhealthy, and getting them back into shape is very expensive.

## 4. SUSTAINABILITY MEANS A HEALTHIER, ENVIRONMENTALLY SENSITIVE COURSE

Our industry preaches sustainability, but I'm getting sick of the word. The synonyms for "sustainable" include maintain, prolong and uphold. In other words, continue what you are doing. But this isn't in our job description, particularly not when we are being assaulted from all sides about protecting the environment. Plus, we all know the dirty truth: If we think a dry, colorless course is putting our jobs in jeopardy, we'll be overwatering, overspraying and overfertilizing faster than you can say "brown is the new green."

## 5. TELEVISED GOLF IS THE STANDARD

Every golfer after every round walks into the 19th hole, grabs a drink and settles down to watch the pros on the big-screen TV hanging over the bar. And what do they see? At one extreme, they see Augusta National, lush, green and perfect; at the other, it's Pinehurst No. 2 during last year's U.S. Open, playing firm, fast and faded. Do you want to have to copy one of those looks for your course? Neither condition is easily achieved, or desirable. (Augusta only looks like Augusta for about two weeks a year!) And even if they were attainable, television doesn't portray the time spent, money invested, equipment and labor needed, and long, sleepless hours required to create what the committee demanded and the viewers saw. Your members need to know that how their course looks should be determined by climate, topography, maintenance budget, number of rounds played and countless other real-world limitations. But definitely not television.

If I didn't hit your favorite myth, let me know what it is. Direct tweet me @timmoraghan and I'll share your thoughts on my blog. **GCI**

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# Pressure Point

Industry experts share their insights on what will influence weed pressure this season and where it will be the worst.

By John Torsiello

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# WEEDS.

and superintendents spend much of the rest of the year battling to keep the leafy interlopers at bay. How will last year's late weather coupled with record cold and snowfall in the early parts of 2015 affect weed growth this season? Industry experts point to a mixed bag of potential problems, with the severity of weed outbreaks and their onset varying according to region.

For example, in the Central and Northeast states, the excessive amount of snowfall brings about the potential for spring drainage issues, says Eric Mauer, Engage Agro USA

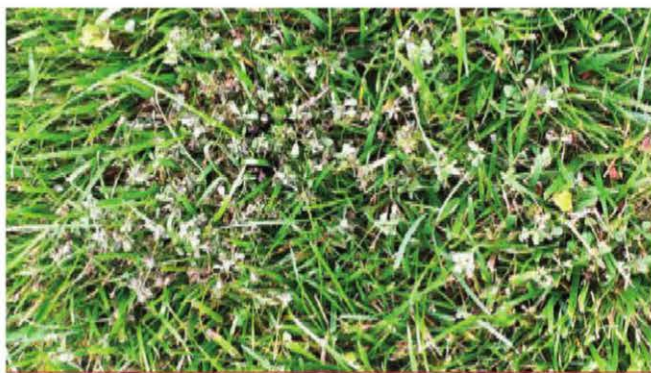
They rear their ugly (seed)heads when the growing season begins,

Northeastern and Mid-Atlantic regional representative and regulatory manager.

"It really depends on when the temperatures begin to rise, the snow starts to melt and the ground begins to thaw," Mauer

says. While not usually considered weeds in a broadleaf sense, moss and algae thrive in soils that drain poorly and retain excess moisture and could be a problem this year, he adds.

Although the Northeast has suffered a number of significant winter storms, the Mid-South and Southeast had a mild winter, says Dr. Ramon Leon, assistant professor, weed science at the University of Florida. "This caused a lot of



Vigilance and a quick response to any incursions of weeds, such as oxalis (pictured), will go a long way to ensure ideal course playing conditions in 2015.

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our warm-season turf species to not have gone completely dormant in the most southern areas, which could make the green-up process more irregular," he says. On the other hand, winter weed problems

have not been as serious as the previous two years, "so we might have a cleaner start this spring," Leon says.

If the trend of cool weather followed by significantly warmer conditions continues

this spring, there may be more irregular and longer weed-emergence patterns. "The turfgrass might get weaker by suffering periods of active growth followed by cold stress or even frost damage," Leon says. "So, pre-emergent herbicide use and fertilization must be done with caution."

In the northern Great Plains, the winter of 2013-14 killed significant areas of creeping bentgrass and perennial ryegrass, says Dr. Zac Reicher, professor of turfgrass science and Cyril Bish Professor of Horticulture at the University of Nebraska-Lincoln's Department of Agronomy and Horticulture (Editor's note: Reicher was hired by Bayer following this interview). "Then, to compound damage, well-below average temperatures in the second week of May in 2014 killed any new seedlings from proactive early seeding. This left many areas thin throughout the summer and they started to finally fill in during the fall of 2014. I'm afraid a lot of this fall fill-in was from annual bluegrass, and so I expect bumper crops of annual bluegrass in areas

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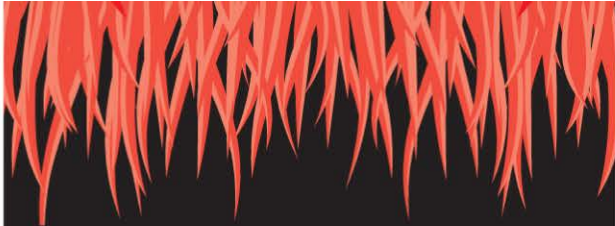
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killed by winterkill almost 12 to 14 months earlier.”

The Transition Zone, where warm-season grasses are common and winter injury is more likely, will be the most impacted by weeds this year, says Dr. Fred Yelverton, professor and extension specialist and co-director of North Carolina State University’s Center for Turfgrass Environmental Research and Education. “Also, in more northern climates where *Poa annua* populations are high and are used as a desirable turf species, there will likely be more turf loss, particularly on greens that are not covered. The other issue is, that if we have winter injury or



## Strange phenomena

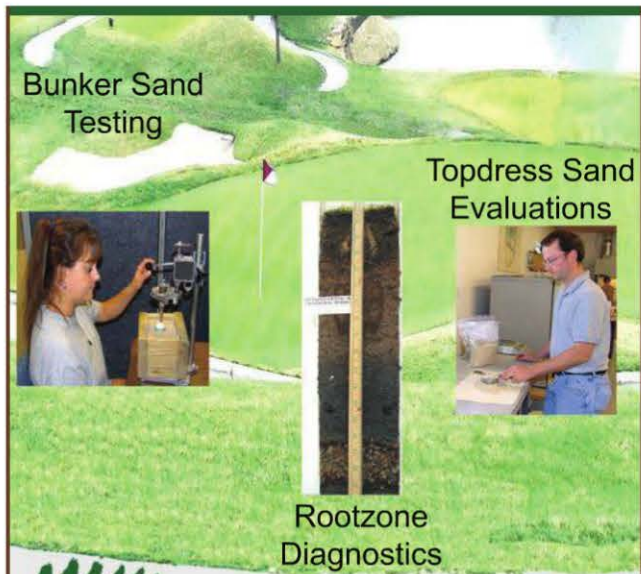
**E**ach region of the United States has its particular weed challenges, either due to the availability of weed control alternatives or the weed species are more problematic, says Dr. Ramon Leon, assistant professor, weed science at the University of Florida. However, over the last few years, we have seen a trend in the Transition Zone and in the warm-season turfgrass region in which perennial weed species, such as dallisgrass (*paspalum dilatatum*), bull paspalum (*paspalum setaceum*) and tropical signalgrass (*urochloa subquadriflora*) have been increasing their presence on golf courses.

“At this point, it is not clear why we are witnessing such increases,” Leon says. “But we think that a combination of factors, such as the decrease in use of MSMA due to environmental restrictions and a heavy reliance on late post-emergent applications could be factors.”

winterkill, it could have a big impact on weed populations. Thin turf results in higher weed densities.”

The long winter, cooler temperatures and soil moisture will delay weed season. Weed germination will likely begin later than normal and will last longer into the growing season, says Dr. Jeff Higgins, Harrell’s vice president of business development. Weeds, such as crabgrass and goosegrass, can be expected to germinate into the summer months.

“Typically, pre-emergent applied herbicides are used for preventative weed control and applied in late March or April,” Higgins says. “However, given



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“Typically, pre-emergent applied herbicides are used for preventative weed control and applied in late March or April. However, given the environmental conditions that we are seeing this year, it may behoove superintendents to delay making those pre-emergent herbicide applications until they have a grasp on their turfgrass health and winter survival.”

—Dr. Jeff Higgins, Harrell's

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winter survival.”

“This year will mimic last year in the Northeast,” says Mike Dukette, Harrell's Connecticut sales representative, “a long winter with a late spring start up and cool soil tem-

peratures.” Key factors include proper identification and abiding by the labeled rates. “Those superintendents that have had a sound herbicide program, especially those who split the pre-emergent applications, will

have decent control.”

In the South, cool to mild weather, in addition to an absence of regular snowfall, will necessitate the early application of pre-emergent herbicides. In addition, cool and moist weather in Florida will likely require early post-emergent applications targeting annual broadleaf weeds, says Dr. Raymond Snyder, Harrell's research and development manager. “Southern regions may experience heavy weed pressure due to cool and moist conditions in late winter. Predictions for spring are for moist, warm weather, creating conditions ideal for grassy weeds and sedge. Grassy weeds,



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Predictions for spring in the southern region point to moist, warm weather, creating conditions ideal for grassy weeds and sedges, like this white kyllinga.

such as tropical signalgrass and crabgrass, will be much more aggressive and need immediate post-emergent action.”

There is good news for Midwest superintendents. Dave Gardner, associate professor of turfgrass science at The Ohio State University, expects weed problems to be slightly less than normal this year. “The rationale for this is that last year we had nearly ideal growing conditions for cool-season turfgrass,” he says. “Because of this, there were denser stands of turfgrass in late summer and fall, which should have had the effect of reducing the germination of certain perennial and winter annual weeds.”

These densities should still be high enough this spring to reduce the germination of summer annual weeds, Gardner says. “It’s not to say all will be good, but I don’t anticipate a lot of people calling this their worst year ever for weeds,” he says. “Of course, if we have a drought that affects turfgrass stand density, everything I speculated about above goes out the window.” **GCI**

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

## Battling back

**T**here is no doubt superintendents will face weed problems this year. It comes with the territory. But vigilance and a quick response to any incursions of weeds or unwanted grasses into your playing areas will go a long way to ensure 2015 is not a year to remember, or rather one that you will want to forget.

When faced with documented summer annual broadleaf and grassy weeds, Dave Gardner, associate professor of turfgrass science at The Ohio State University, says it is best to use a pre-emergent herbicide. “There is no need for those materials in places not documented to have weed issues. But in areas that, for example, had lots of crabgrass last year, most of that crabgrass seed dropped straight to the ground and will be there to germinate this year.”

The key to controlling weeds is speed of response. Younger weeds are easier to control in almost all cases than, for example, tillering crabgrass or broadleaf weeds that have hardened off due to summer stress. “Superintendents need to be aware of the life cycle of the weed they are trying to control,” Gardner says. “One application of a post-emergent herbicide to control crabgrass on June 1 is not going to offer season-long control because there are other crabgrass seeds in that stand that will continue to germinate. So, a post-emergent herbicide combined with pre-emergent herbicide might be warranted.” Similarly, he adds, many perennial broadleaf weeds are only suppressed in the spring, with more permanent control afforded by a fall herbicide application.

Early use of pre-emergent herbicide will be key to minimizing weed populations. Dr. Raymond Snyder, research and development manager for Harrell’s, suggests shortening application intervals of pre-emergent herbicide applications to ensure that sufficient overlap occurs, thereby reducing the opportunities for weed seed germination. In the South, superintendents can maximize product efficacy by closely reading post-emergent product labels. “This will help to properly select the most effective post-emergent herbicides, utilize adjuvants if necessary, and reduce undesirable phytotoxic effects to turf,” he says.

There are a couple of options superintendents may consider this weed season, such as not applying any pre-emergent and waiting until the turfgrass comes out of winter dormancy to see what they have in terms of ground coverage and treat any germinating weeds with selective post-emergent herbicides. “Once the turfgrass has emerged and superintendents have a pretty good understanding of the health and condition of their turfgrass, then they could consider applying a pre-emergent applied herbicide,” says Dr. Jeff Higgins, Harrell’s vice president of business development. “The later this pre-emergent application is made, the greater the chance that crabgrass and other weeds will have already germinated in the canopy.” One option is to apply an herbicide that has early post-emergent activity on juvenile crabgrass (pre-tillered) and provides solid pre-emergent control of crabgrass. Another option would be to tank mix a selective post-emergent herbicide with a residual pre-emergent herbicide to control any established/germinated weeds and create a pre-emergent herbicide barrier for future germinating weed seeds.

“If by chance one of these pre-emergent herbicides has already been applied and some thin areas are noted, depending on the specific herbicide that was applied, it may take several weeks (six to 16 weeks) before any seed can be expected to germinate,” Higgins says. “Of course, this puts you into the summer timing for this seeding, which is not optimal for successful germination and establishment. Some seed, such as T-1 creeping bentgrass, can germinate under warmer more temperate conditions and may work out OK in this scenario.”

There are very few alternatives to pre-emergent herbicides that can be used on newly seeded cool-season turfgrasses. Tupersan (siduron) can be applied at seeding and will provide short-term preventative control of crabgrass. However, it will not control annual bluegrass (*Poa annua*), goosegrass or winter annual broadleaf weeds. Tenacity (mesotrione) herbicide can be used on newly seeded Kentucky bluegrass, perennial ryegrass and tall fescue. However, it cannot be applied to annual bluegrass or creeping bentgrass and is used to control those turfgrasses as weeds.

Superintendents should not rely on curative measures. “We have to be very proactive and anticipate weed establishment, and this is what a strong pre-emergent herbicide program allows you to do,” says Dr. Ramon Leon, assistant professor, weed science at the University of Florida. “However, we will definitely have to deal with escapes. There are two things we need to keep in mind when dealing with escapes. First, monitoring is critical. We should identify escapes when weeds are small. Second, most of the post-emergent herbicides registered for turfgrass have their most effective control on weeds that are less than 2 inches tall or in diameter. Therefore, by identifying those escapes before weeds reach 2 inches in size, we will have a broad range of herbicides we can choose from that will provide adequate control.”





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# WATER UNDER THE BRIDGE?



**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](mailto:bvinchesi@irrigationconsulting.com) or 978/433-8972.

**A**t GIS in San Antonio, I was surprised and disappointed to find the battle between high density polyethylene (HDPE) pipe versus polyvinyl chloride (PVC) pipe for irrigation systems (presented alphabetically so there is no bias) is still strong. So many people I talked to believed this issue was “water under the bridge.”

A little over four years ago, I wrote my first GCI column titled: “HDPE vs. PVC.” I reviewed the column to see what, if anything, had changed. Back then I started with “...many times the decision of which type of pipe to use is not based on science or engineering, but on trends or salesman recommendations. It is important to look at the technical aspects of the pipe (pressure rating and velocity) for each type of piping system and determine which is the best type of piping material for your golf course.” This still holds true, but there is more science and a lot more experience with HDPE piping systems. The issues in Florida with HDPE systems (Polygate) has pushed the science along, and designers, suppliers and installers now have a better understanding of what they can and can’t do.

For today’s systems, PVC pipe is usually 200 psi (SDR21). Ductile iron fittings are used for mainline and PVC gasketed fittings for lateral piping. Whereas Class 200 PVC is always manufactured with the same resin (1120, 1220) HDPE piping is available in two common resins, 4710 and 3408. In golf, 4710 is the predominate resin. With the two different DR’s, as the resin changes, so do the pressure ratings and characteristics of the pipe. Therefore, you need to know which resin is being provided. HDPE piping (4710, 3408) is available in a 200 psi (DR11 or DR9) as well as 160 psi (DR13.5, DR11), 125 psi (DR17, DR13.5) and 100 psi (DR21, DR17). You can see: the higher the DR, the weaker the pipe.

Piping standards require the plastic irrigation piping system working pressures be no more than 72 percent of the rated pressure of the pipe. For 200 PSI pipe, this is 156 psi. For 160 psi rated pipe, this is 125 psi. It doesn’t matter whether it is HDPE or PVC. The same standard also limits velocities to 5 feet per second in plastic pipes whether it is HDPE or PVC. Some like to quote AWWA standards which are less stringent when it comes to HDPE and PVC plastic pipe. But AWWA standards are for municipal water systems, not irrigation systems. The proper standard to adhere to is “ASABE 376.2; Design, Installation and Performance of Underground Thermoplastic Irrigation Pipelines.”

The cost of plastic pipe is based on the cost of the plastic resin used to make it. Because of their different chemical makeups, to obtain the same material strength (pressure rating) HDPE pipe has a thicker wall than PVC so it uses more plastic. As a result, HDPE will cost more unless you lower the pressure rating (DR) or raise the velocity. If your system includes a 4-inch pipe carrying 200 gpm (pretty common on a golf course) in a PVC Class 200 system (SDR 21), the velocity would be 4.92 fps. In an HDPE 200 psi (PE4710, DR11) pipe, the velocity would be 6.18 fps. If the pipe was HDPE 160 psi (PE4710, DR13.5), the velocity would be 5.67 fps. For proper design, HDPE pipe is usually one pipe size larger than the comparable PVC pipe. That keeps the velocities within the standard, but raises the cost.

HDPE fittings only come in DR 11 and sometimes DR 13.5. That makes the use of lower-pressure rated pipes more difficult as the pipe and fitting ends are of different thicknesses. Do you set the fusion machine for the thickness of the fitting or the thickness of the pipe? Consensus seems to be you need to have the thicknesses of the fitting the same as the pipe so the fusion joint will not fail over time.

While we know lots about PVC piping as it has been used for over 50 years, the industry is still studying HDPE to determine the best design and installation practices for golf course irrigation systems. Make “apple-to-apples” instead of the “apples-to-oranges” comparison for the different materials.

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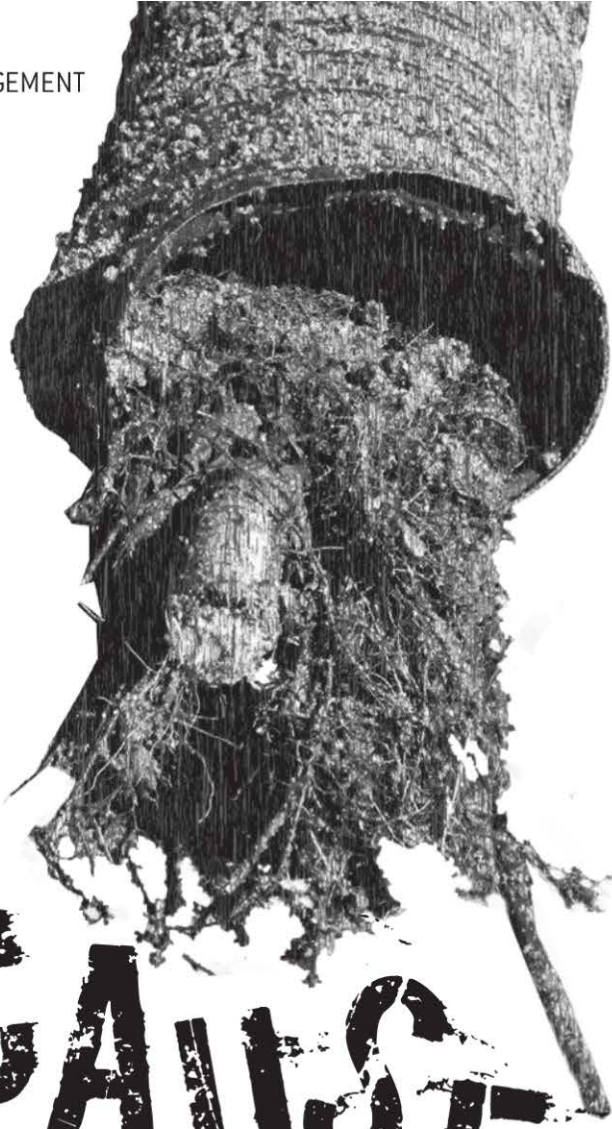
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# CAUSE AND EFFECT

By Jim Dunlap

Assess and tackle common drainage problems through proper diagnosis and timely corrections.

**G**olf course drainage problems are aptly named. They drain superintendents' budgets and manpower, they drain the patience of golfers forced to leave their carts on the path while they slog through puddles to their ball, and perhaps most critically, they drain the course's revenues if the course is too wet for play.

While drainage issues, like most golf course maintenance problems, are rarely solved forever with a one-time fix, there are some generally accepted solutions to the most commonly encountered drainage woes.

From the start, superintendents need to correctly iden-



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tify the cause of their drainage issues. A solution that works for, say, a high-water table may not work for impermeable soil conditions, although the damage to turf caused by resulting poor drainage may look the same at first glance, according to Steve Ami and John Kelly of the Montreal-based Kelly Ami Inc. drainage engineering consulting firm described in a 2004 *GreenMaster* magazine article entitled “Solving Drainage Problems.” Drilling an auger hole near surface water accumulations, allowing it to fill and then checking to see how the water table level in the hole compares to the level of the accumulated surface water will tell you what you’re dealing with. If it is more than 18 inches below the accumulated surface water or ponding, the problem is impermeable soils rather than a high water table, according to Kelly and Ami.

The four drainage problems addressed by Kelly & Ami are the aforementioned impermeable soils and high water table, depressional areas and side hill seepage. Their nature and solutions are as follow.

**Impermeable soils.** Characterized by clay-like texture, flat topography and poor water filtration rates which prevent percolation of excess water through the soil layers. The best solution, according to Kelly & Ami, is a slit drainage approach consisting of a 3-inch wide trench, 10 to 22 inches deep, with a drain pipe measuring 1.5 to 2 inches in diameter to channel excess water to a larger collector pipe to carry it off-site.

**Depressional areas.** Exactly what they sound like – depressed areas where water con-



Bunkers without proper drainage create major problems and require hours of additional maintenance for superintendents and their crews.

gregates after a storm. Conventional sub-surface drains often don’t work well because they can’t move sudden accumulations of storm water through the turf, soil and backfill material fast enough to prevent ponding. A better solution is installation of surface inlet drains, making sure they have large enough openings to move the water quickly and are sturdy enough to withstand damage from maintenance equipment and other golf course traffic.

Depressional areas don’t need to be a bad thing. “Instead of trying to fill shallow depressed areas, you can take advantage of those existing low areas by lowering them and installing catch basins,” says Tom West of Victoria, Minn.-based Hartman Companies, a golf

course renovation firm.

**High water table.** One sign is water weeds accumulating in the area, and the auger hole testing will confirm that the water table is too high in the affected areas. The recommended solution is the installation of parallel sub-surface drains. These are deeper, 30 to 48 inches deep, using 4-inch diameter pipes to lower the water table to the desired levels.

**Side hill seepage.** Problem occurs when impermeable soil is located below relatively permeable soil on a slope, or when holes in the impermeable soil in a slope have been created by machinery. In either case, water pools there and cannot escape vertically, so it

goes horizontally and “seeps” out on one side or the other of the slope. The best solution to the problem is installation of 4-inch “interceptor” drains backfilled by very permeable drainage sand and penetrating just into the impermeable soil layer. Interceptor drains should be placed just above or just below the seepage area, and the process may require multiple drains, ensuring that the backfill sand is extremely permeable, or clear stones may be used for the purpose.

### INSUFFICIENT SLOPE

Both course architect Jeff Brauer and Joel Weinan, a senior designer with the McDonald & Sons golf course design and construction firm, stressed that in most cases, pooling of

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water in chronically wet areas can be avoided by ensuring that both fairways and greens have a proper amount of “pitch” or slope built in to enlist gravity’s help in moving water off the turf in those areas.

“One thing I see a lot of courses that have laid their [drainage] pipe too flat,” Brauer says. “You have to lay it to a minimum slope to get grass and other materials flowing and not clog up your drains. We call it ‘self-cleaning velocity.’ You can never underestimate the power of water. If you guess a 4- to 6-inch pipe, you probably need a bigger pipe. A lot of people think an 8-inch pipe has double the capacity of a 4-inch pipe, but it actually has four times the capacity. So if you’re worried about cost, remember that the cost goes up linearly, but the capacity goes up by four.”

Nothing beats proper surface grade, Weinan says. “You want to achieve at least 3 percent pitch on fairways and 1.5 percent on greens,” he says. “One mistake I see a lot of courses put pipe in the ground and a pipe inlet basin, but they don’t contour the surface so that water goes into the drain. We call those ‘drive-by’ inlets. And if you get super-saturated fairways, what can happen is that when the sun comes out, it can almost boil the turf.”

**STANDING WATER IN SWALES**

West, Weinan and Brauer all noted that many courses run into problems with soggy areas in swales, which can be caused by either rain or excessive irrigation. All three stated more is usually better in terms of surface drains in swales. Both Weinan and Brauer recommend drains be no farther apart than 150 feet if possible



**DO IT IN-HOUSE OR HIRE A CONTRACTOR?**

**W**hen a drainage problem occurs these days, one of a superintendent’s first thoughts is likely how much it will cost to fix in time, labor and materials. The next concern is whether the repairs will necessitate closing all or parts of the golf course for any length of time. And in many cases, a third consideration will be whether the superintendent and his crew can handle the job in-house or if it will be necessary, or preferable, to bring in a contractor who specializes in that type of work.

The determining factors on whether to do it yourself or bring in a hired gun are directly related to the first two of those questions. If the maintenance budget is already accounted for and the owner isn’t willing or able to spend the money necessary to hire the job out at the time, it’s up to the superintendent to do the best he or she can to at least put a Band-Aid on the wound until a more permanent solution is found. However, if doing the job in-house means closing all or parts of the course for any length of time, and a specialist could do the job in a fraction of the time, this may motivate the owner to come up with the necessary funds.

Industry veteran Tommy Sasser, Recreational Community Consultants, Eatonton, Ga., says the decision depends upon the extent and complexity of the drainage project. “To do relatively minor things in-house, such as maybe 100 feet of pipe, that’s OK, but if you’re doing whole fairways, I think you should always go with an experienced contractor,” Sasser says. “A two-week project might take five weeks or more if it’s done in-house, and (contractors) are so good now that they can do it while the course is open and not disrupt play. The superintendent should figure out what the cost is to do it in-house, but when he’s doing that, he has to also figure out what won’t get done in terms of their regular maintenance duties, and what the real cost of doing it in-house is.”

Samson Bailey, owner of Middleboro, Ky.-based Golf Preservations, agrees that while a contractor’s cost may be relatively straightforward, there are other considerations when calculating the cost of doing a drainage project in-house. In addition to a golf course crew’s time and wages, there may be equipment rental or purchase costs if the course doesn’t have the necessary tools on hand, not to mention potential revenue loss if the course is unplayable.

“Many courses don’t have enough equipment to do some of those jobs properly and efficiently, so their cost per foot is higher (than a contractor’s),” Bailey says. “One superintendent we worked with told me that he started out trying to do the drainage on his greens in-house, but after it took between two and five days each to do two greens, his crew was ready to quit, so he asked us to take over. We came in and did one a day, and he said that’s the way he’s going to go from now on.”

Since greens, and to a lesser extent bunkers, draw the most attention from golfers, John Pollok, Southwest agronomist for Ewing Irrigation, says many superintendents want to do drainage projects involving those areas in-house where they can oversee every detail of the work.

“When it comes to drainage around greens and bunkers, most of my guys want to keep that work in-house, and I agree with that,” Pollok says. “For larger projects, though, it’s usually best to bring in a contractor.”

For superintendents with limited budgets, Sasser suggests a strategy for getting the money necessary to fix all or most of the course drainage issues at once. “Over a period of time, you might want to identify areas that are trouble spots so you can bundle those into one budget item,” he says. “That way, you can discuss it up front with the owner or the board of the club rather than springing it on them every time something crops up.”

In other words, while it may be hard to plan for a 4-inch rainstorm, it is possible to have plans – and drainage – in place in case you get one.



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**WATER MANAGEMENT**



Ponding is a common fairway drainage problem that disrupts cart traffic and slows place of play.

to ensure that water doesn't accumulate between drains.

Swale drainage should be “feathered out” with a dip at the ends to access a larger drain pipe, the bigger the better, says John Pollok, Southwest agronomist for Ewing irrigation.

**DON'T LOSE YOUR INLETS**

Many courses, especially those built before the current superintendent was on site, have no idea where their inlet and outlet drains are located around their greens, assuming that they weren't built with an above-ground station, and most are not.

West suggests courses install a tracer wire with the drain tile and stake tile outlets. Pollok adds superintendents need to know where those inlets and outlets are located so they can find them and flush them with fresh water and air once a month or so to keep them free-flowing. The same problem occurs with bunkers, when inlet drains are buried and require

time consuming and expensive effort to check them periodically. Pollok has talked with a number of contractors who tell him the specs for the job called for the inlets to be buried. If that is the case, he strongly recommends the superintendent or contractor create a record on where they are for future reference.

Golf course drainage issues are inevitable from time to time, thanks to Mother Nature, bad course design, the occasional irrigation system malfunction or good old human error. So, as veteran course builder and former Golf Course Builders Association of America President Tommy Sasser says: “The bad thing about it is that they will continue.”

On the other hand, with proper diagnosis of the problem and timely corrections, an individual drainage problem shouldn't last for long. **GCI**

*Jim Dunlap is an Encinitas, Calif.-based writer and frequent GCI contributor.*



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# DO PUBLIC COURSE RENOVATIONS PAY OFF?



**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](mailto:jeff@jeffreymbrauer.com).

**F**irst, let me say that I hope everyone who attended the recent GIS show in San Antonio had a good show and enjoyed my home state, despite some inhospitable weather. Texas can't get its weather in shape for either GIS or the Super Bowl! I had a nice show, meeting and seeing everyone I wanted to, and I appreciated touching base with several who take the time to read this column.

I also made an ASGCA presentation on the potential financial returns for public course renovations. It's the \$1 million question that potential clients always ask, and I presented independent data gathered in 2014. I was part of a National Golf Foundation business report team for a course in the Dallas-Fort Worth area. Recommended options ranged from closure to total renovations, with a few steps in between. When their City Council asked for backup data for the renovation options, NFG retained Sirius Golf Advisors, a Texas-based golf course business consultant to survey recent public course renovations and their financial results.

Since 2000, DFW has seen 19 public course renovations, and Sirius was able to obtain financial data for many courses that had undergone renovations. For the presentation, I added one of my new renovations that didn't make their list, to make it an even dozen, and adjusted their average numbers accordingly, as shown below in chart form:

As seen, according to the Sirius Golf Advisors data, the nine major renovations increased revenues by an average of 63.7 percent and \$546,709, with increases ranging from only \$73,000 to nearly \$730,000.

There were four minor renovations, which focused on turf improvement for greens or greens and tees, with little new design. These increased revenues by an average of \$210,000. The least successful renovation actually lost revenues, owing to losing turf on their new greens in year two, negating any improvements. The most successful minor renovation is actually a sister course in a 36-hole facility, and the other course had been totally rebuilt, with improved clubhouse, and upgraded service the year before its

greens were re-grassed with the "no till" method discussed last month. It clearly gets some residual benefit from the other course.

The minor renovations increased revenues by an average of 23.3 percent and \$210,250. Even without the "outlier" top and bottom performers among minor renovations, the middle two renovations averaged revenue increases of 12.2 percent and \$120,000, about half the average when considering the other two.

The consistency of increased positive rounds, revenues and ROI results is very encouraging for anyone considering a major *(continues on page 64)*

Course	Cost (\$)	YEAR ONE		YEAR 2			ROI
		Rev Before (\$)	Rev Year 1 (\$)	Rev Year 2 (\$)	Change from Base (\$)	% Increase	
Major-1	9,999,000	435,000	1,163,000	1,041,950	606,950	139.50%	6.10%
Major-2	8,800,000	1,265,000	2,153,000	1,986,000	721,000	57%	8.20%
Major-3	8,200,000	1,400,000	2,200,000	2,112,000	712,000	50.90%	8.70%
Major-4	4,000,000	924,000	2,200,000	2,025,000	1,101,000	119.20%	27.50%
Major-5	4,600,000	773,000	882,000	846,720	73,720	9.50%	1.60%
Major-6	3,700,000	385,000	553,000	569,000	184,000	47.80%	5%
Major-7	2,900,000	1,250,000	1,800,000	1,640,000	390,000	31.20%	13.40%
Major-8	2,200,000	1,080,000	1,850,000	1,665,000	585,000	54.20%	26.60%
<b>Average</b>	<b>4,933,222</b>	<b>939,000</b>	<b>1,600,125</b>	<b>1,485,709</b>	<b>546,709</b>	<b>63.70%</b>	<b>12.10%</b>

Course	Cost (\$)	Rev Before (\$)	Rev After (\$)	Rev Year 2 (\$)	Change from Base (\$)	% Increase	ROI
Minor-1	950,000	1,031,000	1,147,000	874,000	-157,000	-15.20%	-16.50%
Minor-2	350,000	900,000	1,800,000	1,657,000	757,000	84.10%	216.30%
Minor-3	300,000	847,000	1,109,000	1,025,000	178,000	21%	59.30%
Minor-4	180,000	1,894,000	2,014,000	1,957,000	63,000	3.30%	35%
<b>Average</b>	<b>445,000</b>	<b>1,168,000</b>	<b>1,517,500</b>	<b>1,378,250</b>	<b>210,250</b>	<b>23.30%</b>	<b>73.50%</b>

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# COLORFUL *language*

Turfgrass may be the star, but the flowers you plant in your beds could steal the show.

By **Helen Stone**

**S**pring is here. Whether you are recovering from a brutally cold winter, or anxiously awaiting just a bit more rain to ease the drought, the longer days and changing angle of the sun brighten spirits and get those golfers longing to get out on the course.

A colorful splash of flowers around the clubhouse, tee boxes and other strategic sites can make

a course more memorable and provide an outlet for your creativity and imagination. Although turfgrass is the star of any golf course, flower beds make a terrific supporting cast and can sometimes even steal the show.

Whether you enjoy the flower show or find it a necessary evil, learning about the annuals, perennials and even flowering shrubs and groundcovers that do well in your area will make your job easier

and more satisfying. Fortunately, there are resources all around you to help you make a strong floral statement.

So let's take a trip around the country and learn about some of the options available. Keep in mind that annuals and perennials can be relatively universal. Pansies, petunias and alyssum are planted nationwide with good results. But some do much better in specific microclimates than others.





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**PACIFIC NORTHWEST**

Although we may think of the Pacific Northwest as cool, cloudy and rainy, there are also areas that are dry and sunny. Horticultural Services in Lake Tapp, Wash., serves both. Its "florafinder" division sells a wide variety of starter plants, including flower beds.

"This year, I'm really excited about the SunPatiens line," says Deb Bronken, customer service representative with florafinder. "In this region, it loves full sun and will bloom from late spring through first frost. Best of all, it's impervious to downy mildew."

"SunPatiens are a perfect choice for golf courses," says Alecia Troy, senior marketing manager at Sakata Seeds America Inc., developer of the hybrid. "They are very versatile and fairly low maintenance."

There are three different series of SunPatiens: Compact, Spreading and Vigorous. "The spreading series gives you huge plants; you get lots of coverage from one plant," Bronken says.

When the heat hits, Bronken suggests portulaca. "It's fairly drought tolerant and puts on a nice show," she says. "Verbena is also good for dry sun areas. Like all annuals, it will need some supplemental irrigation, but it can take the heat."

**WEST AND SOUTHWEST**

Whether you are in the foggy coastline of California or the blazing sun of Phoenix, there are plants that will work for you. Although the extreme desert locations of Palm Springs

and Arizona generally shine during the fall, winter and spring, there are selections that can withstand the summer heat. And annuals and perennials that survive in desert climates thrive in milder temperatures throughout the West.

"Snapdragons are my favorite," says Paul Noe, horticulturist with Star Nursery in Las Vegas. "Snapdragons are a great plant. They can be planted in fall or spring. There are only two periods when they don't do well – the coldest part of winter and the hottest part of summer. On the coast or in milder climates, they do well all year long. The flowers last a long time, and what's cool is that they reseed and reproduce themselves. If the freeze or extreme heat gets them, they come right back."

"Make sure they don't have rust," cautions Drew Malby, owner of Valley Color. Malby sells to several golf courses in Southern Nevada, as well as a few in Northern Nevada and



SunPatiens are a perfect choice for golf courses. They are very versatile and fairly low maintenance.

Arizona. "Sometimes a good dose of nitrogen will get rid of existing rust."

With the heat of summer approaching, both Malby and Noe recommend New Look celosia for its toughness and resiliency. "I like to see it used with blue salvia to act as a taller background plant for a color bed," Malby says. "Both have very little fungus or rust problems and the rabbits won't eat them."

Noe is also enthusiastic about lantanas. "Lantanas love the heat; they will take temperatures to 110 degrees. They provide almost continuous color from spring to the first frost," Noe says.

Lantanas provide almost continuous color from spring to the first frost.

**MIDWEST**

When it comes to golf course color, Gary Tamko has been handling the job at Sentry-World in Stevens Point, Wis., for more than 30 years. The famous "Flower Hole" has been photographed and admired throughout the world.

"We plant about 35,000 plants each year," Tamko says. "I used to do it all myself, but now I work with Heidi A. Heath Farms." Although the greenhouse grower now provides most of the designs and plants, Tamko knows which will do the best for him.

"Geraniums have beautiful color, but they need quite a bit of maintenance," Tamko says. "We've found that petunias are better. The old varieties would get leggy, but there are newer



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varieties that do really well.

"Marigolds are bright and colorful and give you great masses of color, but we find that they get tired before the end of the season," Tamko adds. "Last year we planted celosia. They worked pretty well."

Tamko's biggest surprise, however, is the humble begonia. "Everyone says they are a shade plant, but we put them in full sun and they do just fine," he says. "They are low-maintenance annuals and don't require a lot of deadheading."

**NORTHEAST**

Kellye Stanley is a self-confessed plant lover. "My biggest problem is narrowing down to



a half-dozen 'must-have' choices," she says. Stanley works in outside sales at Cavicchio Greenhouses in Sudbury, Mass. The wholesale-only grower supplies plants to retail nurseries, landscapers and golf courses

throughout the Northeast.

"It is important to remember on a golf course to plant for high impact from a distance in areas along fairways, tree lines, etc." Stanley says. "Bold color in masses is the simplest way

Begonias are low-maintenance annuals and don't require a lot of deadheading.

to attain this effect."

Stanley also points out that foliage plants, tropical accents and grasses can all be added to flower beds for more interest.

Coleus is a popular foliage plant. Although it has been available for years, there has been a wealth of breeding and now there are countless varieties that come in a wide range of colors. "The foliage adds some really rich shades of color," Stanley says. "Although they are known as a shade plant, there are now cultivars that tolerate sun as well."

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## COURSE MAINTENANCE



Coleus has emerged as a popular foliage plant because of increased color options developed through high volumes of breeding.

For sunny spots, Stanley suggests the following combination: "Try canna in multiples at the rear of the bed, interplanted with cleome. Use SunPatiens for a mass color fill, along with angelonia at an intermediate height for transition. Then use lantana at the front of the bed."

"Cannas make an excellent border backdrop," Stanley says. "They are great for a tropical look and tolerate the heat. They also tolerate wet areas."

### SOUTHEAST

Ending our tour, Costa Farms, based in Miami, ships to retail nurseries throughout the nation and even internationally. "My favorite annual for every region is blue angelonia," says Justin Hancock, consumer marketing and digital specialist at Costa Farms. "It's a relative newcomer; it's only been available for about 15 years. It's so good in heat and humidity and will tolerate drought, deer and rabbits. There's also some nice whites, pinks and a couple of fun bicolors. It has a tall spiky shape that is fantastic for contrast against many mounding annuals. It's so easy to grow."

Hancock still has enthusiasm for an old favorite, the petunia, although it now offers a huge range of possibilities. "Take,

for example, the Supertunia Vista Bubblegum," he says. "A lot of people will tell you it's the standard for landscape plants. It's a beast. A total workhorse."

Supertunias are a product of plant cooperative Proven Winners, where one plant of the Vista Bubblegum series was described at two feet tall, three feet wide and five feet long. The large plants are perfect for tight budgets.

"Now a sister of petunias, and a pretty new plant, is the Petchoa," Hancock says. "It has the best characteristics of the petunia and the calibrachoa." Calibrachoa, sometimes called "million bells" has been described as a "tiny petunia on steroids." Petchoas are another product from Sakata Seeds.

"You get the petunia-shaped flower, but it is much more robust than the typical calibrachoa. It shows great landscape performance and one of the nice characteristics is that it holds up to cooler temperatures. That means you can plant it earlier in the spring and it will perform later in the fall," Hancock says.

*Helen M. Stone is a West Coast writer and editor specializing in professional turf and landscapes, as well as a frequent GCI contributor.*

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# SAFETY FIRST

*“There are no such things as accidents; there are only traps waiting to spring on unsuspecting people.” — Old Timer*



**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.

**F**or six years while in the submarine business, I was on the distribution list for U.S. Navy Accident Reports, complete with crime scene-like glossy, 8x10 black-and-white photos but with the names blacked out. Each month a 4-inch thick stack would show up on my desk and I would dread what I might see. The stories were grim lessons and I learned a lot about “what not to do,” but my analysis was supposed to be about how these incidents could have been prevented. However, I was not finding a pattern. Frustrated, I asked one of the old-timers what he thought.

He shot back: “There are no such things as accidents; there are only traps waiting to spring on unsuspecting people,” which brought an abrupt end to our conversation. Thinking about what he said I looked at the detailed reports for how the traps were set, what lured the unsuspecting human into them, and when sprung how they managed to do so much damage. Sure enough, there was a pattern in every case.

As for what would have prevented these “accidents” from happening, I found in almost every case to form the trap, spring it and create maximum damage required a minimum of nine separate conditions. Removing any one would have resulted in there not being an accident. Like a combination lock, if you miss any of the numbers, the lock will not open. In the case of accidents, if any of the required circumstances are not present, there will be no accident. The positive side is that for any accident that would cause severe injury, death or severe damage, you have nine opportunities to prevent the confluence of circumstances.

In most cases, removing the individual dangers so they cannot combine to form the nine-layer deep accident is simple. Many of the things that contribute to an accident are simple housekeeping tasks, some are safety gear and others are things like guards or covers. Individually, they're not a big deal, but in combinations the result can be catastrophic and the subject of an accident investigation complete with 8x10 glossy, black-and-white photos.

## SAFETY

A shop is a jungle filled with dangers. Learning to avoid traps that we used to think of as accidents takes time. When visiting a shop, you need someone to get between you and the dangers during your visit. If you are going to be there longer, you will need to learn shop survival skills.

## SAFETY TRAINING

The fastest way to learn is through the stories people share with each other. These are, of course, horror stories used as object lessons: how Ed was killed;

how Jack lost his finger; how Henry lost the vision in his eye. Sometimes artifacts are kept around a shop to illustrate the stories, such as a piston with a valve imbedded in it, a rusting hulk of a rough mower that burned to the ground or a Cushman that had been folded in half. Once you heard a few of these stories, then the first pages of each technical manual, where they list of dangers and warnings, have real meaning to you.

## LANGUAGE

Some words used on signs have special meaning:

- Danger = can kill you
- Warning = major injury
- Caution = minor injury
- Notice = property damage

## COMMON MISHAPS

Once you have taken a quick look at the Red Cross First Aid book, you can work backward from the injury to see how the injury could be created by the things around you in the shop.

Typical traps found in shops involve heavy weights, high pressures, high temperatures, flames, oil, gasoline, exhaust fumes, electricity and solvents. If you can figure out how to unspring these traps, then you can alleviate many accidents.

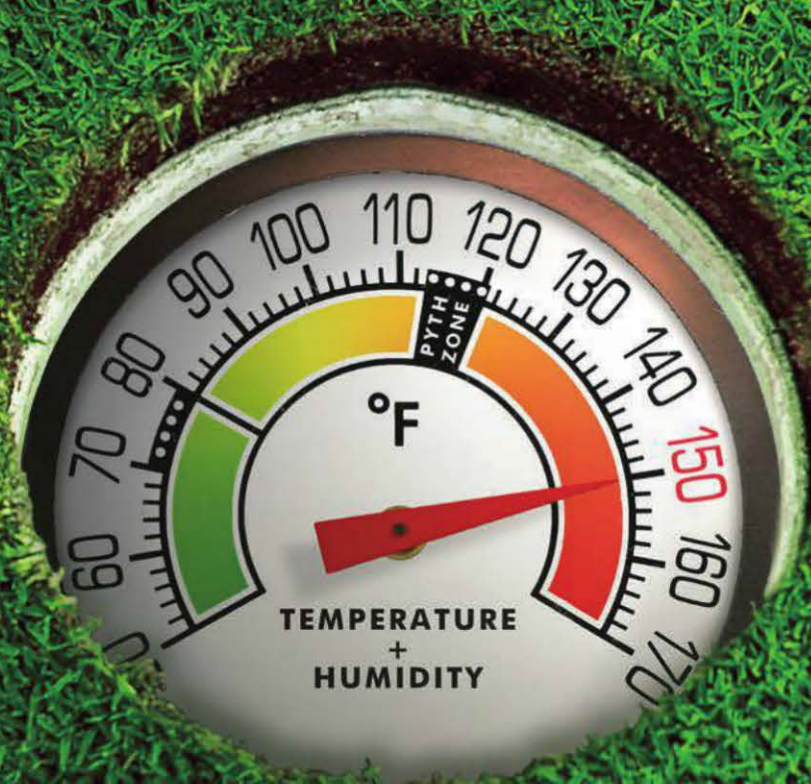
## OVERLOOKED SAFETY MUST-HAVES

Your first-aid kit should contain useful amounts of sterile tools and materials for making temporary repairs to damaged humans. Stopping the bleeding, restarting a heart and getting them breathing again are all useful skills to add to your resume. These repairs need to hold up long enough to get the person to the emergency room or to treat minor injuries. I've added blue carpenter's tape to my first-aid kit because it sticks to damp skin and to itself, and is easy to remove.

In addition, safety shower, the eye-wash station, even a sink with a mirror will all be used frequently – even if no one admits to it. **GCI**

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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](mailto:terrybuchen@earthlink.net).



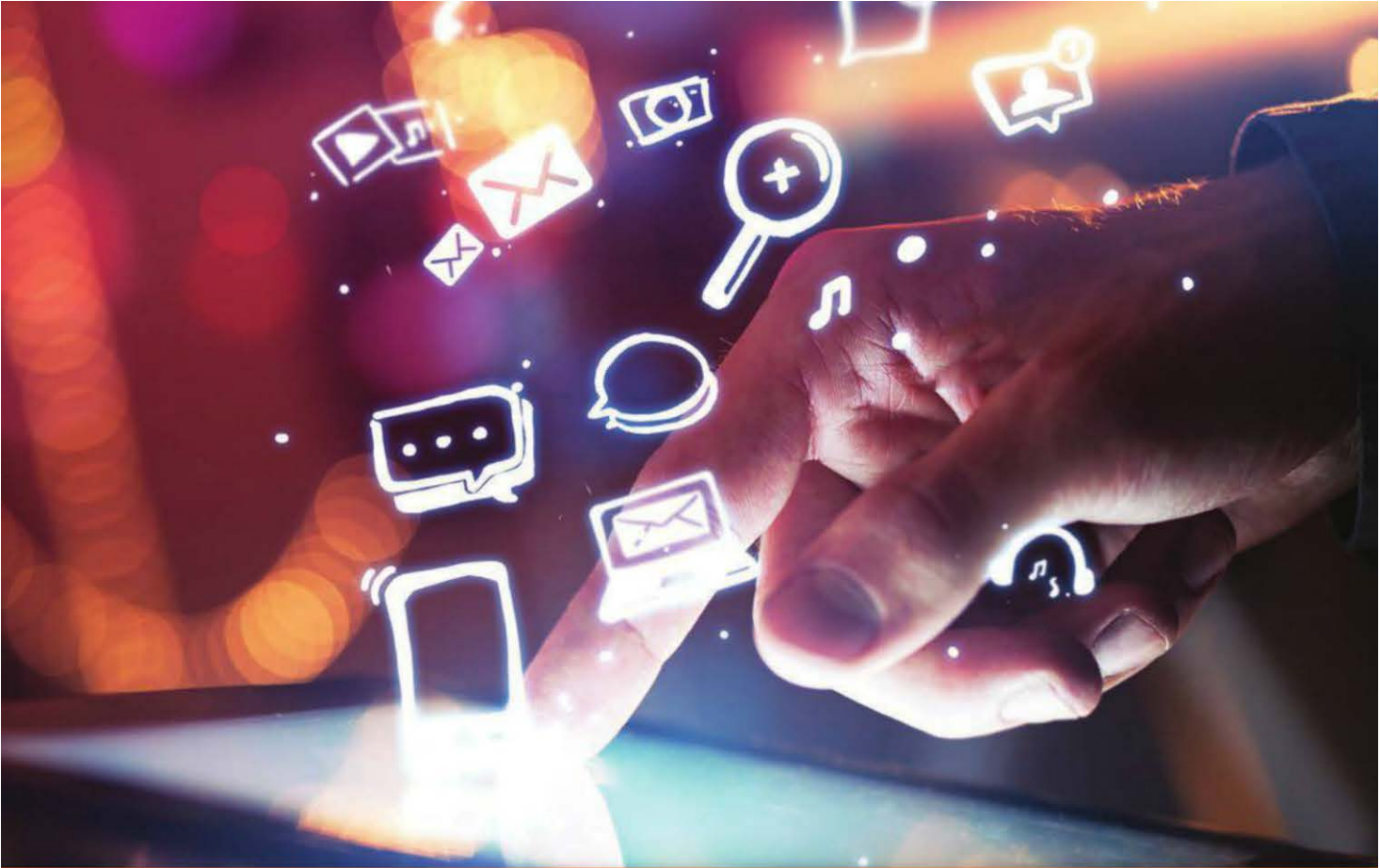
### DRAG BOARD

This implement does a fine job of raking the native area shell screenings two times per week at the Emerald Dunes Club in West Palm Beach, Fla. Four 2-inch by 6-inch by 4-foot pressure treated wood boards, attached in a staircase concept, are overlapped 2 inches and then attached together with 3-inch wood screws. The upper and lower bottom-leading edges are protected with recycled Toro 5410 Fairway Mower bedknives that are screwed in place. Fourteen 3-inch by 5/16-inch hex nuts are screwed into the boards that loosen up the screenings prior to being finish-raked with the three overlapped Truper 24-inch Spring-Loaded Metal Leaf Rakes. There are two recycled John Deere Aerocore 800 Aerator Arm Drive Belts attached on top that are used by the maintenance staff as handles to lift the drag board into the Club Car tow vehicle. A 5-foot chain is used to pull the drag brush. It cost approximately \$75 in materials and it initially took two hours to build, which has been reduced down to one hour, and each board lasts about three months. Dan Green, former superintendent under Erin Stevens, CGCS, director of golf course maintenance, conceived and did the original design that has been tweaked over the years by the staff. This latest version was built by equipment manager Menard Saul.



### REPLACEMENT FENDERS

The original plastic fenders on this 2000 Buffalo Turbine Trailer-Mounted Blower were replaced after they became brittle from sunlight after many years of service — and they eventually cracked, as shown in the foreground, from the trailer being accidentally jackknifed. The replacement fenders were made using two recycled Cushman Core Harvester Side-Shoot Conveyor Belts. The OEM fender support brackets were used while adding pieces of 1-inch angle iron that was bolted to the conveyor belts in the front and rear. Steve Mathre, equipment manager, and David Phipps, former superintendent, at the Stone Creek Golf Club in Oregon City, Ore., conceived and built this unique idea. All of the new and recycled parts were in inventory and it took about 1½ hours labor time. Phipps is now the GCSAA field staff Northwest Regional representative. Mike Turley is the golf course superintendent. **GCI**



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**GOLF COURSE**  
INDUSTRY

(BRAUER continued from page 50)

renovation. However, DFW has good public golf demographics, which may generally mirror other large and vibrant urban areas, but may not reflect depressed and/or rural areas or resort-based golf courses. And, on both the private or public sides of golf, there are many sub-markets, and you have to know where that biggest opportunities lie, and what it takes to hit that sweet spot or niche in that particular market place.

In short, your proposed renovation needs its own specific economic analysis. Post-2006, most golf course master plans I have seen are preceded by a golf course business plan.

NGF/Sirius Golf Advisors did provide some thoughts based on their survey. They believe that you need to reposition and rebrand the facility in the marketplace, to maximize revenue gains. Name changes may occur but aren't always necessary. And, accomplishing that requires that you do everything right – including improving the golf course in design, maintenance, service and image (logo, amenities, etc.) to see the best financial return.

Minor renovations can be finan-

cially successful. While they returned much less in total revenues, usually by providing improved greens, which golfers always value, their ROI calculated as increased annual revenue (assuming year two results continue) divided by construction cost. It may pay to fix just what needs fixing on an otherwise solid course.

The statistics also show that first year returns are often highest, probably due to pre-re-opening marketing, buzz and curiosity, and then dip into a more sustainable pattern the second year. While the survey only covered the first two years of post-renovations operations, for which they had data, for consistency, NGF notes that most courses have maintained their new revenue levels, even for those that are 10 years old now.

Raising prices after renovation makes sense. Golfers expect to pay more for a better product, and increasing revenues by \$500,000 via 20,000 more \$25 rounds is a lot harder than 5,000-10,000 new rounds, with all rounds grossing \$40-50 per player on a “new and improved” product!

Overspending rarely pays. Most

projects require value engineering to infrastructure, design and image improvements. If at all possible, minimize clubhouse improvements – projects with less than \$200,000 for clubhouse improvements provided the highest return. While it sometimes is a necessity, clubhouses rarely pay off. In all cases, a review of the “want to haves” vs. the “market-based must haves” is essential.

The financing mechanism for these courses wasn't available, but their – and your – biggest task will be to determine whether anticipated new revenues will support new debt. With currently low interest rates, \$500,000 in revenues might support \$7 million for a break even, debt-free facility. It's rarely that clean cut, and that figure must also cover interest carry, lost revenues, etc. Many courses wait for their original construction debt to be paid off, and then issue new debt that they can comfortably cover in anticipated revenues.

Those of you who have been through the renovation process will probably agree that it is usually necessary, often profitable, but never all rainbows and butterflies. **GCI**

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# HANG TOGETHER



**Pat Jones** is editorial director and publisher of Golf Course Industry. He can be reached at [pjones@gie.net](mailto:pjones@gie.net) or 216-236-5854.

I've been up to my butt in this crazy business since I was a 25-year-old idiot who accidentally got a job as a writer at GCSAA headquarters in Lawrence. Now I'm a 53-year-old idiot who accidentally ended up running a couple of magazines in Cleveland.

A couple of magazines, you ask? Yes, GCI is not my only baby. Two years ago, I also became publisher of Lawn & Landscape magazine here at GIE Media. That's amazing since L&L has been the "bible" of the landscaping business for 35 years. My job is not to screw that up.

The commonality between the two publications is turf, obviously. GCI and L&L both have part of their focus on the maintenance of turf. Many of the advertisers who support GCI also sell into the landscape market so the two magazines are joined at the hip from a business standpoint. But the similarity in the content and industry trends ends there.

The L&L market is actually multiple segments rolled up into one big industry. There is traditional turf maintenance, as performed by lawn care operators and general maintenance contractors. There's landscape architecture and construction, often referred to as the design/build segment. There's commercial and residential. There are irrigation contractors who specialize in water movement and management. There's even snow and ice removal. It's a big, rangy and fascinating market.

And right now, it's one industry that's growing nicely. As the economy has come back, so have housing starts and commercial property construction. That's just part of what's driving the business. There are also some big trends that are making backyards a focus of a lot of people's remodeling spending.

Americans are increasingly interested in "outdoor living." No, not camping. I'm talking fancy outdoor kitchens, firepits, water features and landscaped patio areas. That drives business for folks who sell and install pavers, stonework, lighting, irrigation and even cool, big-ass grill systems.

Finally, after the recession drove a lot of homeowners and businesses to DIY mowing and fertilization, the trend is back toward outsourcing what some people consider to be the tiresome task of mowing one's own lawn. In short, the pro landscape business is roaring.

You think you're having trouble finding labor? It's a huge issue in the landscape business. Not only are the good contractors trying to keep up with a backlog of business, they also got hit harder by changes in the H-2B laws that allowed guest workers into the country seasonally. I talk with many who say, "Most of the people we want to hire don't have the right visa, have a bad driving record or can't pass a drug test." Sound familiar?

With the exception of a few giants like BrightView (a \$2-billion megacompany formed last year by the merger of ValleyCrest and Brickman) and TruGreen,

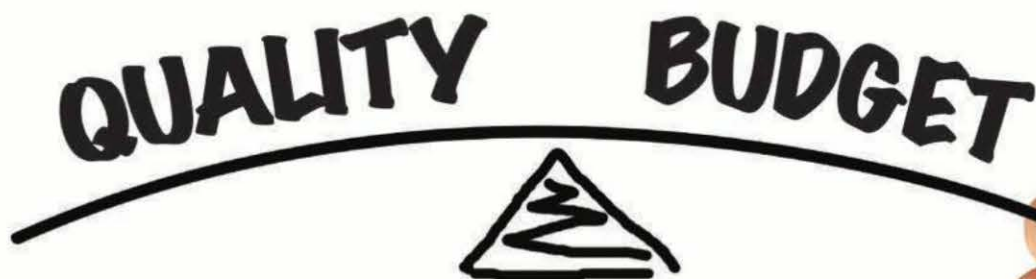
the market is dominated by small businesspeople. Yes, there are some great regional players and even growing franchise operations like Weed Man and Grounds Guys, but the average contractor has revenues of less than \$500,000 annually, a handful of employees and a lot of stress.

They worry about managing the business side while also being needed in the field. They worry about fuel costs and fertilizer price spikes. Mostly, they worry about keeping up and riding the growth wave that's pushing the landscape business far faster than anything golf has seen in a while.

All that said, they are good people who are just as passionate about making the world a greener, better place as any superintendent. Many are active in their local turf associations and other industry groups. More than 80 percent of them said they voted in every election in a recent study we did.

Yes, the golf and landscape markets have similarities and differences that are clear to us. But, when the time comes for regulation, we are often lumped together. The current drought emergency in California is a great example. Neither golf nor landscape was fully prepared for the extent to which the state intends to crack down on irrigation. The proposed rationing plan includes \$100 million to pay people to convert turf to less-thirsty landscapes. It's going to be a sea-change for everyone who manages grass whether it's cut at 2" or .09".

In the past, golf has managed to get itself exempted from regulations aimed at the Green Industry. I get that, but I also see that our similarities will always link us together more than our differences set us apart. As golf continues to deal with its own issues, we need to resist the temptation to throw our landscape brethren under the activist bus. After all, as Benjamin Franklin said at the time of the signing of the Declaration, "We must, indeed, all hang together or, most assuredly, we shall all hang separately." **GCI**



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