

# Golfdom

11.13

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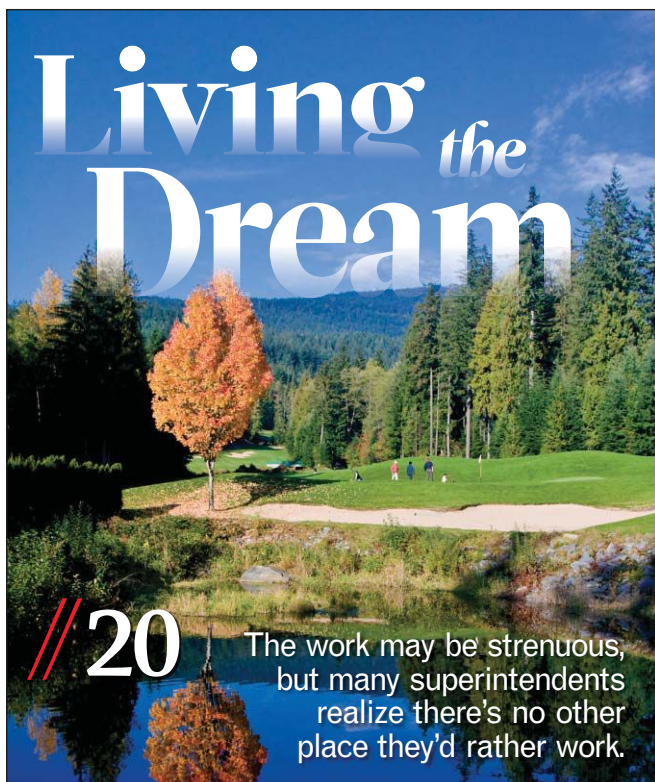
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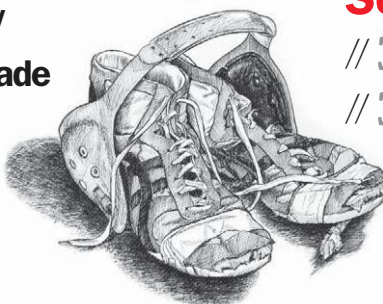


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Bayer's Green Solutions Team was founded in 2012, bringing together some of the leading experts in the T&O industry to provide customers the scientific knowledge to address their unique business goals and challenges, and to help support the industry as a whole with scientific thought leadership, education and training. The Green Solutions Team is responsible for supporting internal and external technical presentations, developing educational articles and resources, working with the Bayer development team in coordinating product research and demonstration trials, and maintaining relationships with university constituents that test and recommend Bayer products. They also provide scientific support and technical product training to help regional sales teams, distributors and end-user customers optimize Bayer's professional T&O products and ensure they are used most effectively. The team works closely with superintendents to deliver solutions beyond a product focus, for holistic turf care that takes into consideration all aspects of turf management. The Green Solutions Team communicates turf management recommendations – along with the latest turf disease, weed and insect information – to T&O trade media and also via social media. Follow the team on Twitter @BayerGolf for news, tips and more!

### ABOUT THE TEAM

Laurence, a water-loving Tigers fanatic, enjoys boating, fishing, hunting, and watching Clemson football. He and his wife have two sons in college. Rob, a fellow football fan (go Bucks!), lives in Columbus and recently won a competition of “biggest loser” at Bayer. Rob “G-11” Golembiewski has one wife, three children, ten siblings, and 11 letters after the “G” in his last name. Frank, a new dad and former cycling whiz, enjoys running and is currently training for a marathon in Washington, D.C. Frank's son Cal, age 8 months, hates Poa and is already creating a viral sensation on Twitter. Derek, the newest member of the team, lives, works and plays turf pathology. When not extolling the virtues of slime mold, the former music major (French horn) spends the holidays singing tenor in an Episcopal church choir in Georgia. He recently settled into the Jacksonville area, and has a son at K State who shares his passion for the sciences and the outdoors.

**The Bayer Green Solutions Team – @BayerGolf**





“We received no complaints, but quite a few compliments. It’s great our readers seem to be on the same page with us, and enjoy having an occasional laugh.”

**SETH JONES**, *Editor-in-Chief*

# The beat goes on

Lots going on here around *Golfdom* editorial headquarters in lovely Eudora, Kan., so let’s get to the bullets!

- A warm welcome to two new *Golfdom* staffers: Molly Gase, associate editor, and Joelle Harms, digital media content producer. We’ll make a more formal introduction next month, but suffice it to say, your pal Seth’s stress level just decreased a whole lot. Welcome Molly and Joelle!
- What happened to 2013? Time seems to be spinning out of control. Maybe it’s because I kept traipsing through airports these last few weeks. I kept telling the guys in Palm Beach that I didn’t travel that much... little did I know I was in the middle of a five-trips-in-five-weeks tour. Cleveland, Pinehurst, Boca Raton, Philadelphia then Louisville. Whew!
- I made my first ever visit to the GIE+Expo show in Louisville, Ky. It was an impressive show! Lots of iron, not as much chemical, but I was

a little bit surprised by how many familiar faces I saw.

- I want to give a big shout-out and thank you to the guys at the Palm Beach GCSA for inviting me to come down to Boca Woods CC in Boca Raton, Fla., and deliver their keynote speech. They asked me to speak for 90 minutes... I didn’t know if I had that in me, but by the time my Power Point presentation was finished, I was at 80 minutes. Funny moment of the presentation: I was showing a slide of *Golfdom*’s “19th Hole” back page Q&A when PBGCSA president and Boca West CC superintendent Steven Wright, CGCS, hijacked my presentation. Turns out he had some random 19th Hole questions for me. So *that’s* what it feels like to be put on the spot! I survived the

impromptu questioning, and was even able to talk about my first car (which I still have), my ’64 Impala, my fantasy football team, and most embarrassingly, the age and make of my irons. Time to go to Dick’s Sporting Goods...

- The Z28 remains unsold. The dream is still alive. For now.
- You’ll see this month’s cover story was spawned from a survey we conducted months ago. Minutes before we sent out the survey, North Coast Media president and CEO Kevin Stoltzman suggested we throw in the question, “If you could be the superintendent at any course, which would you choose?” It was just a whim — let’s see what these guys say, it might be interesting. The results were interesting. I’ve been sitting on that survey question all year,

knowing it would make for a fun fall cover story. When you take the time to fill out a *Golfdom* survey, you’re doing me a solid. We really do look at those results to see how we can make our magazine and our reporting better.

- This month’s cover shot is of Elk River Club in Banner River, N.C., where Josh Smith is the superintendent. Elk River is shut down for the winter. Josh reports they had a great season despite a really wet July. Josh has been the super at the course since 2002. Beautiful shot, eh?
- Speaking of beauty shots, we went with a nontraditional cover of *Golfdom* last month when we spoofed some popular men’s magazines with our tongue-in-cheek headline, “5 keys to picking up women.” I’m happy to report that we received no complaints on the cover, and actually got quite a few compliments. What a relief! It’s great that our readers seem to be on the same page with us, and enjoy having an occasional laugh with us. (In case you’re wondering, sending this month’s cover to the printer is a lot less daunting than it was last month!)
- That’s right, my Chiefs are still undefeated at 9-0. Thanks for asking (and for not mentioning Kansas Jayhawks football.)

Email Jones at:  
[sjones@northcoastmedia.net](mailto:sjones@northcoastmedia.net).



# Clover. Dandelions. Poa. Nutsedge. Fescue.

## "Katana® absolutely knocked them out for me!"

– Daryl Pearson, Golf Course Superintendent,  
Winterstone Golf Course, Independence, Mo.

Winterstone Golf Course Superintendent Daryl Pearson had a problem in his zoysiagrass fairways – one that golfers and ownership had noticed: weeds.

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# Starter

NEWS, NOTES AND QUOTES



## //SUMMIT

**"I look forward to spending time with such an esteemed group of golf course superintendents from around the country."**

**ANNIKA SORENSTAM**

When asked about guest-speaking at the *Golfdom* Summit.



## ANNIKA ADDED TO SUMMIT ROSTER

'MS. 59' TO SPEAK TO SUPERINTENDENTS ABOUT HER CAREER AND BUSINESS VENTURES



Widely regarded as the best female golfer of all time, 2003 World Golf Hall of

Fame inductee Annika Sorenstam will speak to attendees of the *Golfdom* Summit, Dec. 3-6 at the Reunion Resort in Orlando.

Since retiring from competitive golf in 2008, Sorenstam has focused on her family and her ANNIKA brand of business, including the ANNIKA Academy, headquartered at Reunion.

"To host the greatest female golfer of all time at such a small, intimate event reminds us that we truly are hosting one of the most unique and exciting meetings in our industry," said Patrick Roberts, *Golfdom's* publisher.

"I always enjoy talking about the business of golf and just as equipment

technology has advanced tremendously over the years, so too has the ability to maintain excellent course conditions and this group has a lot to do with that," Sorenstam said.

Other speakers include Steve Mona, World Golf Foundation CEO; Wayne Kappelman, superintendent, Sharp Park; Mark Woodward, senior vice president, OB Sports; Tray Maltby, director of grounds for the 54-hole Reunion Resort; and Seth Jones, editor-in-chief, *Golfdom*.

This year's sponsors include: Air-O-Lator, Cushman, E-Z-Go, FMC Professional Solutions, GenNext Biotech, Holganix, Jacobsen, John Deere, Lebanon Turf, Oregon Cutting Systems, Phoenix Environmental Care, Quali-Pro and Smithco.

## //IN MEMORIAM

### TURF INDUSTRY LOSES THREE LEADERS

Three leaders of the turfgrass industry passed away recently. Drs. Joseph Duich, A.J. Powell and James Watson each played a role in turf management as it is known today and will be missed.

Duich obtained both his B.S. and Ph.D. from Penn State. He then joined the Penn State faculty in 1955. He aided in the education of thousands of



Joseph Duich

undergraduate, graduate and two-year turfgrass students through his career. Among his many accomplishments, Duich helped to develop Penncross bentgrass, Pennfire perennial ryegrass, Pennstar Kentucky bluegrass,

Pennlawn creeping fine fescue and Penneagle creeping bentgrass.

Watson earned his B.S. in agronomy from Texas A&M University and his Ph.D. from Penn State University.

He then continued on to become an assistant professor with Texas A&M. In 1952 Watson started with the Toro Co. where he spent 46 years of his career. Throughout his career he wrote over 400 articles in his field covering turfgrass management, water conservation and cultural practices. Watson also was a proponent for water conservation, utilizing waste water and water's role in turfgrass care.

Powell earned his B.S. and M.S. in agriculture from the University of Kentucky. He continued on to earn his



A.J. Powell

Ph.D. in agronomy at Virginia Tech. Powell taught for 30 years at the University of Kentucky. Throughout his career he had many accomplishments, including the release of a new bermudagrass named Quickstand.

For a perspective on Duich and Watson and the future of research, check out "Clark Talks Turf" on page 38.



James Watson





// ON THE ROAD AGAIN

## The fraternal order of greenkeepers

➔ My most recent journeys have been to state and local chapter events. They were reminders of the positive benefits of the camaraderie of people with similar interests, common goals, and challenges.

One of these events was the Florida GCSA Golf Championship. All eleven local chapters had a team competing for the Chapter Team Trophy and state bragging rights. The Palm Beach Chapter swept the event with Low Individual and Team victories. It was a bittersweet victory. While they were victorious on the course, back home they have been inundated with torrential rains from April to August, with reports of double-digit daily rains and 20- to 30-inch monthly totals. Renovation and re-grassing project costs escalated, as continuous washout repairs were required and opening dates were postponed.

The other journey was to the annual Palm Beach and South Florida Chapters

joint meeting. The South Florida GCSA was formed in 1939. As golf expanded northward the Palm Beach GCSA split away in 1978, and in the early 1980s they began these joint meetings to share their common history.

I had lunch at the joint meeting with Kevin Downing, the third president of the Florida GCSA. Now a supplier, Downing and I reminisced about common experiences we've had and people we've known over the years. These lifelong friendships provide continuity and fond memories. These relationships combine the old adage "It's who you know" with "what you know" which can lead to personal and professional growth opportunities. I know that my volunteer participation and involvement led me to a rich and satisfying career in this industry.

Do yourself and your career a big favor — go to meetings and get involved!

Joel Jackson, CGCS-Ret., is a contributing editor for *Golfdom*.



# Starter

GO FIGURE



The number of readers who said if they could have any superintendent job in the world, would choose Bushwood CC.

*See full story on page 20*

// ACQUISITION

## EAGLE ONE GOLF FOLDS WESTERN GOLF UNDER WING

Eagle One Golf recently announced the acquisition of Western Golf. Western Golf is a leading manufacturer and distributor of golf course equipment and golf course accessories. Products made by Western Golf are sold to thousands of golf courses throughout North America as well as 38 countries worldwide.

"The addition of Western Golf to our portfolio of companies will help broaden our product offerings to better serve our customers," said Paul Cherrie, president and CEO of Eagle One Golf.

Western Golf is a third generation business headed by Bob Wagner. Wagner will continue to play a key role in the company going forward.

// THAT-A-BOY!

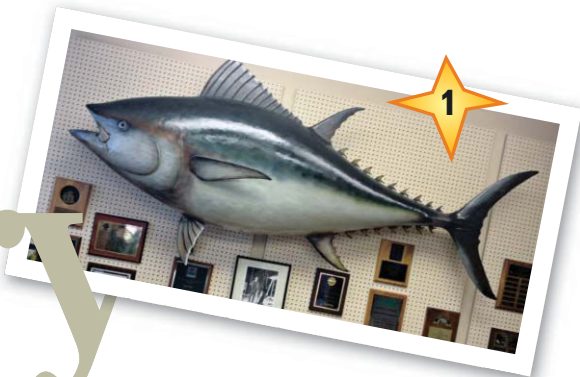
## FISHER HONORED BY CAROLINAS

Georg Fisher, who spent more than 20 years as a sales manager and manager of customer relations for Smith Turf and Irrigation, will be honored with the Carolinas GCSA Distinguished Service Award. He will be presented the award this month at the Carolinas annual Conference and Trade Show.

"Superintendents, architects, owners, developers, builders, PGA pros, turfgrass industry leaders, educators, fellow distributor personnel and countless others call on George and rely on his guidance and more importantly, his friendship," said Steve Smith, president of STI.



# Golfdom Gallery

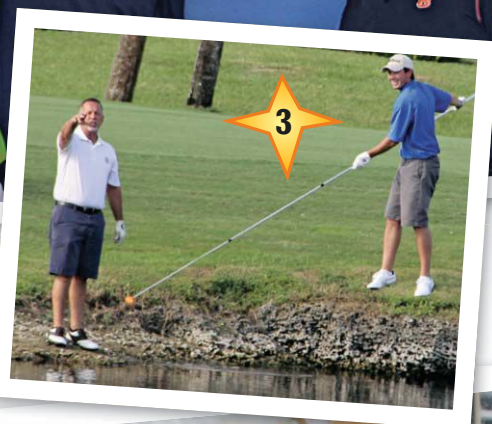


**1 The big tuna** Now *that's* a tuna! Visitors to Lebanon Turf in Lebanon, Pa., will see this bad boy greeting them in the lobby.

**2 Last call** Following the end of the Palm Beach GCSA golf tournament, (from left) Bob Jacks, Stonebridge G&CC, Boca Raton, Fla.; John Spiwak, Eastpointe CC, Palm Beach Gardens, Fla.; Jim "Jimmy Mac" McDonald, Florida Superior Sand Inc.; Seth Jones, *Golfdom*; and Larry "Biff" Balko, Presidential CC, West Palm Beach, Fla. decided that "last call" didn't apply to anyone so handsome. Boy, were they wrong.



**3 Fishing for Pro V1s** Jacks asked for us to look away — LOOK AWAY! — as he and his playing partner went fishing for a lost tee shot. Our question: If you hit your drive there, how did you still card a birdie on the hole? Turns out that tuna photo isn't the only thing that's fishy here...



**4 It's gotta be the shoes!** Biff wails away for the fences, but it's all good... he can't swing out of his shoes when he's wearing flip flops.



**5 Vulcan nerve pinch** Robert Anderson, Royal Palm Yacht & CC and Tom Phillips, Floratine, smile for a photo. Moments after this shot Anderson blacked out — the apparent victim of a Vulcan nerve pinch.



**6 Characters welcome** (L to R) Smithco's Jim Block, Jones, *Golfdom*'s Pat Roberts and Smithco's Don Smith at a recent lunch at the Palms in Philadelphia. The Palms is known for its many caricatures painted on the walls. We're pretty sure we saw Roberts' likeness painted near the men's room. Or was that Stone Cold Steve Austin?







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**JACOBSEN®**





"The ideal job has something to do with work you have an intense passion for and never grow tired of. I personally think that most superintendents already have that job."

**MARK WOODWARD**, *Contributing Editor*

## The grass may not always be greener

**T**here is no doubt that some "dream jobs" in our industry are very rewarding, exciting and they come with a certain level of gratification and satisfaction with the high-level visibility they bring superintendents. However, it's also important to point out that not all dream jobs have to do with large salaries, big budgets, prestigious tournaments, television coverage, etc.

The jobs that most people would consider dream jobs in golf are full of politics, challenges, frustrations and headaches that most people might not see on the surface. I personally experienced this concept firsthand in a couple of the jobs that I've held over the span of my career.

Most of us at one time or another has thought about what our dream job may look like. Some skeptics among us may even think that there is no such thing as a dream job, particularly in this economy.

A dream job to me is one that makes you happy each and every day you go to it and it can come in many forms. It may be something as simple as a job that affords you the appropriate time off to spend time with your family and

find the ever elusive "work/life balance" that I believe is critical to being a happy, well-rounded individual. Being obsessed or addicted to your job is no different in my mind to being obsessed or addicted to any substance or other part of your life that causes you to lose sight of what's important.

Some people might think that having a job that allows you to work from home would be ideal. As a small business owner in the golf industry, I can attest to the fact that working from a home office is not always what it's cracked up to be. It's hard to get away from your job when it's right down the hall in your fourth bedroom.

Some young superintendents that I have spoken to about this topic think that

their dream job would be to work at a course that hosts a PGA Tour event or a USGA event. This is a great aspiration. But remember these jobs also come with issues not that appealing when describing a dream job.

Many of the veteran superintendents say that their dream job is one with job security. They don't talk about money but rather the opportunity to pad their retirement accounts, knowing full well that their careers are winding down.

The ideal job has something to do with work you have an intense passion for and never grow tired of. I personally think that most superintendents already have that job. We obviously love what we do, we can work

both indoors and outdoors (mostly outdoors), we are able to combine our passion with our talents in providing great playing conditions for golfers to enjoy our great game.

I think it's important to note that more than likely there is not a job out there in golf — or anywhere — that could be considered the perfect job. Every job has its share of challenges and frustrations. If you have the preconceived notion that you will be happy each and every day in your job, you will constantly be disappointed.

To me, the most important part about finding your dream job revolves around what makes YOU happy. You need to focus on what's important to YOU. In a vast number of the cases it has nothing to do with money. The majority of the people I know put money way down the list of things that are important to them in being happy with their job.

Just remember as you read this issue of *Golfdom* that dream jobs come in many shapes and sizes and what's important to one person in describing their dream job may not be important to someone else. The bottom line is that we are blessed to be doing what we're doing and actually getting paid for it.

Plus you may already be in your dream job... you just have to realize it.

**Mark Woodward** is a senior vice president for OB Sports, principal of DaMarCo Golf, president of Mark Woodward and Associates and a contributing editor for *Golfdom*.



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“I’m not a Luddite or a technophobe, I just don’t feel the need to have constant access to everything and everybody.”

**MATT NEFF**, *assistant superintendent,*  
*Wedgewood G&CC, Powell, Ohio*

## I’m a flip phone user

**T**hat’s right. I still use a flip phone and have no intentions of getting rid of it. ¶ Why? Because I like it and absolutely refuse to pay a couple hundred bucks for a smart phone that I will inevitably destroy within a month, not to mention the extra \$35 or \$40 a month for a data plan.

I know what you’re thinking: “Matt, you’re an assistant superintendent. Surely you have tons of disposable income. You can make it rain at the cell phone store.” (Spending money at reputable retail establishments is where the phrase “make it rain” came from, right?)

Even if that were true, I’d still be using a flip phone because the ruggedized ones are hard to kill, I don’t have to worry about pocket dialing people and, more to the point, I have an almost pathological aversion to spending money.

My wife would say there’s no “almost” about it. To that I’d say, “Quiet down, sweetie. When you decided to live the glamorous life that is being married to a turf guy, you also accepted the drawbacks.”

I certainly see the positives of having a smart phone in

this business — turf apps, internet access, high quality camera, etc. — all of which can be very handy, especially if you’re using some form of social media to communicate with members and golfers. I’m not a Luddite or a technophobe, I just don’t feel the need to have constant access to everything and everybody that the internet has to offer and to pay a small fortune for it. If I need some information that I could get from a turf app, then I look it up the next time I’m on a computer.

The thing that never ceases to amaze me is the number of comments I get on a fairly regular basis from friends, family and even complete strangers regarding my phone. It’s like an 8th grade flashback — “Dude, are you wearing last year’s Jordans? You can’t be serious.”

A few weeks ago as I was checking out at the grocery store, I got a text to which I quickly read and replied. When I looked up again to make sure all the prices were ringing up correctly (remember the spending aversion?) the cashier was laughing. He then says, while still smugly chuckling, “A flip phone? Man, I can’t remember the last time I saw one of those.” You would’ve thought I had hauled out one of those HAM radio sized things from the movie “Wall Street.”

What I wanted to say: “How about probably not too long ago, buddy. And if we’re going to judge each other, why are you still a grocery store cashier at age 45?”

What I actually said: (half-hearted fake laugh) “Yeah, everybody’s got a smart phone now. Paper bags, please.”

I will admit that the performance of my phone has been going downhill lately even though, according to the technician at the store, there’s nothing wrong with it. I’m now completely convinced that the major cell phone companies are intentionally allowing the service and operation of older phones to deteriorate to the point that people would rather use soup cans connected with a string while carrying a Polaroid for all photography needs.

I envision the basic phone “engineering team” being composed of a bunch of hungover summer interns from state schools sitting in a rundown office with a broken window air conditioner and water stains on the ceiling, sharing the highlights of the previous night’s idiocy via the high quality pics and videos they captured on their iPhone 5s. Meanwhile, the Ivy League nerds are down the hall in the plush confines of the Smart Phone Suite working 24/7 making sure that everyone can Tweet their random musings the instant they pop into their minds.

When the smart phone industry has achieved their goal of world domination, I’ll probably have no choice but to get one. Until then, I say “Flip phone users of the world unite!” If for no other reason that I’ll need all the help I can get if I ever tell my wife to quiet down...

**Matt Neff** ([mneff4@yahoo.com](mailto:mneff4@yahoo.com)) is assistant superintendent at Wedgewood G&CC in Powell, Ohio.





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# Living *the* Dream

BY SETH JONES

The work may be strenuous, but many superintendents realize that there's no other place they'd rather be

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“I’m happy where I am,” was Daniel McCann’s answer. Honest, to the point and an opinion shared by many of his colleagues. ¶ McCann, superintendent at San Antonio CC, was one of the 661 respondents to a January 2013 *Golfdom* survey. One of the questions we asked: “If you could be the superintendent at any course in the world, what course would you choose?” Respondents could type in any course they wished.

The most popular answer?  
“Right where I am.”

What are the qualities of a job that make superintendents love their position? How much of “living the dream” is about attitude? And how can superintendents get their staffs to feel that love?

We asked some of those respondents, and this is what we learned.

## Reader responses

Sam Crowe, CGCS at the Reserve at Keowee in Sunset, S.C., scoffed at the idea of chasing after a course that others perceived as being more prestigious.

“This is a great place to work. Some people are driven by getting to a top-50 course, or hosting

a Major. I give them credit. But I’m most interested in being someplace where I’m appreciated, and where I have an effect on the success of the



Sam Crowe

course,” he says. “Everyone has their own criteria. Mine is more simple: I just want to be valued.”  
Steve Southard, CGCS, golf operations manager for the city of Loveland, Colo., oversees 45 holes of golf and as many as 40 employees during peak season. He arrived to Colorado via Michigan seven years ago. His experience with a struggling economy in Michigan colors his answer when it comes to what he looks for in a superintendent job.

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Continued on page 22



“Here in California, nine months of the year it’s beautiful. Some people are stuck in offices,” Kappelman says. “I haven’t met a superintendent who doesn’t love their job. I think as a whole, we know how lucky we are.”





Continued from page 20

"Coming from Michigan, it's financial stability. The reality is there are a lot of showy golf courses. But that might not be the job you want. It's best to have a place where the job is steady," Southard says.

San Antonio CC's McCann echoes those sentiments.

"The financial status of the club is important. There are lots of places to work, but to find a place that is not only finan-



Daniel McCann

cially stable, but also has the means to improve the property?" McCann asks aloud. "If you don't have that, you're constantly working with one hand tied behind your back."

## Attitude is everything

Perhaps many of the superintendents who responded to our survey saying they would stay put are just a glass-half-full group of folks. But that positive thinking actually does have a lot to do with job satisfaction.

David Phipps, the Northwest field staff representative for GCSAA, says his previous gig as the superintendent for Stone Creek GC in Oregon City, Ore., was his

dream job... until another dream job came along. He looks back at his time at Stone



David Phipps

Creek now and realizes that the job was what he made of it.

"Building and maintaining a golf course? That's as good as it gets," he says. "Every job has its trials. Stone Creek wasn't perfect, but it was as good as I made it. You can have a rotten day at the golf course, the next day is ten times better. You can't let the bad days get in your head. It's always about being positive."

It literally is about being positive, says Barbara Jaurequi, MS, a nationally certified master addiction counselor, executive coach and author of the book "A.C.E.S. — Adult-Child Entitlement Syndrome."

"You could never overestimate the value in having an attitude of gratitude. Being grateful is the antidote to negativity and resentment," Jaurequi says. "I've seen scores of people who have had really rough starts in life. They learned that being unhappy doesn't help with anything."

Jaurequi suggests to those who aren't happy with their jobs that they take a self-assessment, and try to view their own position objectively.

"Ask yourself how many negative remarks you made in a day. How many positive? Once the assessment is done, ask yourself: 'Is this working?'" she says. "That person will figure out that being negative is not working to their advantage."

Wayne Kappelman, superintendent at Sharp Park GC in San Francisco and winner of *Golfdom's* 2013 Herb Graffis Businessperson of the Year award, says the nature of a superintendent's work necessitates a positive attitude.

"For superintendents, we deal with the vagaries of weather, of raccoons, of a van-

dal — you never know! If you don't come to work with a positive attitude, it can be quite defeating," Kappelman says. "Our work is quite temporary. You have to do it over and over again. You get it mowed,



Wayne Kappelman

set up, looking good, then you have to do it all over again the next day. Without the right attitude, our work can resemble the (Greek) myth of Sisyphus: banished to Hades with the punishment of rolling a rock up a mountain day after day."

## Dealing with rough days

Being forced to roll a rock up a hill in Hades 24/7 sounds pretty brutal. But to some, it just sounds like fly-mowing bunker edges last Tuesday.

The truth is, people are wired differently, and that affects the way they look at their jobs. Some people are enjoying their dream jobs while others are Mr. Sisyphus.

Count Stanly Moles, superintendent at Indianwood G&CC, Indiantown, Fla., as another superintendent living the dream. "I am just a happy person and look for the silver lining in everything that happens," he says. "It's not always easy, and I sometimes have to stop, collect my thoughts and see what part of the elephant I want to eat that day."

When asked what course he would work at if he could choose any in the world, he selected Billy Casper Golf-managed Indianwood G&CC. He was one of the survey respondents who answered our question with a verbatim, "Right where I am."

Moles says when the pressures of work get to be too much, "wind therapy" — some alone time on his motorcycle — solves all his ills. For his crew, he promotes a positive attitude the old fashioned way.

Continued on page 24

## Greener pastures

Of the 661 respondents to our survey, a whopping 73 respondents said they would stay right where they are. Here are the next five dream courses.

33	AUGUSTA NATIONAL
22	PEBBLE BEACH
16	CYPRESS POINT
7	THE OLD COURSE AT ST. ANDREWS
6	PINEHURST NO. 2



Barbara Jaurequi



Stanly Moles





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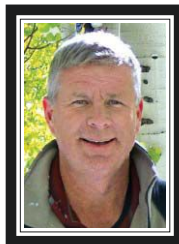
Continued from page 22

"Everyone — even me — likes to hear an 'at-a-boy!' at work. As I go through my day and meet with the crew as they're on the course doing their job, I stop and tell them how much the golfers and I appreciate the fine work they're doing," Moles says. "Of course, occasionally bringing in donuts or ordering pizza for lunch helps!"

But what is a superintendent to do when his crew doesn't respond to positive reinforcement? Both Jaurequi and Southard say that some people just can't be changed to see the good in their jobs.

"You can try and coach them, inform them about the good things. But some people you can't change. And then you share their experience with another team," Southard says, making an effort to tread lightly. "That might not be what you

want to hear in your magazine, but sometimes that's the best thing you can do for everyone."



Steve Southard

it often means they're miserable in life," Jaurequi says.

## Satisfied to stay

Regardless of how satisfying crew members find their jobs, we must admit we were happy to see so many of *Golfdom's* readers were, well... happy.

It seems that many superintendents are

## Could this be "the one"?

Have you thought about the long-term future of you and this course? Could you say "I do" to these greens? Take our survey and find out if your course is a dream come true, or if you need to start seeing other courses.

	YES	NO
1. Do more than 50% of the members know your name?	+6	+0
2. Does your mechanic think he could do your job better than you?	+0	+7
3. Are you using a manual irrigation system?	+0	+12
4. Do you have to post green speeds daily?	+0	+4
5. Look at your mowers. Are they more than four colors?	+0	+7
6. Do most of your golfers envy the cross-town rival?	+0	+5
7. Do you get along with the other department heads?	+4	+0
8. Could your office easily be mistaken for a shed?	+0	+3
9. Are there more items in the break room fridge than in the chemical shed?	+0	+14
10. Does your office have a nice view?	+2	+0
A. Does that view include the pool?	+5	+0
11. Does your course get more visitors than the Texas State Fair?	+0	+7
12. Is your Greens Committee Chair in your office more than you?	+0	+6
13. Do you work more than 60 hours a week in the peak season?	+0	+10
14. Do you spend more time maintaining ski slopes than fairways?	+0	+5
15. Does the course dog prefer the company of the assistant?	+0	+3

## SCALE:

100 to 80 — Congrats, you've found your dream course!

79 to 60 — Give it some time... courses can change, you know.

59 to 0 — We're sorry to say, this is a broken relationship.

Special thanks to Charles Soper and Carey Bailey at Fieldstone Golf Club for their help with our survey!

## Survey outtakes

Any time we leave a survey question with a fill-in-the-blank answer, we get back some fun responses. Here are a few of our favorite outside-the-box answers:

"A GOVERNMENT-OWNED COURSE WITH 100-PERCENT JOB SECURITY SO I'M NOT TWISTING IN THE WIND OVER NEW BOARD MEMBERS AND THEIR SILLY AGENDAS."

"A 9-HOLE ISLAND JOB, WHERE THERE IS BERMUDA ALL AROUND, HAMMOCKS AND A BEER AT THE END OF THE DAY."

"TOO OLD TO EVEN CARE ABOUT THAT ANYMORE. JUST TRYING TO GET TO RETIREMENT AND GO FISHING."

"A COURSE WITH AN UNLIMITED BUDGET AND NO GOLFERS."

"I WIN THE LOTTERY. . . MY OWN COURSE, MY OWN RULES!"

"IT WOULD BE A BALLPARK. . . FENWAY PARK IN BOSTON."


"I WANT TO BE A ROCK RADIO PROGRAMMER."

"WILLIE NELSON'S GOLF COURSE."

"BUSHWOOD COUNTRY CLUB."

like our new friend Daniel McCann: fully aware that the place that he works is truly special.

"There are always going to be those things that can get you down. But then I remember that I have the best office. I know people who sit behind a desk all day, staring at a computer. I can always go out and ride the golf course," McCann says enthusiastically. "I'll never look at leaving unless I'm bored... but there's so much to do! Maybe that's just my personality — maybe I'm never satisfied — but there's so much to do here before I could ever consider leaving."

Perhaps it's never being satisfied... or maybe it's always being satisfied. 



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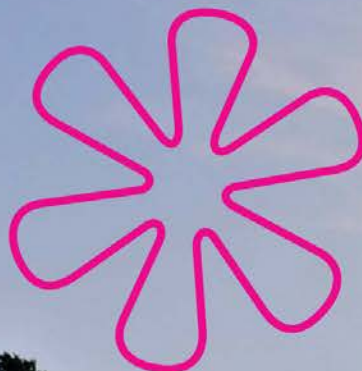


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It cost \$700,000 to create two acres of landscaping around the course, which included 2,000 knockout rosebushes (which are water conservative), crape myrtles, magnolias and 900 new trees. The massive amount of flowers sets the course apart from others in the area.



PHOTOS BY TREV KEMP/COLLIGAN GOLF DESIGN





# Flower power

From wilting weed to budding rose, here's how one course changed its fate by creating a scenic and player-friendly experience.

BY CHRISTINA THOMAS



There's something special about a municipal golf course — that beat-up old track where people often learn to love the game. Golf on a muni is usually a love-hate relationship: you love it because you've memorized every

blade of grass on the course. It's inexpensive and you can meet the most interesting people in a pickup game. You hate it because a city owned course can take five hours to play since the tee sheet is overflowing with hackers. But you can't help but return again and again.

*Continued on page 28*





# Flower Power

*Continued from page 27*

Two years ago Stevens Park Golf Course in Dallas was your typical muni course. Not anymore, thanks to a major reconstruction project. It's lush, green, healthy and the general manager guarantees to get players around the course in four hours and 15 minutes — even on Saturdays.

When asked to compare the course before and after the renovation, superintendent Frank Hutcheson can't help but smile.

"The old course just had push up greens that were built in the 1920s and '30s," Hutcheson says. "It was a typical municipal golf club, but now it can compete with all the private clubs in the area."

Hutcheson, who joined the Stevens Park staff seven years ago, said the course in 2010 and the one today can hardly be compared. The old course was too short for modern-day golf at less than 5,900 yards. The grasses were outdated, and the greens had been around since the 1940s.

## Rock solid obstacles

Although it took just 310 days to rebuild Stevens Park, the remodeling was difficult — and expensive. The project cost approximately \$9.7 million, a jaw dropping number for most city-run golf courses. General Manager and Director of Golf, Jim Henderson raised the money through a combination of bonds and borrowed funds from the city, as well as a \$3.5 million loan from Dallas Water Utilities. The city hired Arlington, Texas-based Colligan Golf De-



**"The upscale renovation put us in a whole different ballpark than what we used to be in. People are coming from all over, even golfers**

**who belong to local private clubs."**

### Frank Hutcheson

SUPERINTENDENT

Stevens Park originally opened in 1924 and reached its prime in the 1980s, averaging 63,000 rounds annually. But as more courses saturated the area and the golf industry entered a recession, the course began to suffer. Conditions deteriorated. Play plummeted to nearly 35,000 rounds in 2010. It was time for a drastic makeover or risk losing one of the oldest golf courses in Dallas.

sign and the well-known Wadsworth Golf Course Construction Company to work on the project.

The design team, led by John Colligan and his associate Trey Kemp, and the contractor faced their first obstacle the moment the bulldozer hit the dirt. The course was built on caliche rock and in many places it was barely three inches under the soil.

"The contractors literally peeled all the dirt off the rock, and then cut it to reconfigure and reshape the fairways, greens and tees," Hutcheson says. "It was an intense process, but it was a lot of fun watching the old course being stripped away."

Henderson says to stay within the budget they had to come up with their own soil supply by digging several pits near the creek on the golf course. Then the contractors used all the old trees, cart paths and other debris to fill up the pits again. To add extra soil, they sodded the entire course with Premier Tif fairways and Tifton 10 rough grass, except for the greens, which were seeded with Mini Verde.

The five roads that cross the 110-acre golf course presented another concrete barrier that left them with few options to add length to the course. Colligan was able to lengthen the course to 6,300 yards by rerouting 12 of the original holes. Additionally, he designed the fairways with mounding and collection areas to create more player-friendly landing zones.

"We didn't want to build another championship golf course," Henderson says. "Everyone is building golf courses that are 7,000-plus yards and so hard to play. If you're going to lose golf balls all day, how is that going to be any fun?"

## Spring time all year round

Creating a beautiful landscape was extremely important to Henderson, whose goal was to create a fun, player-friendly golf course that was also attractive. He knew they needed something unique to set the course apart from others in the area. It was the assistant director at the time, Barbara Kindig who came up with the idea of a garden-themed golf course.

"It's totally opposite of the way [designers] are trying to build golf courses nowadays, which is building courses with zero landscape that use grasses and waste areas," Henderson says.

He explains they wanted the course to blend seamlessly with the historic Kessler Park neighborhood by using the same

*Continued on page 30*



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Continued from page 28

plant material found around the houses to create an attractive public golf course that would compete with the beauty of high-end private clubs in the area.

It cost \$700,000 to create two acres of landscaping around the course, which included 2,000 knockout rosebushes (which

are water conservative), crape myrtles, magnolias and 900 new trees. Augusta National inspired the spring garden theme, Henderson says, so he chose flowers that would stay in bloom most of the year.

"The sheer beauty of the course is something that will set us apart for years to come," the general manager says.

## Hard work pays off


The result has proven to be worth the effort. Now the once dying municipal course in Dallas is bursting with color and life, as well as a full tee sheet almost every day. The course reopened in October 2011 and had 55,000 rounds of golf in its first year, averaging 200 to 220 golfers a day. Neither Henderson nor Hutcheson expect it to slow down.

"The upscale renovation put us in a whole different ballpark than what we used to be in," Hutcheson says. "We have a completely different clientele playing here every day. People are coming from all over, even golfers who belong to local private clubs."

Of course, not every city has millions of dollars to spend on a muni, but Henderson adopted a method that he said helps keep tee sheets filled daily that any course can use. When the course reopened, it moved to 10 minute tee times instead of the traditional eight. Henderson said it was controversial for the city because it means booking 20 percent fewer golfers, but he believes it works out for a better pace of play and happier customers.

"On the weekdays we're staying booked because customers know we're not going to cram as many people as we can onto the golf course, so they're going to have fun playing," Henderson says. "It's about not being greedy, and it's about providing a quality golfing experience."

Henderson is no longer concerned if long-time customers would accept the new Stevens Park.

"My own dad and my grandpa used to bring me here to play golf, and many other people grew up playing this course back in the '60s, '70s and '80s as well," he says. "Now when those old players come back, they're all so happy it turned out to be such a great product." 

Christina Thomas is a former collegiate golfer and a freelance golf journalist living in San Diego. This is her first story for *Golfdom*.

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The Herbicide Resistance Education Committee of the Weed Science Society of America has released a new series of training modules on herbicide resistance management developed specifically for turf. The training modules are in PowerPoint format and can be accessed at: <http://wssa.net/weed/resistance/>

Each training module is brief, well-illustrated and easy to understand. The specific modules are:

- Lesson 1: Current Status of Herbicide Resistance in Weeds
- Lesson 2: How Herbicides Work
- Lesson 3: What is Herbicide Resistance?
- Lesson 4: Scouting After a Herbicide Application and Confirming Herbicide Resistance
- Lesson 5: Principles of Managing Herbicide Resistance

Cases of herbicide-resistant weeds worldwide are becoming increasingly common since the first reports of their occurrence in the 1950s. These biotypes survive herbicide application at doses that usually give effective control of the species. Resistant weed biotypes are a consequence of basic evolutionary processes. Individuals within a species that are best adapted to a particular practice are selected for and will increase in the population. Once a weed population is exposed to a herbicide to which one or more plants are naturally resistant, the herbicide kills susceptible individuals, but allows resistant individuals to survive and reproduce. With repeated herbicide use, resistant weeds that initially appear as isolated plants or patches in a field can quickly spread to dominate the population and the soil seed bank.



An annual bluegrass plant survives while surrounding annual bluegrass plants were controlled by a herbicide application.

## NEWS UPDATES

### BAYER CROPSCIENCE INTRODUCES SPECTICLE PLUS FERTILIZER

Environmental Science, a division of Bayer CropScience LP recently launched Specticle plus Fertilizer, a herbicide that provides warm-season turf managers up to eight months of residual control at low use rates.

"Specticle plus Fertilizer is an example of delivering innovation to meet the needs of

**Spect(i)cle**  
+ FERTILIZER

green industry professionals and help them be more

efficient," said Jeff Michel, Bayer's herbicide business manager. "It allows turf managers to achieve healthy, weed-free turf while simplifying operations, which translates to time and cost savings that help grow their bottom line."

Specticle plus Fertilizer is available in two different concentrations and a variety of fertilizer blends to provide for increased flexibility that meets the needs of warm-season turfgrass professionals. Specticle plus Fertilizer delivers extended residual pre-emergent control of more than 75 broadleaf and grassy weeds, including annual bluegrass, goosegrass, crabgrass and annual sedge.

For additional information visit [backedbybayer.com](http://backedbybayer.com).

**"A single sedge tuber can produce more than 1,900 shoots."**

## //BEST BERMUDAS

# Infection and colonization of bermudagrass by spring dead spot

By Francisco Flores and Nathan Walker, Ph.D.

**S**pring dead spot is the most damaging and important disease of bermudagrass grown in locations where the grass undergoes cold temperature induced dormancy (Smiley et al., 2005). The disease is caused by one of three fungal species in the genus *Ophiosphaerella* (spp. *herpotricha*, *korrae* or *narmari*). The disease results in the appearance of unsightly, dead patches on fairways, tees and greens in late spring and early summer. The patches may persist into summer months and result in increased

**“The purpose of this study was to continue efforts to identify bermudagrasses that are more resistant to spring dead spot.”**

management inputs to eliminate opportunistic weeds and encourage regrowth of bermudagrass into the dead areas. The diseased patches are often sunken, resulting in an uneven playing surface that can interfere with ball roll or lie. In the transition zone, the weather conditions associated with late spring and early summer, are often some of the most desirable to play golf. These coincide with the poor turf appearance and reduced quality of playing surfaces associated with the disease.

Management approaches for spring dead spot can include cultural or chemical control measures or host resistance. Cultural methods can include



soil aeration or disturbance, to reduce compaction, and raising mowing heights prior to dormancy (Lucas 1980; Smiley et al 2005). Additional management efforts have addressed nitrogen fertility including reducing application rates and avoiding applications late in the growing season that may delay normal plant dormancy. Many studies have also examined the use of fungicides for the control of spring dead spot. Fungicide applications can be expensive and are typically made in the fall. Following application, irrigation water is used to move the fungicide into the rootzone to target the fungus-plant association. A second fungicide application is usually recommended approximately 28 days later.

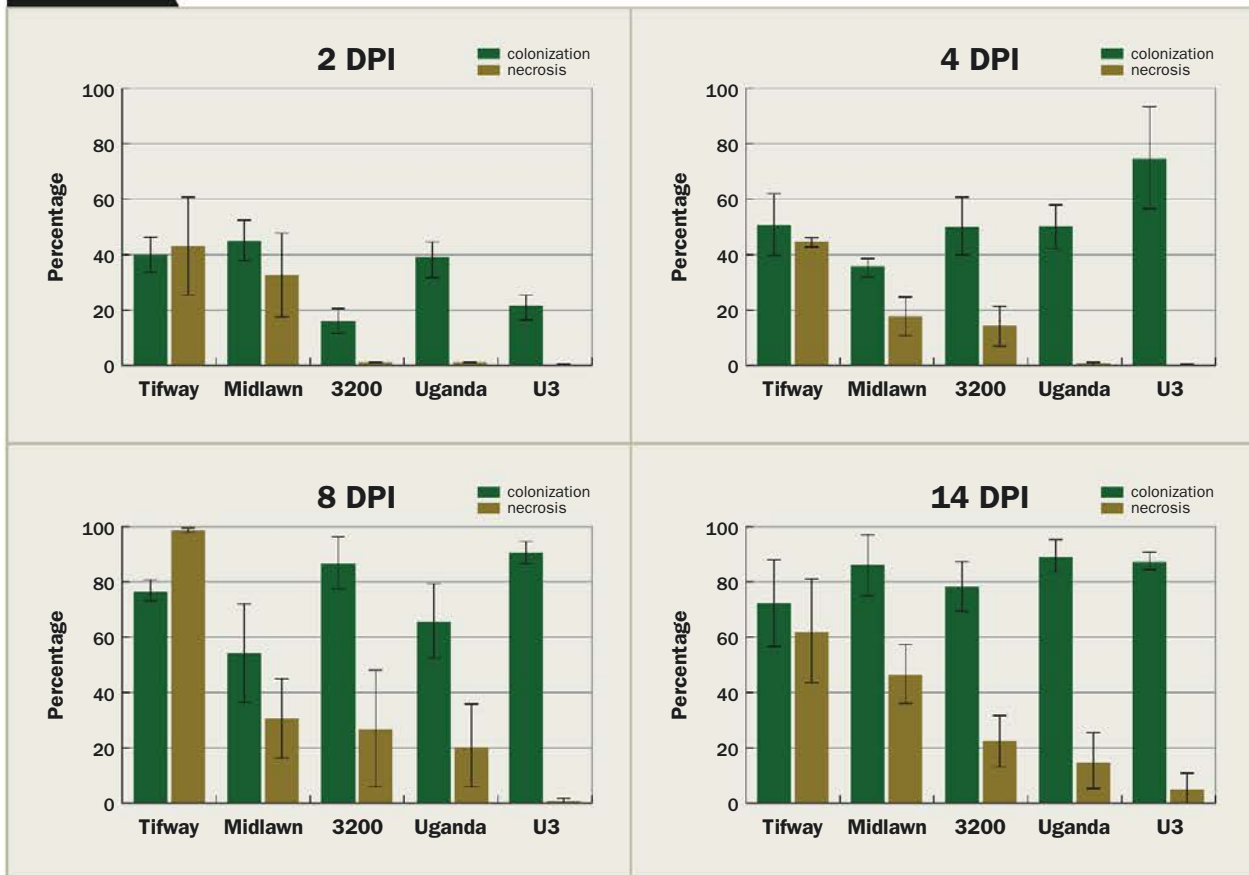
Both cultural and fungicide management approaches have not been entirely effective in suppression of the disease. Long-term, durable management of plant diseases can be achieved through host genetic resistance to the pathogen. Through host resistance, the plant can recognize the pathogen early in the infection process and take a variety of steps to prevent successful infection and establishment of disease. These include induced plant cell death that prevents the pathogens from having access to living cells and acts like a wall, stopping the pathogen. Other actions plant cells can

utilize are manufacturing of toxins or other compounds that inhibit or kill the pathogen, or the formation of barriers inside cells.

In previous studies that examined host resistance to spring dead spot, isolates of *O. herpotricha* were genetically transformed to express fluorescent visualization proteins which permitted the study of the fungus-plant interaction. This interaction was studied on several different cultivars that varied in sensitivity to spring dead spot, including the interspecific hybrid (*Cynodon dactylon* × *C. transvaalensis*) bermudagrass cultivars, Tifway 419 and Midlawn, and an African bermudagrass accession (*C. transvaalensis*). Tifway 419 and Midlawn root cortical cells were rapidly colonized, while the vascular tissues remained uncolonized. Infection of Tifway 419 roots almost always resulted in necrosis whereas colonization of Midlawn roots exhibited very little necrosis. For *C. transvaalensis* roots, the cortical cells were sparsely colonized, while the vascular tissues were extensively colonized and very little root necrosis was observed. In general, Tifway 419 roots exhibited greater colonization and necrosis than the more tolerant cultivar Midlawn and *C. transvaalensis*.

On stolon surfaces, Tifway 419 appeared to be colonized more than the stolons of either Midlawn or *C. transvaalensis*. Colonization of stolons of all three bermudagrasses appeared limited to the surface and no fungal ingress into stolon cortical tissues was observed. Internal colonization of stolons was observed when *O. herpotricha* grew into the cut end of the stolons. For Tifway 419, internal stolon infection resulted in



**FIGURE 1**

Colonization and necrosis caused by *O. korrae* on bermudagrass roots at 2, 4, 8 and 14 days post inoculation of different cultivars. Quantitative data were obtained using ImageMagick. Bars represent standard error.

necrotic tissue, while in Midlawn stolons, similar internal infection resulted in less severe necrosis. For *C. transvaalensis* stolon tissues were internally colonized without any apparent necrosis.

Results of these studies permitted the formulation of several ideas about host recognition and response to fungal infection. The purpose of this study was to continue efforts to identify bermudagrasses that may have better and more durable resistance to spring dead spot.

#### HYPOTHESIS AND RESEARCH OBJECTIVES

Given that several species of *Ophiophtherella* cause spring dead spot, we wanted to test the hypothesis that these fungi have the same interactions with their various hosts. The objective of this study was to describe the interaction of *Ophiophtherella korrae* with

various bermudagrass hosts (e.g. how different host tissues and organs react to infection) and to provide a rational basis for the development of strategies for more effective disease control based on host genetic resistance.

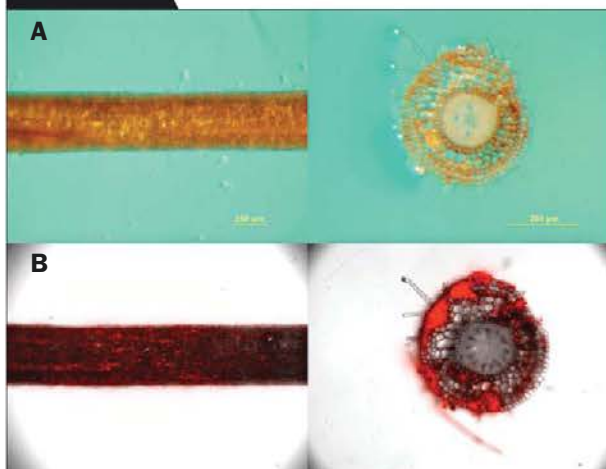
#### EXPERIMENT AND METHODS

A transformation technique described by Caasi et al. (2010) was used to transform an isolate of *Ophiophtherella korrae* to express tdTomato (tdTom)

Continued on page 34

**“In one year, one  
sedge tuber can become  
6,900 new tubers.”**

**FIGURE 2**



Colonization and infection of a Tifway root by *Ophiostphaerella korrae* red fluorescent transformant, 8 days post infection. (A) Bright field (visible) image of root having dark discoloration indicating necrosis and (B) same image with red fluorescence corresponding to the fungus.

**FIGURE 3**



Colonization and infection of the roots of U-3 by *Ophiostphaerella korrae* expressing red fluorescence genes, 8 days post infection. (A) Bright field (visible) image of root lacking dark necrosis and (B) same image with red fluorescence corresponding to the fungus.

Continued from page 33

fluorescent protein. The hybrid bermudagrass cultivars (*Cynodon dactylon* × *C. transvaalensis*) Tifway and Midlawn, a common bermudagrass (*Cynodon dactylon*) U-3, and two *C. transvaalensis* cultivars Uganda and 3200 were evaluated for their response to infection by *O. korrae*. Stolon segments were surface sterilized using bleach, and incubated for up to seven days at 77° F to permit root growth. Rooted stolons that were free of contamination were selected and inoculated with *O. korrae* either on a root or on the stolon internode with a 1/64 inch diam. agar plug from the margin of an *O. korrae* culture. Inoculated plants were incubated at 63° F, which is conducive for fungal infection, and were exposed to a 12-hour simulated daylight photoperiod. One non-inoculated plant for every three inoculated replicates was used as a non-inoculated control.

Whole plant organs or thin sections through roots or stolons were observed from one day post inoculation to 28 days post inoculation using an epifluorescent (ultraviolet light) microscope. Digital images were obtained using a camera mounted on the microscope at various wavelengths in the ultraviolet

spectrum. Multiple single-plain images within plant organs were stacked as layers and combined as one image. Additional images in the full ultraviolet spectrum (which permits visualization of cellular necrosis) were also obtained. To assess potential differences in fungal colonization and root necrosis, pictures were transformed to an eight-color image and the number of pixels corresponding to each color were counted using ImageMagick. Red pixels correspond to fungal colonization and black pixels corresponded to necrotic host plant tissues.

## RESULTS

Agrobacterium mediated transformation was successful in producing an *O. korrae* isolate that contained a fluorescent gene. The transformed *O. korrae* was similar to the wild-type isolate in respect to its ability to infect and cause necrosis in plants. Fluorescent microscopy allowed detecting superficial and deep fungal colonization. In addition, the use of digital photography and image manipulation software allowed for quantitative disease severity ratings for the different cultivars tested.

*Ophiostphaerella korrae* colonized roots of all cultivars tested at a similar rate

with necrosis evident as early as 2 days post inoculation on Tifway and Midlawn, while on 3200 and Uganda necrosis appeared at 8 days post inoculation. The most severe necrotic response in roots was observed in Tifway, the most susceptible cultivar to SDS. After colonizing the surface of the roots the fungus penetrated the epidermal (outermost) layer of cells by direct penetration and rapidly invaded the cortex (cell layer just beneath the epidermis) on all bermudagrass cultivars.

In the cultivars Midlawn and Tifway, the fungal hyphae completely colonized the cortex of the roots moving between and through cells but would rarely extend into the vascular tissues, since hyphal growth was arrested at the endodermis (cell layer enclosing the vascular tissues) (Fig. 2). In the rare cases where the fungus did grow into the vascular tissues of these two cultivars, it appeared to do so by penetrating through the root tip where young tissues are not defined.

In more tolerant cultivars, Uganda, 3200 and U-3, vascular colonization was more common and was observed as early as 4 days post inoculation. Root colonization of U-3 was very different from colonization observed for the other cultivars. In U-3, the fungus locally colonized the epidermis and cortex of





the root and then it would penetrate the vascular tissues and colonized it extensively (Fig. 3). For 3200 and Uganda, the fungus grew through the endodermis of the root but vascular colonization was rarely observed before the surface of the whole root was colonized. Root colonization of the cultivars Midlawn and Tifway (Fig. 2) by *O. korrae* corresponded with necrosis (Fig. 1). However, colonization did not correspond with necrosis of the roots for U-3 (Fig. 3), and the *C. transvaalensis* cultivars 3200 and Uganda (Fig. 1).

For intact stolons, necrotic spots were evident on Midlawn and Tifway at 4 days post inoculation while for 3200 and Uganda, stolons had light discoloration but not necrosis up to 22 days post inoculation. The fungus was not observed in the vasculature of intact stolons of any cultivar up to 22 days post inoculation and did not penetrate beyond the epidermis of intact stolons. For wounded stolons, localized necrosis started to appear from seven to 15 days post inoculation. The fungus colonized the cortex of these stolons but it did not penetrate into vascular tissues unless the injury continued into these tissues. Once in the vascular tissues, the fungus caused extensive necrosis and decay.

## CONCLUSIONS

The use of transformed fungi with the expression visualization proteins permitted the study of the infection and colonization of various hosts. Furthermore, along with the use of imaging software, provided a method to quantitatively assess disease severity in the different hosts. Colonization of the roots of the susceptible bermudagrass cultivars by *O. korrae* can be correlated to necrosis, while partially resistant cultivars were less necrotic despite heavy colonization. The most severe necrotic response and strongest correlation between colonization and necrosis was observed for Tifway, a cultivar which is highly susceptible to SDS.

Vascular colonization was rarely

observed on susceptible cultivars while it was common in more tolerant cultivars, especially for U-3, which typically has less disease. These findings are consistent with the study of Caasi et al. where *O. herpotricha* only colonized the vasculature of partially resistant cultivars. It appears that the endodermis forms a barrier that restricts access to the vascular tissues for SDS-causing fungi in susceptible bermudagrass cultivars. When fungal growth into the vascular tissues does not occur, the fungus can cause significant damage to cortical cells and this may be one component for the greater susceptibility to the disease. Finally, the differences between susceptible and resistant cultivars in vascular colonization and the correlation between colonization and necrosis correlation can be detected as early as 14 days post inoculation, which could provide a powerful

tool for the early assessment of disease resistance for new cultivars.

## Acknowledgment

We thank the USGA's Turfgrass and Environmental Research Program and Oklahoma State University Agricultural Experiment Station for support of this research program.

Francisco Flores is a Ph.D. candidate and Nathan Walker, Ph.D., is a professor in the Department of Entomology and Plant Pathology at Oklahoma State University. Dr. Walker can be contacted at [nathan.walker@okstate.edu](mailto:nathan.walker@okstate.edu).

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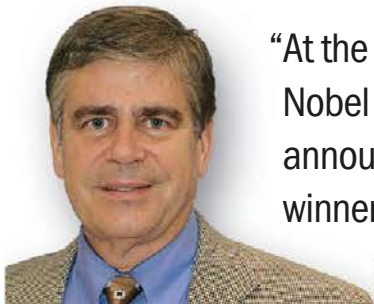
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“At the same time that this year's Nobel Prize winners were being announced, two previous Nobel Prize winners were being furloughed.”

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

## The struggles of science

One of the most exciting times of the year is early October when the Nobel Prize announcements are made. In science there is no higher award. My first realization of the importance of a Nobel Prize came when I was in my early teens while caddying at Champaign (Ill.) Country Club.

Caddying at that time was pretty much like it was portrayed in the movie “Caddyshack.” We would be herded together in a decrepit shack at the end of the driving range until some of us were called to come to the clubhouse where we would sit on a bench until we were needed. One Saturday morning as I was sitting on the bench listening to my transistor radio, whispering started among the older caddies and the caddy master. I was then told to stand up straight. Soon this older gentleman in plaid shorts walks by, says hello and asks how we are doing. He then proceeds to the practice putting green.

My first question was, “Who is this guy?”

“Dr. Bardeen, the Nobel Laureate,” was the reply. It was a surprising scene to see the genuine respect shown by a bunch of caddies to this man. Dr. John Bardeen, Professor at the University of Illinois, is the only person to win two Nobel Prizes in Physics, the first for co-invention of the transistor (1956) and

the second for the fundamental theory of superconductivity (1972).

This year the 2013 Nobel Prize in Physics went to Dr. Peter Higgs and François Englert, who in 1964 independently proposed how subatomic particles acquire mass, which is known as the Higgs particle or the God particle. It has taken almost 50 years for the Higgs particle existence to be confirmed. At the same time that this Nobel Prize was being announced, two previous Nobel Prize winners in physics (2001, 2012) were being furloughed during the government shutdown.

The 2013 Nobel Prize in Physiology and Medicine was shared among three individuals. James Rothman, one of those who shared the award, had recently lost his National Institute of Health (NIH) funding.

I believe that furloughs and reduced funding are symptoms of a devaluation we have placed on science. I am concerned where we are going from a science perspective not only nationally,

but also at our own level of turfgrass research. Research funding at all levels, whether it is through NIH or turfgrass organizations/foundations and companies, is becoming extremely difficult. The cost of doing research that answers important questions increases while funding organizations struggle to maintain a flat budget line. The impact can be seen on who gets grants and who does not.

Data on a national level show in the area of medical research the number of investigators who received NIH grants under the age of 36 is less than 1 percent. In 1980 that percentage was closer to 18 percent. In a recent study it was found that in the last 30 years the average age of a medical researcher receiving their first NIH grant was 42. During this same period 96 scientists who won the Nobel Prize in medicine or chemistry working in the biomedicine area had an average age of 41 when they did the actual research. This means our future Nobel Prize winners will be one year younger than the age you would expect them to receive their first federal (NIH) grant.

I believe a concerted effort in the area of turfgrass research funding should be focused on young faculty and graduate students. The ideas and research conducted by these individuals will lead the advancement and health of our industry.

Why is this so important? Returning to Dr. James Bardeen, he was 36 years old when he submitted the first paper leading to the creation of the transistor. His first doctoral student was Nick Holonyak who, after graduating, invented the first useful light-emitting diode (LED).

Karl Danneberger, Ph.D., *Golfdom's* science editor and a professor at The Ohio State University, can be reached at [danneberger.1@osu.edu](mailto:danneberger.1@osu.edu).



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**Count on it.**

# Who will carry the torch?

**T**wo of the pioneers of the golf course industry, Dr. Joe Duich and Dr. Jim Watson, passed away recently. Both men had a great impact on our industry including scientific advances, educating students and practicing professionals, instilling pride in the golf course industry, and creating an atmosphere of “we are all in this together” which carries on to this day.

One of many debts of gratitude that we all owe Drs. Duich and Watson was their commitment to developing the next generation of turfgrass scientists. So when people ask “Who are the next leaders in our industry?” thanks in part to Drs. Duich and Watson; the answer is right in front of us at universities and industries all over the country.

There are many fine turfgrass scientists at all stages of their careers working in academia and industry. This in itself is a tribute to Drs. Duich and Watson. When they started their careers you could count the number of turfgrass scientists on two hands. Today, the number of university educated turfgrass scientists numbers in the hundreds, and they are hard at work all across the country dedicated to improving turfgrass performance and advancing turfgrass science.

A few of the many talented and dedicated early or mid-career turfgrass scientists that are carrying the torch forward and keeping the turfgrass scientific community and the turfgrass industry thriving are mentioned briefly below. As with all lists, there is not space to recognize everyone who deserves a share of the spotlight. My apologies to the many fine scientists who are not listed in this column.

**Michelle DeCosta, Ph.D., University of Massachusetts.** If your golf

course is in the north, chances are you have lost annual bluegrass to winter injury. Michelle is working to improve our understanding of winter injury of annual bluegrass greens and hopefully how to minimize damage. Winter injury is a difficult research problem and Michelle is taking on this problem head-on.

“ONE OF MANY DEBTS OF GRATITUDE THAT WE ALL OWE DRS. DUICH AND WATSON WAS THEIR COMMITMENT TO DEVELOPING THE NEXT GENERATION OF TURFGRASS SCIENTISTS.”

**Brian Horgan, Ph.D., University of Minnesota.** Brian was a voice of reason for the turfgrass industry during the efforts to ban phosphorus from turfgrass fertilizers in Minnesota. Thanks to his efforts, reasonable legislation was passed that all can make work. Brian is also very active in nitrogen management research that will cause those in northern states to rethink their nitrogen fertility programs.

**Doug Karcher, Ph.D., University of Arkansas.** If you want to learn more

about wetting agents, look for Doug’s research results on the subject. He has closely examined many aspects of wetting agent performance. Doug and colleagues have also developed a number of research techniques that lead to a more objective evaluation of turfgrass performance.

**Scott McElroy, Ph.D., Auburn University.** Scott is a leading turfgrass weed scientist responsible for developing strategies to control some of the toughest weeds like goosegrass and annual bluegrass. Scott and others are leading the charge to understand herbicide resistant annual bluegrass and what can be done to cope with this emerging problem.

**Doug Soldat, Ph.D., University of Wisconsin.** When it comes to turfgrass soil problems, chances are Doug has devoted time and effort to solving the problem. Doug’s research on phosphorus behavior in soil, turfgrass response to nitrogen applied in fall and late fall and wetting agents has changed how we maintain turfgrass and benefitted us all.

Drs. Stacy Bonos, Jim Brosnan, Kevin Frank, Dave Gardner, John Kaminski, Kevin Kenworthy, Jim Kerns, Aaron Patton, John Sorochoan, Brian Schwartz and Eric Watkins all deserve a share of the spotlight as well for their current and future contributions to the turfgrass industry.

I think Drs. Duich and Watson would be proud of the state of the turfgrass research community and they deserve a large portion of the credit for the research community and turf industry they helped shape.



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





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## LET IT SNOW

BY CURT HARLER // Contributing Editor

**WITH APOLOGIES TO ALL OUR READERS DOWN SOUTH**, it's time to talk snow (or "white gold" as the snow removal equipment companies like to call it). While at the recent GIE+Expo show in Louisville, we saw plenty of equipment designed with the operator in mind. If the course is already put to bed and you're working on getting your equipment geared up for next season, this equipment will get you back to finishing that task as quickly as possible.



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### 1. F-90

Heavy-duty implement options for specialized applications on **KUBOTA'S** F-90 series include a snow blower as well as debris blower, front blade, grass catcher, mulching kit and rotary sweeper. The F3990, pictured, has the highest-ever horsepower among all Kubota front-mount mowers. Each model has a 16-gallon fuel tank and single speed pedal hydrostatic transmission for quick response and increased working speed, while the auto-assist 4WD forward and reverse ensures greater efficiency with appropriate traction.

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### 2. Path-Pro

New for this snow season, the **ARIENS** Path-Pro is a single-stage snowthrower that is lightweight, compact and maneuverable. Although small in size, it is built to be durable enough for heavy-weight use by professional crews. Powered by either an Ariens AX 136cc or a 208cc motor, it has a 21-inch clearing width. It has a throwing distance of up to 35 feet. Chute rotation option allows snow to be tossed left or right. Commercial-duty housing cuts through packed snow and reinforced rubber augers move snow fast. Five model options include recoil or electric start models.

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### 3. 9000 V-Plow

The new 9000 series VF trip-edge V-Plows from **HINIKER** feature deep-curl flared wings to toss deep snow farther and higher, while providing more scoop capacity than ever. Twelve laser-cut ribs are incorporated into the high-tensile steel superstructure of the plow, providing exceptional strength for heavy-duty applications. V-Plows come with super-bright quad halogen lights and double-acting hydraulic power. Also available in a conventional level-top configuration, VFs come in 8.5- and 9.5-foot widths. Pinch-free pivot point is located nine inches above ground level, for improved protection from higher obstacles such as curbs and

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Continued on page 42



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### 7. Power Pusher

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# // GRINDERS

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



## Kevin Robinson

**CGCS** // Course No. 2, Pinehurst Resort, Village of Pinehurst, N.C.



**So what is your drink of choice after 18 holes of golf?** Hopefully my assistants are buying me a fatty Natty after I've just got done beating them at golf!

**Who is the most competitive guy on your crew?** It's a three-way tie between me and my two assistants, John Jeffreys and Alan Owen. John probably has the lowest handicap. Him and Alan are always partners when we play. They don't get beat too often. They play brother-in-law golf too well.

**What kind of clubs do you play?**

Taylormade R11 irons. My wife used to work for Taylormade, and got them for me for my birthday.

**So what was your first thought when you found out Pinehurst No. 2 was going to host back-to-back Opens in 2014?** "Holy (crap)," immediately followed by "What an opportunity." I mean, what better place to do it? The place, the community, the property, the history, everything. It's going to be a huge challenge, but I'm looking forward to it.

**OK, time to get totally random. I'm sure you're sick of 2014 Open questions by now... How about, favorite Schwarzenegger movie?**

"The Terminator."

**If I were to grab your iPod, what would be the first**



**"BACK-TO-BACK OPENS IS GOING TO BE A CHALLENGE, BUT IT'S ALSO A ONCE-IN-A-LIFETIME OPPORTUNITY."**

**band to pop up on shuffle?** You mean if one of my three kids didn't have it right now? Probably Zac Brown Band, or Toby Keith.



**Who are your teams?** The Atlanta Braves and the Carolina Panthers. The Panthers need to start winning against good teams.

**You're on Survivor and it's down to you and one other contestant. What game do you hope they call out so you know you'll win the cash?** Cornhole.

**If you could grab lunch with any celebrity from the 1980s, who would you choose?** I'll go with Daisy Duke.

**What's the oldest T-shirt you own, and how has it made it this long?** I just recently retired my high school state wrestling tournament shirts. I kept them around because of all the sweat and tears that went into that.

**Did you have a successful wrestling career?** Yeah! I was a semifinalist two years in a row in 4A, my junior and senior years.

**Do John and Alan know this? That you're capable of putting them on the ground at any moment?** You know, I haven't had to resort to that... yet.

As interviewed by Seth Jones, November 6th, 2013.

MAIN PHOTO BY SETH JONES





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