BANKRUPTCY: The Mother of Invention

Equipment innovations and an efficient plan have allowed Ironbridge Golf Club’s crew to move forward despite drastic cuts.

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PHI TURFA KAPPA

The golf course business has always been — as our friend Gordon Witteveen once described it — a band of brothers. It’s almost like a giant, weird fraternity — Phi Turfa Kappa or something — where the support system is there from the moment you pledge to the moment they pry your cup cutter from your cold dead hands and you go to meet the Great Agronomist in the Sky.

In Phi Turfa Kappa, ideas are shared, as are burdens. Good advice is usually free and easy to come by. Got a weird patch on the 12th green? Your buddy will come take a look. Looking for a job reference? Sure! Need help after a storm or a flood? Your brothers will be there with portable pumps and chain saws.

(By the way, this is a good place to shout out to our small but awesome group of sorority sisters over at Beta Turfa Chi. We always try to include you but we sometimes tend to get all testosterone-centric for obvious demographic reasons. Sorry ladies!)

Anyway, the heart and soul of this fertilizer- and fungicide-fueled version of Animal House has always been the venerable institution of the local chapter meeting. For decades, these monthly events have been the place to see your brothers, exchange the secret frat handshake and compare notes on courses, the profession and the world at large. The formula was always simple and successful: chatting, education, golf, beer and more chatting. A good brother rarely missed a meeting.

That, my friends, has changed in 2010. Local associations are scrambling to find solutions as the tried-and-true formula for chapter meeting success has collided with the modern realities of our business:

• Time: I’m too busy to go every month;
• Fear: I’m not comfortable with ownership knowing I’m taking the day off to schmooze and play golf;
• Internet: I can Google any question I have or e-mail a pal if I need information;
• Money: My education and meeting budget went bye-bye;
• Isolationism: I don’t need to network … I’m just fine working solo;
• Values: Old assumptions about success in the industry are eroding among younger guys; and
• Quality venues: Fewer “good” courses are willing to host.

So, chapters everywhere are scrambling to put butts in seats at meetings. The most common solutions I’ve heard from frustrated leaders are to reduce the number of meetings, focus on good sites, bring in “name” speakers instead of (no offense) the same Ph.D. or USGA updates and do more joint meetings with local PGA, CMAA or owners groups.

I did a little brainstorming with a few folks at the New England Regional Turf Conference in Providence last month about creative ways to get better attendance. Good ideas included focusing on employment issues for a series of three or four meetings and making sure to always have some kind of a take-home piece (printed PowerPoint summary, etc.) to show the boss when you came home. The point was to add value to the meetings without adding cost or hassle.

So, I’m curious: what’s your chapter doing to fight the trend and keep the fraternity healthy and growing? Shoot me an e-mail and let me know and we’ll share the best of the suggestions with everyone next month.

In the meantime, don’t forget what Woody Allen said: “80 percent of success is showing up.” When you show up, you win and the fraternity lives on. GCI
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Jeffrey D. Brauer is a licensed golf course architect and president of GolfScapes, a golf course design firm in Arlington, Texas. Brauer, a past president of the American Society of Golf Course Architects, can be reached at jeff@jeffreydbrauer.com.

**HOW WIDE SHOULD FAIRWAYS BE?**

At the Golf Industry Show in San Diego, I had the chance to meet many readers, talk with them and answer some of their questions.

One superintendent asked, “How wide should a fairway be?” I tried to think up a pithy response, similar to Lincoln’s admonition that a man’s legs should be just long enough to reach the ground; instead, I referred him to a column I’d written a while back. But he was interested in information on creating strategy, not just a way to reduce fairways to reduce maintenance. He actually wanted to widen fairways to speed play and create more playing interest.

He was thinking like golf course architects, who know that courses don’t need to be a repetitive, one dimensional series of narrow (or wide) fairways, and that most holes will be more interesting with some strategy and tee shot options.

Your original golf course architect had something in mind for those fairways. If your fairways have crept several yards inside your fairway bunkers, you should make them relevant again by taking fairways edges back out to bring them back into play. They might have been put there as a safety or directional device, as a target or for aesthetics.

But, most likely they are intended to create strategy. This can involve playing a full shot vs. laying up, or playing to one side of the fairway near a hazard to gain an approach advantage like a shorter shot, green contours helping your shot, or a better stance. But the advantage is typically an approach shot with no hazards on your direct line to catch a short shot.

U.S. Open-width fairways only 27 to 32 yards wide are difficult to hit at all, much less attempting to favor one side. Strategic holes need wider fairways, but by how much? It depends on approach shot length and the green angle. If we want golfers to place tee shots near the fairway edge to gain advantage, it becomes a simple geometry problem. (Your teacher was right – you would use it someday!)

The illustration shows a green angling 5 degrees to the right, with a bunker on the front left. To create completely open access to the center of the green or to the tightest tucked pin, the fairway in the landing zone can vary from 9 to 21 yards right of the center line for a 100-yard approach and 14-43 yards right of the center line for a 150 yard approach. The angle dictates that longer holes generally need wider fairways.

Given the free-form nature of golf courses, it can and will usually be somewhere in between those extremes. A mostly open green is an advantage over a bunker carry, and creating a fully open green can require a fairway much wider than is possible to recapture.

The diagram also shows the potential for reducing greenside bunkers to open up the green front slightly. The less the green set at an angle and the more the front is open, the narrower the fairway can be.

For all the mathematical study I might do, you can probably visualize possible changes just as easily in the field at your place. It’s all too easy to miss how mowing gradually narrows fairways and reduces strategy and interest. By putting some thought into the original design, you can maintain and present the best possible experience for your golfers. For the passionate superintendent, no detail is too small to overlook.
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U.S. Patent 6,849,379
Communication can be defined simply as a process of transferring information from one entity to another, and is a vital component to the daily performance of a golf course maintenance operation. But communication is not limited only to verbal exchanges; it includes listening and visual interactions as well. Effective communication must be a mastered practice in an assistant superintendent's arsenal of skills, as golf course maintenance operations have the difficult task of connecting all aspects of a course through effective communication.

One of the most important interactions within an assistant's day is that with the superintendent. At first glance, only the most basic verbal communication skills are necessary, but one must not overlook the importance of listening. Active participation in a conversation requires speaking and listening, and to successfully communicate the superintendent's commands you must adequately hear and understand those demands.

Reaching all employees effectively and efficiently can be a difficult task. Differences such as gender, ethnicity and language barriers can make communication difficult, but for the safety and training of the crew members, it's essential that you get through to them. One way to accomplish this is by thoroughly training the crew, both initially and continuously. You probably already use a daily job board, but consider including safety standards for the tasks. Daily verbal and printed reinforcements help employees better understand their jobs and how to do them safely. Also consider scheduling individual safety meetings to enhance training and keep employees constantly thinking how to be safe. Instead of reading safety procedures from a piece of paper, a PowerPoint presentation with pictures and real life stories will help get the point across without boring the employees.

Clubhouse communication is crucial as well and should be reciprocal. Consider having a facility-wide, Web-based calendar available for all departments to share information. Color-coding each department for easier readability is a good idea, as well.

A turfgrass management calendar could include practices such as aerifying, verticutting, topdressing, chemical applications and fertilizer applications. In addition, daily updates regarding course conditions and maintenance practices should be delivered in person to the golf shop in the morning before golfers arrive.

The golf shop calendar could include course activities such as golf outings, tournaments and daily play numbers and times.

You probably already use a daily job board, but consider including safety standards for the tasks. Daily verbal and printed reinforcements help employees.

Food and beverage operations have quite the busy schedule, so the Web-based calendar is efficient for maintenance to view outdoor events that need planning for, such as weddings and outside parties.

These are just a few ideas centered on communication. The sky's the limit when engaging in and putting together an effective communication strategy. Communication is a constantly evolving and developing skill, and while not all golf courses require the level of communication as described above, at some point in an assistant superintendent's career each of these communication challenges will need to be met.
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Tracking golf hat, shirt and shorts buyers

Customer profiles are important tools to drive revenue at any golf course facility. The National Golf Foundation released its “Golf Consumer Buying Profiles” in June based on a survey of 2,400 adult core golfers. The research was conducted in November 2008. Core golfers play eight or more rounds per year. Here are some highlights:

Golf hats and caps
(bought a golf hat/cap in the past 12 months, any type of store)
- Men make up 80 percent of core golfers; they also purchase 79 percent of all golf hats and caps sold.
- Golfers who subscribe to golf magazines spend 71 percent all dollars spent on golf hats and caps.
- Forty seven percent of golfers ages 50-74 bought a golf hat or cap in the last year.
- While women only make up 20 percent of core golfers, they are 22 percent more likely to have purchased a golf hat or cap than total core golfers.
- Golfers playing public courses represent 59 percent of all dollars spend on premium golf shirts.
- A quarter of golfers ages 30-39 bought a premium golf shirt in the last year.
- Golfers who play 25-49 annual rounds are 11 percent more likely to have bought a premium golf shirt in the past year than total core golfers.

Golf shirts
(bought one or more golf shirts in the past 12 months for at least $40 at on-course or off-course shops)
- Of golfers who are male, 18 percent purchased a premium golf shirt in the last year, compared to 20 percent who were women.
- While golfers 60-plus represent 27 percent of golfers, they purchase 32 percent of all premium golf shirts sold.
- Golfers playing public courses represent 59 percent of all dollars spent on premium golf shirts.
- A quarter of golfers ages 30-39 bought a premium golf shirt in the last year.
- Golfers who play 25-49 annual rounds are 11 percent more likely to have bought a premium golf shirt in the past year than total core golfers.

Golf shorts
(bought shorts specifically for playing golf in the past 12 months at any type of store)
- Women golfers are more likely to purchase golf shorts (37 percent purchase incidence) than golf slacks (21 percent purchase incidence). Likewise, men were more likely to purchase golf shorts (29 percent purchase incidence) over golf slacks (12 percent purchase incidence).
- While golfers who have an average score of between 80 and 89 represent 27 percent of golfers, they purchase 52 percent of all golf shorts sold.
- Those golfers who maintain a handicap spend 85 percent of all dollars spent on golf shorts.
- A little less than half (43 percent) of private club members purchased a pair of golf shorts in the last year.
- Golfers who play more than 75 rounds per year are 41 percent more likely to have purchased a pair of golf shorts in the last year than total core golfers.
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Championing a cause

Roger Stewart’s experience at prepping courses for senior events is second only to his reputation for environmental responsibility.

At first glance, Roger Stewart seems an unlikely poster boy for environmental golf course management. He hardly appears to be a granola eater and I suspect he does not own a pair of Birkenstocks. Rare steaks and well-shined Foot Joys are more his style.

Yet, Stewart has been persistent and consistent in his efforts to both improve the ecological performance of the facilities he’s managed and to spread the gospel of eco-golf in the communities and states he’s lived in during his career. All that done while smoothly preparing perfection for nearly a dozen Champions Tour events at three very different sites.

Stewart is a Midwesterner who’s blended in like a chameleon into diverse environments in Chicago, New Jersey and, now, Minneapolis. Few top superintendents have had three successful tenures in three entirely different locales, but Stewart has pulled it off nicely.

He might have come by his peripatetic nature genetically: his dad was a career officer in the Marine Corps, the family bounced around and Stewart “grew up everywhere.” He landed in Chicago as a teen where he started working at courses and getting to know superintendents, including the legendary Bob Williams at Bob O’Link. He was hooked and went to the University of Nebraska for his degree in agronomy.

In his spare time, Stewart has presided over three (count ‘em) different state and local chapter and, being a glutton for punishment, recently began a term on the board of his newly adopted home state’s association. Oh, and he’s taught turf seminars and even junior college classes for decades. And he’s won more Environmental Leaders in Golf Awards than just about any other human on the planet.

YOU HAVE A COUPLE OF MINNEAPOLIS WINTERS UNDER YOUR BELT NOW. HOW HAS IT COMPARED TO YOUR PREVIOUS LOCATIONS?

In a word, the winters are long! But, it’s not a whole lot different than the Chicago area. There are a lot of similarities in the way you grow turf, but we’re more sensitive to snow mold and winter dessication here. The golf course is built on 100-percent sand here at TPC Twin Cities, which helps a lot when it comes to growing bentgrass and hosting the 3M Championship. Paul Grogan (who preceded Stewart) did a great job. He used Trimmit to keep the Poa at bay, so we’re still predominantly bentgrass.

SO YOU LIKE IT?

Winter is a little colder, there’s more snow and it lasts longer, but the summers are beautiful. Culturally, it definitely differs from New Jersey. You’re struck right away by the Midwestern values and the way people look at life. People are accommodating and there’s a saying, “Minnesota Nice,” that really tells the story.

The best thing is the outdoors stuff. You get just minutes outside the metro and it gets rural pretty fast. I’ve done some deer hunting and fishing and I want to get into snowmobiling. The fishing is great and it’s been fun finding the places to go and the people to go fishing and hunting with. I’ve been ice fishing, but I haven’t caught much of size or substance.

HOW’S THE LOCAL GOLF MARKET DOING?

I had no idea how much golf has grown here. There’s a huge golfing presence with a pretty fair number of courses for a city of this size. People play early in spring and late into fall. Last year was amazing with Minneapolis hosting two majors – the Women’s U.S. Open and the PGA Championship – plus our annual 3M Championship.
Roger Stewart has been persistent and consistent in his efforts to improve the ecological performance of the facilities he's managed during his career.

I was also amazed at how many newer courses they've built in the past 20 years, particularly up north of Minneapolis in the "wilderness." And they're mostly stand-alone courses and casino resorts. Most seem to be doing OK, but there are a few that have been sold or are going out of business. Even the ones that are struggling can't sell and can't afford to close. The value gets upsidedown versus the debt, but you have to keep them running and maintained to make them worth anything in the market. They're in a pickle.

ARNOLD PALMER ONCE TOLD ME THAT THE CHAMPIONS TOUR "IS ALL ABOUT KIDS AND FUN." TRUE?

It really is focused on fun and entertainment. That doesn't mean it's not competitive - these guys can sure still play golf. But they've finished their time on the PGA Tour and people still want to see them. The PGA Tour can be hugely entertaining as well - just look at the Waste Management Open at TPC Scottsdale. But at the 3M and other Champions Tour events, it's competitive, but the players have more opportunity to interact and talk with people and they're more available.

HOW ABOUT CONDITIONING STANDARDS AND THE RUN-UP TO THE EVENT?

The events in the TPC Network are different. The ones I did in Chicago were challenging and you're kind of on your own. There's a lot more support in the network. We have regional agronomists working with us throughout the year. If you're not in the network, you might see a PGA Tour agronomist a couple times a year. Mark Johnson is our TPC Regional Agronomist and our 3M Championship guy, so he's here several times a year. The PGA Tour Agronomists have a busy schedule, so they rely on TPC Director of Golf Course Maintenance Operations
Greens Installations Performed By Champion Turf Farms In 2009

Atlanta Athletic Club - Duluth, GA
-No-Till conversion from Bentgrass to CHAMPION
-Site of 2011 PGA Championship

The Golf Club at Ballantyne - Charlotte, NC
-No-Till conversion from Bentgrass to CHAMPION

Bay Hill Golf Club - Orlando, FL
-Replaced Tifagee ultradwarf with EMERALD
-Site of Arnold Palmer Invitational

Beechwood Country Club - Ahoskie, NC
-No-Till conversion from Bentgrass to CHAMPION

Bermuda Run CC - Bermuda Run, NC
-No-Till conversion from Bentgrass to CHAMPION

Big Oaks Golf Club - Saltillo, MS
-No-Till conversion from Bentgrass to CHAMPION

Bloomingdale Golfers Club - Valrico, FL
-No-Till conversion from Tifdwarf to CHAMPION

Blue Heron Golf Club - Sandy Springs, GA
-No-Till conversion from Bentgrass to CHAMPION

Brookstone Golf & CC - Aecworth, GA
-No-Till conversion from Bentgrass to CHAMPION

Calusa Lakes Golf Club - Nokomis, FL
-No-Till conversion from Tifdwarf to CHAMPION

Covington Country Club - Covington, TN
-Greens sodded with EMERALD

Eagle Watch Golf Course - Woodstock, GA
-No-Till conversion from Bentgrass to CHAMPION

Falcon's Lair Golf Course - Walhalla, SC
-Greens renovation, planted CHAMPION

Hawk's Point Golf Club - Vidalia, GA
-Complete renovation, planted CHAMPION

Hole In The Wall Golf Club - Naples, FL
-Complete course renovation, greens replanted with CHAMPION (previously planted 1998)

Holly Ridge Golf Links - Archdale, NC
-No-Till conversion from Bentgrass to CHAMPION

Hyland Hills Golf Club - Southern Pines, NC
-No-Till conversion from Bentgrass to CHAMPION

Jacksonville Beach GC - Jacksonville Beach, FL
-Greens renovation using EMERALD

Kiva Dunes Golf Club - Gulf Shores, AL
-No-Till conversion from Tifdwarf to CHAMPION

La Cita Golf & Country Club - Titusville, FL
-No-Till conversion from Tifdwarf to CHAMPION

Mimichi Lakes Golf Course - Millington, TN
-Complete course renovation, greens replanted with CHAMPION (previously planted 1999)

Montgomery Bell State Park GC - Burns, TN
-No-Till conversion from Bentgrass to CHAMPION

North Hills Country Club - Sherwood, AR
-No-Till conversion from Bentgrass to CHAMPION

Ocala Golf Club - Ocala, FL
-Greens renovation using EMERALD

Old Waverly Golf Club - West Point, MS
-No-Till conversion from Bentgrass to CHAMPION

Orangeburg Country Club - Orangeburg, SC
-Complete course renovation, greens replanted with CHAMPION (previously planted 1997)

Pecan Grove Plantation - Richmond, TX
-Greens renovation using EMERALD

Pelican's Nest - Bonita Springs, FL
-Gator Course greens renovation, greens replanted with CHAMPION (previously planted 2001)

PGA National - Palm Beach Gardens, FL
-Squire Course greens renovation using EMERALD

Pine Forest Country Club - Houston, TX
-Greens renovation using EMERALD

Pleasant Valley Country Club - Little Rock, AR
-No-Till conversion from Bentgrass to CHAMPION

Rebsamen Park Golf Course - Little Rock, AR
-No-Till conversion from Bentgrass to CHAMPION

Sandridge Golf Club - Vero Beach, FL
-No-Till conversion from Tifdwarf to CHAMPION

Sea Trail - Byrd Course - Sunset Beach, NC
-No-Till conversion from Bentgrass to CHAMPION

Seminole Golf Club - Juno Beach, FL
-No-Till conversion from Tifagee to CHAMPION

Sequoyah State Park Golf Course - Hulbert, OK
-No-Till conversion from Bentgrass to CHAMPION

Shreveport Country Club - Shreveport, LA
-No-Till conversion from Bentgrass to CHAMPION

Spring Hill College Golf Course - Mobile, AL
-No-Till conversion from Tifdwarf to CHAMPION

St. Petersburg Country Club - St. Petersburg, FL
-No-Till conversion from Tifdwarf to CHAMPION

Stillwater Golf Course - Arrington, TN
-New Construction, CHAMPION greens

The Claw at USF - Tampa, FL
-Greens renovation using CHAMPION

The Tennessean Golf Club - Springville, TN
-No-Till conversion from Bentgrass to CHAMPION

TPC Prestancia - Club Course - Sarasota, FL
-No-Till conversion from Tifdwarf to CHAMPION

TPC San Antonio - Oaks - San Antonio, TX
-New Construction, CHAMPION greens
-Site of SBC Championship, Valero Texas Open in 2010

TPC San Antonio - Canyons - San Antonio, TX
-New Construction, CHAMPION greens

TPC Tampa Bay - Lutz, FL
-Greens renovation using CHAMPION
-Site of Outback Steakhouse Pro-Am
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- Installing Greens on Over 500 Courses in 16 States
- Breeders of CHAMPION Dwarf Bermudagrass Released in 1995
- Breeders of EMERALD Dwarf Bermudagrass Released in 2007
- Creators of the No-Till Renovation Process Used to Convert Over 300 Courses to CHAMPION
- Developing Numerous Innovations in Production and Planting Techniques

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- Guaranteed Establishment
- Refrigerated Transportation Of Planting Stock
- Sprigs Treated With Fungicides Before Shipping
- The Fastest Grow-In Possible
- No Contamination During Installation
- No Nematodes In The Planting Stock
- No Weeds In Planting Stock
- No Soil In Planting Stock
- No Heavy Equipment On Your Greens
- We Are Always There In Person To Install Your Greens

Follow-up support after installation...
Because we are the breeders of the grasses we install, we will be there to ensure your success for the life of your greens. We make follow-up visits, take soil tests, and make agronomic recommendations for every set of greens we install.

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Collier Miller and TPC Regional Agronomists like Mark Johnson and Dennis Ingram to handle events at TPC facilities, as well as other tour events each year.

Once you've done a few of these—if you've been paying attention—you know what they're looking for. Champions Tour player expectations are pretty much like the PGA Tour player expectations especially as more veterans of the PGA Tour come on to the Champions Tour. Firm and fast, so irrigation management is very important. Obviously, we do minimal watering during the tournament. Other than that, we strive for consistency from green to green—smoothness, true lines of putt, bunker consistency, consistently mowed rough at a consistent height. If we do that, then the players, rules, officials and agronomy team are all on the same page.

ANY WHINERS AMONG THE CHAMPIONS?
I'd be lying if I didn't say I hadn't had to deal with player complaints. I had a couple of them when I was at Stonebridge. Thankfully, it has been pretty good during my TPC events. It's usually the odd comment to a rules official or Mark (Johnson) or Cal (Roth). I've never had anyone get in my grill (laughs).

YOU MENTIONED CAL ROTH, TPC'S LONGTIME AGRONOMY CHIEF. DOES HE EVER GET MAD?
Cal's pretty calm and collected most of the time. The only time he might show the other side is when things don't go his way—especially during last-minute tournament prep. He doesn't like rain or lightning or other acts of God. He can steam a little when that stuff happens. He's a pretty firm guy. He'll let you know when you're outside the ropes and he needs you to be inside. But he's very fair and very knowledgeable, and that makes him a great guy to work for.

NAME THE BIG INFLUENCES ON YOUR CAREER?
Cal's certainly high on that list. He's taught me so much. I'd also say John Krutilla, who's retired now. I worked for him when I was a kid in high school, clear through college and as an assistant at the Elks Club course in Kankakee (Ill.). He got me interested in this as a career. Then, of course, there was Bob Williams. I worked at Bob O'Link as a trainee out of college and I didn't know how important it was to have worked for Bob until I became a superintendent and I found his words coming out of my mouth about twice a day. And, of course, I got to know his son Bruce Williams. We were about the same age and we were heavily involved in the MAGCS and national political stuff together. We've been friends for all these years and we still teach (seminars) together. You have to have a lot of respect for Bruce and what he's accomplished in this business and I am fortunate to have him as a friend and as a mentor.

YOU'VE BECOME SOMETHING OF A POSTER BOY FOR ENVIRONMENTAL GOLF. WHY?
I'm not sure when the first seeds were planted, but I just gradually became more aware of our role as superintendents in protecting the environment and how easy it was for us to become leaders. It just doesn't take that much effort. I'm not a card-carrying environmental maniac by any means. When the whole...
When it comes to course appearance, there is no trophy for second place. That's why we developed new Reserve™ Fungicide. Reserve delivers superior, broad-spectrum disease control without turf thinning that other fungicides can cause. Reserve prevents algae growth and controls just about everything under the sun including dollar spot, brown patch, snow mold, and anthracnose. And thanks to Reserve's StressGard™ formulation technology, it helps manage course stress, maintains turf roots and improves turf density. Of course new Reserve is Backed by Bayer, which means all of our research and support is at your fingertips to help you create the healthiest, thickest, greenest turf possible. Because when it comes to your course, good enough isn't good enough. To learn more, go to www.BackedbyBayer.com/Reserve.
environmental movement got started, I was like most superintendents and didn’t know quite what to think about it. Then I did the construction at Stonebridge and had a lot of decisions to make on the maintenance facility and chemical storage, rinsing area, etc., and it started me thinking. My interest grew exponentially at TPC Jasna Polana in New Jersey because about that time the TPC Network really started emphasizing ecology and the Environmental Leaders in Golf Awards program got started.

At the time, I’m working in New Jersey, which may not have the greatest reputation, but their regulations are tough and you have to be on your toes. It usually takes lots of concessions to get permits. It was a little intimidating to do monthly water quality testing and follow some of the stringent rules, but you had to figure out a way to convince people that we were a positive, not a negative. I really bought into it and got interested in it.

WHAT KIND OF THINGS WORKED?
I met with a lot of environmental leaders in the area and tried to get to know them. Then I went to see Dr. Roy Meyer, with the NJDEP, who was responsible for all the groundwater testing on golf courses in the state. I figured it was better to know your enemy, as they say. But he turned out to be anything but an enemy. He was a huge help and his role was to be an advocate and a source of information for people like us.

HAS IT BEEN A BURDEN TO BE GREEN?
I just haven’t found it to be that difficult. It’s a lot of common sense. You have to know a bit more about the products you use, but it’s not too hard to find that information and tailor your agronomy plan around that information. There were a few things in New Jersey that we couldn’t use because of the testing, but we knew that. The NJDEP told us. The one time we did experiment with something on the no-no list, it tested positive. They weren’t lying to me.

HOW IMPORTANT HAVE YOUR INTERPERSONAL SKILLS BEEN IN YOUR SUCCESS?
It’s a huge part of success in this business. People like Bob Williams told young graduates back in the late ‘60s, ‘Mark my words, agronomy issues will be relatively small in your future – communications and fiscal management and personnel management will be critical.’ That doesn’t overshadow the agronomy, but it grows every year.

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Ironbridge Golf Club isn't easy to maintain. It's nine miles around, has a 500-foot elevation change from the pro shop to the tee and is the wintering ground for several hundred elk.

Those variables didn't change when resources were slashed as a result of the facility, a holding of financial services giant Lehman Brothers, declaring Chapter 11 bankruptcy last February.

Ironbridge's maintenance staff had been operating with caution since Lehman Brothers filed for the largest bankruptcy in U.S. history on Sept. 15, 2008. But several links down the corporate chain, operations at Ironbridge in Glenwood Springs, Colo., hadn't yet been affected.

Last February everything changed overnight, says operations manager and golf course superintendent Eric Foerster, CGCS, MG.

"I got a call from the bank saying our accounts had been frozen," Foerster says. "Before that there was no indication they were going to put us into bankruptcy. It happened very quickly."

The golf course maintenance budget went from about $1.2 million to about $600,000. The crew used to include Foerster, five full-timers and as many as 16 seasonal employees. Now there are four full-timers (Foerster, two assistants and an equipment manager) plus only four seasonal crew members.

"One of the first things I had to do was release my first assistant, who'd been here since I arrived," Foerster says. "He was my number one guy. Fortunately, the course right next door was looking for someone at the time, so it worked out for him. But it was tough.

"With our seasonal staff, we had a bunch of people that would come back year after year, and I was forced to only pick four," he says. "I had to choose and say no to guys who had been loyal."

Operating as a debtor in possession, which Ironbridge remains today, every item purchased — whether it's a pencil, a fuel filter or a pallet of fertilizer — has to be approved up the chain of command by a development consultant. Any purchase greater than $5,000 needs court and creditor approval.

"With our seasonal staff, we had a bunch of people that would come back year after year, and I was forced to only pick four," he says. "I had to choose and say no to guys who had been loyal."

Ironbridge typically opens in early to mid-April, but after getting "the call" about being in bankruptcy Foerster wasn't sure the course was going to open. But he had to assume it would — and that included operating with a bare-bones budget and crew.

As the wintering ground for 300 to 400 elk, much of the early spring workload involves cleaning up after them — including collecting droppings, eradicating urine dead spots and removing 11 miles of rope from every green and tee and 3,000 wire mesh fences from around trees. Before, Foerster always had the staff to handle this work.

Last year, he needed to develop a new plan. Thanks to the help of an imaginative staff, he came up with one.

Instead of using vacuums and blowers to collect all the droppings, which can take four or more workers several weeks to complete, they devised a solution to mow over the entire course, chopping up the elk droppings.

"The blades chop up the elk droppings into tiny bits that disperse," Foerster says. "It's a great organic source for the turf. We got the benefits from putting a manicure application out and it cleaned up the course very nicely. It's interesting that we saved a tremendous amount of time, but we never would have changed this otherwise."

One man can mow the entire course (rough, fairways and tees) in one week.

The crew also streamlined collecting and storing the rope. Before, it was an exhaustive process, taking several days to wind the 11 miles of rope back onto spools. Last year, because they didn't have several days to spare, the crew developed a tool that fits on a battery-powered drill. The winding process now takes two days and is much less fatiguing for the staff.

"Some good stuff has definitely come out of this whole thing in that it's forced us to
Ironbridge Golf Club’s maintenance crew, including equipment manager John Weider (left) and superintendent Eric Foerster, have devised unique equipment and processes to clean up after several hundred elk each spring.

"Once we cleared the elk hurdle, it was motivational. I thought, 'If we can clean up after the elk, I think we can make it through the whole season.'"  

- Eric Foerster
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rethink every single aspect of what we do,” Foerster says. “Once we cleared the elk hurdle, it was motivational. I thought, ‘If we can clean up after the elk, I think we can make it through the whole season.’”

STARTING WITH STANDARDS
The time after learning about the bankruptcy was unsettling – and Foerster didn’t even know if the course was going to open.

“I thought, ‘Now I’ve lost all my crew, how the heck am I going to get all this stuff done?’ I had no idea,” Foerster says. “One of the things we’d always prided ourselves on previously – it’s a development mentality – it’s all about being green, all about details, all about aesthetics, which is great when we had the crew to do it.”

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That wasn’t the case anymore. Thankfully, Foerster had good records and an existing golf course standards document he used to review every process.

“I’d always kept accurate time records on how long everything takes, and I just started adjusting that to what I think we could do based on meeting with my staff,” he says.

Ironbridge did open, but much of the detail work would change and Foerster had to find many new ways to operate.

“The third week in April we got a call saying to open the next day.”

Foerster and crew made some typical cost-cutting changes: They increased no-mow areas by leaving buffer zones around the ponds, which saved some time. Bunkers went from being hand-raked daily to twice a week plus spot checking. Greens went from being walkmowed to triplexed. Fairways went from being doublecut to being mowed twice a week.

In many cases, finding ways to improve processes meant going back to the basics, Foerster says.

“We used to mow greens to heights around 0.110 inch; we’re back up to 0.125 inch,” he says. “By increasing height of cut and focusing on greens fertility, we’re able to eliminate most of our moss problems. That’s something that wouldn’t have happened before. It was a problem on our first, seventh and seventeenth holes. We had patches here and there. By
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changing up our program because we were forced to and go back to the basics, that actually helped us solve a problem.”

Foerster also saved time by outsourcing fertilization on the rough and fairways.

**Mastering a new mind-set**

Eric Foerster partly attributes his ability to maintain Ironbridge Golf Club with a stripped down crew and budget to what he learned while earning his Master Greenkeeper designation. He’s the 51st person to earn the MG and one of only 20 people who hold both the MG and Certified Golf Course Superintendent designations.

Foerster decided to pursue the MG after attending the British & International Golf Greenkeepers Association’s Turf Management Exhibition (BTME) as part of Bernhard & Co.’s exchange program. He started the process shortly after returning from the trip in 2008 and earned the designation last fall.

“When I’ve traveled to England and Scotland and talked to the guys over there, a lot of them manage courses with small crews like this all the time,” he says. “They look at us and say, ‘It’s crazy – you have 20 guys?’ So having that connection through the MG process, being a member of BIGGA and following the practices they do every day has been helpful.”

One example he gives is bunkers. “They don’t rake traps every day, but here it’s expected,” Foerster says. “Over there it’s not about the perfect lie. Golf is still a game there. I think I was able to bring back a bit of that to this golf course last year. It wasn’t about perfection. It was about concentrating on playability. That I can do with what I have. Maybe cart path edges aren’t perfect, but I can tell you, you can come out here and play golf and you’re going to enjoy yourself.”

Because of the logistics of the course layout, fertilization used to take the crew about three days (estimated labor cost of about $1,500) using a Lely spreader that spreads about 1,000 pounds per load. Now, he calls on his local suppliers for fertilizer applications, which takes them about six hours with specialty equipment. As an outsourced service it costs $800 to $900.

Watering Ironbridge’s greens has changed, too. Foerster noticed localized dry spot on the greens in the late spring or early summer.

“There was no way we were going to be able to keep up with the hand watering with our crew size,” he says.

So, instead of light irrigation events based on ET rates, Foerster chose to flush the USGA-spec greens. Moving to flushing allows the crew to water the greens once per week from mid- to late June until the end of the irrigation season; the greens require no hand watering.

“The key to flushing was to achieve field capacity,” Foerster says. “Once we did that, the greens were great.

“If you don’t reach field capacity, you may have a soggy mess on your hands. For us, we would typically water the greens for approxi-

(continued on page 48)
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The debate over how to pay full-timers is often as much about compliance as it is about preference.

"Compensation is a simple matter of economics," says superintendent Alpha. "Your club may see it that way," replies superintendent Beta. "But at my municipal course, we use benefits like a pension and great medical plan as incentives for our assistants and mechanics."

"Don't forget the human element," says superintendent Kappa. "My guys jump at our training opportunities and they really appreciate the flexibility our comp time program gives them."

"I'm sure they do," says Alpha. "But comp time doesn't spend like summer overtime pay."

You may have had a conversation like this a time or two. Approaches to compensation, hourly vs. salary for starters, vary like the nature of one hole to the next.

FINDING BALANCE AND THE LAW
Local and federal labor laws have been established to help balance employees' need to be paid fairly for their work with business' need to manage payroll. Carrie Riordan, senior director of member programs with the GCSAA, says that balancing act is one of the biggest areas superintendents struggle with in budgeting.

One of the most common questions, Riordan says: "Can my assistant be salary, because my assistant is working a lot of hours and it's more cost effective for the facility to have the job salary vs. hourly?"

The answer is consistent: "Maybe."

Positions like first assistant, second assistant and equipment manager are different in the eyes of the law. Federal law has key guidelines that help determine whether an employee can be exempt from the Fair Labor Standards Act, according to the U.S. Department of Labor Web site. This law requires overtime be paid at the rate of one and a half times the employee's regular rate for hours worked over 40 in a work week.

In the golf industry, the most common exemption granted under the law is in section 13(a)(1), where an employee must be paid on a salary basis no less than $455 per week for work that directly involves management of the business and also requires specialized academic training. For more information on state
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law consult your state department of labor or the GCSAA.

Riordan says job titles add confusion. “The title really doesn’t have anything to do with whether you pay hourly or salary. It’s completely based on the job duties,” she says. She encourages superintendents to have written job descriptions to spell out each position’s duties. That analysis and documentation can help eliminate problems early.

Many superintendents rely on their assistants to supervise the crew, and that supervisory role satisfies a key component of federal law. But that’s only one driver behind having an assistant on salary, according to Bill Maynard, CGCS, at Milburn Country Club in Shawnee, Kan.

“I have always salaried my assistant superintendents,” Maynard says. “It’s just the number of hours that I demand from them, it becomes more beneficial to the club. He’s usually here 30 minutes prior to the shift and stays 30 minutes to an hour after the shift. The guy is always on call.”

Superintendent Chris Carson of Echo Lake Country Club in Westfield, N.J., sees two viewpoints in the debate over assistants’ pay.

“One is take advantage of these guys and in the process they get a boost up and get a chance at a superintendent’s job,” says Carson. “And the other is pay them for the hours they work. I’m more in that camp, I guess.”

At Echo Lake, the assistants and equipment staff are paid hourly and everyone, including seasonal staff, qualifies for benefits like 401(k), sick pay and medical. The average tenure for seasonal staff is 12 years.

Charles Passios, COO at the Golf Club of Cape Cod in North Falmouth, Mass., notes that what may be a lot of responsibility doesn’t automatically mean an employee is exempt.

“One of the biggest myths, at least in Massachusetts, is the mechanic position,” Passios says. “Even though they are directly responsible for one of the biggest asset pools (golf equipment) a course has, they typically do not manage staff as part of the job and therefore do not qualify for salary.”

Some issues, like a mower that breaks down mid-morning, can really hurt a day’s productivity. That kind of equipment crisis often means overtime.

Equipment manager Mike Kriz, Arrowhead Country Club in Rapid City, S.D., is the current president of the International Golf Course Equipment Managers Association. He says employees seek the best kind of compensation to fit their lives. Most equipment managers in the association are hourly employees, but that varies. Some people have busy lives outside work and would rather not work many extra hours.

“It’s what’s important to you,” Kriz says. “There are people out there who live off overtime.”

CONSIDERING THE BIG PICTURE

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director of agronomy at Monmouth County Parks in New Jersey, is to use approaches in compensation that help everyone. One strategy that achieves this is providing inexpensive housing to assistants.

"It’s important to us because we get 24-hour coverage, security and logistical support," Pease says. "So it’s a win-win for us. We actually benefit from it as much as an organization as the employee benefits from the fact that his housing cost is reduced."

With a superintendent, one assistant and a mechanic at each of his primary courses, Pease also uses a compensation time program in his operation. He feels that the pension, health care and prescription plans all make for an attractive package that draws top personnel. They also can attend training out of state and even take their family along.

Another factor for assistants is building skills for their next position, so advancement potential is an unpaid type of compensation. Carson, who teaches budgeting and planning in the Rutgers short course, says he prefers to pay staff overtime vs. a flat salary. He says the drive to land a superintendent position fuels the efforts of many young people in the industry and means they are willing to work harder for less money, especially at top-notch courses.

"It becomes easier for the superintendents at those clubs to attract the very best candidates," Carson says. "And those candidates typically have lots of ambition and as a general rule they’re more inclined to work whatever it takes to get that next step to make them a superintendent."

Many large golf operations keep this approach in mind as they try to balance payroll and internal talent pools. For some assistants, pay isn’t necessarily the deciding factor in job satisfaction.

One other consideration is compliance, which is always important, industry veterans say. "In this economy, filing for everything from suspected harassment to compensation violations is up nationwide and employers really need to understand their requirements under the federal and state statutes as any infraction taken to action can be a costly and long process," Passios says.

While superintendents are not required to put anyone on salary, there can be other benefits besides saving overtime for the facility that puts an assistant on salary, Maynard notes.

"When you’re on salary you think, ‘Okay, I’m management now, let’s look at it from a management perspective;’" Maynard says. "I had a tendency to make more money if I was an hourly guy," Maynard says, but he preferred being on salary. "I feel more empowered. I think the salary aspect of that really does help. It kind of gives you a stronger work ethic."

Michael Coleman is a freelance writer based in Kansas City. He can be reached at irishladkc@att.net.
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A n extreme green makeover in 21 days. While it sounds more like a reality show on The Golf Channel, it's what Devil's Paintbrush accomplished last August.

Located in Caledon, Ontario, just northwest of Toronto, Devil's Paintbrush is links-style course designed by Michael Hurdzan, Ph.D., and Dana Fry. It opened in 1992, but after a harsh winter in 2005 damaged many greens, superintendent Ken Wright thought it was time to rip up and reseed the surfaces. His main objective was to rid the greens of any traces of contaminants (mainly annual bluegrass) by resurfacing them with a new bentgrass variety. Devil's Paintbrush was originally seeded with Penncross creeping bentgrass.

"It's not obsolete, but it's an older style," Wright explains. "All the new varieties of bentgrass are more disease-resistant, and more cold-, heat- and drought-tolerant."

Wright says it was difficult to choose what seed to use. There were about five that could have worked, but he ended up choosing Jacklin's T1 bentgrass. Wright consulted research and read how many Minnesota courses - where it's colder than the Paintbrush - had done a lot of overseeding with this bentgrass variety with good results. An indicator of this variety's versatility is the fact that Shadow Creek Golf Course in Las Vegas also had used T1 successfully to regrass its golf course.

Convincing the owners of Devil's Paintbrush to agree to Wright's proposal to strip and reseed all the greens was easy, he says, since, as an equity club, the owners make the final decisions, not the 750 members. "I've been here for 20 years and I've always had a good rapport with them," he says. "They trust me and have confidence in what I've done." It also helped that two courses comprise Devil's Pulpit Golf Association, so members still had a place to play even after the Paintbrush was closed for the season on Aug. 4, 2009.

OUT WITH THE OLD
Basamid - a granular product that's the only registered fumigant superintendents have at their disposal in Canada - was used to kill the old grass. The Paintbrush crew says it's not quite as powerful as methyl bromide, which is often used in the U.S., but it has other benefits. You don't need another company to come in and do it; you can apply it in-house as long as you're a licensed applicator.

"Many guys will strip greens and resod, but the soil profile over the years has annual bluegrass wheat seeds," says Jayson Griffiths, the assistant superintendent, who coordinated the project and applied the Basamid. "The main objective of using Basamid was to sterilize the root zone, so any traces of annual bluegrass wheat seed, at least in the top five to six inches, would be killed outright."

Devil's Paintbrush in Caledon, Ontario, gets a new putting surface palette in 21 days.

By David McPherson
Wright and Griffiths did a lot of research and experimented with Basamid on a test green in 2008 before starting this project.

Devil’s Paintbrush did not want to close the course for the full year. That’s why they chose to begin August because, to be effective, Basamid needs heat; plus, it must be applied dry, wind-free conditions. Griffiths recommends using a drop spreader and applying the recommended rate of 8 pounds of Basamid per 1,000 square feet, so your walking speed is critical.

Research Wright and Griffiths consulted included a Penn State University study by Peter J. Landschoot, Ph.D., and Bradley S. Park where Basamid was used with and without covering the greens in plastic, to see the difference in how many wheat seeds were left in the ground following each technique.

"With covering, you get almost 100 percent control versus not covering where a few viable seeds remain," says Griffiths. "We couldn’t afford to let any of the gases escape. We wanted to make sure once they were active they remained in the soil profile."

Devil’s Paintbrush fumigated 5.5 acres of greens, which included the aprons. Griffiths’ role in the project was putting together a plan and time line. Once Wright gave the go ahead, Griffiths says the first challenge was to acquire enough plastic to cover all of the greens. He worked with contacts in the greenhouse industry and managed to find a plastic supplier in Edmonton, Alberta.

"Once we had the plastic we needed to come up with a way of putting it together, as no one had done this before," Griffiths says. "We acquired all the plastic ahead of time because we knew fabricating all the covers would take time."

Griffiths says a good GPS outlay of the golf course allowed them to understand the sizes of the greens they were going to cover. The plastic covers ranged from...
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4,000 to 5,000 square feet per single cover; an average small green apron would require approximately 12,000 square feet of plastic. Senior members of the Devil's Paintbrush crew fabricated the covers. It was rolled up, and then steamed together. A bead of vapor-barrier adhesive was put down, overlapped, and then fastened further using duct tape.

From the research Wright and Griffiths conducted, they learned that once you activate Basamid, it needs to be covered for six days. Then you want it to off-gas once the chemical has done its work on the weak seeds and insects and anything organic left in the soil profile. It has a very short half-life (approximately 24 hours), so you need to give the greens time to dry once the covers are off.

"Once the covers are off, you need six days to make sure the seed bed is ready to receive seed," says Griffiths. "If you seed too soon and there is any viable product left in the ground, once you water that seed to activate it for germination, you could reactivate any Basamid product that's left."

**AT A GLANCE:**

**Devil's Paintbrush**

- **Location:** Caledon, Ontario, Canada
- **Cost:** $71,481 (includes the fumigant, bentgrass seed, plastic covers, personal protective equipment, sand topdressing and labor)
- **Project:** Greens reseeding
- **Superintendent:** Ken Wright
- **Assistant superintendent:** Jayson Griffiths
- **Date began:** August 5, 2009
- **Date reopened:** TBD, May 2010
- **Acres of polyplastic sheets:** 7
- **Man-hours:** 2,500
- **Acres of greens:** 5.5
- **Old turfgrass type:** Penncross creeping bentgrass
- **New turfgrass type:** T-1 creeping bentgrass from Jacklin

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"Because the covers were 10,000 square feet, it took a crew of eight people to apply them," says Griffiths. They also removed a ring of sod from outside the perimeter of the apron/green to weigh down the plastic.

"If it was a windy day, we would parachute the covers over the green, and once it was down, the other crew would place the rolls of sod back on the edge to ring around the outside of the green to secure the covers and make sure there were no gaps," adds Griffiths. "Then the ends of the plastic were rolled up, wrapped around the sod and staples were put through it. Any excess was cut and taken away."

The greens were then left to gas for six days. Devil's Paintbrush crew did five to six greens per day. One crew did the sod cutting, another crew came behind doing the aerifying, and then Griffiths would follow applying the Basamid. Finally, there was a crew that applied the plastic.

It was a sunny day with a high of 79 F when Wright, Griffiths and the crew started peeling back the layers of plastic from the first six of these greens seven days after the covers were placed down. The greens were left to off-gas for one day and then the crew took four days to prepare the seed beds. They worked from the center out, breaking up cores with a verticutting machine and removing any organic matter that may have accumulated from the dead root mass.

"We added root-zone topdressing and did manual sand probing," says Griffiths. "We wanted to improve the transition from sand-based greens to fairways, so we used very shallow tines in the aprons and broke cores out systematically to have a smooth transition."

Devil's Paintbrush did more than 20 mowings in September and October and they were pleased with the initial germinations of the new greens.

Wright says, "We're hoping for an early spring and success in the year to come."

David McPherson is a freelance writer based in Toronto.
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Dollar Days

Improving the ability to predict dollar spot epidemics.

Fungi are considered to be the most important pests of amenity turfgrasses. *Rhizoctonia* species, the casual agents of diseases such as brown patch and yellow patch, and *Sclerotinia homoeocarpa*, the causal agent of dollar spot are a few of the most important pathogens of cool-season turfgrasses. Dollar spot is likely the most economically important turfgrass disease in North America. Dollar spot is a foliar disease that occurs on most types of turfgrasses ([bentgrass](https://en.wikipedia.org/wiki/Bentgrass) (*Agrostis* sp.), [bermudagrass](https://en.wikipedia.org/wiki/Bermudagrass) (*Cynodon* sp.), [bluegrass](https://en.wikipedia.org/wiki/Bluegrass) (*Poa* sp.), [buffalograss](https://en.wikipedia.org/wiki/Buffalograss) (*Buchloe dactyloides*), [fescue](https://en.wikipedia.org/wiki/Fescue) (*Festuca* sp.), [ryegrass](https://en.wikipedia.org/wiki/Ryegrass) (*Lolium* sp.), and [zoysiagrass](https://en.wikipedia.org/wiki/Zoysiagrass) (*Zoysia* sp.). The disease is frequently found on highly managed golf greens and fairways where it can be quite destructive. On closely mown grasses, initial symptoms will appear as bleached or straw-colored circular spots approximately 1 to 2 inches in diameter (Figure 1). On taller grasses, spots will be somewhat larger, but usually less than 6 inches in diameter. Leaf lesions will typically take on an hourglass shape and will be bordered by purple-brown margins (Figure 2). Damage to the turf results in sunken areas that affect ball roll and can contribute to weed encroachment or result in plant death. Management of the disease frequently includes removal of dew, irrigation-timing management, fertilization, and the use of fungicides.

In the southern Great Plains and westerly states like Oklahoma, symptoms of dollar spot normally appear in spring and fall seasons. During these periods, temperature differentials during the day and evening can be large. In addition, humidity is often high. These conditions result in substantial dew events, which encourage dollar spot development and progress.

During the hot summer months (July and August) dollar spot subsides as the weather is much too hot, humidity is low and rain events are infrequent. In some years, when weather is unseasonably wet, dollar spot can persist through summer months.

In northern states like Wisconsin, the conditions that favor dollar spot development are similar to those in the southern Great Plains. However, favorable weather events are much more frequent and can be continuous resulting in dollar spot epidemics that persist from June until October. This can result in a substantial number of fungicide applications to manage the long duration of these northern epidemics.

In 1937, F.T. Bennett first described the dollar spot pathogen, yet we still do not have a clear understanding of the basic biology and epidemiology of this pathogen and the disease it causes. Previous research has primarily focused on control measures for dollar spot, which up until 10 to 15 years ago was relatively simple. With the advent of contemporary management programs for new creeping bentgrass cultivars, the development of fungicide resistance and the loss of fungicides that were extremely effective, dollar spot management is much more challenging. Management recommendations can be expensive and require great persistence on the part of the turf manager due to the difficulty in treating this disease and the risk for fungicide-resistant populations of the fungus.

In Wisconsin, golf courses routinely spend 60 to 75 percent of their chemical budgets just to manage the disease. A better understanding of the environmental parameters that influence growth, survival and infectivity of the pathogen will allow

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**Figure 1.** Symptoms of dollar spot on a creeping bentgrass putting green.

**Figure 2.** Symptoms of dollar spot on bermudagrass leaves.

[What You Need To Know]

- Researchers focused on new statistical approaches to develop a new dollar spot prediction model.
- The new prediction model combined detailed weather data and statistical-based techniques.
- Preliminary results indicate this model can accurately predict favorable dollar spot conditions in diverse areas of the country.
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turfgrass managers to accurately time fungicide applications, in turn, leading to less fungicide use. To improve management recommendations and promote targeted-use of fungicides, researchers have developed weather-dependent predictive algorithms using risk indices or statistical techniques to predict infection periods for several pathogens. Some of these predictive models have been used in advisory systems for food crops such as peanuts, spinach, and carrots. In turfgrass, statistical-based advisories have been developed for brown patch of perennial ryegrass and dead spot of creeping bentgrass, while risk index-based algorithms for dollar spot have been developed. Hall determined that 48 consecutive “wet” hours with an average daily temperature at or above 71°F was required for epidemics of dollar spot on creeping bentgrass. If temperatures were below 71°F, three or more consecutive “wet days” were required to initiate the epidemic. Mills and Rothwell’s system recommended a fungicide application when maximum air temperature was 77°F and maximum relative humidity was 90 percent during any three days of a seven-day period. A two-year study comparing the two advisory systems demonstrated that both models were unable to correctly predict infection periods. The Mills-Rothwell model tended to over predict the number of infection periods, while the Hall model under-predicted infection periods. The inability of these models to correctly predict infection by *S. homoeocarpa* may be a result of several factors including the lack of precision and accuracy of weather measuring instruments, incorrect thresholds for the weather variables chosen, or omission of an important weather variable(s). Our research has focused on developing a new dollar spot prediction model using statistical approaches that are relatively new to the field of turfgrass pathology. By combining detailed weather data and statistical-based techniques, we have developed an improved dollar spot prediction model. Preliminary results indicate that the model can accurately predict periods favorable for the development and increase of dollar spot in two distinct environments. Therefore, the potential for this advisory to be used in diverse areas of the country exists, which is unlike previously developed dollar spot advisories.

**RESULTS AND DISCUSSION**

Over two seasons and both locations, 423 observations (daily observations of disease foci for each treatment, averaged across replicates at each location) of disease were used to build the models. Best models included five-day averages of relative humidity and minimum air temperature along with accounting for the use of fungicide. Because it is assumed that the model will only be used when fungicide protection has lapsed, all subsequent analyses were conducted using the model developed when fungicide was not applied (Figure 4). In this model, probability of dollar spot occurrence is inversely related to increasing minimum average air temperature. Average five-day minimum temperatures above 57°F are conducive and preventative treatment of fungicide. Curalen was used for both the preventative and curative treatments at the Oklahoma sites, while a tank mixture of Banner Maxx and Daconil Ultrex was the treatment of choice at the Wisconsin sites. Hourly weather data were collected at each site. Weather data were transformed to five-day moving averages. Previous data analyses indicated that disease development was closely correlated with five-day weather periods. Average disease severity across replicates was converted to a binomial variable (if the average number of spots was greater than one each observation was converted to one; if the average number of spots was less than one, zero was used for each observation) for analysis. Statistical model building techniques (logistic regression) were used to develop a model that used five-day average weather variables and parameters such as time of season and the presence or absence of fungicide to predict the probability of dollar spot development. The statistical model was then converted to an applied form that could be used to calculate the actual dollar spot probabilities. These probabilities would then be used to recommend fungicide applications. Independent validation studies (studies not used in the model building process) were also deployed in 2009 at both locations. Disease was monitored in plots throughout the growing season. Data from plots not treated with fungicide were used in dramatizations to test the new model’s ability to accurately predict dollar spot and advise fungicide applications.
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for the development of dollar spot. As temperature increases above this point, the probability of disease development slowly decreases. However, disease development is possible during periods when average maximum air temperatures are as high as 85°F. Conversely, the probability of dollar spot increases with increasing average relative humidity. When temperatures are between 57°F and 85°F, five-day average relative humidity of 70 percent or above is sufficient for dollar spot development. As was discussed previously, other dollar spot prediction models relied heavily on rain events. In our studies, rain was not a weather variable that was significantly correlated with the development of dollar spot. This is especially true in Oklahoma where rain events can be infrequent and sporadic yet dollar spot can be widespread. During these periods, humidity is often high and temperature differences during the day and night hours are large, resulting in significant dew events. Therefore, the fact that humidity is important in predicting dollar spot is a byproduct of significant wetting events that result from dew events rather than rain events.

When independent validation and dramatizations were examined, it was apparent that an action threshold of 30 percent chance of dollar spot development was required to provide adequate fungicide protection in both locations (Figure 4). When this approach was used, fungicide protection was provided during all periods when significant dollar spot events were recorded (Figure 5). These results are promising because a single model was used to successfully identify dollar spot events in locations that differ dramatically in their climate and weather patterns. In both locations, the model correctly identified warm/hot, dry periods, which are considered of low risk for the development of dollar spot and no fungicide sprays were advised. If these had been actual trials rather than dramatizations, the advisory would have resulted in a significant savings in the number of fungicide sprays and a two-spray savings would have been possible.

These results indicate that a substantial savings in the numbers of fungicide applications can be accomplished using a dollar spot spray advisory, which uses a statistical disease prediction model. More validations studies are needed to verify the usefulness of the model and spray advisory in other environments. However, this research demonstrates that a single model has the capability of predicting dollar spot epidemics even in widely differing environments. GC

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For the full article with Literature Cited, visit golfcourseindustry.com.

Figure 5. Dramatization of fungicide application and protection intervals as it related to actual non-treated dollar spot epidemics in A., Oklahoma and B., Wisconsin. The green line indicates the average number of dollar spot foci in non-treated research plots. Red arrows indicate where fungicide sprays were advised based on the new dollar spot model and an action threshold of 30 percent probability. Grey boxes indicate the periods of fungicide protection (based on a 14-day spray interval).
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WINDING ROPE

Old way: Wind by hand the 11 miles of rope used to protect greens and tees from the elk, taking several days.

New way: Use the rope-winding tool, which fits on a battery-powered drill.

# SAVINGS: Several days and a reduction in muscle fatigue for the crew.

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TRIMMING AROUND IRRIGATION HEADS

Old way: Various methods for trimming around the course’s 2,500 sprinkler heads - such as using string trimmer attachments and even doing it by hand with a knife. “It was a constant job and we always seemed to be behind,” says Foerster. “By the time you finished going around the course once, you were starting all over again - usually three weeks.”

New way: Weidler fabricated irrigation head trimmers that fit in a standard 1/2-inch drill. “We center the cutting unit over the irrigation head and drill for a couple seconds and it provides us with a very clean and neat edge around the sprinkler head,” Foerster says.

# SAVINGS: It takes one man about two days to get around the entire course vs. about three weeks before.

HANDLING STRESS

While such drastic cuts to the budget and staff were daunting, Foerster and his staff took the situation in stride and found some relief in the fact that the members understood the facility’s resources were slashed, so there was less pressure to have perfect conditions.

“Was I super-stressed in the beginning? I was very concerned, but I’d call it a controlled stress,” Foerster says. “I was worried about what I’d do if I lost my job - how long would it take me to find another one? You always hear stories about great superintendents who are still looking for jobs - I didn’t want to be one of them.

“Over the year I found that you get into work and you do what you can do and you go home,” he says. “Personally, I did quite a bit of running and played more golf to get myself away from the stress so it wouldn’t eat me up so much.”

Fortunately, the members supported the maintenance staff.

“They were great - I can’t recall one negative comment,” he says. “I certainly saw things from my own point of view that would drive me nuts - things that normally wouldn’t be there if we had enough people to maintain the course, but people were very understanding. They understand it’s not something I have control over.”

A NEW CHAPTER

Incidentally, the golf course had the best year ever in terms of playability, Foerster says. “Because we were forced to reduce our inputs I think it made for a better course. I think we had a great year,” he says.

“Before, it was always about green and lush. That doesn’t always provide the best playing surface,” he adds.

The facility also had the best year yet in terms of rounds and revenue because it was forced to open to the public.

Ironbridge had more than 10,000 rounds last year (its previous high was 7,000), despite losing about 20 percent of its membership due to a combination of the bankruptcy and economic recession.

“Rounds-wise and revenue-wise, it was a record year,” Foerster says.

Overall, Foerster is proud of what his team accomplished last year.

“I’m proud of the fact that we could maintain a golf course in bankruptcy and still maintain it at what I think is a pretty darn high caliber and not have people notice a tremendous amount of difference,” he says.

“We’re gearing up for it again and this year will be a lot easier because we know how things are going to operate. I think this will be a good year,” Foerster says. “I’m just hoping we get out of Chapter 11.”

John Weidler, who’s been at Ironbridge since 2005, fabricated many of the time-saving tools.

Ironbridge also switched to a different style hole cutter, the HIO, now distributed by Par Aide, that allows them to cut a hole in four to eight seconds.

“With the twist-type cutter we used to use, it could take us from 20 to 30 seconds depending on conditions,” Foerster says. “If we’re able to save 20 seconds per hole, and we change cups four times a week during our 24-week season, we estimate that saves us almost $500. So that piece of equipment will pay for itself in the first year.”

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An ongoing battle

A superintendent in New Mexico experiments with wetting agents to combat localized dry spots

For Steve Campbell, wetting agents aren’t a miracle product; they’re just another gun in the arsenal of turfgrass management.

“If you know how to use them and what they’re supposed to do, they work,” says Campbell, director of agronomy at Las Campanas, a 36-hole facility that sits on 5,000 acres of high desert in Santa Fe, N.M. “If you don’t know what they do, you won’t get good results. There’s no ‘follow A, B, C and D,’ and you’ll be successful. Find out what your problems are and figure out how to fix them. If wetting agents work for me, I believe they’ll work for everyone if they apply them to their individual needs and situations. Each golf course is different. You don’t treat them all the same.”

Campbell manages 100 employees and runs the golf course, landscape, public works and revegetation divisions at Las Campanas, a Lyle Anderson development. Budgets are confidential, but Campbell’s is more than $1 million.

Campbell, who’s been at Las Campanas for 12 years, is a big believer of wetting agents and has used them his entire career. He injects wetting agents into the irrigation system, using 1/16 to 1/4 of an ounce per thousand square feet of turf per day.

Las Campanas receives just 12 inches of rainfall a year, so water is king.

“I need to make water wetter to conserve and use every drop,” Campbell says. “Wetting agents break the surfactant tension of the water droplet and force it to go into the soil.”

Under water conservation mandates, the most water Campbell can use per golf course per day is 600,000 gallons, even though he says he can use less than that during less stressful months of the year. Determining how much water he uses is a complicated system, he says. He checks water use every morning via a computerized monitoring system and reports it monthly. Other parties, namely municipalities, can check his water use daily if desired.

The water is high in salts and bicarbonates, which makes it difficult for Campbell to flush the soil. He can flush salts down into the soil profile with the annual 12 inches of rainfall and the wetting agents he uses.

The bentgrass Campbell grows isn’t native to the area. He says there has been ongoing talk about changing the turf, but the native grasses (buffalograss, for example) would never be used because they wouldn’t survive if cut at turf heights.

“I have bentgrass on greens, tees and fairways,” he says. “The temperature will go down to zero degrees Fahrenheit in the winter, and if I don’t have snow cover, I irrigate the turf once a week because the plant will freeze dry if I don’t because of the high winds and very low humidity. The crown needs to stay wet or it desiccates. We’re at 7,000-feet elevation. The Rocky Mountains begin here in Santa Fe.”

To treat localized dry spots, Campbell uses eight ounces of wetting agent per thousand square feet every two weeks. No matter how uniform a green is, there will be inconsistencies and localized dry spots, which is compounded with salts, he says.

Campbell says he has tried every wetting agent on the market and started using them in Philadelphia where it was hot and humid with an entirely different set of weather, soil and agronomic conditions.

“Surfside is the best wetting agent I’ve used,” he says. “I use it exclusively.”

Campbell uses wetting agents throughout the year and is always looking for a deal. He buys the 55-gallon drums even though the shipping is expensive.

“I spend a minimum of $12,000 on wetting agents a year,” he says. “There has been no year where I spent less than $10,000 on wetting agents. The drier the year, sometimes as little as four inches of rainfall a year, the more I need to supplement my irrigation.”

Campbell acknowledges there’s an uncertainty about wetting agents in the industry, but he says a superintendent has to know his soils, drainage, irrigation and turf problem areas.

“You need to spend the time to experiment,” he says. “One size doesn’t fit all. What I used in Philly is different than what I use out here. It’s no different than any other business. Attention to detail is the key, and versatility is key to success.”

Superintendents will always deal with localized dry spots and wetting-agent use, Campbell says.

“Every superintendent should have a wetting agent as part of his arsenal,” he says. “They’ve been around a while, but they must be doing something for someone because they’ve last a long time. That’s somewhat of a testimonial.”

GCI
Whitemarsh Valley CC just celebrated its 100th anniversary, and the greens are the same age - some just 3000 sq. ft. oldies with restored original bunkers. Bent grass and POA share the scene. The bulk of the soil profiles have never been renovated to modern particle size construction.

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AROUND THE WORLD GOLF CHAMPIONSHIP

Tom Trammell, director of agronomy for the Doral Golf Resort and Spa put on a thicker jacket as we prepared to tour TPC Blue Monster at Doral (Fla.) in advance of his fourth World Golf Championship.

Q What is special for you about The World Golf Championship?
A It’s as close to a major championship as I can have. The event hosts 75 of the world's top players representing each major golf tour from around the world. It’s perhaps the strongest field in golf and we treat it as such.

Q Tell me about the agronomic issues that concern you the week before the championship?
A The weather has been the biggest obstacle. The cold temperatures have lingered for several weeks and affected the health and growth response of our hybrid Bermuda turfgrass putting greens and fairways. The turf is weak from the last six months of unusual weather. During the summer we encountered 50 inches of rain and constant cloud cover. Less sun and more moisture leads to thin and weak turfgrass with little recovery potential.

In addition, due to our national economic picture, the resort opened more opportunities for play by members, resort guests and outside play, which has increased the traffic, fairway divoting and ball marks on the putting greens. Not wanting to disrupt guest play, our agronomic cultural work was decreased. The lack of routine cultural programs to strengthen the turf for winter play has set us back.

Q Describe what you and your team are currently doing to enhance your playing surfaces?
A I always look back before moving forward in this business. Entering last year’s event we were dry and it showed during the telecast. Our first goal was to modify and enhance the irrigation system by increasing water availability through additional quick couplers coursewide. We now have access to irrigation for any droughty location, which allows for uniform playing conditions. We hand irrigate to be more precise.

For the onset of the colder weather we accomplished the following for the putting greens:
- Increased our foliar fertility on a weekly schedule and applied when we felt the plant would actively take in the nutrients. Without the required cultural work we are dealing with an increase in organic matter and a weakened plant.
- Ceased all Primo applications seeing we had a natural growth regulation with the cold.
- Increased the height-of-cut for our greens and all turf, installed solid rollers and monitored player/cart traffic. Semi-dormant turfgrass — whether cool or warm season varieties — will suffer in heavily trafficked areas.
- We stopped using walk mowers and used triplex units during the coldest period.
- Instituted weekly needle-tining, especially on the putting green perimeters and clean-up pass to reduce compaction.
- Reviewed the shade impacts from surrounding trees and removed any offenders.

Q With an event as challenging as this, I know green speed will be an issue. What are you doing to meet PGA Tour requirements while the weather remains cold?
A We have met their advance week specifications, but will need to gain some more speed quickly while play is still going strong. What we have done is:
- Use a combination of light grooming with the groomers set slightly below bed-knife height, followed by light topdressing using the bagged sand, which is very dry and can be easily worked into the turfgrass canopy.
- Incorporate light brushing of the green surface as well as vertical mowing up and back along the same pass before moving to the next cutting pass. This “back-track” vertical mowing allows us to stand up our TifEagle and remove more leaf blade without lowering height-of-cut too soon. We drop the height on a regular schedule beginning the weekend prior to the event.
- Return to Primo applications at a reduced rate on a shorter schedule.
- Monitor irrigation and traffic.
- Monitor the weather forecast to avoid doing any cultural practice, which will damage turfgrass and impact resort play after the event has concluded.

Q Any additional tournament advice to offer?
A With the enormity of the championship we must coordinate our staff and be sure all assignments, times and concerns are met and accomplished on schedule without too many questions.

We have provided all employees with their own schedules of tasks and daily events, as well as when to arrive, eat and leave the golf course.

We request all employees wear flat shoes to reduce abrasion to the turfgrass during the colder weather.

We do not allow any cellular phone conversations during work unless it’s to contact a member of the management team. All necessary phone numbers are provided on the schedule sheet.

Last but not least, as each person exits the golf course at day’s end they are required to check that no flagstick or tee marker remains on the golf course lest it becomes a unique souvenir. GCI
Golf Course Industry: The only magazine moving UP the leaderboard.

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was oblivious to the occasional showers everybody else seemed to be grizzling about at the Golf Industry Show this year. I had my umbrella.

It would have taken a lot more than unusual weather in San Diego to spoil what was an unexpected and wonderful invitation to attend the GCSAA conference and show. GCI editor Mike Zawacki invited me to go as part of the team. All they asked was for me to help work the booth during trade show hours on Tuesday and Wednesday. Who could turn down such an offer?

Working in the GCI booth was hardly “working.” It was more like visiting, something I have done a lot of in my life. Advertisers came by, superintendents stopped and media people in general wanted to talk. Everyone wanted to see Pat Jones. The booth was a beehive of activity.

Although I may have been visiting, the editorial staff was on the go, making the most of the shortened trade show hours. Like superintendents, the chance to see a lot of people in one place in a short period of time is one you cannot pass up. A time or two I was in a panic when I was the only one manning the shop!

The two-day show format seemed to be well received, especially since the show had little or no competition from lectures and seminars or other meetings. It was pretty busy most of the time, pleasing the exhibitors greatly. The narrower aisles and seemingly diminished length of the show area at least gave the impression more people were there despite attendance being down about a thousand attendees from last year’s show in New Orleans (down about 6 percent).

I used my free time to attend, for a few minutes at least, seminars and sessions. They were up to the standards of GCSAA education, which the association does very well. It will be interesting to see how many attended the paid seminars; the luncheon crowd was decidedly smaller than in previous years, leading me to conclude there were fewer people in the seminars. I heard great reviews of the Frank Rossi/Roch Gaussoin seminar “Golf Turf PTI,” modeled after the ESPN show. These two veterans put a lot of creativity into this seminar and their audience loved it.

That makes sense since we’re certain fewer made the trip to GIS than in recent years. Attendance reflects the tough times golf finds itself in these days. I was proud of my successor at Blackhawk Country Club; he and the assistant were able to stay a full week, take full-day seminars and max out on the experience in every way. They did it for a total for the two of them of $1,200! They roomed with one and sometimes two colleagues at Humphrey’s Half Moon Inn ($139 each night), rode the shuttle bus, used airline tickets purchased with points from the club’s business credit card, and bought groceries for some meals in their room. They had a great and productive conference and show without breaking the bank or having to miss it entirely. It wouldn’t suit everyone, but they were unfazed.

I’m a rubbernecker from way back, and I’ll admit I missed seeing any real celebrities, especially since Judy Rankin wasn’t able to receive her Old Tom Morris award in person. However, Greg Norman made a brief appearance and I was able, through some luck, to get him to autograph my copy of his book “My Story,” from 1983 (1st edition). As for the keynote speakers, Chris Gardner’s story was fine, but Brian Little’s presentation didn’t do much for me.

The Celebrate GCSAA event was too long, and I had to leave the day of the Green Section Program — it is usually excellent. I had a great visit with Charlie Tadge and Cliff Wagoner, two venerable past presidents, and our Wisconsin hospitality event was tops, even if the music was too loud. The Tin Fish Restaurant still serves good food at a fair price, and the area around the convention center was still neat, clean, safe and convenient (none of which New Orleans could claim).

All in all, it was an experience just about like it was at all the other shows I have attended — nothing short of terrific.

I hated to leave and head home, but I had some great memories and a new Jacobsen hat to wear for the rest of the winter. GCC
IMPROVED REEL SETUP & LIFT TABLE

Eric Kulaas, equipment manager at the Renaissance Vinoy Resort & Golf Club in St. Petersburg, Fla., replaced the facility’s Golf Lift Model GL-TL’s original aluminum diamond-plate table top which got dirty quickly, was difficult to clean and hindered moving the reels around because they didn’t roll smoothly, with a smooth ¼-inch thick metal top to the same 54" x 84-inch size. The bottom framework is 1 ½” x 3/16” angle iron, with 2” x ¼” flat stock cross bracing, which is fairly close to the original layout, but is built stronger.

A 16” x 24” x 1” removable surface plate was added and it was machined near perfect level to 0.002 inches on both sides. Two removable, drilled and tapped handles were added to make it portable. The surface plate is used to make sure reels are perfectly level, with the back roller and the front roller adjusted with an Accugage. The new table, like the original table, has four nuts welded to it to attach it to the lift frame. The underside of the table was painted with primer, a vise was installed on the back left corner for working on rollers, a thick rubber mat was placed on the shop floor for more comfort while standing and the ramp was left as-is.

The vise cost about $200, the angle iron and top plate were about $400 and the smooth surface plate was about $150. It took about four days to build.

FLYING DROP SEEDER

Bruce Leonard, equipment manager, at The Silverleaf Club in Scottsdale, Ariz., has modified a Gandy 10’ wide drop seeder used for winter overseeding the Bermudagrass around the edge of the fairways/roughs, which are bordered by native desert. Since the overall width of the seeder is 12’ and the cart paths are only 8’ wide with native desert areas containing rocks, cacti and small animals on both sides, Leonard started off with an AerWay Aerifier hydraulic lift kit wheels and axles that raises the Gandy 13” off of the ground to "make it fly" over the desert areas. Leonard built a frame on the Gandy from the following: a 4” x 2” box tube, ½” thick plate steel, 3” x ½” box tube and ¼” metal corner braces. The AerWay lift kit uses two heavy-duty axles, 18” x 8 ½” wheels and tires and one hydraulic piston and hose. None of the framework was welded onto the seed hopper so that it was not damaged.

All of the materials were already in stock and it took about eight hours to build the framework.
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HUH?

It's really hard for me to find much to complain about these days. Love my new job. Spring has arrived after another brutal Cleveland winter. Tiger is (mostly) out of the tabloids and back on the golf course. Life is pretty good.

Yet, I can always find something to whine about. In this case, it's the whining in my head.

I am one of millions of Americans who have this lovely condition called tinnitus. It's basically persistent ringing in the ears. It's hardly a major medical problem. But, it's a slightly maddening annoyance that's permanent and untreatable.

My doctor - who happens to be the top hearing guy at the Cleveland Clinic - says that tinnitus is usually a symptom of damage to the tiny nerves in your ears that normally sense high-frequency sound. It expresses itself in a variety of ways. For some, it comes and goes. For others, it's 24/7. Sometimes it sounds like a "whooshing" noise or bells ringing or a siren blaring.

For me, it sounds a little like that continuous tone you used to get on your old TV when a channel was off the air. Beeeeeeeeeep! Only I can't turn the channel. It literally never stops. And, to top that off, it's increasingly difficult to hear people in crowded rooms. I spent the entire GIS show cupping my ear and saying, "Huh?" I felt like Gabby Hayes or some other old fart in a black-and-white Western, constantly saying "Speak up, sonny, I'm a might deef."

Apparently, I have either my grandfather or Pete Townshend to blame for this malady. The most common cause of tinnitus is long-term exposure to machinery, guns or explosives or really loud music. It can also be associated with hereditary hearing loss. The doctor quizzed me extensively about all that stuff and, since I'm too much of a wuss to have been in the military and I'm too lazy to operate heavy equipment, he figured it might either run in my family (Granddad was deaf as a stump) or that I'd murdered my eardrums at just one seriously loud concert.

I protested that I really had never been much for head-banging heavy metal or the like ... but then I remembered going to a Who concert around 1990. I sat pretty close to the stage - and a massive wall of amplifiers - as Townshend, Daltry and company lived up to their reputation for being the loudest rock band in the world. I vaguely remember that I was partially deaf in my left ear for about a month afterwards. Oops.

Ironically, Townshend had announced right before that 1990 show that he had developed tinnitus and said, "Try getting used to it." I asked him what I should try, he just smiled the wise and weary smile of someone who's been asked the same question thousands of time and said, "Try getting used to it."

So, I'm getting used to it. But that doesn't mean that I'm happy about it. And, I sure as hell don't want you to have the same problem.

I asked my world-class physician for a list of tips that I could pass along to help safeguard you and your employees on the job. Here's his highly scientific advice:

1. Always wear good ear protection when mowing, running heavy equipment, operating hand-helds or grinding;
2. See tip No. 1.

The fact is hearing damage might be the top on-the-job health hazards for superintendents and golf course workers. I've met plenty of guys with back injuries, interesting scars from exhaust pipe burns, persistent poison ivy and various crushed digits from lifts that didn't quite work properly. Jeez, nearly every good mechanic I know is missing at least part of a finger. Having half a pinky is the rough equivalent of a master's degree in the school of reel sharpening.

But, if you total up all of those injuries, I'll bet it wouldn't come close to the number of folks wearing hearing aids or who - like me - strain to hear what their buddy is saying in a crowded bar.

I wonder how many young guys are sitting there reading this right now thinking, "It can't happen to me...I'm not gonna be some old, deaf dude." Au contraire, mon frère. It can happen and it very likely will unless you follow the sage advice my doctor passed along. The short version is, no matter how young you are, don't mess with loud.

By the way, after I'd received my auditory death sentence from my doc, I asked him if he ever treated people from the landscaping or golf business for the same problem. He flashed that same sleepy half smile and said, "All the time."

At least I think that's what he said. GCI
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